



Unlocking Steelpoortdrift
as one of the world's largest
and highest-grade
Vanadium projects for a
new era

Mines & Money Investor Presentation
April 2022

ASX:VR8

WWW.VR8.GLOBAL



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The Company confirms that the information in this presentation that relates to Exploration Results, including the Mineral Resources contained within the Production Target (and forecast financial information derived from the production targets) at the Steelpoortdrift project has previously been released to the ASX on 29 April 2020, 23 September 2020 and 22 June 2021 continue to apply and have not materially changed, and that it is not aware of any new information or data that materially affects the information that has been included in this announcement. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements. The Company confirms it is not aware of any new information or data that materially affects the information included in the 31 July 2020 Vanadium Resource estimate and all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 29 April 2020 (*Mineral Resource Update Confirms Steelpoortdrift’s Global Vanadium Standing*). The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Ore Reserves Statement and that all material assumptions and technical parameters underpinning the estimates in the Ore Reserves Statement 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 have not been materially modified from the Maiden Ore Reserves Statement. The Information that has been presented in this report has been extracted from the announcements made being the Pre-Feasibility Report dated 22 June 2021 (*Steelpoortdrift PFS delivers superior results*) and Ore Reserve Statement dated 22 July 2021 (*VR8 declares maiden ore reserve additional information*). The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements. All financial outcomes as reported in this announcement are done so on a 100% project basis. VR8 currently holds 73.95%² ownership in the Steelpoortdrift project.

• Refer to Asx Announcements dated 23 September 2020 “Scoping Study Confirms Viability of V2O5 Production”, 20 July 2021 “VR8 declares maiden ore reserve for SPD Project”, 11 October 2021 “VR8 secures strategic placement at significant premium”, 07 March 2022 “DFS update - Trial mining and bulk sampling progress” and 24 March 2022 “Completed bulk sampling and pilot test work commencement”.

¹ Refer to Asx Announcement dated 22 June 2021 “PFS Delivers Superior Results”.

² Refer to Asx Announcement dated 19 January 2022 “VR8 interest in Tier 1 Vanadium Project increases to 73.95%”

An emerging Vanadium producer



Fully funded
to FID



One of the world's
largest and highest-
grade vanadium
deposits



PFS indicates strong
financial outcomes with
post-tax NPV8% of US\$1.2B,
45% IRR post-tax



Ore body easy to
mine & upgrade
to concentrate



Using conventional Salt
Roast Leach (“SRL”)
process to produce
12,000t to 18,500t V_2O_5
flake per annum



Mining license
granted



Infrastructure – close to existing
operating processing plants,
power and water nearby, with
proven road & rail options to port



Expert and
experienced
management team



Corporate structure (ASX: VR8)

as at 4 April 2022

~473m Shares on issue (undiluted)	A\$0.11 Share price
~A\$52m Market cap (~4% of att. NPV)	A\$0.046 – A\$0.12 52-week range
~A\$5M Cash (as at 31 Dec 21)	~9.6M Perf. Rights (Class A)
~4M Perf. Rights (Class B)	5M Broker Options (ex. @ 10c s.p reaching 15c @ 15day vwap before 2 Nov. 2022)

61.6% Top 20 Shareholders

Top Shareholders

9.5% - Kumane Investments | 9.5% - Danterne Pty Ltd | 9.4% - Raubex Ltd | Other



Board

Jurie Wessels | [Exec. Chairman](#)

Eugene Nel | [CEO](#)

Michael Davy | [Non-Executive Director](#)

John Ciganek | [Non-Executive Director](#)

Nico Van Der Hoven | [Non-Executive Director](#)

VR8 – Share Price & Volume





JURIE WESSELS

Executive Chairman

Jurie Wessels has 26 years' experience in the exploration industry and co-founded a number of exploration and mining companies, including Bauba Resources Ltd (BAU.J), which owns two operating chrome mines and recently refunded by JSE-listed Raubex Group Ltd, GoldStone Resources Ltd (GRL.L), which company is mining the Homase-Akrokerrri Gold Mine in Ghana acquired and developed by GoldStone when Jurie was CEO, Arcadia Minerals Ltd (AM7.Asx), which company owns an advanced Tantalum project and tier 1 exploration assets, and Vanadium Resources Ltd.

Jurie has significant experience in the sourcing and assessment of exploration and exploitation projects and in the governance, funding and management of resource companies. He explored for various minerals in Africa, South America, the Indian sub-continent and Europe, and explored and developed several mining projects to successful conclusion.

EUGENE NEL

Chief Executive Officer

Eugene Nel has 25 years' experience as a metallurgical and process engineer in the operations, management, design and optimisation of mineral beneficiation in Africa, South America, Europe and the Middle East. He has been involved in a number of successful mining and processing operations and has assisted client teams throughout project lifecycles and disciplines. As a registered Pr. Tech. Eng. with the Engineering Council of South Africa, as well as member of the Southern African Institute of Mining and Metallurgy and Mine Metallurgical Managers Association of South Africa, he qualifies as a competent person under JORC.

MICHAEL DAVY

Non-Executive Director

Michael Davy is an Australian executive and Accountant with over 18 years' experience across a range of industries. Michael previously held a senior management role in Australia for Songa Offshore (listed Norwegian Oil and Gas drilling company), where he assisted with the start-up of the Australian operations and managed the finance team for a two rig operation with multi-hundred million dollar revenues. Prior to that Michael had worked in Australia and London for other large organisations overseeing various finance functions.

Michael is currently a director and owner of a number of successful private businesses all under his personal management. During the past five years Michael has held directorships in several ASX listed companies and is currently the Non-Executive Chairman of Raiden Resources Limited (ASX: RDN) and a non-executive director of Arcadia Minerals Ltd (AM7.Asx).

JOHN CIGANEK

Non-Executive Director

John Ciganek has worked in the mining sector for more than 30 years. His experience spans working in mining operations, project finance, M&A and the equity capital markets. John is a Mining Engineer and holds an MBA. He has experience in a range of roles covering mining engineering, operations, business development, research and corporate finance.

John is currently an executive director and founder of Euclase, which is a corporate finance advisory and investment firm included providing financing and structuring advice, as well as arranging debt and equity financings for capital intensive projects.

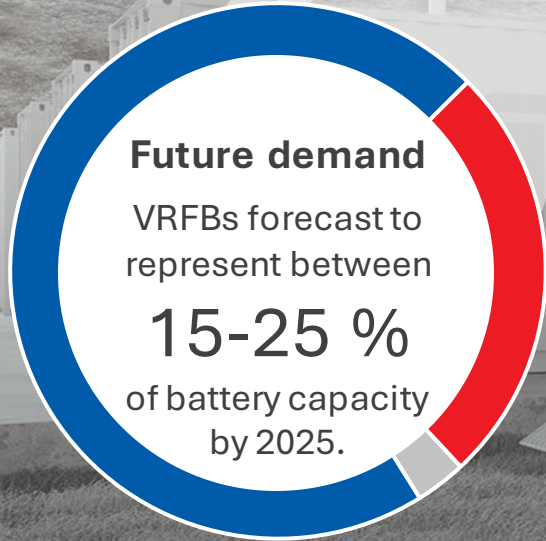
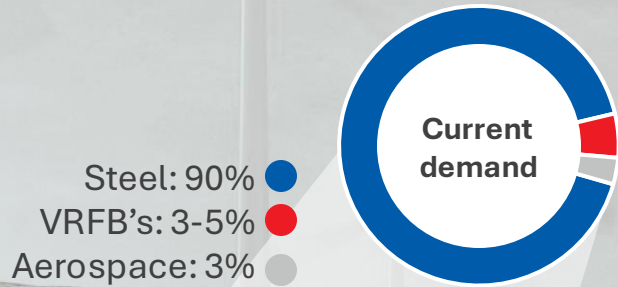
John is a Non-Executive Director of Calidus Resources Limited (CAL.Asx) and Ookami Limited (OOK.Asx).

NICO VAN DER HOVEN

Non-Executive Director

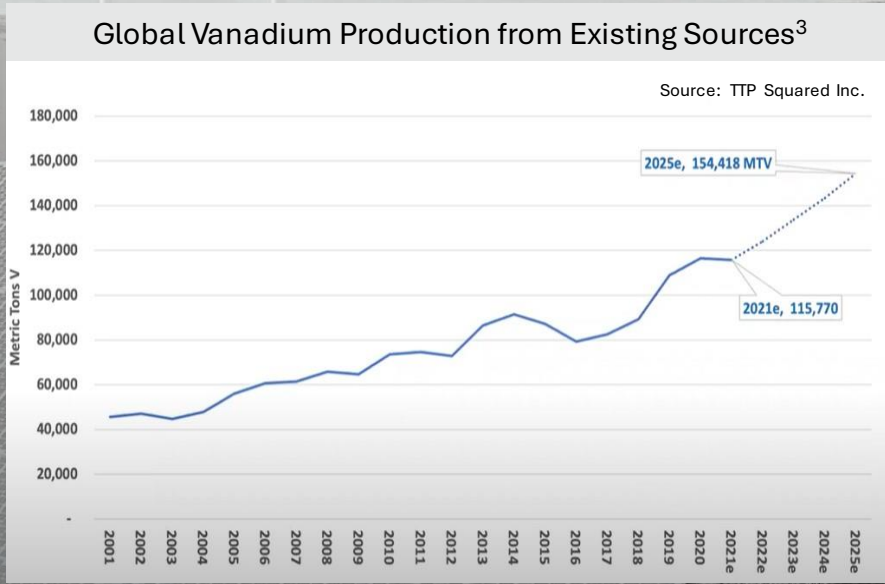
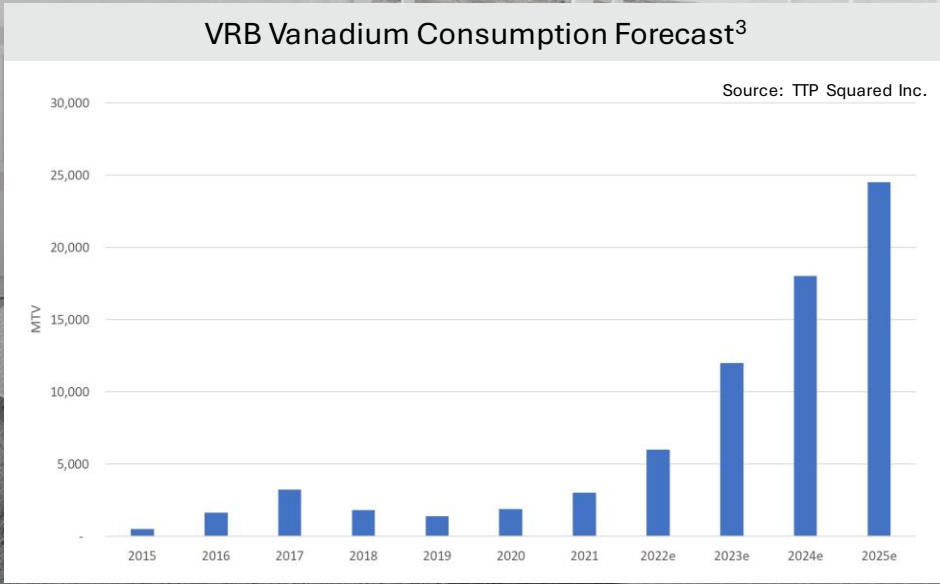
Nico van der Hoven is a businessman and entrepreneur holding degrees in Commerce & Law and has over 30 years' experience in exploration and mining, having co-founded and operated 5 chrome mines over this period. Nico is also a co-founder of Hernic Chrome, Bauba Resources Ltd (BAU.J), Vanadium Resources (Pty) Ltd and GoldStone Resources Ltd (GRL.L).

Global Demand Forecast



Forecasters expect over **1,200GW** of battery capacity to be added between today and 2050, with approximately 600GW before 2025.¹

Could add up to **10,000mtV** of demand into an already undersupplied market.²



¹ BloombergNEF, New Energy Outlook 2018; International Energy Agency, World Energy Outlook 2018

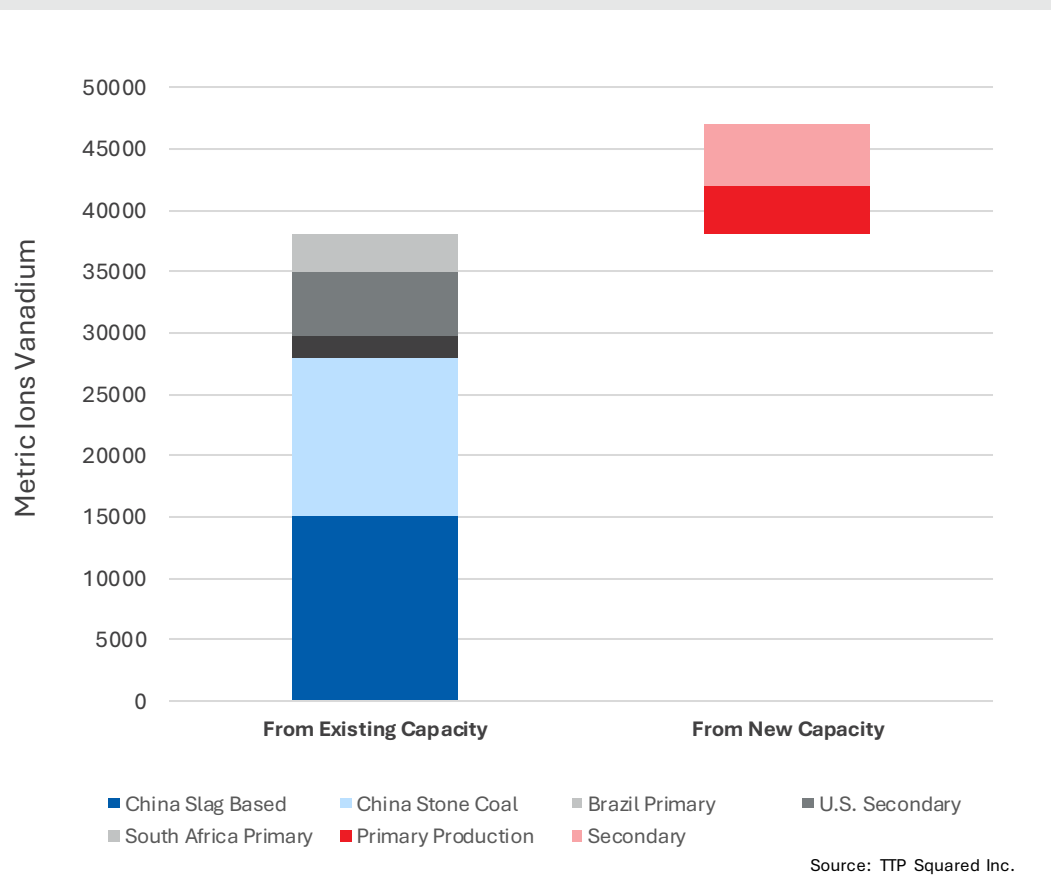
² Noack et. al, 2016. Techno-economic modelling of RFB Systems (Energies 2016, 9, 627) Vanadium Flow Batteries: An In Depth Analysis. EPRI, Palo Alto, CA: 2007.1014836

³ Source: TTP Squared, Inc.



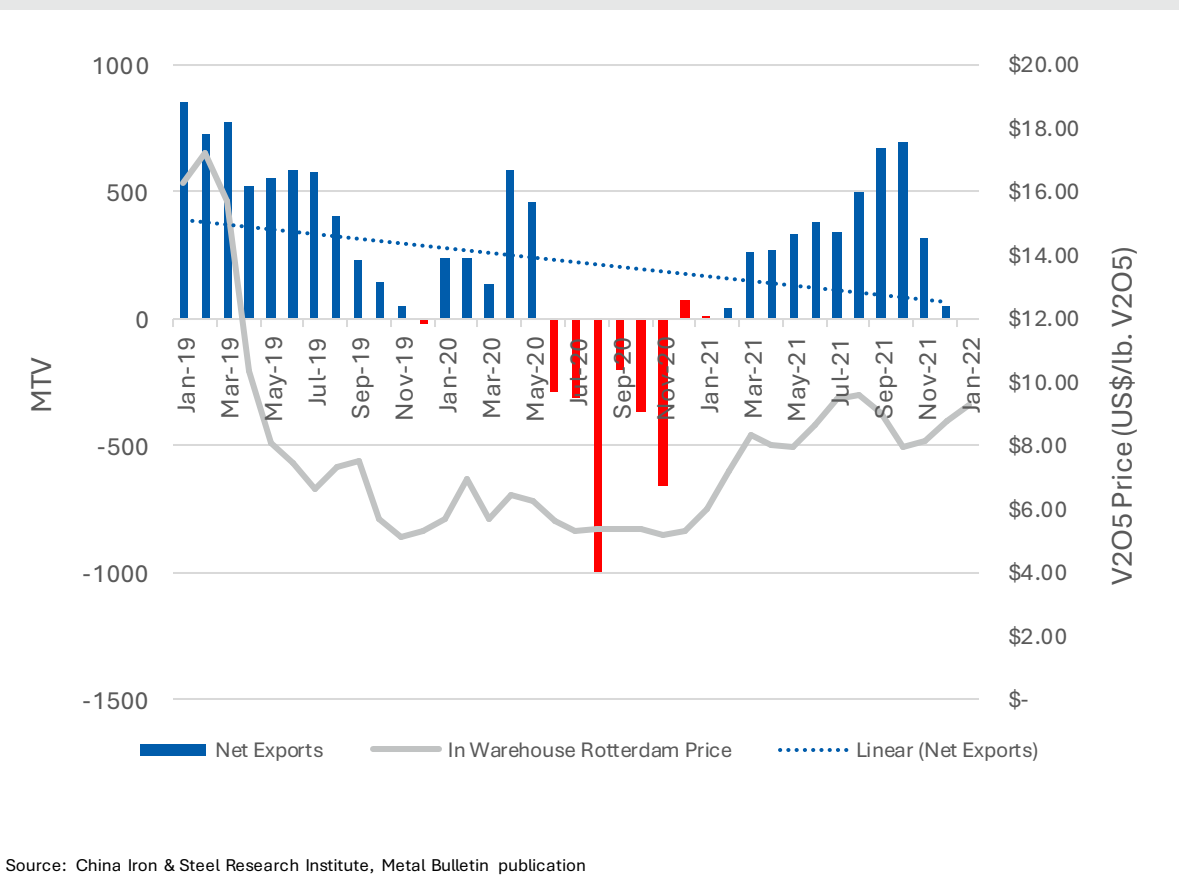
New Capacity Potential

Production Expansion between 2020-2025



China as a net importer of Vanadium?

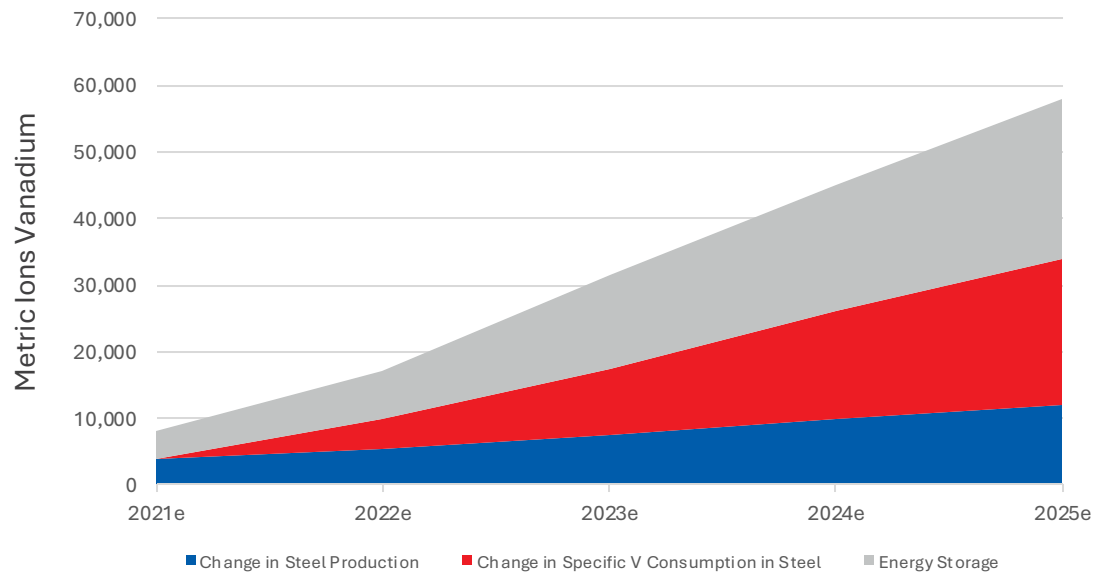
China Monthly Net Vanadium Exports



V₂O₅ Price Dynamics



Projection of potential MtV demand change 2020-2025



Source: TTP Squared Inc.

Vanadium Pentoxide 98% min Europe US\$/lb



Source: www.vanadiumprice.com

Located in the Bushveld Complex



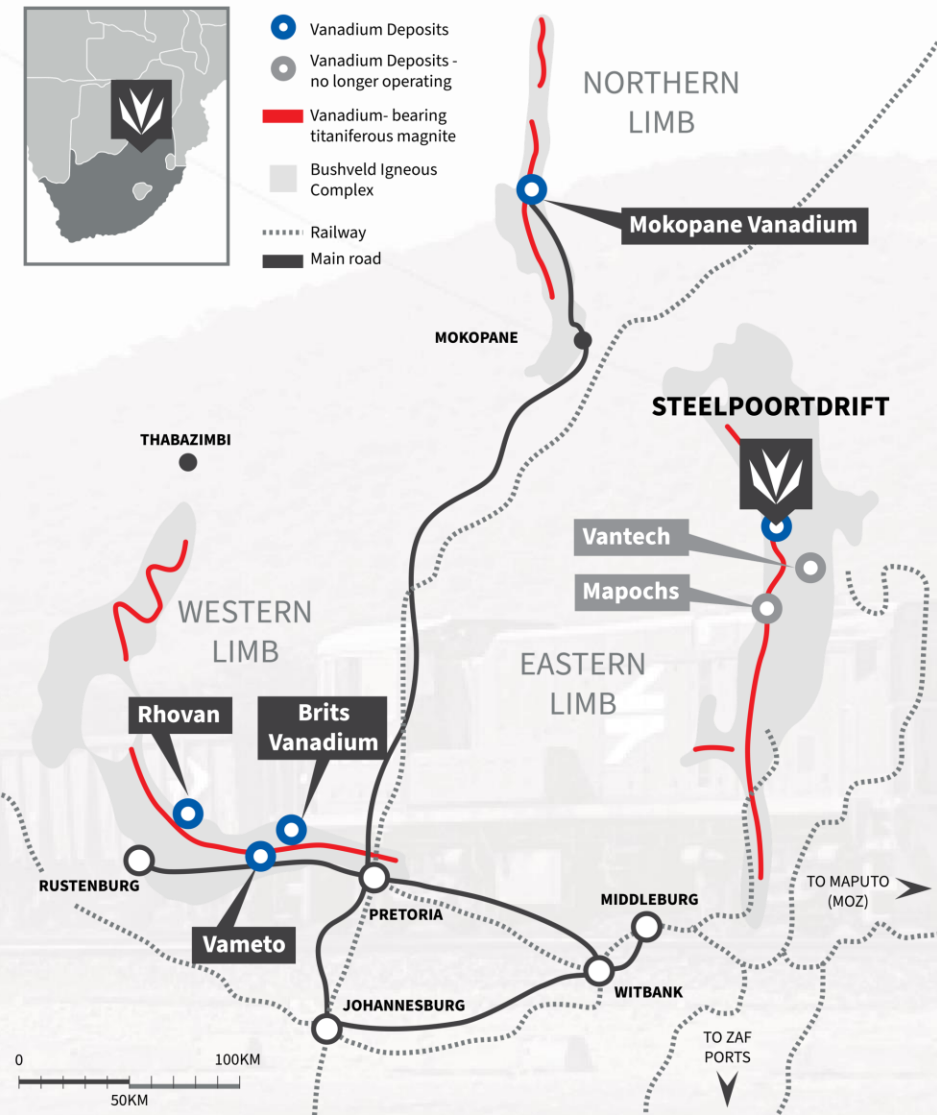
This world-renowned mining location is host to several mining operations, multiple major mining companies are active in the area, and is located in close proximity to existing infrastructure.

Other Mines in the Bushveld Complex

Bushveld Minerals	Vametco Vanadium Mine, Mokopane Vanadium Project
Glencore	Rhovan Vanadium Mine
Anglo American	Twickenham PGEMine
African Rainbow	Modikwa PGEMine
Sibanye Stillwater	Marikana PGEMine
Impala Platinum	Rustenburg PGEMine

Regional Infrastructure in the Bushveld Complex

ESKOM	Sub station 12km from project
Xstrata	Ferrochrome smelter in Steelpoort
Rail Siding	30km from the project
De Hoop Dam	15km from the project





Sufficient
Resource to
supply
product
economically



“Mineable”
resource to
reduce Opex
and Capex



High grade
to reduce
Opex



Mineralogy to
reduce Opex
and Capex

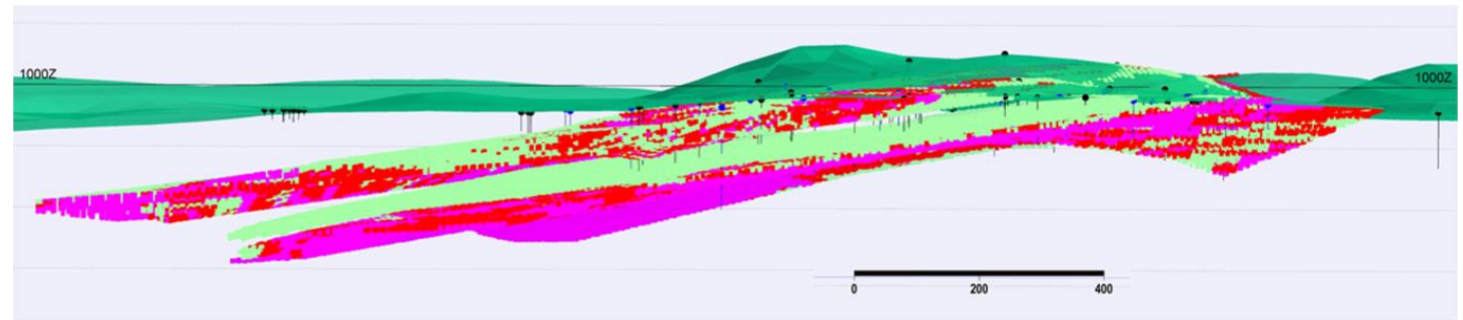
JORC Resource, Mineralisation



- Global Mineral Resource of 662Mt at 0.77% V₂O₅ (0.45% V₂O₅ cut-off)
- High grade Mineral Resource of 188Mt at 1.23% V₂O₅ (0.9% V₂O₅ cut-off)
- Mineralisation outcrops at surface, meaning amenable to open pit mining
- Mineralisation dips shallowly (~10°) – less waste to mine, low strip ratios and cheaper mining cost



Mineral Resource by Grade ¹				
Total Measured, Indicated & Inferred	V ₂ O ₅ Range (%)	Quantity (Mt)	V ₂ O ₅ (%)	Fe ₂ O ₃ (%)
Total (0.45 to 0.90)	0.45 to 0.90	474.1	0.59	20.51
Total (>0.90)	>0.90	187.9	1.23	34.99
Total		662.0	0.77	24.62

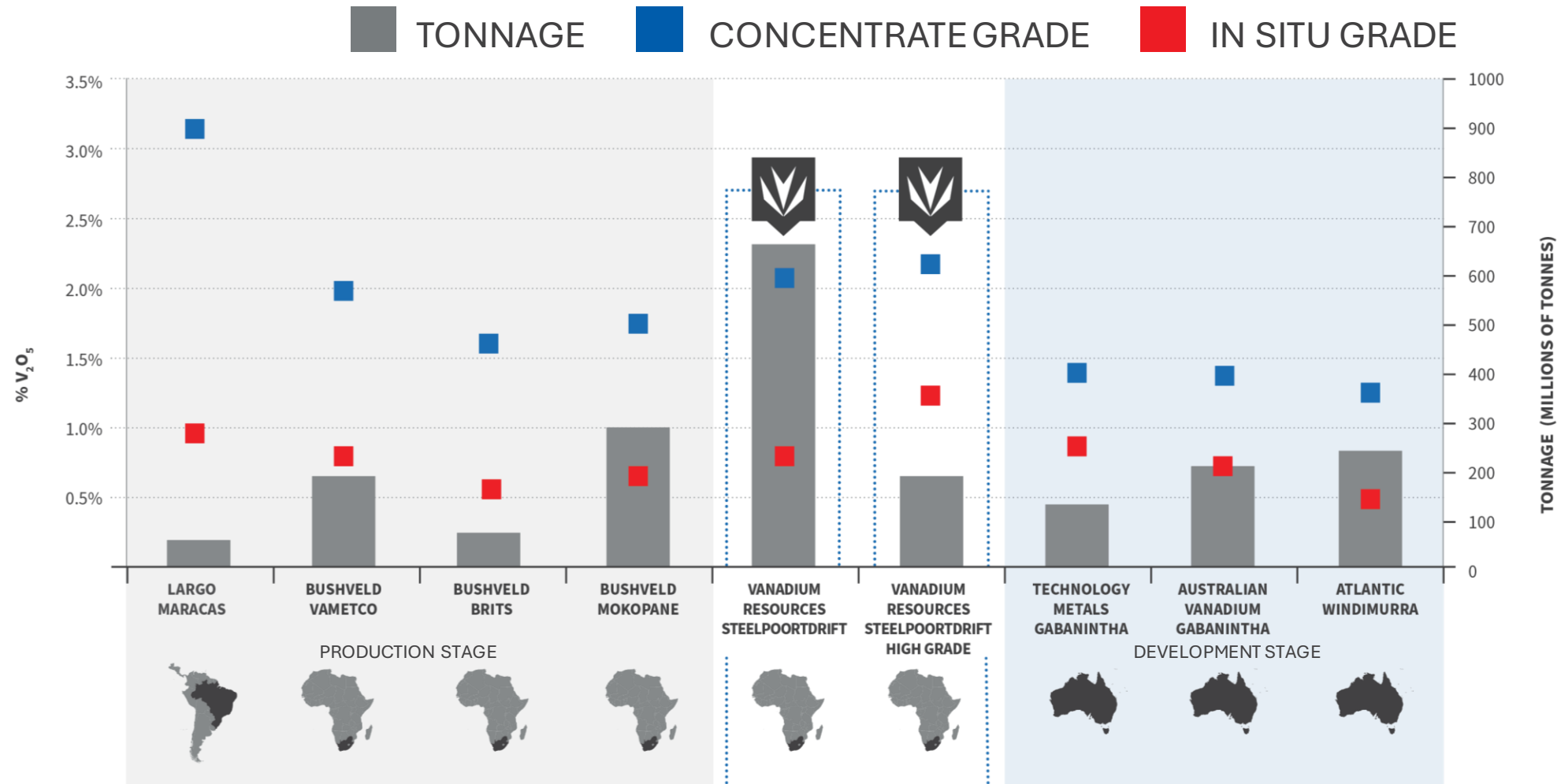


Ore Reserves as at 30 June 2021²

Material Type	Proven			Probable			Total		
	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)
HG RoM Material	15.57	1.01%	0.16	24.68	0.93%	0.23	40.25	0.96%	0.39
MG RoM Material	15.60	0.51%	0.08	18.00	0.50%	0.09	33.60	0.50%	0.17
Total Mineral Reserve	31.17	0.76%	0.24	42.68	0.75%	0.32	73.85	0.73%	0.56

1. Source: ASX Announcement titled "Steelpoortdrift PFS Delivers Superior Results", 22 June 2021
 2. Source: ASX Announcement titled "VR8 declares maiden ore reserve for SPD project", 20 & 22nd July 2021

Global Primary Resources



The above chart compares Resources reported under different codes and companies at different stages of development as detailed in ASX Announcement titled “Scoping Study Confirms Viability of V₂O₅ Production”, 23 September 2020 (pages 13-14). Only Resources with a quoted in situ grade > 0.45% V₂O₅ are shown in the figure. Please refer to the annexure “Peer Comparison Table” attached to this presentation.

Aspirant Producers / Peer Comparison



	Steelpoortdrift (VR8) Pre-Feas. Stage	Bushveld- Mokopane ¹ Pre- Feas. Stage	TMT Gabanintha ² Definitive-Feas. Stage	AVL Project ³ Pre-Feas. Stage
V₂O₅ Price	US\$9.03/lb	US\$7.50/lb	US\$10.88/lb	US\$8.67/lb
Market Capitalisation (undiluted)	Au\$52M	n.a.	Au\$123M	Au\$351M
NPV (Post Tax)	NPV₈ Au\$1.597B	NPV₉ Au\$344M	NPV₈ Au\$870M	NPV₈ Au\$542M
IRR (Post Tax)	45%	20.36%	27.3%	17.5%
Plant Feed	1.6mtpa + 1.6mtpa	1.5-1.8mtpa	1.7-2.3mtpa	1.5-1.9mtpa
Production (V₂O₅)	18,500tpa (12,5ktpa + 6ktpa)	9,525tpa	12,655tpa	11,022tpa
Capex	US\$200M (12,5ktpa) US\$147M (from cash flow)	US\$298M	US\$389M	US\$399M
C3 Opex US\$/lb	\$3.08	Unclear	\$5.75	\$5.04

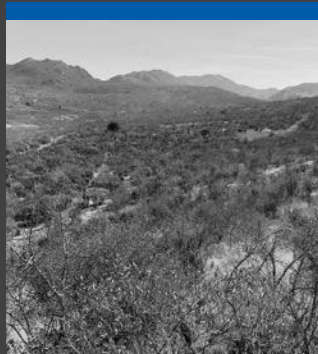
¹ Bushveld Minerals PFS study results: <http://www.bushveldminerals.com/wp-content/uploads/2017/08/201602040458050.pdf>

² TMT DFS Announcement: <https://www.tmtlimited.com.au/sites/default/files/asx-announcements/6941650.pdf>

³ Australian Vanadium PFS Update announcement: <https://www.australianvanadium.com.au/wp-content/uploads/2020/12/AVL-PFS-Update-final-22122020.pdf>



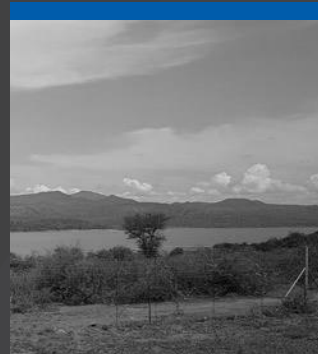
Concentrator
+ Salt Roast
Leach Plant



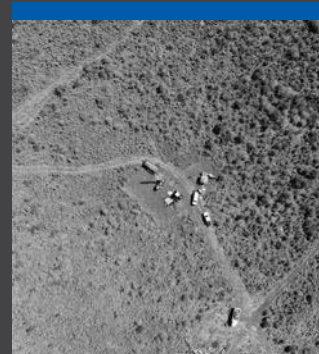
\$200M
Capex



18
Months
to build



12,5
Ktpa
of V_2O_5 for
first
6 years



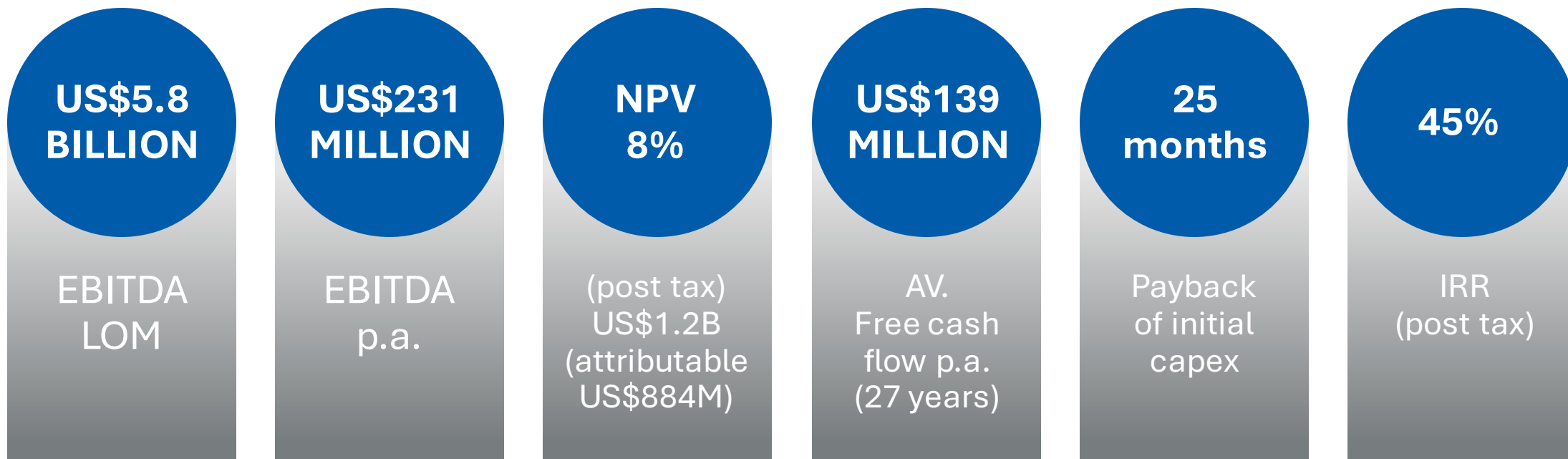
\$147M
Expansion
Capex in
year 6



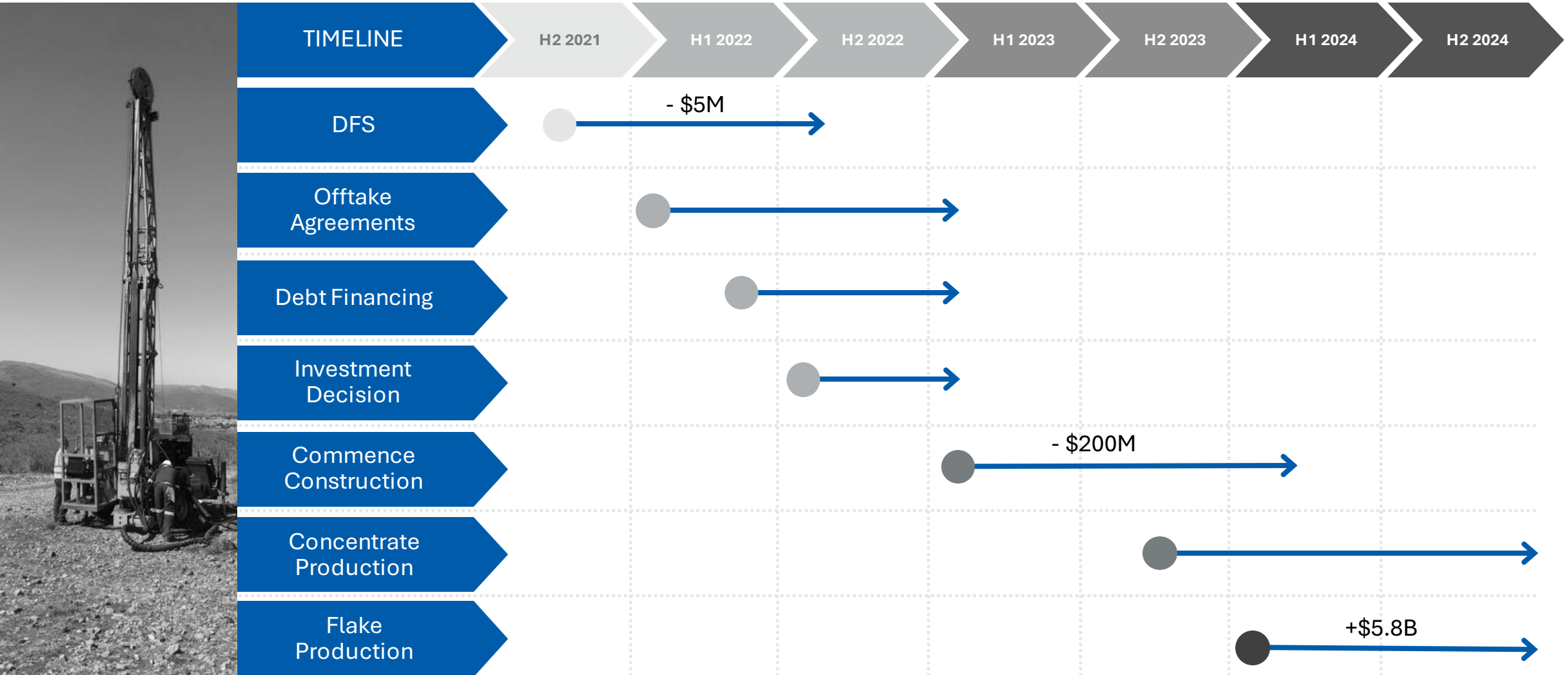
18,5
Ktpa
of V_2O_5 for
next
19 years



39
Mlbs/a
of V_2O_5 for
25
years (over
only 12% of
resource)



Timeline to Production



DFS Progress & Expected Newsflow



Trial
mining
and bulk
sampling

ESG
Initiatives
Progress

Pilot plant
campaigns

Preparation
to raise
construction
finance

Technical
Progress

DFS
Completion
Q3 2022



Commenced process toward securing binding offtake and project financing

Offtake Agreement

- A process is underway with a range of international traders and downstream users of vanadium
- The rationale for the process is to optimize value to VR8 and secure terms that will support project financing of Steelpoortdrift

Project Financing

- Indicative debt sizing analysis received from several potential debt financiers / advisors
- Steelpoortdrift has the potential to easily support ~60% debt gearing of the total funding requirement – based on a 2x debt service cover ratio (DSCR) over a 5-year debt loan term
- Discussions with potential debt financiers have commenced with a view to securing indicative terms sheets in the lead up to the completion of the Steelpoortdrift BFS
- Target completion of due diligence and credit approvals in the lead up to a final investment decision by early 2023



Dry deposition of tailings

Dewatering of tailings material means reduced risk exposure from conventional tailings deposition methodologies



Renewable electricity supply

Inclusion of photo voltaic solar plant reduces carbon footprint and reliance on grid-based electricity. Electrification of mining fleet further reduces carbon footprint



Co-products

Studies underway to unlock value from other metals contained in the ore body most notably Titanium and Iron which would also reduce tailings footprint



Community

Initiatives to maximize community involvement and benefits including implementation of Social Labour Plans, upgrading of area infrastructure and community-based procurement systems

Why is VR8's Project World Class?



PHENOMENAL
FINANCIAL
METRICS



ONLY 12% OF
RESOURCE
MINED IN 25Y



MINING
JURISDICTION
WITH
INFRASTRUCTURE
& EXPERTISE



COMPETITIVE
OPEX AND
CAPEX (LOWEST
QUARTILE)



EXPERIENCED
MANAGEMENT
TEAM



Vanadium Resources

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Annexure: Peer comparison Table



Company	Code	Project	Stage	Resource Category	Resource Tonnes	Resource Grade	Concentrate Grade	Information Source
Largo	LGO.TSX	Maracas	Production	Measured, Indicated & Inferred (43-101)	49.25	0.99	3.10	43-101 Technical Report dated 26/10/2017 largoresources.com/operations/maracas-menchen-mine
Bushveld	BMN.LSE	Vametco	Production	Indicated & Inferred	187	0.78	1.98	Competent Persons' Report on the Vametco Vanadium Mine Jan 2020 https://www.bushveldminerals.com/technical-reports/
		Mokopane	Development	Indicated & Inferred	298	0.68	1.75	Mokopane PFS Study Report Jan 2016 bushveldminerals.com/technical-reports/
		Britts	Exploration	Indicated & Inferred	67	0.56	1.58	Competent Persons' Report on the Brits Vanadium Project Jan 2020 https://www.bushveldminerals.com/technical-reports/
Vanadium Resources	VR8.ASX	Steelpoortdrift	Development	Measured, Indicated & Inferred	662	0.77	2.18	ASX Announcement 16 April 2019
TNG	TNG.ASX	Mt Peake	Development	Measured, Indicated & Inferred	160	0.28	1.20	ASX Announcement 26/03/2013
King River	KRR.ASX	Speewah	Development	Measured, Indicated & Inferred	4,712	0.30	2.11	ASX Announcement 02/11/2018 21/03/2018
Pursuit	PUR.ASX	Koitelainen Vosa	Development	Inferred	116.4	0.28	2.25	ASX Announcement 06/02/2019
		Airijoki	Development	Inferred	44.3	0.40	1.70	ASX Announcement 08/03/2019
Aust Vanadium	AVL.ASX	Gabanintha	Development	Measured, Indicated & Inferred	208.2	0.74	1.39	ASX Announcement 04/03/2020, 17/03/2020
Technology Metals	TMT.ASX	Gabanintha	Development	Indicated & Inferred	131	0.90	1.36	ASX Announcement 29/03/2019
Atlantic	Private	Windimurra	Development	Measured, Indicated & Inferred	235	0.49	1.26	https://atlanticytd.com.au/projects/windimurra/geology-reserves-resources

Source: ASX Announcement titled "Scoping Study Confirms Viability of V2O5 Production", 23 September 2020 (page 213-14).