

Australian  
VANADIUM  
LIMITED



E22



vsunenergy

# VANADIUM YOUR 24/7 BATTERY MINERAL

Paydirt Battery Minerals Conference | April 2022

ASX:AVL

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The views expressed in this presentation contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

## Competent Person References

**Competent Person Statement – Mineral Resource Estimation** The information in this presentation 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 Barnes and Mr Davis are both members of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). 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 presentation of the matters based on their information in the form and context in which they appear.

**Competent Person Statement – Metallurgical Results** The information in this presentation 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 AusIMM. He is employed by Wood Australia Pty Ltd. 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 JORC 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr McNab consents to the inclusion in the presentation of the matters based on the information made available to him, in the form and context in which it appears.

**Competent Person Statement – Exploration Results and Targets** The information in this presentation that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr Brian Davis (Consultant with Geologica Pty Ltd) and Ms Gemma Lee who is employed by Australian Vanadium Ltd as Principal Geologist. Mr Davis is a member of the Australasian Institute of Mining and Metallurgy and Ms Lee is a member of the Australian Institute of Geoscientists. Both Mr Davis and Ms Lee 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 Davis and Ms Lee consent to the inclusion in this presentation of the matters based on their information in the form and context in which they appear.

## Competent Person Statement — Ore Reserves

The technical information in this presentation that relates to the Ore Reserve estimate for the Project is based on information compiled by Mr Ross Cheyne, an independent consultant to AVL. Mr Cheyne is a Fellow of the Australasian Institute of Mining and Metallurgy. He is an employee and Principal Consultant of Orelogy Consulting Pty Ltd. Mr Cheyne 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 Cheyne consents to the inclusion in the presentation of the matters related to the Ore Reserve estimate in the form and context in which it appears.

The information in this presentation is extracted from the announcement entitled “Bankable Feasibility Study for the Australian Vanadium Project” released to the ASX on 6th April 2022 which is available on the Company’s website at [australianvanadium.com.au](http://australianvanadium.com.au).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement 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 announcement.

## Forward Looking Statements

This presentation may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of AVL and certain of the plans and objectives of AVL with respect to these items. These forward-looking statements are not historical facts but rather are based on AVL’s current expectations, estimates and projections about the industry in which AVL operates and its beliefs and assumptions.

Words such as “anticipates,” “considers,” “expects,” “intends,” “plans,” “believes,” “seeks,” “estimates,” “guidance” and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the industry in which AVL operates.

These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and other factors, some of which are beyond the control of AVL, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Such risks include, but are not limited to resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which we sell our product to, and government regulation and judicial outcomes. For more detailed discussion of such risks and other factors, see the Company’s Annual Reports, as well as the Company’s other filings.

AVL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which relate only to events as of the date on which the statements are made.



## CORPORATE OVERVIEW

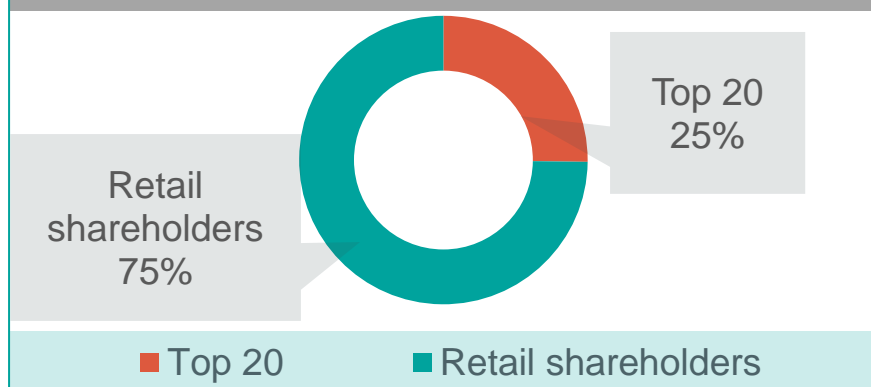
# Australian Vanadium

### KEY STATISTICS AS AT 4/3/22

Ordinary Shares on Issue	3.34b
Share Price	A\$0.105
Options on Issue Exp 18/12/22 @ \$0.025	505,481,044
Option Price (AVLO)	A\$0.072
Average Daily Traded Volume	39M (~\$769k)
Market Cap (Undiluted)	A\$350.8M
Shareholders	11,775
Cash at the end of last quarter	\$5.79M



### SHAREHOLDER SPLIT



### TOP 5 SHAREHOLDERS

		%
1	HSBC Custody Nominees (Australia) Ltd	3.71%
2	BNP Paribas Nominees Pty Ltd ACF Clearstream	3.68%
3	Citicorp Nominees Pty Ltd	3.45%
4	Mr & Mrs Hoeksema	1.83%
5	BNP Paribas Nominees Pty Ltd	1.71%





## CORPORATE OVERVIEW

# Experienced Corporate Team

### *International vanadium credentials*



**Cliff Lawrenson**  
Non-Executive Director

Over 10 years of experience chairing public and private companies post extensive executive career in resources, energy, infrastructure and investment banking.

Currently Non-Executive Chair of Paladin Energy (ASX: PDN), Caspin Resources (ASX:CPN), Canyon Resources (ASX:CAY) and privately owned Pacific Energy and Onsite Rental Group.



**Vincent Algar**  
Managing Director

Has over 25 years of experience in the mining industry, spanning underground and open cut mining operations, greenfields exploration, project development and mining services. Significant experience in the management of publicly listed companies.



**Daniel Harris**  
Technical Director

Over 40 years of **global vanadium experience** including processing and operation. Recent roles include interim CEO and Managing Director at Atlas Iron; Chief Executive & Operating Officer at Atlantic; Vice President & Head of Vanadium Assets at Evraz Group; and Managing Director at Vametco Alloys. Currently Director of US Vanadium LLC.



**Leslie Ingraham**  
Executive Director

Has over 30 years of experience in business and has performed the roles of Executive Director and Non-executive Director for ASX listed companies.

Extensive experience in capital raising and mineral prospecting and exploration, corporate advisory, investor relations and building long lasting relationships with high end investors in Australia and overseas.



**Todd Richardson**  
Chief Operating Officer

Over 20 years of **experience in the vanadium sector** and an expert in vanadium process design, commissioning and operations.

An extensive background in operations, management and technical services, both in the USA and Australia, in all phases of plant operation.



**Liesl Strachan**  
Chief Financial Officer

More than 15 years of experience in the resources sector, both in Australia and the UK. Currently provides financial services to ASX listed exploration companies Big River Gold Ltd (ASX: BRV) and Bryah Resources Ltd (ASX: BYH).

## CORPORATE OVERVIEW

# Experienced Technical Team



**Gemma Lee**  
Principal  
Geologist

20 years of experience in resource development in WA across multiple commodities. Undertakes and oversees geological modelling and reporting for resource updates. Assists with DMP and environmental approvals.



**Tony Standish**  
Senior  
Exploration  
Geologist

Responsible for drilling and field safety programs at the Australian Vanadium Project. His strong relationship with pastoralists and Traditional Owners has been invaluable as the project moves towards development.



**Greg O'Connor**  
Process  
Engineer  
Metallurgist

More than 20 years of experience in multi commodity metallurgy with extensive experience in comminution, hydrometallurgy and flotation at laboratory and pilot scale. Significant plant experience and Process Mineralogy skills and a PhD in metallurgy.



**Trevor Smith**  
BFS Study  
Manager

A chartered chemical engineer with more than 30 years of experience in minerals processing bulk materials handling and project management.



**Ashley Jones**  
Geology  
Consultant

Experienced in resource development in WA across multiple commodities. Provides oversight for geological resources and exploration strategy. Responsible for mine planning, scheduling and water. Non-Executive Star Minerals, Director AI Exploration Services Australia and Director Kamili Geology.



**Samantha McGahan**  
VSUN Energy  
Manager

Over 25 years in a diverse range of industries spanning education, law and technology. Has led the development of VSUN Energy since 2016. Fosters a strong network throughout both vanadium and energy markets and has experience in marketing.

# \$49 Million grant from Australian Government

**Grant provides international investor confidence and reduces overall Project funding requirements**

In March 2022 AVL was awarded a **\$49M grant** from the Australian Government towards developing the Australian Vanadium Project. The grant has been provided to support the collaborative project that includes:

- Development of the high-grade Australian Vanadium Project south of Meekatharra
- Processing vanadium near Geraldton for steel and battery markets, plus FeTi coproduct for steel mills
- Green hydrogen delivery for the Project by ATCO
- Recovery of nickel, copper and cobalt from the tails stream with Bryah Resources Limited (ASX: BYH)
- Downstream processing into vanadium electrolyte
- Vanadium redox flow battery sales, installation and maintenance through subsidiary VSUN Energy
- Supporting more than 740 jobs



**Australian Government**

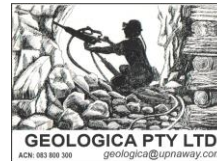


# Bankable Feasibility Study

## AVL releases BFS allowing formal financial due diligence to progress

- Significant primary vanadium producer targeting critical mineral, steel and energy storage markets
- Extensive technical studies de-risk Project towards funding and delivery
- Updated Ore Reserve of 30.9Mt at 1.09%  $V_2O_5$
- Initial mine life of 25 years
- FeTi coproduct sales opportunities through the Port of Geraldton.
- Average annual vanadium production of 24.7 Mlbs  $V_2O_5$  (11,200t)
- Flowsheet provides valuable reductions in gas consumption and  $CO_2$  emissions.
- Approvals well advanced and Environmental, Social and Governance (ESG) standards and action plans in place.
- Level of study provides a basis for engagement with financing institutions including NAIF, Export Finance Australia and many of the international resource banks.
- Project pre-tax  $NPV_{7.5}$  of A\$833M.
- Equity Project IRR 20.6%.
- Project payback of 7.3 years.
- Project annual EBITDA average for 25 years of A\$175M.
- Total Project EBITDA of \$4.4B.
- Upside case offers pre-tax  $NPV_{7.5}$  of \$1,287M assuming US\$12/lb  $V_2O_5$  price. This increases to \$1,450M with additional improvements in operating expense of 10%.
- Competitive C1 operating cost of US\$4.43/lb  $V_2O_5$
- Pre-production plant and associated infrastructure capital cost of US\$435M (A\$604M), excluding any grant payments and before contingency.

# Our Partners



Australian Government  
Department of Industry, Science,  
Energy and Resources

Business  
Cooperative Research  
Centres Program



GOLDER

PRIMERO

Metso:Outotec



Grant Thornton

wood.



GOVERNMENT OF  
WESTERN AUSTRALIA



BUREAU  
VERITAS



Australian Government



E22





# Strong ESG Focus

## Green hydrogen and renewable energy to reduce Scope 1 emissions

### Green hydrogen strategy

- ▶ Natural gas feed blend for the processing plant – collaborating with ATCO Australia.
- ▶ Power generation.
- ▶ Minesite and long-distance haulage vehicles.
- ▶ Ore reduction process.
- ▶ VRFBs pairing in integrated design with hydrogen electrolyzers.

### Renewable energy strategy

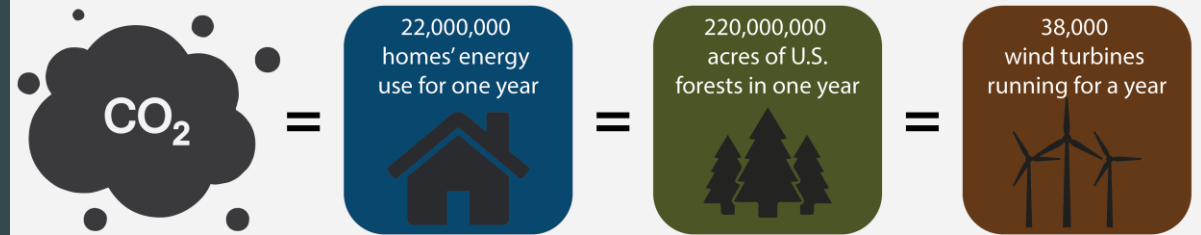
- ▶ AVL will utilise renewable energy resources on its sites.
- ▶ Use of solar and/or wind generation at the minesite and processing plant.
- ▶ Installation of VRFBs at both sites for energy storage and EV charging.



#### *Did you know?*

The addition of vanadium to steel rebar results in an **annual global carbon emission reduction** for the construction industry equivalent to planting **260,000,000 trees**.

185 million metric tons of CO<sub>2</sub> saved annually by vanadium



iScience Santos et al., 2021

Source: 'Assessing the role of vanadium technologies in decarbonizing hard-to-abate sectors and enabling the energy transition' David A Santos, Manish K Dixit, Pranav Pradeep Kumar, Sarbajit Banerjee – Texas A&M

## ESG IN ACTION

# Community Partners

Early community engagement has provided a strong start for the Project.

## Community Partners

- ▶ AVL is working with the Yugunga-Nya People to provide employment opportunities and help build a brighter future for the younger members of the group.
- ▶ AVL is a proud supporter of the Stephen Michael Foundation and its work supporting children in education through sports and other activities.
- ▶ Sponsorship of the Foundation has enabled AVL to engage with and build relationships with the wider Meekatharra community region.



## Project Partners

- ▶ AVL is partnering with ATCO to provide a green hydrogen power solution
- ▶ Working with Australian Gas Infrastructure Group (AGIG) and APA Group on gas infrastructure
- ▶ Investigating development of a hybrid hydrogen transport solution with a local provider
- ▶ VSUN Energy's Vanadium Redox Flow Batteries will ensure stable renewable power supply

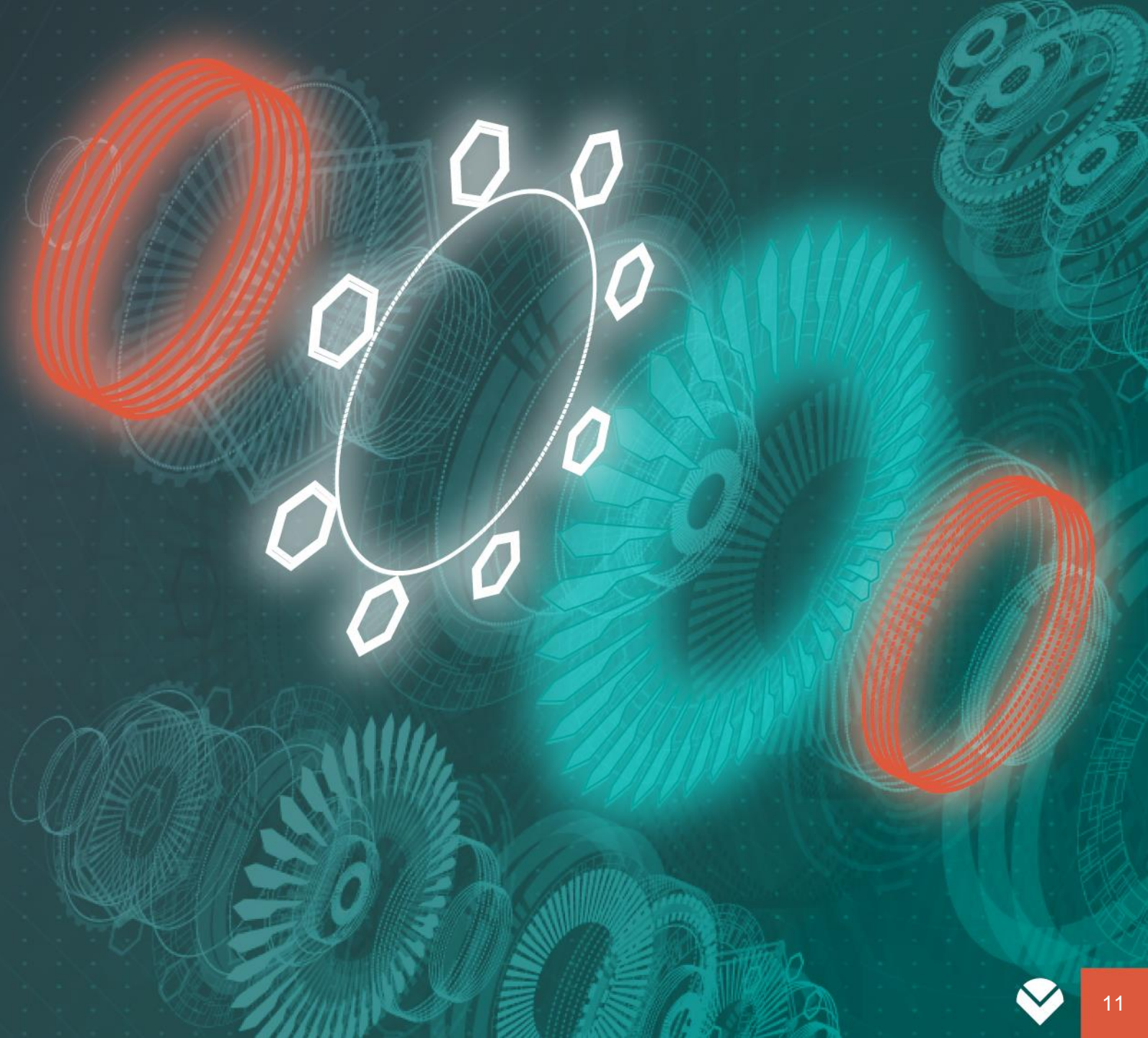


AVL's Principal Geologist Gemma Lee and Field Assistant Marianne Shay

*Photograph used with permission*



# Our Markets



# Vanadium Markets

## PRIMARY

### STEEL



92%

of current global  
vanadium consumption



Construction  
Industry



Ships



Tools



Trains

### CHEMICAL, AEROSPACE & OTHER



7%

of current global  
vanadium consumption



Jet Engines



Chemical uses



Aerospace  
Industry



3D Printing

## EMERGING & FUTURE

### RENEWABLE ENERGY STORAGE & AUTOMOTIVE



1%

of current global  
vanadium consumption



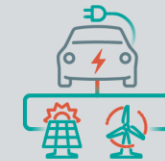
Vanadium Redox  
Flow Batteries



Automotive  
Industry



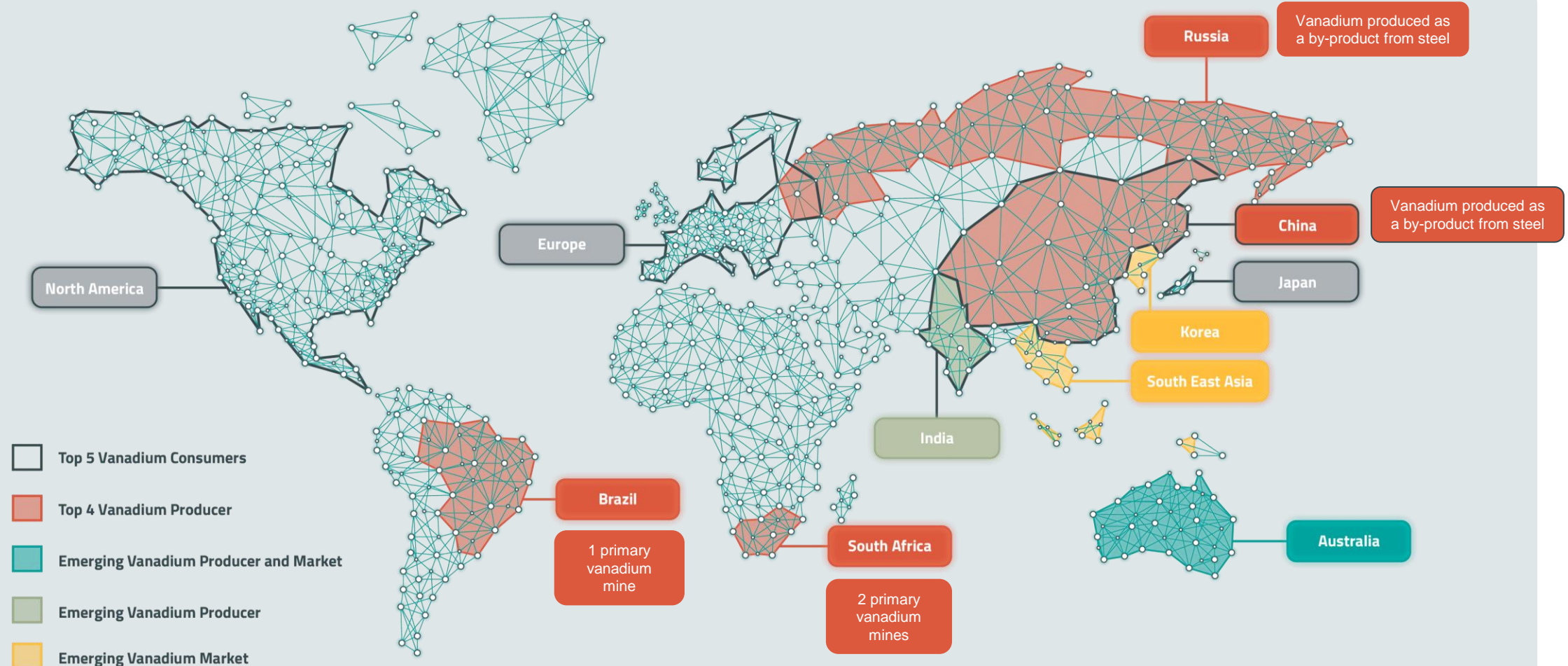
Standalone  
Power Station



EV Charging

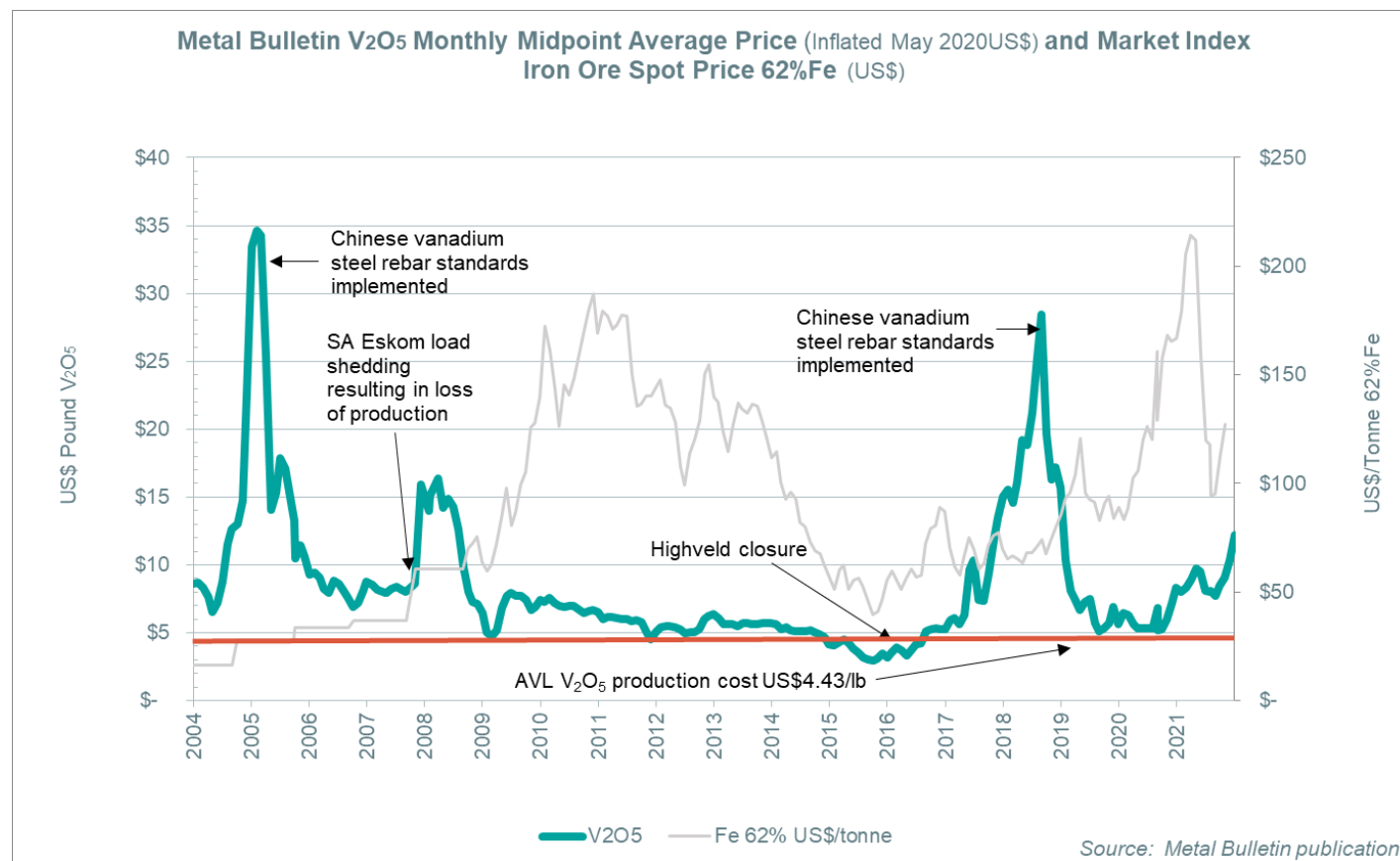


# Global Vanadium



## VANADIUM MARKETS

# Vanadium Price



## Long-Term Price

- ▶ Long-term average price for commodity grade V<sub>2</sub>O<sub>5</sub> is \$9/lb (inflated to 2020 USD)
- ▶ High purity V<sub>2</sub>O<sub>5</sub> is typically sold at a premium to the commodity price
- ▶ AVL favours price of US\$10.50/lb considering strong current pricing and growing future demand

## Vanadium Market Analysis

- ▶ Consumption of vanadium has started to rise above production globally
- ▶ Historically China has only been a net importer of vanadium in Q1 2004 and in Q4 2020
- ▶ Growing consumption in China is pushing limits of vanadium capacity
- ▶ Future demand to include energy storage, not reflected in historical figures
- ▶ COVID recovery globally and Ukraine crisis will drive V demand and pricing in 2022-2023

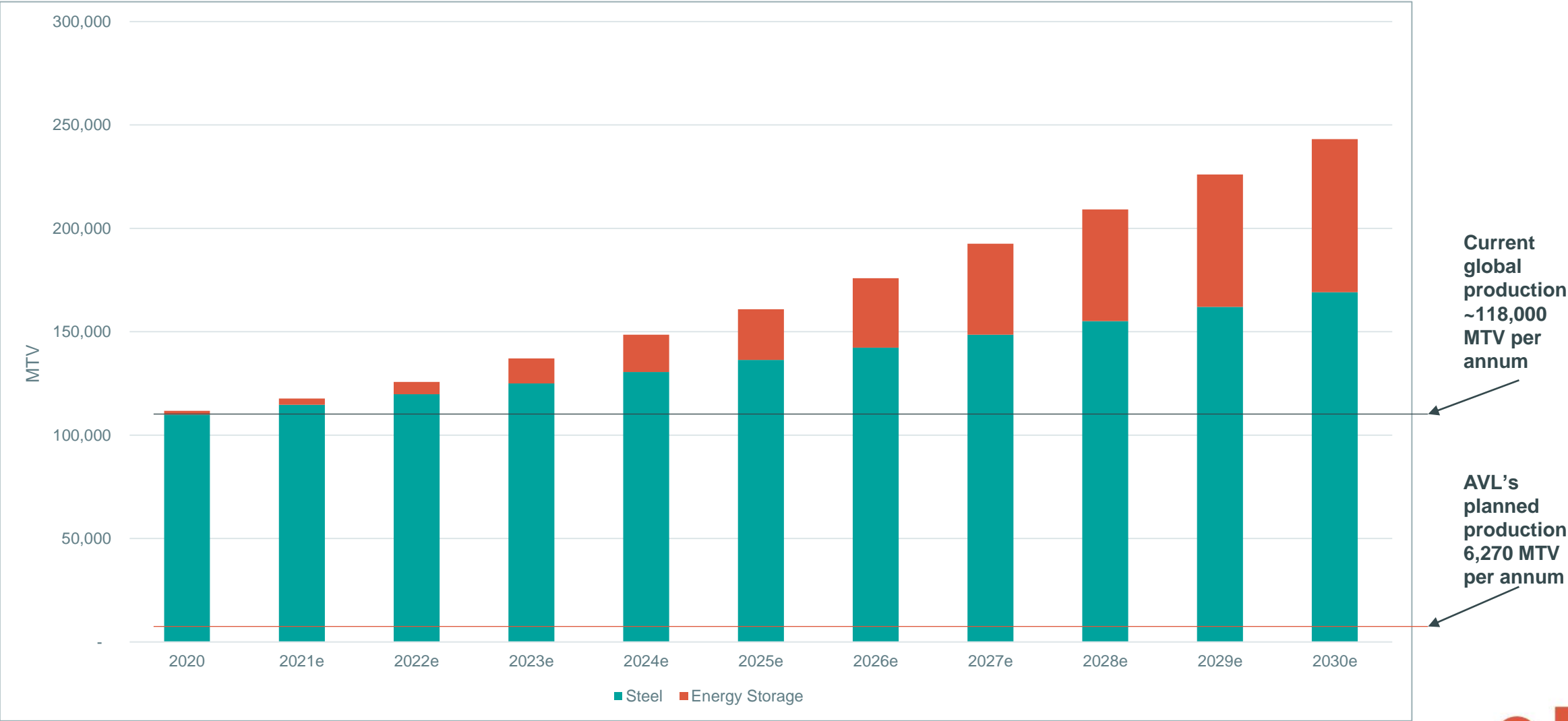
## Prices Negotiated Privately

Vanadium doesn't trade on the open market - sellers and buyers negotiate prices privately for contracts and spot purchases

- ▶ London Metal Bulletin Fastmarkets (Europe)
- ▶ Ryan's Notes (US) weekly spot prices



# Projected impact of energy storage on demand

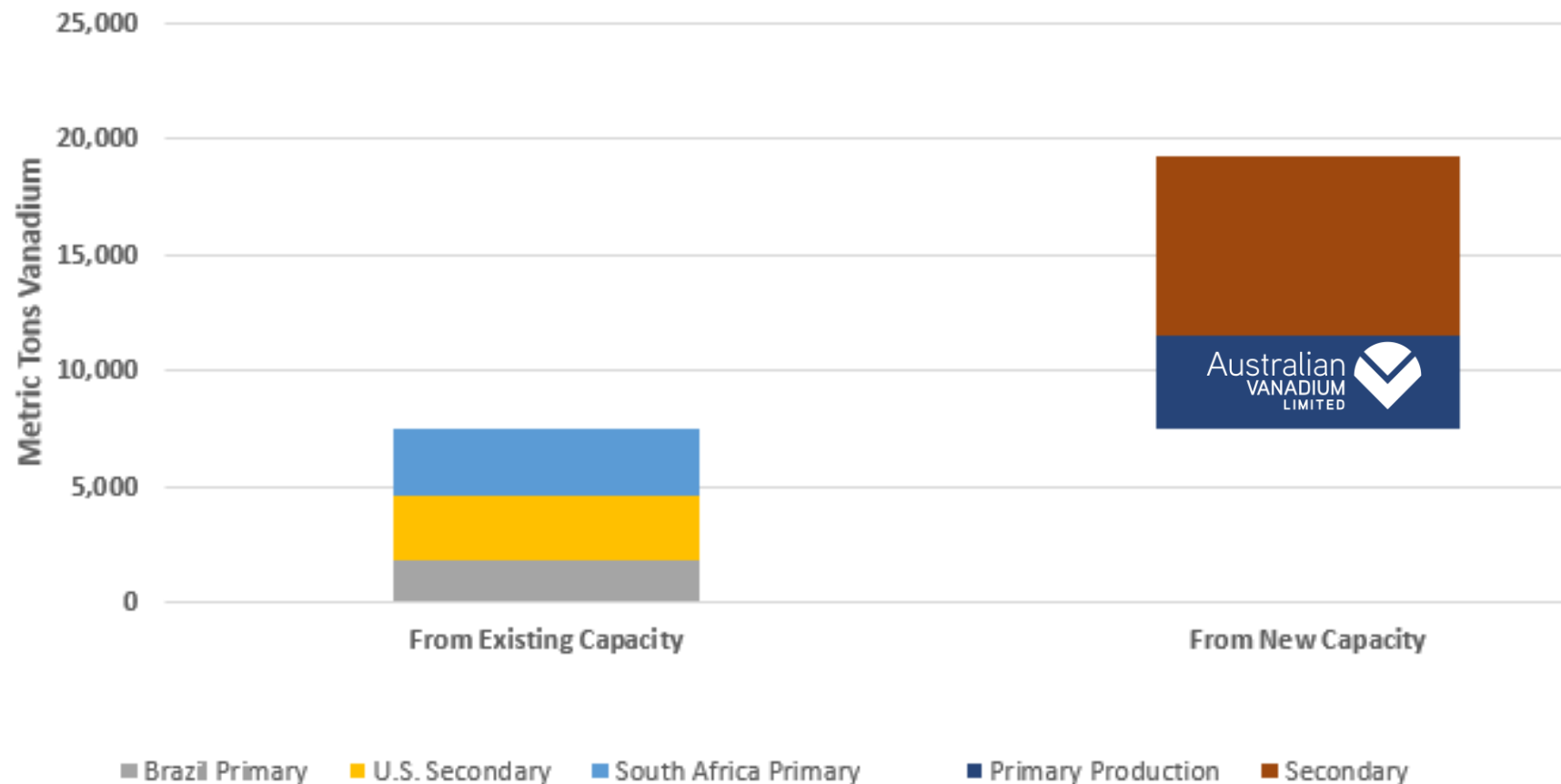


Source – US based vanadium market specialist: TTP Squared, Inc



# Production expansion between 2020 - 2025

- TTP Squared's forecast assumes significant new capacity in the coming years, with some coming from spent catalyst.
- Forecast assumes 4,000 MTV of new production from new primary vanadium mines such as the Australian Vanadium Project.

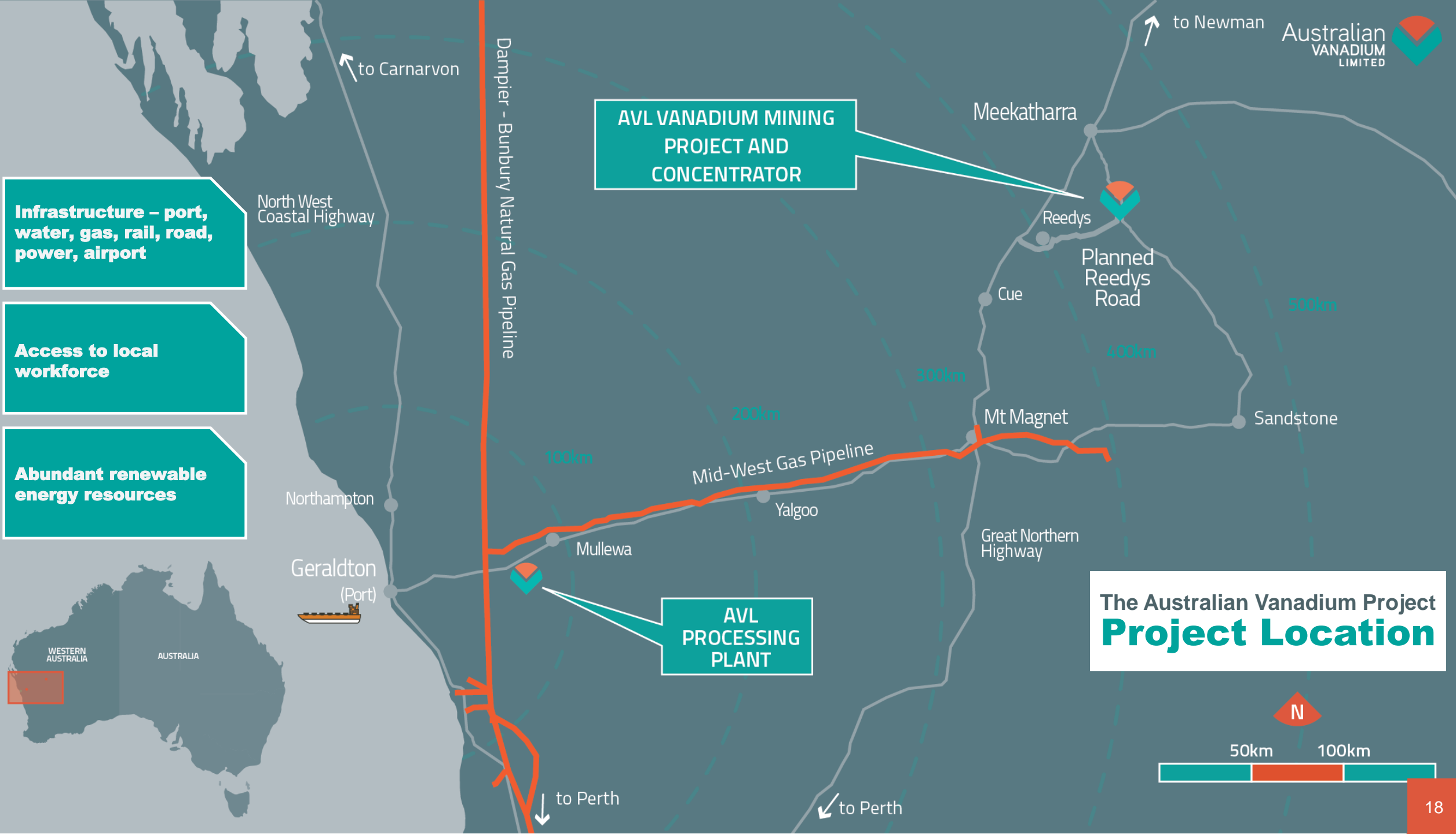






# THE AUSTRALIAN VANADIUM PROJECT





## The Australian Vanadium Project Project Location

# Project Metric Highlights



## RESOURCE

Total Resource

**239Mt @ 0.73% V<sub>2</sub>O<sub>5</sub>**

High-grade 95.6Mt @ 1.07 V<sub>2</sub>O<sub>5</sub>

Ore Reserve

**30.9Mt @ 1.09 V<sub>2</sub>O<sub>5</sub>**

Proved 10.5Mt @ 1.11% V<sub>2</sub>O<sub>5</sub>

Probable 20.4Mt @ V<sub>2</sub>O<sub>5</sub>

**11,000tpa V<sub>2</sub>O<sub>5</sub>**

Vanadium production

**25+ years**

mine life



## STRONG FINANCIAL OUTCOMES

Pre-Tax NPV<sub>7.5</sub>

**A\$833M**

IRR

**20.6%**

EBITDA Annual Average

**A\$175M**

EBITDA Project

**A\$4.4B**

NPAT Project

**A\$2.2B**



## OPEX, CAPEX

**C1 OPEX**

**US\$4.43/lb V<sub>2</sub>O<sub>5</sub>**

**PRE-PRODUCTION**

**CAPEX US\$435M**

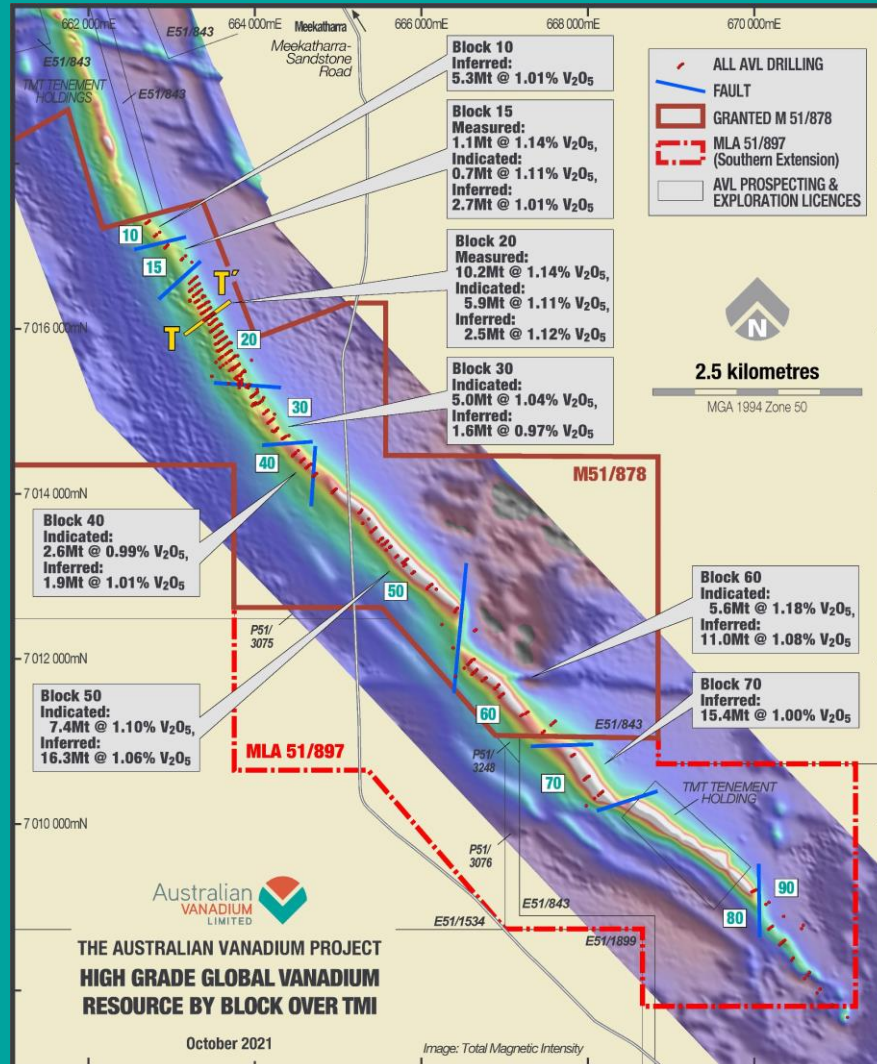
**900,000tpa**

FeTi coproduct annual export

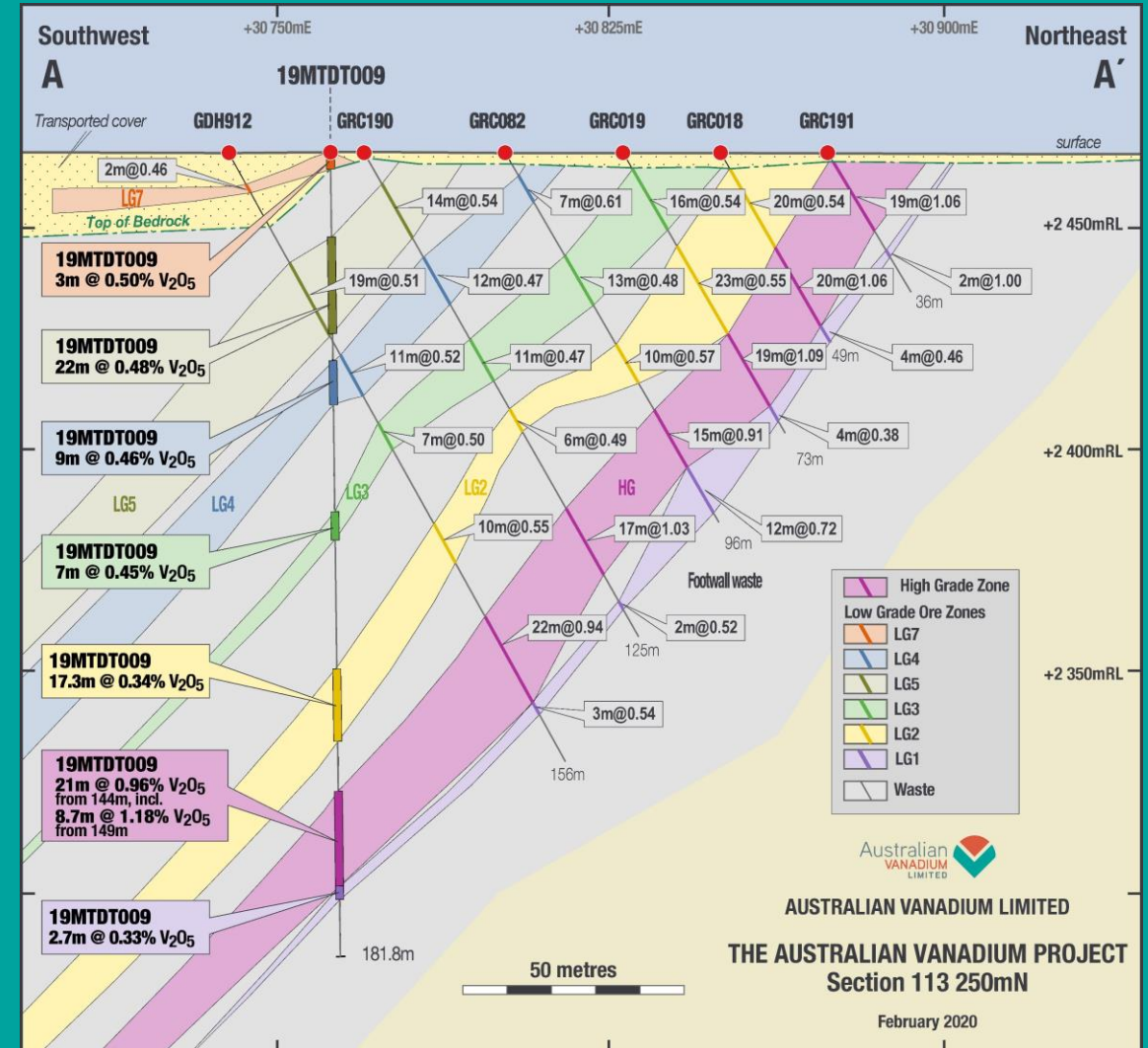




## Resource Total Magnetic Intensity

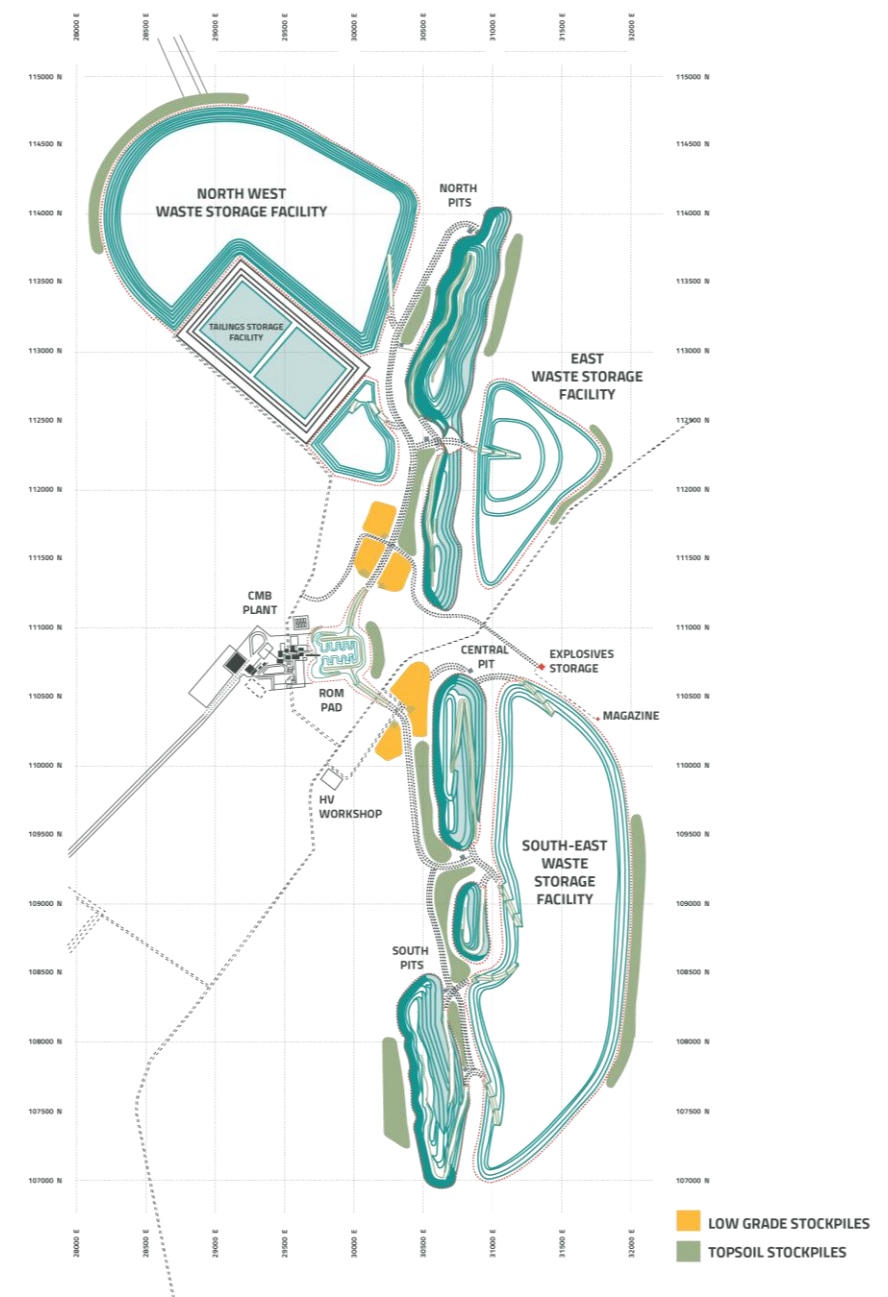
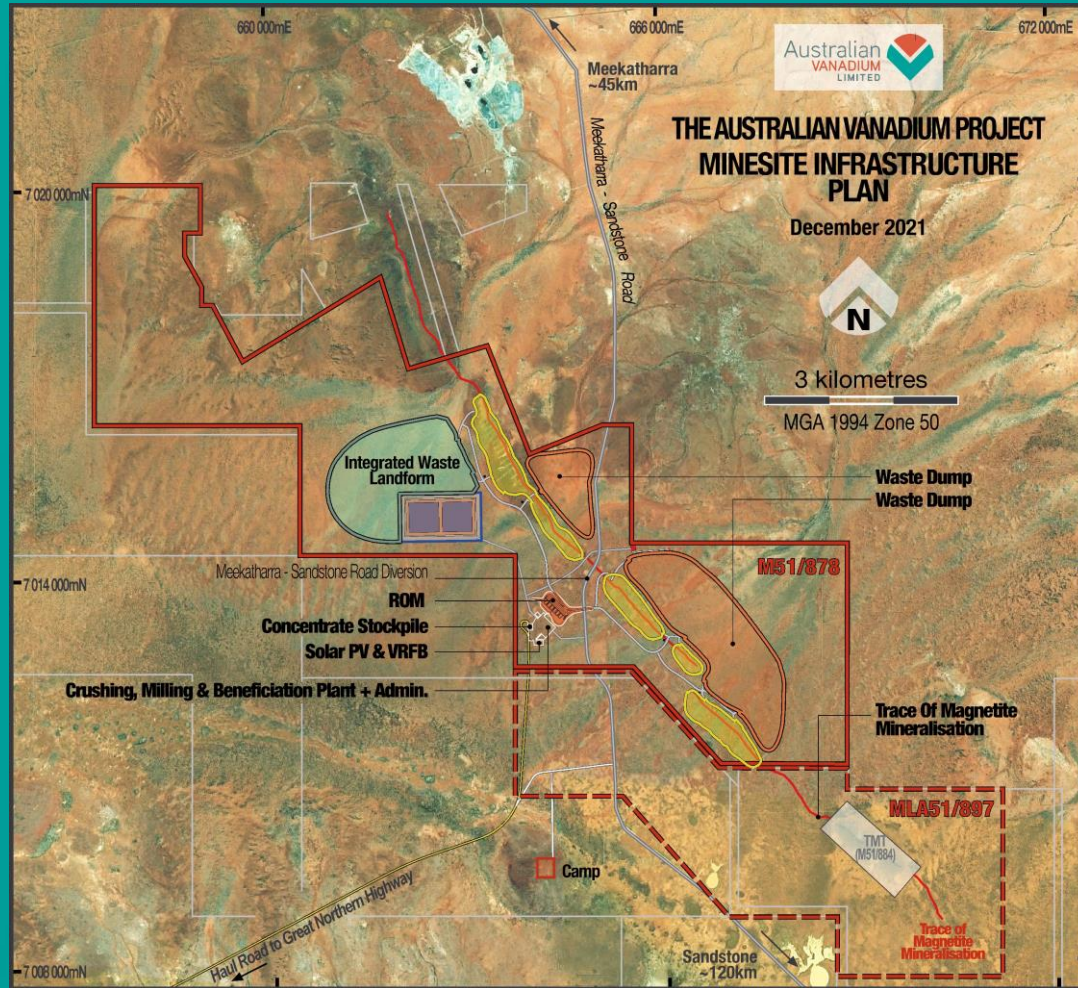


## Section





# THE AUSTRALIAN VANADIUM PROJECT Mining Layout



COLLABORATION WITH BRYAH RESOURCES LIMITED (ASX: BYH)

# Nickel, Copper and Cobalt from tails stream

- Bryah holds a suite of mineral rights including nickel, copper and gold over the Australian Vanadium Project at Gabanintha
- AVL holds the mineral rights to vanadium, titanium, iron and cobalt and is a major shareholder (7.14%) of Bryah
- Collaboration project between Bryah and AVL
- Sustainable solution to extract as much as possible from what would be a waste material
- 31.3 Mt @ 761 ppm **Nickel**, 210 ppm **Copper** and 228 ppm **Cobalt**





IN SUMMARY

# Key Project Differentiators

In one of the world's most attractive jurisdictions for mining and mineral investment

Massive high grade orebody and production of ultra-high >99.5% purity vanadium

Skilled and experienced vanadium team with strong technical and commercial capabilities

Vanadium product offtake advanced & saleable FeTi coproduct

Strong ESG focus embedded from outset of Project

Deploying technologies developed to drive operational efficiency and reduce carbon emissions

Project delivery in close proximity to regional infrastructure and local workforce

Australian Government Major Project Status & Western Australian Government Lead Agency Status





# VSUN Energy and the battery market





## VANADIUM IN ENERGY STORAGE

# AVL and VSUN Energy

VSUN Energy was launched by AVL in **2016** to grow the vanadium redox flow battery (VRFB) market in Australia.



VSUN Energy offers clients VRFBs from a **range of manufacturers** and is developing locally manufactured vanadium electrolyte.

# Why use the VRFB for energy storage?



Able to store large amounts of **energy** for later use



**Easy to scale** power and energy separately



Lifespan over 20 years with **no degradation in performance** over time



**Non-flammable** making it safer than other batteries on the market



Multiple daily cycles, with **100% depth of discharge** available



Vanadium electrolyte can be **reused indefinitely** or used in steel market



## VRFB sales and vanadium electrolyte supply

- VSUN Energy supplies VRFBs for all market segments including utility, commercial and industrial, mining, standalone power systems and rural residential.
- Independence Group (ASX: IGO) to trial a standalone power system based on a 300kWh VRFB for bore fields at the Nova Nickel Operation.
- Water Corporation undertaking trial of VRFB powering water chlorinator and pumps.
- Downstream value addition for AVL – from minesite through to renewable energy installation.
- MOUs for vanadium offtake, vanadium electrolyte supply, sales agreements with multiple VRFB manufacturers.

VSUN Energy currently offers VRFBs from the following manufacturers and others on a project-by-project basis





**VSUN ENERGY**

# VRFBs – long duration energy storage

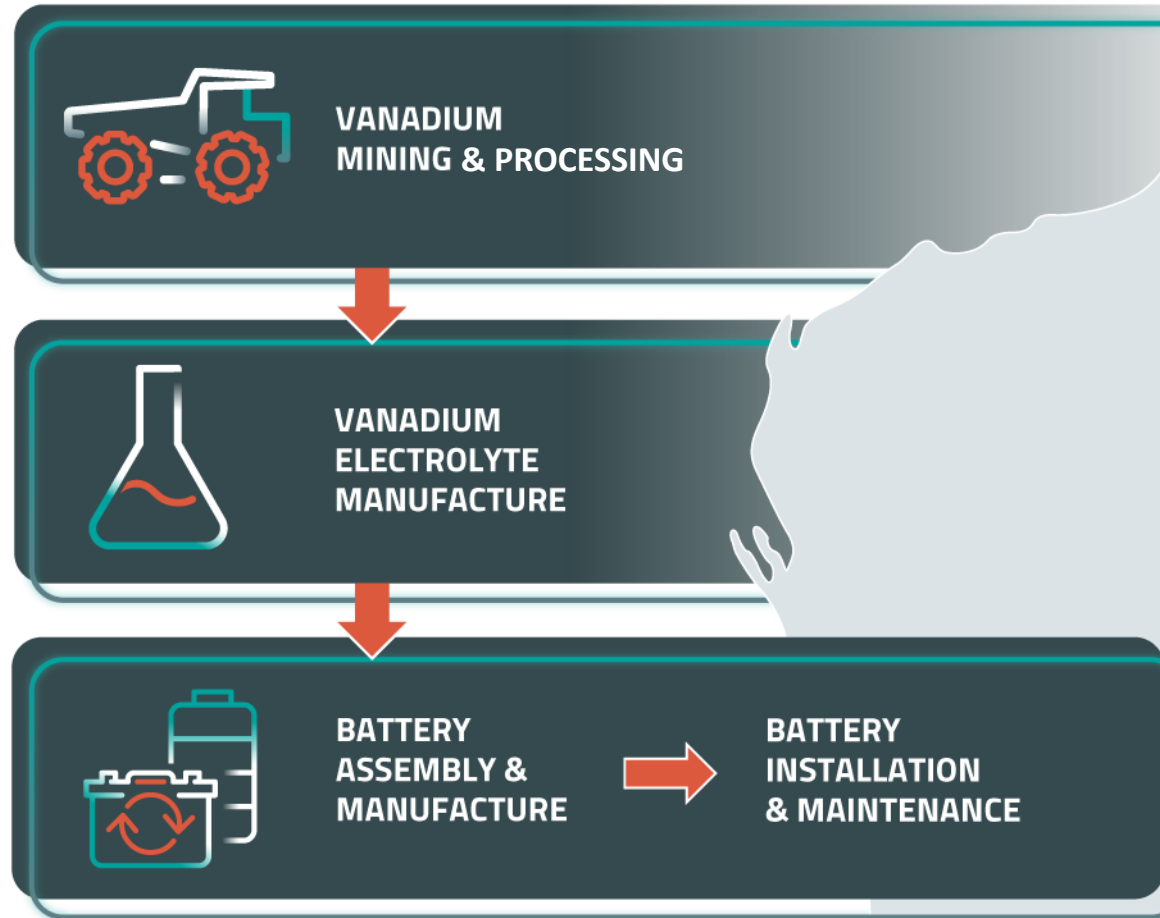
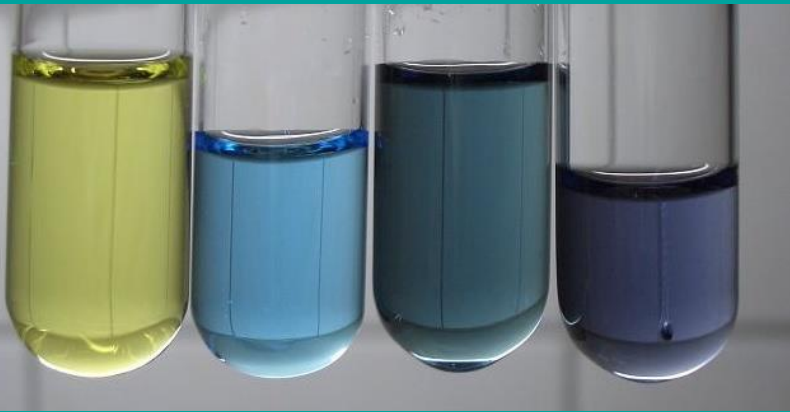






**VRFBs PROVIDE A TECHNOLOGY  
PATHWAY, AVAILABLE TODAY, TO  
TARGET NET-ZERO EMISSIONS USING  
100% GENERATED AND STORED  
RENEWABLE ENERGY 24/7**

# VERTICAL VANADIUM INTEGRATION FOR ENERGY STORAGE



## THE AUSTRALIAN VANADIUM PROJECT

# Vanadium Electrolyte Plant

- Vanadium electrolyte plant being built at Kwinana industrial area, south of Perth
- Partly funded by Australian Government manufacturing grant of \$3.69M
- Vanadium electrolyte technology provided by U.S. Vanadium LLC
- Plant build being undertaken by WA engineering group Primero
- Initial plant to supply 33GWh per annum
- Local electrolyte production provides competitive advantage in energy storage market

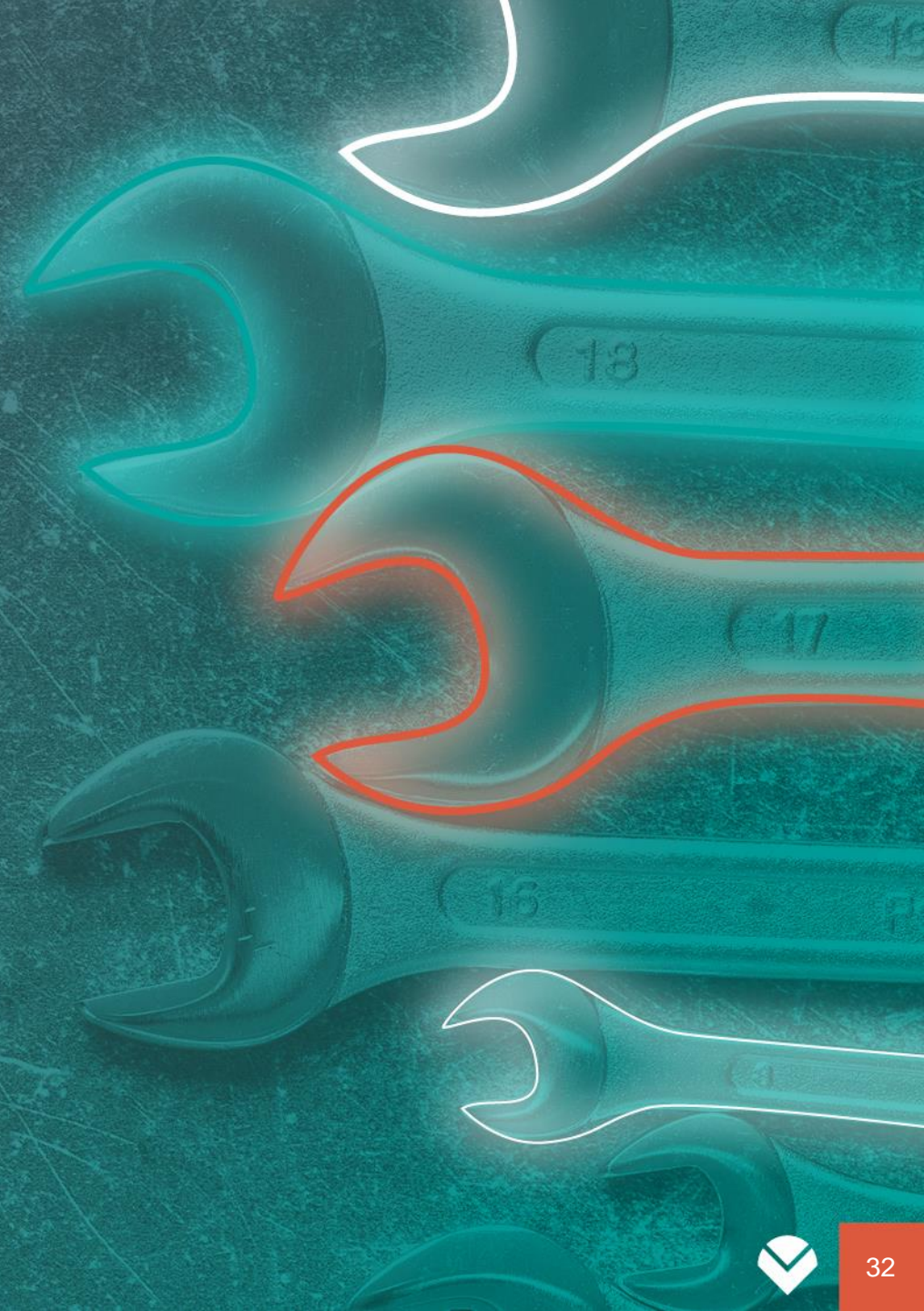


*U.S. Vanadium LLC electrolyte plant in Arkansas, US*





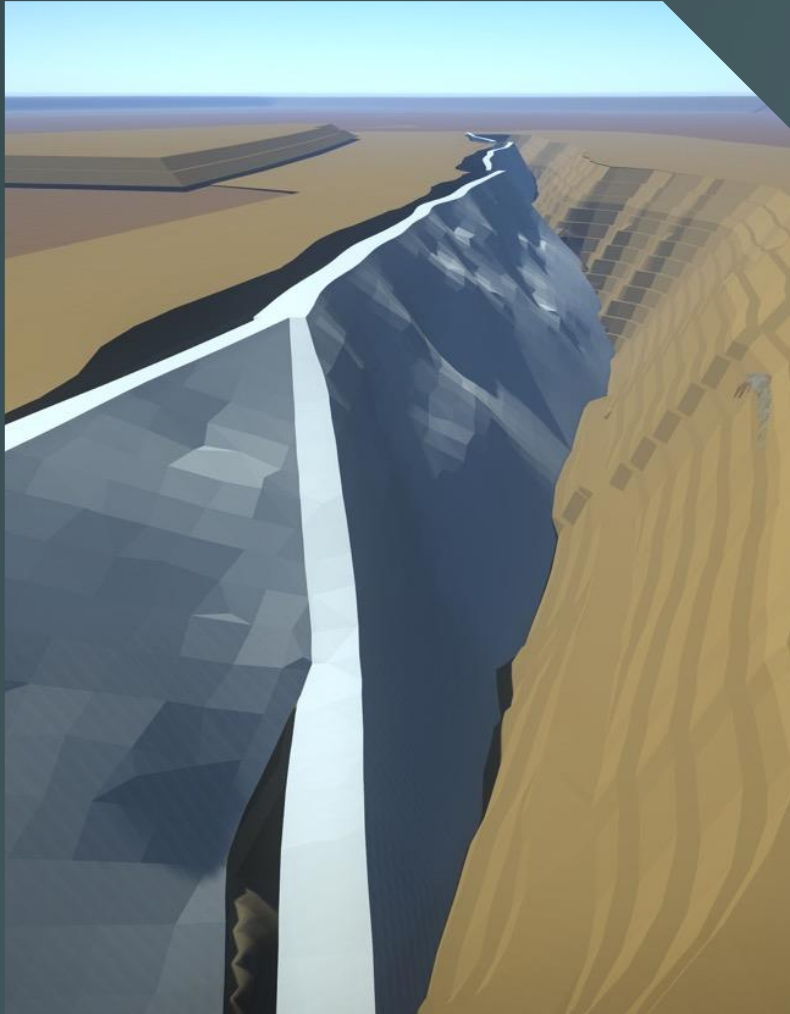
# Project Delivery





THE AUSTRALIAN VANADIUM PROJECT

# Pit, Beneficiation Plant and Processing Plant



ASX: AVL



## AUSTRALIAN VANADIUM PROJECT

## Project Delivery

**Completed**

- ✓ Exploration success – large high quality VTM resource
- ✓ Resource and Reserves for initial 25 year mine with potential for extension
- ✓ Completed PFS showing strong fundamentals through all price cycles
- ✓ CMB Pilot study (30t)
- ✓ MOUs regarding finance, offtake of vanadium oxides
- ✓ MOUs for offtake with VRFB manufacturers
- ✓ MOU with Westgold for life-of-mine water requirements
- ✓ Mining lease approval
- ✓ Completion of large-scale downstream processing pilot program and definitive process flow diagrams
- ✓ Submission of Environmental Protection Authority referral
- ✓ Upgrade of Mineral Resources
- ✓ Appointment of debt advisors

**Ongoing Priorities 2022**

- ▶ BFS completion
- ▶ Financing and resource bank engagement (partnerships, MOUs)
- ▶ Equity finance advisor engagement
- ▶ Offtake agreements FeTi and V
- ▶ Mining schedule and financial model based on new Resource profile
- ▶ Building vanadium electrolyte plant
- ▶ Green hydrogen and renewable energy generation integration with final project delivery
- ▶ Securing regional partnerships for gas and power supply, including renewables, green hydrogen and transport
- ▶ Finalising environmental approvals

**Planned 2022/3**

- ▶ Key funding partner selection and financial close
- ▶ Engineering partner selection
- ▶ Detailed design engineering completion
- ▶ Order long lead time equipment
- ▶ EPC/EPCM contract execution
- ▶ Construction, startup, commissioning and ramp up

IN SUMMARY

# Australian Vanadium Project



## Right People

International vanadium experience, skilled knowledgeable technical and commercial team



## Right Project

The Australian Vanadium Project is a globally significant resource, strong business fundamentals, long mine life and focuses on more than mining



## Right Time

Increased vanadium consumption in the steel market, steel alloys and vanadium's use in Vanadium Redox Flow Batteries (VRFBs) are major global drivers





## Right business model

Vertically integrated approach, collaboration with renewable energy and battery markets, underpinned by an action-based approach to assist global pathway to Net Zero Emissions







 +61 (08) 9321 5594  
 [info@australianvanadium.com.au](mailto:info@australianvanadium.com.au)

Level 1, 85 Havelock Street, West Perth,  
Western Australia 6005



**[australianvanadium.com.au](http://australianvanadium.com.au)**

Australian Vanadium Limited | ASX: AVL



# Resource Table

DOMAINS	CATEGORY	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI %
HG 10	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
	Indicated	27.5	1.10	45.4	12.5	8.5	6.5	2.9
	Inferred	56.8	1.04	44.6	11.9	9.4	6.9	3.3
	<b>Subtotal</b>	<b>95.6</b>	<b>1.07</b>	<b>44.7</b>	<b>12.2</b>	<b>9.1</b>	<b>6.8</b>	<b>3.2</b>
LG 2-5	Measured	-	-	-	-	-	-	-
	Indicated	<b>54.9</b>	<b>0.50</b>	<b>24.9</b>	<b>6.8</b>	<b>27.6</b>	<b>17.1</b>	<b>7.9</b>
	Inferred	<b>73.6</b>	<b>0.48</b>	<b>25.0</b>	<b>6.4</b>	<b>28.7</b>	<b>15.4</b>	<b>6.6</b>
	<b>Subtotal</b>	128.5	0.49	24.9	6.6	28.2	16.1	7.2
Trans 6-8	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	14.9	0.66	29.0	7.8	24.5	15.1	7.8
	<b>Subtotal</b>	14.9	0.66	29.0	7.8	24.5	15.1	7.8
Total	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
	Indicated	82.4	0.70	31.7	8.7	21.2	13.5	6.2
	Inferred	145.3	0.71	33.0	8.7	20.7	12.0	5.4
	<b>Subtotal</b>	239.0	0.73	33.1	8.9	20.4	12.3	5.6

Note: Mineral Resource estimate by domain and resource classification using a nominal 0.4% V<sub>2</sub>O<sub>5</sub> wireframed cut-off for low grade and nominal 0.7% V<sub>2</sub>O<sub>5</sub> wireframed cut-off for high grade (total numbers may not add up due to rounding).



# Ore Reserve Table

The updated Ore Reserve for the Australian Vanadium Project 2022 Bankable Feasibility Study is detailed in the table below.

Ore Reserve	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	LOI%	V <sub>2</sub> O <sub>5</sub> production kt	Ore Reserve	Mt
Proved	10.5	1.11	61.6	12.8	9.5	3.7	70.9	Waste	238.5
Probable	20.4	1.07	63.4	12.2	9.2	3.0	152.9	Total Material	269.4
<b>Total Ore</b>	<b>30.9</b>	<b>1.09</b>	<b>62.8</b>	<b>12.4</b>	<b>9.3</b>	<b>3.2</b>	<b>223.8</b>	Strip Ratio	7.7

Note: Tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers might not add due to rounding.

The Ore Reserves and Inferred Resources utilised for the life of mine (LOM) schedule for the Australian Vanadium Project 2022 Bankable Feasibility Study, inclusive of the Ore Reserve above, is detailed in the table below.

Ore Reserve	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	LOI%	V <sub>2</sub> O <sub>5</sub> production kt	Ore Reserve	Mt
Proved	10.5	1.11	61.6	12.8	9.5	3.7	70.9	Waste	296.5
Probable	20.4	1.07	63.4	12.2	9.2	3.0	152.9	Total Material	335.7
Inferred Resources	8.2	1.04	63.4	12.0	9.2	3.1	57.6	Strip Ratio	7.6
<b>Total Ore</b>	<b>39.2</b>	<b>1.08</b>	<b>62.9</b>	<b>12.3</b>	<b>9.3</b>	<b>3.2</b>	<b>281.4</b>		



Note: Tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers might not add due to rounding.

The Ore Reserve for the Australian Vanadium Project 2022 Bankable Feasibility Study was developed by Oreology Consulting Pty Ltd. The economic evaluation of the Project in this presentation is underpinned by Reserves and Inferred Resources comprising:

- the Ore Reserve including both Proved and Probable classified material.
- additional Inferred Mineral Resources comprising approximately 20.5% of the proposed process plant feed material.





 +61 (08) 9321 5594  
 [info@australianvanadium.com.au](mailto:info@australianvanadium.com.au)

Level 1, 85 Havelock Street, West Perth,  
Western Australia 6005



**[australianvanadium.com.au](http://australianvanadium.com.au)**

Australian Vanadium Limited | ASX: AVL