

Quarterly Activities Report for period ending 31st March 2019

Highlights:

The Australian Vanadium Project

- Pilot scale metallurgical study sample collection (diamond drilling) completed ahead of schedule.
- 30 tonnes of massive magnetite collected for further processing, utilising 2,862m of drilled core from 30 drill holes.
- 18 new drill holes successfully targeted resource depth extensions.
- Pilot Scale study test work component of Definitive Feasibility Study (DFS) underway, Crushing Milling and Beneficiation program commenced.
- Critical water resource drilling and preparatory work for environmental approval applications underway.
- DFS on track for 2019 to support rapid project development.
- Multiple confidential parties including potential financiers and off-takers reviewing online data room.

Energy Storage

- Future Batteries Industry Cooperative Research Centre (FBI CRC) awarded, with involvement from AVL and VSUN Energy.
- Strong interest in vanadium-based energy storage applications growing globally, resulting in increased enquiries to VSUN Energy and AVL throughout the period.

Corporate

- The Australian Vanadium Project and AVL's expert team's detailed approach to processing design has generated strong interest with domestic and international vanadium investors through attendance at mining conferences, meetings and roadshow presentations.
- At 31 March 2019, AVL held cash of \$7.34 million being applied to project development.

30.04.2019

ASX ANNOUNCEMENT

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Projects:

The Australian Vanadium Project –
Vanadium
Coates - Vanadium
Blesberg – Feldspar
Nowthanna Hill - Uranium/Vanadium



● GABANINTHA ● PERTH
● PORT HEDLAND ● PORT GERALDTON

Management Comment

Australian Vanadium Limited is continuing to advance the Australian Vanadium Project near Meekatharra in a sustained and informed manner, utilising its highly skilled staff and advisors to assist in all aspects of the Project's development. The ongoing test work is providing the Company with increasing confidence in its processing design. New value-generating opportunities from the diligent and systematic work being undertaken in the Pilot Study will lead to improvements in the overall project economics. Work in the June Quarter will focus on the 30 tonne pilot study, process and economic improvement, water resource development, preparation for environmental approvals and a Mineral Resource upgrade. The Project remains the most promising global vanadium deposit being progressed, with growing interest from a number of local and international parties.

Activities for the quarter ended 31st March 2019 for Australian Vanadium Limited ("AVL" or "the Company") are as follows:

THE AUSTRALIAN VANADIUM PROJECT

Drilling

The collection of 30 tonnes of oxide, transitional and fresh core samples was completed for the Company's 100% owned Australian Vanadium Project deposit in Western Australia ("the Project"). The drilling was undertaken to provide samples for a pilot scale metallurgical test program which is now underway and a Resource update. Pilot Scale describes a test program that allows simulation of typical processing of ore and should be at least at a scale of tonnes of ore per hour in a continuous process test, identical in as many ways as possible to the final built process. All inputs and outputs are measured and managed for analysis and if required, refinement in the final design to be built. Most successful projects complete properly scaled pilot studies, many failed projects do not.

The drill program was completed in late March 2019, ahead of schedule.



Plate 1 Drilling onsite at the Australian Vanadium Project

The completed drilling campaign focused only on the northern 2km of AVL's 11.5km held deposit strike length with drill core collected along the length and depth of the current pit defined by the Pre-Feasibility Study (PFS) released on 19 December 2018 (see Figure 1). AVL can significantly increase the resource base at the Project by further drilling southwards along its 100% owned large, dominant ground position in the area.

The robust analysis of large volumes of typical material from within the existing Ore Reserve aims to distinguish AVL as the leading vanadium project of choice globally.

A total of 30 large diameter diamond core holes, 12 down dip and 18 vertical holes, were completed for a total of 4,823 metres during the program. Of this, 2,862 metres of mineralised core samples collected have been prepared for assay analysis. Detailed calibrated handheld XRF measurements and portable Magnetic Susceptibility (MagSus) measurements were collected every 50cm along this core (Plate 2). Downhole MagSus at 10cm resolution for detailed interpretation was also completed where holes remained open in mineralisation at depth.

With the successful collection of the core for the Pilot Study, the Project is on schedule for completion of the Pilot Study and DFS in 2019. The Company then plans to proceed into Front End Engineering Design (FEED) and aims to commence construction in 2020, followed by start-up in 2021.

The Pilot Study is split into the CMB pilot (crushing, milling and beneficiation using magnetic separation), and refinery pilot (roast leach and vanadium precipitation). The CMB pilot has commenced. Prior to the refinery pilot commencing, AVL's expert vanadium team is conducting groundbreaking value-adding test work to refine the conditions for the upcoming tests.

The team has identified some key areas of improvement that can further improve the Project's excellent economics. These improvements are in the areas of grind size, roast temperature and time, as well as reagent addition rates.

A key finding of the drilling was the establishment of shallow, highly magnetic material closer to the surface than previously modelled within the current pit design and schedule. This finding is likely to have a significant positive impact on the capex and opex costs during the early years of mining, and consequently drive up the Project NPV (value).

Results will be confirmed prior to the refinery pilot commencement and incorporated into a planned update to the PFS metrics later in 2019.



Plate 2 Massive Magnetite in Diamond drill core from 19MTDH001 on site at the Australian Vanadium Project

Environmental Approvals

The sustained supply of reasonable quality water is key to any remote project's success. Environmental approval, and the issue of water abstraction licenses require the Project demonstrates a sustainable basis for the supply of water to the project. AVL commenced hydrological field studies in 2017 and a follow-up water drilling program commenced on site in April. The Company is using hydrology consultant AQ2 to assist with completing the water resource study.

Submission of a detailed Environmental Impact Report for the Project will occur upon completion of the hydrology and other required study work, to allow full assessment by the regulators. The regulators have recommended that the Company completes all study work prior to submission of the Environmental Impact Report, to provide the highest chance of a successful review.

Pilot Sample Collection

Much of the quarter was focused on the drilling, logging and characterisation of diamond drill core. All 30 drillholes (4,823m) were logged in detail, including the capture of handheld XRF multi-element data and magnetic susceptibility. Downhole MagSus gamma as well as selected Televue probe data was collected.

The drill program has provided AVL with approximately 30 tonnes of oxide, transitional and fresh core samples which are required to run a robust pilot plant test work program for the CMB circuit.

Material was selected based on empirical data obtained from the drilling program to differentiate ore from waste. Prior to collection into drums, each tray was visually and qualitatively magnetically inspected. There was excellent alignment between materials characterised by empirical data to the visual and qualitative inspections for representative massive Vanadium-Titanium-Magnetite.

The logging and interpretation of empirical data has allowed the AVL geological and metallurgical teams to develop a comprehensive understanding of the magnetic response of the proposed ore.



Plate 3 Bulk core sample test work preparation in the laboratory

More than 100 drums (see Plate 6) of ore are now undergoing primary crushing and screening to support the required mill feed Particle Size Distribution (PSD). Blended crushing and grinding (see Plate 4 and Plate 5)) and magnetic separation of typical mine feed will follow.



Plate 4 Feed hopper jaw crusher



Plate 5 Trans hopper feed to prime crusher



Plate 6 Material collected in drums

Data Room

The Company's PFS release to the market in December 2018 provided a summary of the study's findings, but the study itself contained more detailed information and material that was considered to be commercially sensitive. An online data room has been created and access provided to potential financiers, joint venture partners and those seeking offtake arrangements. Under Confidentiality Agreements, this is providing AVL with the ability to share a full suite of information with relevant parties to enable progression of the Project.

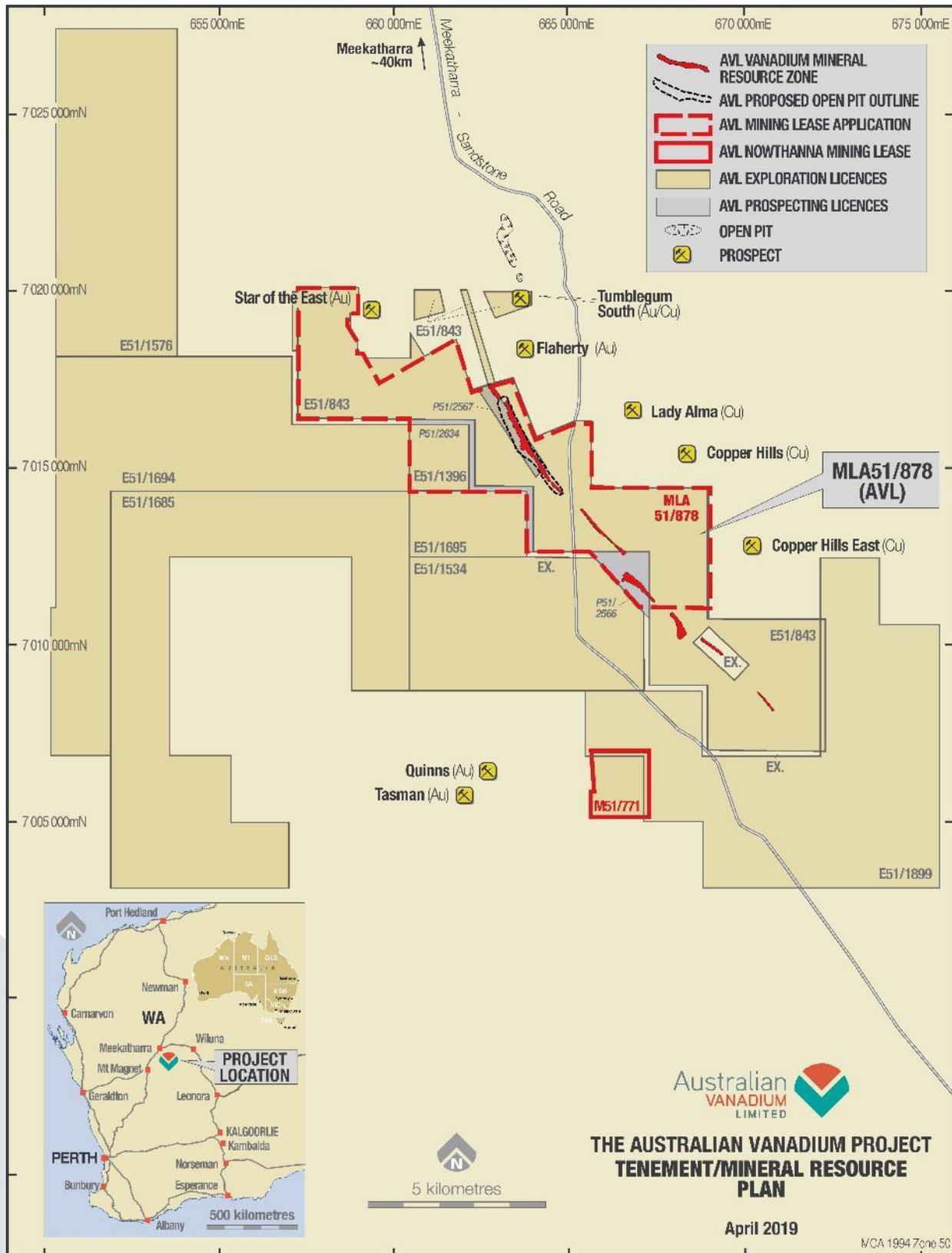


Figure 1 Location Diagram of the Australian Vanadium Project

Next steps and Project timelines

The Project is currently progressing through a DFS. This involves the rigorous testing of processing, mining and environmental impacts to ensure the delivery of a viable project. AVL remains focused on the most rapid development timeline possible for a project of this size.

Work across the various disciplines includes:

- Drilling and testing to confirm dewatering estimates and groundwater resources
- Ongoing work to identify and assess any environmental impacts and ensure timely environmental approvals
- Investigations into the risks and opportunities outlined in the PFS
- Upgrading the current Mineral Resource
- Further refinement and optimisation of the mine schedule
- Further metallurgical testwork associated with the Pilot Study
- Ongoing social and heritage works to meet the Project timeline
- The outline of applications of renewable energy and vanadium redox flow battery (VRFB) energy storage for components of the Project.

VSUN ENERGY

The successful 2½ year operation of the VRFB installed by VSUN Energy at a native tree nursery in Busselton, Western Australia received media coverage which included articles in the Sydney Morning Herald, The Age and Mining.com. This attention has resulted in an increased interest in the technology and number of incoming enquiries, particularly from the agricultural sector

The 10kW power, 100kWh energy CellCube unit stores energy from a 15kW solar photovoltaic system, enough to run for 10 hours at maximum output. The battery was the first vanadium redox flow battery installed in WA and the first of its type imported by VSUN Energy which markets industrial-grade VRFBs. The asset life of the battery is estimated at 20 years.

The system has had over 10MWh throughput to date and the data sensors built into the battery have demonstrated how well the electrolyte temperature has responded during high (+40°C) summer temperatures.

Lack of degradation in performance means that the VRFB is still delivering the same amount of power and energy as when it was installed and its non-flammability provides a comfort which is particularly valuable in a bushfire-prone setting and region.

VSUN Energy continues to evaluate multiple energy storage opportunities received through calls and email contact to the Company. Increasing power costs, volatile fuel prices and ongoing energy uncertainty are steering more small business customers to self-sustaining renewable energy solutions. Solar plus VRFB can provide excellent long-life assets and competitive solutions to many businesses.

VSUN Energy maintains strong contacts with a range of commercial VRFB producers globally who are seeking to enter the Australian market. Regular meetings and strong relationships are being fostered with energy retailers, solar developers and utilities to inform them about the benefits of utility-scale use of large scale VRFB systems for grid-level storage.

FUTURE BATTERY CRC

On 10th April 2019 the Hon Karen Andrews, the Federal Minister for Industry, Science and Technology, announced that the Curtin University-led national collaboration of 58 industry, government and research partners had been successful in its bid to establish the Future Battery Industries Cooperative Research Centre (CRC) based in Western Australia. AVL and its 100% owned subsidiary, VSUN Energy, have offered in-kind services to the CRC.

Meetings have already been held to shape the CRC's plans, with the vanadium sub-group's initial remit to drive the uptake of vanadium redox flow batteries in Australia and to find the most cost-effective methods to produce vanadium electrolyte. This remit will be refined further in the coming weeks, with a workshop planned in mid-May.

OTHER PROJECTS

The Company has interests in a number of other projects aside from its flagship Australian Vanadium Project. The Company's objective with these projects is to seek to monetise AVL's past investment in acquiring these projects, such that they provide additional funds or equity for the Company. These projects include:

- An interest in the Blesberg Feldspar project with the opportunity to acquire up to 26% of Southern African Lithium and Tantalum Pty Ltd through the completion of a Mineral Resource Estimate.
- A 100% interest in the Nowthanna Hill uranium/vanadium deposit located on the granted Mining Lease M51/771 and surrounding tenements, which includes a completed Native Title agreement.
- A 100% interest in the Coates vanadium project, a titaniferous magnetite located East of metropolitan Perth

CORPORATE

Project Name

During the quarter, the Company's flagship project, the Australian Vanadium Project (formerly Gabanintha) was renamed for clarity with stakeholders, prospective partners and investors.

Research & Development Tax Incentive Refund

The Company received \$113,660 from the Australian Federal Government's Research and Development (R&D) Tax Incentive Scheme for the 2016/17 tax year. AVL's R&D work for the period was focused on development of processing techniques to produce vanadium from a poly-metallic ore for vanadium redox flow batteries and steel applications.

Marketing

Presentations were made and meetings held at Mines and Money in Hong Kong and China's 4th International Vanadium Forum. The visit to China enabled directors Vincent Algar and Daniel Harris to meet with MOU partners Win-Win Development, in addition to attending the Vanitec meeting with members of the global vanadium market. Additional meetings were held in China and Australia with prospective project financiers, investment funds, vanadium producers and corporate entities seeking to enter the vanadium business. Meetings and promotion of the Project will be ongoing in the June quarter.

Vanadium Price

During the quarter, the vanadium price retreated from near all-time highs of over US\$30/lb V₂O₅ towards more realistic long-term prices. At the end of the March, the price was around US\$12/lb V₂O₅ which remains well above the long-term average of US\$8.67/lb V₂O₅.

Visits to China by the executive team in April confirmed the ongoing and strong demand for high quality vanadium products in China and globally. New vanadium production in China is challenged by economic viability of new projects as well as strict new environmental operating conditions. AVL's PFS shows a robust Project value at prices between the long-term average and today's prices. Projected operating costs close to world leading vanadium operations support a viable Project at most long-term price scenarios. Growth in the VRFB market is made more sustainable at lower market prices and is seen to provide a new floor the vanadium pentoxide market, which has always been dominated by steel applications.

Capital Raising

During the previous quarter, the Company and its share registry received a total of \$5,609,362 through the exercise of 280,468,128 listed Options at 2.0 cents per share. A total of 94,790,643 options were not exercised prior to their expiry on 31st December 2018. Of these expired options, a total of 62,750,000 were underwritten by Westar Capital Limited (see ASX announcement dated 28 December 2018) and during this quarter those options were exercised, raising a further \$1,225,000 before costs.

Cash Position

As at the 31st March 2019, the Company had \$7.34 million in cash and cash equivalents.

For further information, please contact:

Vincent Algar, Managing Director

Table 1 Gabanintha Project – Mineral Resource estimate at November 2018 by domain and resource classification using a nominal 0.4% V₂O₅ wireframed cut-off for low grade and nominal 0.7% V₂O₅ wireframed cut-off for high grade (total numbers may not add up due to rounding)

Zone	Classification	Mt	V ₂ O ₅ %	Fe %	TiO ₂ %	SiO ₂ %	Al ₂ O ₃ %	LOI %
HG 10	Measured	10.2	1.11	42.7	12.6	10.2	8.0	3.9
	Indicated	12.1	1.05	43.8	11.9	10.6	7.6	3.5
	Inferred	74.5	0.97	42.1	11.2	11.6	7.6	3.4
	Sub-total	96.7	1.00	42.4	11.4	11.3	7.7	3.5
LG 2-5	Measured	-	-	-	-	-	-	-
	Indicated	28.6	0.50	24.6	6.9	27.5	17.9	8.6
	Inferred	53.9	0.49	25.3	6.7	27.5	16.4	7.3
	Sub-total	82.5	0.49	25.1	6.8	27.5	16.9	7.7
Transported 6-8	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	4.4	0.65	28.2	7.2	24.7	16.7	8.5
	Sub-total	4.4	0.65	28.2	7.2	24.7	16.7	8.5
Total	Measured	10.2	1.11	42.7	12.6	10.2	8.0	3.9
	Indicated	40.7	0.66	30.3	8.3	22.5	14.8	7.1
	Inferred	132.7	0.77	34.8	9.2	18.5	11.5	5.1
	Sub-total	183.6	0.76	34.3	9.2	18.9	12.1	5.5

Table 2 Ore Reserve Statement as at December 2018, at a cut-off grade of 0.8% V₂O₅

Reserve classification	tonnes	V ₂ O ₅ %	Co ppm	Ni ppm	Cu ppm	S %	SiO ₂ %	Fe ₂ O ₃ %	V ₂ O ₅ produced t
Proved	9,820,000	1.07	172	571	230	0.06	9.47	58.7	65,000
Probable	8,420,000	1.01	175	628	212	0.08	10.07	59.5	56,000
Total	18,240,000	1.04	173	597	222	0.07	9.75	59.1	121,000

About Australian Vanadium Limited

AVL is a resource company with an integrated strategy with respect to vanadium, seeking to offer investors a unique exposure to all aspects of the vanadium value chain – from resource through to steel and energy storage opportunities.

AVL is advancing the development of its 100%-owned, world-class Gabanintha vanadium project. The Gabanintha vanadium project is currently one of the highest-grade vanadium projects being advanced globally with existing Mineral Resource of 183.6Mt at 0.76% vanadium pentoxide (V₂O₅), made up of a Measured Mineral Resource of 10.2Mt at 1.11% V₂O₅, an Indicated Mineral Resource of 40.7Mt at 0.66% V₂O₅, and an Inferred Mineral Resource of 132.7Mt at 0.77% V₂O₅, reported in compliance with the JORC Code 2012 (see AVL ASX Announcement 28th November 2018).

The Mineral Resource includes a distinct massive magnetite high-grade zone of 96.7 Mt at 1.00% V₂O₅ consisting of Measured Mineral Resource of 10.2Mt at 1.11% V₂O₅, Indicated Mineral Resource of 12.1Mt at 1.05% V₂O₅, and Inferred Mineral Resource of 74.5Mt at 0.97% V₂O₅.

AVL is aiming to develop a local commercial production capacity for high-purity vanadium electrolyte, which forms a key component of vanadium redox flow batteries (VRFB). AVL, through its 100%-owned subsidiary VSUN Energy Pty Ltd, is also actively marketing VRFB in Australia.

Tenement Schedule

Tenement Information as Required by Listing Rule 5.3.3 For the Quarter Ended 31 March 2019					
Project	Location	Tenements	Economic Interest	Notes	Change in Quarter %
Western Australia	Gabanintha	E51/843	100% Granted ¹		Nil
		E51/1396	100% Granted ¹		Nil
		E51/1534	100% Granted ¹		Nil
		E51/1576	100% Granted ¹		Nil
		E51/1685	100% Granted ¹		Nil
		E51/1694	100% Granted ¹		Nil
		E51/1695	100% Granted ¹		Nil
		P51/2566	100% Granted ¹		Nil
		P51/2567	100% Granted ¹		Nil
		P51/2634	100% Granted ¹		Nil
		MLA51/878		100% On application	Nil
		E51/1899		100% On Application	Nil
Western Australia	Nowthanna	M51/771	100% Granted		Nil
Western Australia	Peak Hill	E52/3349	0.75% NSR Production Royalty		Nil
Western Australia	Coates	E70-4924-I	100% Granted		Nil
South Africa	Blesberg	(NC) 940 PR	5%	Earning up to 26%	5%

Note 1: Australian Vanadium Limited retains 100% rights in V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore on the Australian Vanadium Project. Bryah Resources Limited holds the Mineral Rights for all minerals except V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore only.

Forward Looking Statements

Some of the statements contained in this report are forward looking statements. Forward looking statements include, but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Australian Vanadium Limited's projects and other statements that are not historical facts. When used in this report, and on other published information of Australian Vanadium Limited, the words such as 'aim', 'could', 'estimate', 'expect', 'intend', 'may', 'potential', 'should' and similar expressions are forward looking statements.

Although Australian Vanadium Limited believes that the expectations reflected in the forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that the actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements including the potential that Australian Vanadium Limited's project may experience technical, geological, metallurgical and mechanical problems, changes in vanadium price and other risks not anticipated by Australian Vanadium Limited.

Australian Vanadium Limited is pleased to report this information in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this report, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

Competent Person Statement — The Australian Vanadium Project Mineral Resource Estimation

The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Davis is a shareholder of Australian Vanadium Limited. Mr Barnes is a member of the Australasian Institute of Mining and Metallurgy and Mr Davis is a member of the Australian Institute of Geoscientists and both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Barnes is the Competent Person for the estimation and Mr Davis is the Competent Person for the database, geological model and site visits. Mr Barnes and Mr Davis consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Competent Person Statement — The Australian Vanadium Project Ore Reserves

The scientific and technical information in this report that relates to ore reserves estimates for the Project is based on information compiled by Mr Roselt Croeser, an independent consultant to AVL. Mr Croeser is a member of the Australasian Institute of Mining and Metallurgy. Mr Croeser has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Mr Croeser consents to the inclusion in this report of the matters related to the ore reserve estimate in the form and context in which it appears.

Competent Person Statement – The Australian Vanadium Project Metallurgical Results

The information in this report that relates to Metallurgical Results is based on information compiled by independent consulting metallurgist Brian McNab (CP. B.Sc Extractive Metallurgy), Mr McNab is a Member of The Australasian Institute of Mining and Metallurgy. Brian McNab is employed by Wood Mining and Metals. Mr McNab has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken, 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'. Mr McNab consents to the inclusion in this report of the matters based on the information made available to him, in the form and context in which it appears.

Competent Person Statement – Blesberg Exploration Program

The information relating to the Blesberg Feldspar-Lithium-Tantalum Project exploration program reported in this announcement is based on information compiled by Mr Vincent Algar. Mr Algar is a Member of The Australian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of the Company. Mr Algar has more than 25 years' experience in the field of mineral exploration. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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'. Mr. Algar consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

Competent Person Statement – Coates and Nowthanna Exploration Results

The information relating to the Coates Vanadium Project and the Nowthanna Hill Uranium Project exploration results reported in this announcement is based on information compiled by Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Davis is a Member of Australian Institute of Geoscientists and a consultant to the Company. Mr Davis is a shareholder of Australian Vanadium Limited. Mr Davis has more than 25 years' experience in the field of mineral exploration. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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'. Mr. Davis consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the competent person's findings are presented has not been materially modified from the original market announcements.