



TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

1 September 2020

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Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

122,400,000 ("TMT") Fully Paid
Ordinary Shares

8,250,000 – Unquoted Director and
Employee Options exercisable at
\$0.20 on or before 10 May 2023

9,599,834 – Unquoted Options –
various exercise prices and dates

ASX Code: TMT

FRA Code: TN6



GABANINTHA VANADIUM PROJECT MINING LEASES GRANTED

HIGHLIGHTS

- GVP Mining Leases granted by the Western Australian Government's Department of Mines, Industry Regulation and Safety.
- All tenure required for the development of the Gabanintha Vanadium Project now in place.
- A key milestone achieved for the development of the Project and continuing engagement with strategic partners and project financiers.
- Workstreams in support of the preparation and submission of the Project's Environmental Review Document progressing to schedule.
- Definition of maiden Southern Tenement Ore Reserve estimate nearing completion, providing a clear path to extending the Project mine life.

BACKGROUND

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce the grant of Mining Leases M51/883 ("**Northern Block**") and M51/884 ("**Southern Tenement**") on 28 August 2020. The Mining Leases have been granted by the Western Australian Government's Department of Mines, Industry Regulation and Safety ("**DMIRS**") for an initial period of 21 years.

Grant of the Mining Leases delivers all tenure required for the development of the Gabanintha Vanadium Project ("**Project**" or "**GVP**"), including Miscellaneous Licences for the bore field and camp and General Purpose Leases for mining infrastructure associated with the Northern Block.

The very high quality Definitive Feasibility Study ("**DFS**") on the development of the globally significant GVP was based solely on the Northern Block Mineral Resource estimate, with the Proven and Probable Ore Reserve of 29.6Mt at 0.88% V₂O₅ (ASX Announcement 21 August 2019) contained within M51/883.

Managing Director Ian Prentice commented: "Grant of the GVP Mining Leases is a key milestone as we continue to de-risk the development of the lowest cost quartile, large scale, long life World class Gabanintha Vanadium Project, complimenting the rapid progress we are making on the environmental approvals pathway. These achievements, along with the targeted delivery of an initial +20 year project life, are expected to be very positive in regards to TMT's ongoing engagement with Project financiers, strategic partners and key stakeholders."

The GVP, wholly owned by TMT's 100% owned subsidiary The Kop Ventures Pty Ltd ("**Kop**"), consists of two granted mining leases (M51/883 and M51/884), two granted General Purpose lease, two granted Miscellaneous Licences (bore field and camp), the northern Exploration Licence (E51/1818) and a Prospecting Licence Application (P 51/1340) (see Figure 1). The newly granted Mining Leases cover all of the defined Gabanintha Global Mineral Resource Estimate, with 109.5Mt at 0.8% V₂O₅ within M51/883 and 27.7Mt at 0.9% V₂O₅ within M51/884.

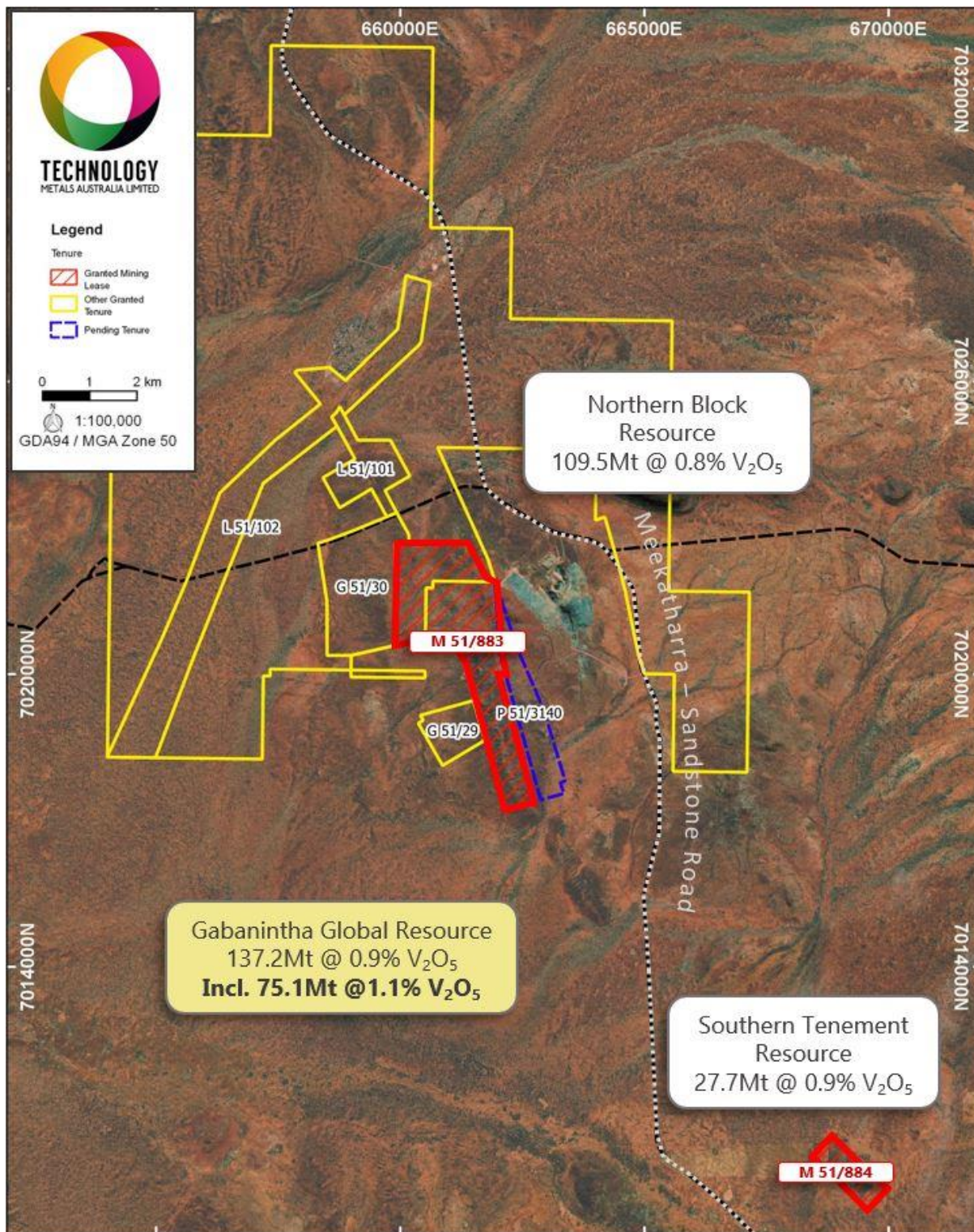


Figure 1: Gabanintha Vanadium Project Tenements Location Plan

ENVIRONMENTAL APPROVALS PATHWAY

The Company has been rapidly advancing environmental workstreams in support of the preparation of an Environmental Review Document (“**ERD**”) addressing the key environmental factors identified in the Environmental Scoping Document (“**ESD**”) previously provided by the WA Environmental Protection Authority (“**EPA**”). Completion of these workstreams will facilitate the preparation and ultimate submission of the Environmental Review Document (“**ERD**”) with the Project to undergo a formal environmental impact assessment with no public comment period.

Work completed as part of the DFS identified a good quality water source within a paleochannel located to the north west of the processing facility covered by Miscellaneous Licence L51/102. A drilling program designed to establish additional production water bores as well as a series of borefield monitoring bores commenced in early August 2020 and is on track to be completed in early September 2020. Data from this drilling will allow the Company’s consultants AQ2 to further develop the hydrogeological understanding of the borefield area to be included in the ERD.

Vanadium pentoxide product generation utilising the material produced from the pilot scale kiln roast testwork completed by FLSmidth is providing samples of process waste streams for material characterisation testwork. Results from this work will be incorporated in to the ERD and assist in waste management.

Spring fauna, flora and vegetation surveys completed in late 2019 have provided complete seasonal coverage of the Project development envelope as defined in the DFS. The reports and data from these and earlier environmental surveys are being incorporated in to the ERD.

SOUTHERN TENEMENT RESERVE

The Southern Tenement area (M51/884), known locally as Black Hills, hosts an updated Mineral Resource estimate of 27.7Mt at 0.9% V₂O₅, including a high grade massive mineralisation zone of 14.4Mt at 1.1% V₂O₅, and importantly a maiden Indicated Mineral Resource estimate of 9.6Mt at 1.0% V₂O₅ (TMT:ASX “Maiden Southern Tenement Indicated Resource”, 1 July 2020). Black Hills is located 15km southeast of the proposed processing plant and has a similar outcrop character to the Ironstone Ridge outcrop in the Northern Block of the GVP.

The updated Mineral Resource estimate has been included in a revised ‘Global Mineral Resource estimate’ for the Gabanintha Vanadium Project of 137.2Mt @ 0.9% V₂O₅ (Inferred, Indicated and Measured), containing an outstanding high grade component of 75.1 Mt at 1.1% V₂O₅. The Global Indicated and Measured Resource estimate has increased to 39.6Mt @ 0.9% V₂O₅ including the maiden Indicated Mineral Resource estimate for the Southern Tenement of 9.6Mt at 1.0% V₂O₅. This represents a 32% increase on the previous Global Indicated and Measured Resource estimate of 30.0 Mt at 0.9% V₂O₅, which converted to a Proven and Probable Ore Reserve of 29.6Mt at 0.88% V₂O₅, supporting an initial 16 year project life.

Reserve estimation work on the Southern Tenement is progressing well, with a maiden Southern Tenement Ore Reserve expected to be completed shortly. Based on the knowledge gained from the Northern Block DFS and the defined quantum of the Southern Tenement maiden Indicated Mineral Resource estimate, the Company is expecting to deliver a +20 year Gabanintha project life. The high grade nature of the Southern Tenement Indicated Mineral Resource estimate is also expected to deliver an extension of the period of high (+1.0% V₂O₅) feed grade, currently defined as the first 12 years of operation.

Extending the Project’s life beyond 20 years is expected to be viewed favourably by prospective Project financiers, strategic partners and key stakeholders.

CORPORATE

Grant of the Mining Lease M51/883 triggers the second consideration payment under the royalty acquisition agreement announced on 7 September 2018 (TMT:ASX "Gabanintha DFS Update"), under which the original Royalty holders will be issued 500,000 fully paid ordinary TMT shares.

Subsequent consideration to be issued to the Royalty holders upon the satisfaction of future milestones are:

- 500,000 fully paid ordinary shares upon a final investment decision in respect of development of the Project, and
- 500,000 fully paid ordinary shares on commencement of commercial production of vanadium from Mining Lease 51/883.

The grant of Mining Lease M51/883 is also the vesting condition for the Class A Incentive Options issued to Directors, Employees, Contractors and Consultants under the Incentive Performance Rights and Options Plan ("**Plan**") approved by Shareholders at the General Meeting of Shareholders held on 4 May 2020. A total of 4.125 million Class A Unquoted options exercisable at \$0.20 on or before 10 May 2023 were issued under the Plan; with 2.0 million issued to Managing Director Ian Prentice, 1.0 million issued to Chairman Michael fry and 250,000 issued to Non-Executive Director Sonu Cheema. The balance were issued to eligible Employees, Contractors and Consultants.

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 flow batteries (“**VRFB’s**”). VRFB’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.

This announcement has been authorised by the Board of Technology Metals Australia Limited.

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

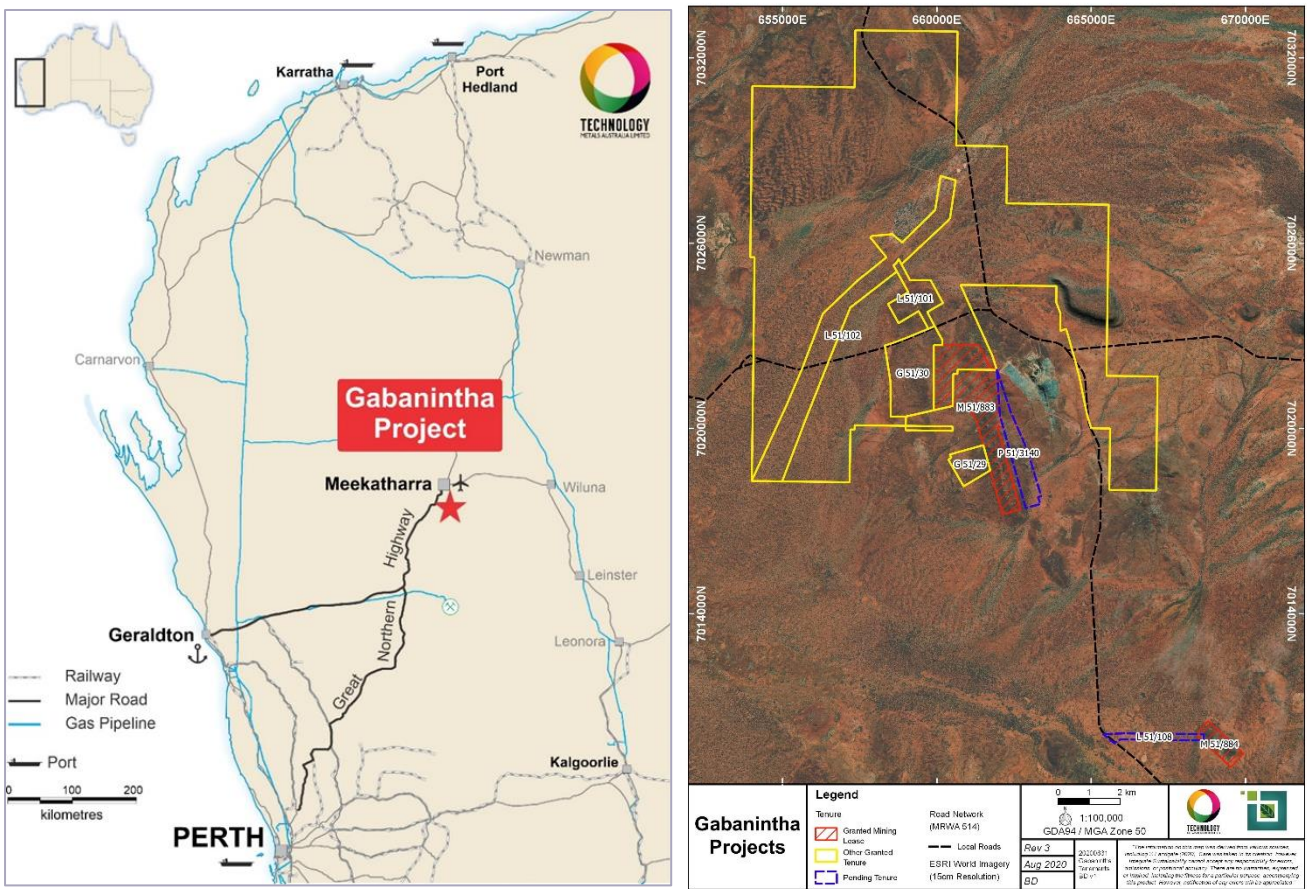
Ian Prentice
Managing Director
Technology Metals Australia Limited

- 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 has been 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 V₂O₅ flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of eleven granted tenements and three applications (including two Mining Leases) divided between the Northern Block of Tenements (12 tenements) and the Southern Tenement (2 tenements). 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.



GVP Location and Tenure

Data from the Company's 2017 and 2018 drilling programs, including 111 RC holes and 53 HQ and PQ diamond holes at the Northern Block and 31 RC holes and 4 PQ sized diamond holes completed in late 2018 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 confirms the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 29 June 2020.

Material Type	Classification	Mt	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI%	P%	S%
Massive Magnetite	Measured (North)	1.2	1	44.7	6.2	10.4	11.4	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
	Indicated (South)	7.3	1.1	49.2	5.1	5.8	12.6	-0.6	0.004	0.3
	Total Indicated	25.8	1.1	49.1	5.1	5.8	12.8	-0.3	0.007	0.2
	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7.1	1.1	46.9	5.6	7.4	12.1	0.5	0.005	0.3
	Total Inferred	48.1	1.1	47.6	5.6	7.2	12.5	0.3	0.008	0.2
Massive Global	75.1	1.1	48.1	5.5	6.8	12.6	0.1	0.007	0.2	
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3	0.03	0.2
	Indicated (South)	2.3	0.7	33.1	9.5	20.6	8.5	2.3	0.014	0.3
	Total Indicated	12.6	0.6	29.5	12.5	24.6	7.7	2.8	0.027	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11	0.6	27.7	13	25.9	7	2.7	0.015	0.3
	Total Inferred	49.5	0.5	27.2	12.8	27.1	6.9	3.2	0.024	0.2
Diss / Band Global	62.1	0.6	27.7	12.7	26.6	7.1	3.1	0.025	0.2	
Combined	Global Combined	137.2	0.9	38.9	8.7	15.7	10.1	1.5	0.015	0.2

*Note: The Mineral Resources were estimated within constraining wireframe solids using a nominal 0.9% V₂O₅% lower cut-off grade for the massive magnetite zones and using a nominal 0.4% V₂O₅% lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resources are 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 previous global Mineral Resource and the 2019 DFS on the GVP were used by independent consultants CSA Global to generate a Proven and Probable Ore Reserve estimate based on the Measured and Indicated Mineral Resource of 30.1 Mt at 0.9% V₂O₅ located within the Northern Block of tenements at Gabanintha. A study to assess the reserve potential of the Southern Tenement is being commissioned.

Ore Reserve Estimate as at 31 May 2019

Reserve Category	Tonnes (Mt)	Grade V ₂ O ₅ %	Contained V ₂ O ₅ Tonnes (Mt)
Proven	1.1	0.96	0.01
Probable	28.5	0.88	0.25
Total	29.6	0.88	0.26

- Note: Includes allowance for mining recovery (98% for massive magnetite ore and 95% for banded and disseminated ore) and mining dilution applied as a 1 metre dilution skin; resulting in a North Pit dilution for massive magnetite ore of 13% at 0.45% V₂O₅, and North Pit dilution for banded and disseminated ore of 29% at 0.0% V₂O₅; a Central Pit dilution for massive magnetite ore of 10% at 0.46% V₂O₅, and Central Pit dilution for banded and disseminated ore of 20% at 0.0% V₂O₅.)
- Rounding errors may occur

Capital Structure	
Fully Paid Ordinary Shares on Issue	122.4m
Unquoted Options (\$0.20 – 10/05/23 expiry)	8.25m
Unquoted Options (\$0.35 – 12/01/21 expiry)	2.75m
Unquoted Options (\$0.25 – 15/06/22 expiry)	6.850m

* - Director and employee options – 50% vest on grant of mining licence, 50% vest on Gabanintha FID

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 it has a reasonable basis for its forward-looking statements; 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 John McDougall. Mr McDougall is the Company's Exploration Manager and a member of the Australian Institute of Geoscientists. Mr McDougall 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 McDougall 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 Mr Brett Morgan and reviewed by Mr Damian Connelly, both employees of METS Engineering Group Pty Ltd. Mr Connelly takes overall responsibility for the Report as Competent Person. Mr Connelly 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 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'. The Competent Person, 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