

# QUARTERLY ACTIVITIES REPORT

FOR THE THREE MONTHS ENDED 31 MARCH 2023

## HIGHLIGHTS

Letter of Interest received from Danish export credit agency, EKF, for potential financing support of around A\$150 million for the MTMP

Vanadium electrolyte plans progressing with production of high quality battery grade vanadium electrolyte from MTMP feedstock

Memorandum of Understanding signed with Indian Vanadium Redox Flow Battery (VRFB) maker Delectrik Systems Pvt. Ltd post-quarter end deepening ties with India and broadening the customer base

GR Engineering and Iron Mine Contracting engaged as key project partners to work with TMT project team and FLSmidth to advance the Implementation Phase of the MTMP

Positive momentum maintained on environmental approvals and Traditional Owner engagement consistent with the Company's ESG philosophy

19<sup>th</sup> April 2023

Advanced vanadium developer, Technology Metals Australia Limited (ASX: **TMT**) (**Technology Metals**, or the **Company**), is pleased to provide an update on activities for the quarter ended 31 March 2023. The Company received a Letter of Interest from Danish Export credit agency, EKF, with regards to potential funding support of around A\$150 million for the MTMP.

Through its 100% owned subsidiary, vLYTE Pty Ltd (**vLYTE**), the Company progressed various projects that are focused on the development of a vanadium flow battery industry in Australia. This included the production and performance testing of high quality vanadium electrolyte from high purity vanadium material sourced from the MTMP.

The MTMP Implementation Phase was advanced during the quarter, with activities including the engagement of GR Engineering Services Limited (**ASX: GNG**) (**GRES**) and Iron Mine Contracting (**IMC**) to work alongside the Company's project team and FLSmidth to progress the efficient implementation of the MTMP.

Post-quarter end, the Company executed an MoU with fast growing Indian VRFB maker, Delectrik Systems Pvt. Ltd, for the potential sale of vanadium raw material from the MTMP as well as supply of vanadium electrolyte by vLYTE to Delectrik within Australia.

### TMT's Managing Director, Ian Prentice, commented:

*"We are entering a pivotal time in the vanadium market, with supply of vanadium to the traditional steel market under pressure from global VRFB deployments in parallel with a faster than expected rebound in demand from aeronautical applications. This demand side shift is happening at a time of geopolitical uncertainty, highlighting the significant supply chain advantages of developing a high quality vanadium project in Australia.*

*"As we progress the activities required to ensure the efficient and effective development of the long life MTMP, we have seen significant interest from market participants for potential offtake of vanadium products and support for what will be the world's next large-scale supplier of high purity vanadium.*

*"The team is maintaining a clear focus on the timely progression of the development of the MTMP whilst ensuring that all our activities are in accordance with the Company's core mission and values consistent with our holistic ESG strategy."*

### EKF Financing Letter of Interest

In January 2023, Technology Metals announced the receipt of a Letter of Interest<sup>1</sup> (LoI), including high level terms, from Denmark's Export Credit Agency (EKF) regarding potential financing support for the Murchison Technology Metals Project (MTMP).

Technology Metals and EKF have had positive and strong engagement over several years, with this LoI marking a significant milestone in the progression of this relationship. The EKF LoI contemplates financing support of around A\$150 million subject to, among others, sufficient Danish economic interest in the MTMP, approvals, satisfactory documentation, and customary due diligence.

Funding support from EKF is backed by the Danish state, and as such can be considered to carry a AAA rating, marking a significant step in the Company's funding strategy with discussions ongoing across a range of Government and commercial sources of finance and funding support.

EKF supports Danish businesses and the export of equipment around the world, and has extensive and positive experience working with FLSmidth, a key equipment supplier for the MTMP.

Technology Metals has worked with FLSmidth, world leaders in pyro-processing technology, specifically in salt roast – water leach processing for vanadium extraction, since early 2018. This relationship started with batch scale salt roast – water leach testwork, progressing through to large scale continuous pilot plant kiln testing utilising a 9.8m long kiln at FLSmidth's pyrometallurgy facility in Bethlehem, Pennsylvania (see Figure 1). A total of ~7.5 tonnes of magnetic concentrate from the MTMP was processed through the pilot plant kiln in mid-2019, confirming world leading vanadium recovery rates utilising conventional processing technology. The scale of the completed pilot plant testwork, with continuous roasting of a large scale bulk sample, sets Technology Metals and the MTMP apart from its peers.



Figure 1: Pilot Rotary Kiln (9.8m long by 0.9m diameter) at FLSmidth Test Facility

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<sup>1</sup> ASX Announcement 18 January 2023 – EKF Issues Financing Letter of Interest

FLSmidth has utilised the data from the large scale continuous pilot plant kiln testing plus its industry leading experience to conduct Front End Engineering and Design (FEED) for the pyro processing section of the plant as well as conducting major equipment selection reviews for the concentrator and leach circuit as part of the Implementation Phase of the MTMP.

### Preferred Tenderers Engaged

During the quarter, Technology Metals announced the engagement of key project partners GR Engineering Services Limited (**ASX: GNG**) (**GRES**) and Iron Mine Contracting (**IMC**)<sup>2</sup>. These key engagements will work alongside Technology Metals' project team to progress the detailed construction planning, schedule definition and site establishment work streams as a key component of the efficient implementation of the MTMP.

The engagements were made following the conclusion of a highly successful commercial competitive tendering process across a range of MTMP work packages. The Company, GRES and IMC will work alongside FLSmidth, which is positioned to be the key equipment supplier for the MTMP processing plant, to progress the detailed construction planning for the process plant, schedule definition, development of site establishment and supporting infrastructure workstreams and the schedule interfaces with bulk earthworks, source of construction materials and the process plant construction activities.

This work is well underway and will provide an updated project delivery schedule, pre-production capital expenditure estimate and a robust foundation for the commencement of MTMP construction activities.

### Battery Grade Vanadium Electrolyte Produced

Technology Metals, together with its wholly owned subsidiary vLYTE, was pleased to announce in February 2023 that its Japanese technology partner LE System Co., Ltd (**LE System**) has successfully produced high quality vanadium electrolyte utilising high purity vanadium feedstock from Technology Metals' MTMP located in mid-west Western Australia<sup>3</sup>. Development of the MTMP is aimed at meeting the increasing vanadium demand forecast for the rapidly growing Vanadium Redox Flow Battery (**VRFB**) market, which is ideally placed to meet the world's long duration energy storage needs.

LE System completed the manufacture, and subsequent performance testing of the electrolyte in its Tsukuba Technical Centre, in Ibaraki, Japan. The high-quality electrolyte met the specifications of the major global VRFB manufacturers, with performance testing demonstrating very positive results, including high power efficiency, and comparing favourably to commercially available vanadium electrolytes.



Figure 2: Mini-cell testing of TMT vanadium electrolyte – LE System's Tsukuba Technical Centre, in Ibaraki, Japan. Source: LE System

<sup>2</sup> ASX Announcement 10 March 2023 – Preferred Tenderers Engaged to Progress MTMP Implementation

<sup>3</sup> ASX Announcement 14 February 2023 – Battery Grade Vanadium Electrolyte Produced

The successful production of vanadium electrolyte is a component of the feasibility study the Company is undertaking through vLYTE to progress the Company's downstream vanadium electrolyte production capacity in Australia.

vLYTE is in discussions with global VRFB manufacturers regarding their vanadium electrolyte specifications and objectives for deployment of VRFB long duration stationary storage in Australia. The Company's intention is to supply high quality vanadium electrolyte to support the deployment of VRFBs in Australia as well as high purity feedstock from the MTMP to supply to electrolyte production facilities across the globe.

### MOU with Indian VRFB Manufacturer

Post-quarter end, the Company announced that a Memorandum of Understanding (MOU) was executed between Technology Metals and Delectrik Systems Pvt. Ltd<sup>4</sup>, a fast-growing Indian VRFB manufacturer, for the supply of vanadium raw material.

Through the aid of the Indian Government's US\$4.3 billion investment towards the country's energy transition, Delectrik is considered a fast-growing VRFB manufacturer based in Gurgaon, India. The Company produces its own vanadium electrolyte, as well as designing and manufacturing VRFB systems ranging from kW to MW scale.

The MOU encompasses both the supply of vanadium products directly from the MTMP to Delectrik, and the supply of vanadium electrolyte by vLYTE to Delectrik within Australia using vanadium from the MTMP. This will support the development of the VRFB industry in Australia and represents another key component of Technology Metals' downstream strategy.

### MTMP Implementation Phase Update

The TMT project team is progressing the Implementation Phase of the MTMP as highlighted by the engagement of key project partners GRES and IMC, to work alongside the Company and FLSmidth, following the conclusion of a highly successful commercial competitive tendering process.

In parallel with this workstream the Company is progressing the update of the MTMP Proven and Probable Ore Reserve Estimate, based on the upgraded Global Mineral Resource Estimate of 153.7Mt at 0.8% V<sub>2</sub>O<sub>5</sub> from late 2022, to provide the mine production schedules to underpin the completion of the MTMP Bankable Financial Model. As such the delivery of the updated Ore Reserve estimate will be a key determining factor in the timing of the release of outputs of the Implementation Phase.

The Company continues to work with APA Operations Pty Ltd (**APA Operations**) as it progresses the workstreams required to support the proposed development of the Gabanintha Gas Pipeline as contemplated in the Early Works Agreement executed by the parties in mid-2022. The Gabanintha Gas Pipeline will be linked to APA Operations Northern Goldfields Interconnect (**NGI**), a key piece of regional infrastructure in the State of Western Australia. The progression of the early works leading to the development of the Gabanintha Gas Pipeline are closely aligned to the MTMP Implementation Phase, with the new pipeline anticipated to provide a cost effective, low risk and efficient energy solution for the Project as well as represent potential economic benefits for the broader region.

During the quarter, the Company entered into a Cooperation Agreement with the Mid West Ports Authority (**MWPA**), the operator and manager of the Port of Geraldton (**Port**). The Company intends to import reagents and export products via the Port and this agreement enables the parties to cooperate and work together to support the handling, loading, and unloading of materials at the Port. This agreement is a key component of finalising the logistics required to support the development of the MTMP.

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<sup>4</sup> ASX Announcement 3 April 2023 – MoU to Supply Vanadium to Indian Battery Manufacturer

### Environmental Permitting

The Company is maintaining a positive and collaborative relationship with the WA Environmental Protection Authority (EPA) and other key government and non-government stakeholders as it progresses the environmental approvals process for the Project. Preparation of a further update to the Environmental Review Document (ERD), addressing the EPA's queries and feedback from stakeholders on the previous versions of the ERD and socialising the amendments with other stakeholders, is well advanced.

During the quarter TMT representatives met with the EPA Services team to ensure alignment on the amendments being made to the updated ERD.

Matters addressed in the updated ERD are important for the long-term success of the Project and delivery of benefits to all stakeholders, while minimising impacts on environmental and heritage values, and most importantly are consistent with the Company's environmental, social and governance (ESG) philosophy.

### Environment, Social and Governance (ESG)

The Company is committed to developing the Project to the highest levels and is working with expert groups WSP Golder, Integrate Sustainability, and other key stakeholders on the continuing journey to develop its ESG strategy, priority action plan and reporting structure. This work is being undertaken to ensure compliance with applicable international ESG reporting frameworks, with a holistic action plan continuously being refined to guide the development and long-term operation of the Project that will minimise impacts to the environment and heritage values, provide social benefits to the local community, and ensure the sustained success of the Project.

Activities during the quarter continued the development of the Company's ESG vision and both the Corporate and Project-level approach to sustainability, in line with globally recognised ESG reporting frameworks. The Company has developed its overarching values, with our Statement of Values forming the foundation for our approach to the environment, community, and corporate responsibility. This work continues to underpin our engagement with government funding agencies, commercial banks, strategic investors, and institutional financiers, all of which have ESG as a key consideration in funding decisions.

### Traditional Owner Engagement

The Yugunga-Nya (YN) cultural community, represented by the Yugunga-Nya Native Title Aboriginal Corporation (YN PBC), have non-exclusive native title over lands including the MTMP area. TMT continues to work constructively with the YN cultural community and YN PBC to enable informed consultation in regard to the proposed development of the Project.

TMT held a further series of briefing sessions for the YN community members in Perth, Meekatharra, and Geraldton during the quarter, providing an opportunity for consultation and direct engagement with the community members. This engagement includes consultation on environmental and heritage matters and the way in which the Project can provide long-term benefits to the community through employment, contracting and training opportunities.

Further community briefing sessions with the YN community members are planned for the June 2023 quarter.

### Vanadium Market Outlook

The vanadium pentoxide price has been relatively stable since late 2022, rising from mid-2022 lows of around US\$7.50/\$8.00/lb, with steady demand evident as China emerged from its COVID Zero policy and the European and North American demand remained strong (see Figure 3). Uncertainty remains in broad sectors of the market as to the ongoing impacts of the Russian invasion of Ukraine on the supply of Russian vanadium products.

### CHINA VS EUROPE RELATIVE PRICE PERFORMANCE



Figure 3: Vanadium Price Performance – January 2022 to March 2023. Source: FerroAlloy.Net

TMT management attended the Fastmarkets Ferroalloys Asian Conference 2023 in Singapore during the quarter, meeting with a broad range of vanadium market participants to both progress discussions around the development of the MTMP as well as gain firsthand insight into the vanadium market dynamics.

Participants at the conference noted a significant increase in volumes of vanadium being allocated to the vanadium redox flow battery (VRFB) sector as well as the much earlier than anticipated recovery in vanadium demand for the aeronautical industry, with both sectors requiring high purity vanadium such as that which will be produced from the MTMP. This growth in demand from the high purity sectors is having a material impact on availability of vanadium for the traditional steel market.

The growth of vanadium use in VRFBs is being demonstrated in China (see Figure 4) where consumption in VRFB was 8.2% of total Chinese demand in 2022, versus 4.2% in 2021. This consumption equated to around 9,000t V<sub>2</sub>O<sub>5</sub> in 2022, with estimates that demand for vanadium in Chinese VRFB will increase to ~15,000t V<sub>2</sub>O<sub>5</sub> in 2023.

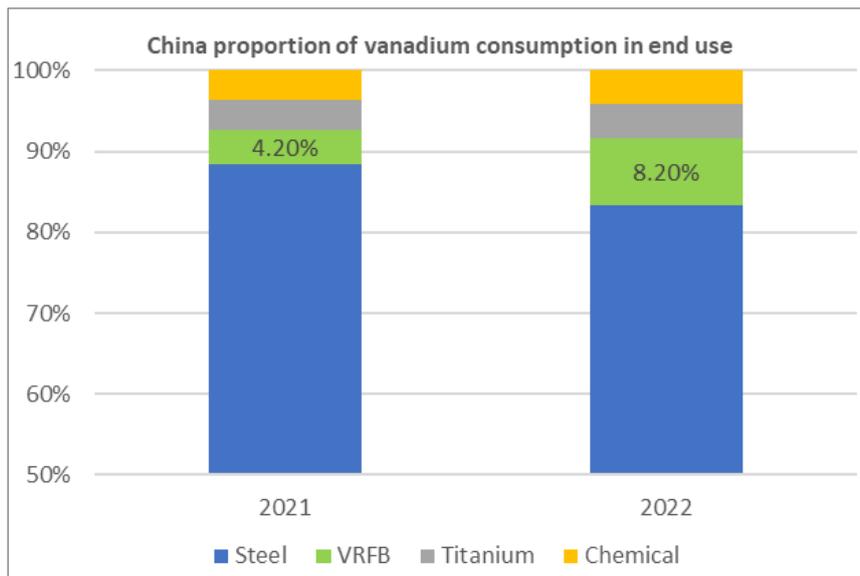


Figure 4: China proportion of vanadium consumption in end use. Source: Fastmarkets Ferroalloys March 2023

Combining this Chinese VRFB demand growth with VRFB roll out occurring in North America, Europe, India and other parts of the world, it is expected that vanadium consumption in VRFBs will exceed 10% of supply in 2023, a material increase when compared to ~2% of supply going into VRFBs in 2021.

This growth is consistent with CRU Group’s (CRU) forecast increase in share of vanadium demand from the battery sector (see Figure 5), with VRFBs expected to consume more than two thirds of vanadium demand in 2040. CRU is expecting significant overall vanadium market growth to facilitate the increased consumption in VRFBs, with supply to double by 2032 from a base of ~190,000t V<sub>2</sub>O<sub>5</sub> in 2022, with a changed complexion of the vanadium market from 90% steel in 2022 reducing to 25% by 2040.

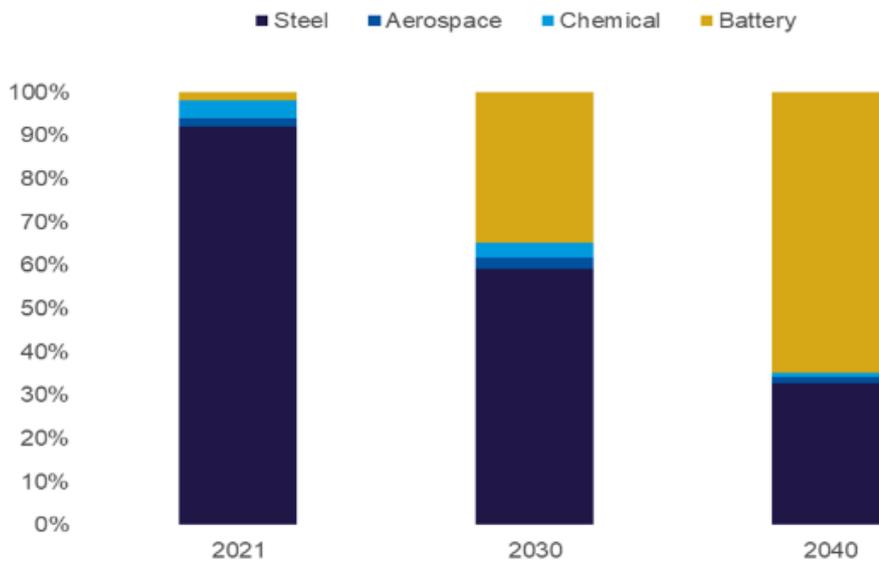


Figure 5: Vanadium Demand by end use 2021, 2030 and 2040. Source: CRU Group

Policies and legislation designed to accelerate medium to long duration energy storage and increased grid stability are being enacted around the world, including the US Inflation Reduction Act, Canada’s refundable tax credit to encourage investment into stationary electricity storage systems and the European REPowerEU plan to deliver accelerated permitting for renewable projects that include standalone energy storage. These initiatives by global governments and regulators will support the continued acceleration of demand for VRFBs in long duration stationary storage applications.

The installation of Australia’s first ever utility-scale VRFB in regional South Australia, a 2 MW / 8 MWh VRFB with a 6 MW solar PV, has commenced with funding support of A\$5.7 million from the Australian Renewable Energy Agency (ARENA). This government-supported installation will demonstrate the operational viability of a grid-connected VRFB to prospective developers, regulators, and investors as part of the transition to net zero.

## Tenements

The tenement status as at 31 March 2023 is as follows<sup>5</sup>.

LOCATION	TENEMENT	INTEREST ACQUIRED OR DISPOSED OF DURING THE QUARTER	ECONOMIC INTEREST
Gabarintha Project (WA)	E51/1510	Nil	100%
Gabarintha Project (WA)	E51/1818	Nil	100%
Gabarintha Project (WA)	E51/2056	Application	100%
Gabarintha Project (WA)	G51/29	Nil	100%
Gabarintha Project (WA)	G51/30	Nil	100%
Gabarintha Project (WA)	G51/31	Nil	100%
Gabarintha Project (WA)	G51/32	Application	100%
Gabarintha Project (WA)	L51/101	Nil	100%
Gabarintha Project (WA)	L51/102	Nil	100%
Gabarintha Project (WA)	L51/117	Nil	100%
Gabarintha Project (WA)	L51/121	Nil	100%
Gabarintha Project (WA)	L51/125	Application	100%
Gabarintha Project (WA)	M51/883	Nil	100%
Gabarintha Project (WA)	P51/2930	Nil	100%
Gabarintha Project (WA)	P51/3140	Nil	100%
Yarrabubba Project (WA)	M51/884	Nil	100%
Yarrabubba Project (WA)	L51/123	Application	100%

<sup>5</sup> ASX Listing Rule 5.3.3

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## Corporate

Technology Metals announced the resignation of Jacqueline Murray as a non-executive director of the Company, due to her increased workload and future board roles<sup>6</sup>. The Company thanked Jacqueline for her dedication as a valuable member of the Board and wished her all the best for the future. Resource Capital Funds, the Company's largest shareholder with a shareholding of 17.2%, retains the right to appoint a representative to the Board of the Company.

## Shares and Cash

As at 18 April 2023, the Top 20 shareholders held 57.72% of the fully paid Ordinary shares in the Company. The Company had cash of \$8.1 million as at 31 March 2023.

Project specific announcements lodged on the ASX during the March 2023 quarter were:

- 18 January 2023 – EFK Issues Financing Letter of Interest
- 14 February 2023 – Battery Grade Vanadium Electrolyte Produced
- 22 February 2023 – Board Update
- 10 March 2023 – Preferred Tenderers Engaged to Progress MTMP Implementation
- 3 April 2023 (post quarter end) – MoU to Supply Vanadium to Indian Battery Manufacturer

In accordance with Section 6 disclosure in the Appendix 5B, payments to related parties of the entity during the March quarter included payments for directors' fees and other key management personnel (KMP) salaries and wages of \$308K, of which \$146K has been capitalised as part of MTMP exploration and evaluation expenditure<sup>7</sup>.

Net outflows of \$536K were used in operating activities during the March quarter (refer Items 1.2(d) and (e), 1.4 and 1.8 of the Appendix 5B) which comprised corporate consulting and legal fees, marketing and investor relations, balance of KMP and staff salaries not capitalised to the MTMP, rent, occupancy and travel expenses. Net outflows of \$3,316K used in investing activities during the March quarter (refer Item 2.1(d) of the Appendix 5B) related to continued work on the MTMP Implementation Study, including borefield definition drilling (RC) and geotechnical (diamond) drilling programs, final instalment on the FLS kiln FEED study, continued metallurgical testwork, progressing heritage negotiations and survey planning with traditional owners, evaluating Project finance and offtake alternatives<sup>8</sup>.

## Marketing and Promotions

During the quarter, the Company presented at the RIU Explorers Conference<sup>9</sup> and the Brisbane Mining Investor Conference<sup>10</sup>.

TMT representatives also attended the Fastmarkets Ferroalloys Asian Conference in Singapore, meeting with a broad range of vanadium market participants to both progress discussions around the development of the MTMP as well as gain firsthand insight into the vanadium market dynamics.

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<sup>6</sup> ASX Announcement 22 February 2023 – Board Update

<sup>7</sup> ASX Listing Rule 5.3.5

<sup>8</sup> ASX Listing Rule 5.3.1, 5.3.2

<sup>9</sup> ASX Announcement 15 February 2023 – TMT Investor Presentation – RIU Explorers Conference

<sup>10</sup> ASX Announcement 22 March 2023 – TMT Presentation – Brisbane Mining Investor Conference

## Top 20 Shareholders

The Top 20 Shareholders as at 19 April 2023 were:

Position	Holder Name	Holding	% IC
1	CITICORP NOMINEES PTY LIMITED	37,949,952	18.09%
2	BNP PARIBAS NOMS PTY LTD <DRP>	20,689,480	9.86%
3	STANDARD PASTORAL COMPANY PTY LTD	14,000,000	6.67%
4	RETZOS EXECUTIVE PTY LTD <RETZOS EXECUTIVE S/FUND A/C>	6,800,000	3.24%
5	DR ADEL WAGDI AWISS MORSI	5,463,000	2.60%
6	STATION NOMINEES PTY LTD <STATION SUPER FUND A/C>	5,000,000	2.38%
7	MR COLIN DAVID ILES	4,629,878	2.21%
8	ATASA HOLDINGS PTY LTD <TS3A FAMILY A/C>	4,343,995	2.07%
9	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	2,406,829	1.15%
10	RETZOS FAMILY PTY LTD <RETZOS FAMILY S/FUND A/C>	2,310,000	1.10%
11	PERRIWINKLE INVESTMENTS PTY LTD	2,132,621	1.02%
12	MR RICHARD THOMAS HAYWARD DALY & MRS SARAH KAY DALY <DALY FAMILY S/F TOM A/C>	2,020,513	0.96%
13	SHAYDEN NOMINEES PTY LTD	1,964,866	0.94%
14	MR PAUL VENDA DIVIN	1,833,012	0.87%
15	MR DAVID JAMES HARRINGTON	1,800,000	0.86%
16	KHAZANAH PTY LTD	1,726,353	0.82%
17	BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RETAILCLIENT DRP>	1,659,073	0.79%
18	MR JACOB EDWARDS & MRS CATHY EDWARDS	1,638,800	0.78%
19	RONAY INVESTMENTS PTY LTD	1,409,467	0.67%
20	PASIAS HOLDINGS PTY LTD	1,375,811	0.66%
	<b>Total</b>	121,153,650	57.74%
	<b>Total issued capital - selected security class(es)</b>	209,824,557	100.00%

**AUTHORISED FOR RELEASE ON THE ASX BY THE COMPANY'S BOARD OF DIRECTORS**

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**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

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## About Technology Metals Australia

Technology Metals Australia Limited (ASX:TMT) is a future-oriented ASX-listed company focused on the development of its flagship, 100 per cent owned Murchison Technology Metals Project (MTMP), which is expected to meet global demand for high-purity vanadium, increasingly recognised as a critical mineral around the world. The MTMP is located 50km southeast of Meekatharra in the mid-west region of Western Australia and is one of the highest-grade vanadium projects in the world, with planned production at 6% of current global vanadium demand.

The MTMP has a Global Mineral Resource Estimate (MRE) of 153.7Mt at 0.8% Vanadium Pentoxide ( $V_2O_5$ ), with the Integration Study incorporating high-grade ore from the Yarrabubba satellite deposit into the central processing hub at Gabanintha. The completion of the Integration Study has facilitated the progression of the Implementation Phase of the MTMP and the move towards development, construction, and operation of the project.

TMT's vision is to be a leader in the Australian and international vanadium industry playing a crucial role in meeting a growing demand for a critical metal that helps the world to decarbonise. Together with vLYTE, TMT's wholly owned subsidiary focused on adding downstream value to high-quality feedstock, the MTMP will be a strategic, long-life asset supporting the nascent and fast-growing vanadium redox flow battery industry. TMT's ESG values extend beyond the MTMP's production – TMT's contribution to a cleaner world is envisioned to include utilisation of renewable energy generation, battery storage, heat capture and transition to electric options for mobile equipment.

## 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 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). VRFBs 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. VRFBs 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 VRFBs 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.

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Technology Metals Australia Limited

ABN

64 612 531 389

Quarter ended ("current quarter")

31 March 2023

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(140)	(430)
(e) administration and corporate costs	(480)	(1,868)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	37	80
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (Insurance Claim Proceeds, Rental Income)	47	297
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(536)</b>	<b>(1,921)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	(7)
(d) exploration & evaluation	(3,316)	(8,559)
(e) investments	-	-
(f) other non-current assets	-	-

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) 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)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(3,316)</b>	<b>(8,566)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities) <sup>1</sup>	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
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)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	11,965	18,600
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(536)	(1,921)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(3,316)	(8,566)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>8,113</b>	<b>8,113</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	4,113	11,965
5.2	Call deposits	4,000	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>8,113</b>	<b>11,965</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	162
6.2	Aggregate amount of payments to related parties and their associates included in item 2	146
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 <b>Total financing facilities</b>	-	-
7.5 <b>Unused financing facilities available at quarter end</b>		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	-	

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(536)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(3,316)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(3,852)
8.4 Cash and cash equivalents at quarter end (item 4.6)	8,113
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	8,113
8.7 <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	2.11
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: Not Applicable	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: Not Applicable	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: Not Applicable	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

**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.

Date: ..... 19 April 2023 .....

Authorised by: ..... Board of Directors .....

(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow 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 quarterly cash flow 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.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.