ASX Release
5 October 2026

V-IRON PLANT SCOPING STUDY SUPPORTS PROGRESSION TO FEASIBILITY STUDY

CAUTIONARY STATEMENT

The Scoping Study referred to in this announcement is a preliminary technical and economic investigation of the potential viability of producing vanadium-slag and pig-iron by constructing a V-Iron plant (comprising a smelting plant, direct current (**DC**) electric smelting furnace, pre-treatment plant) at Highveld Industrial Park and an open pit mine and concentrator at the Steelpoortdrift Project. It is based on lower level technical and preliminary economic assessments (±30% accuracy) and is insufficient to support estimation of Ore Reserves, to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the Study will be realised. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case. The Scoping Study is based on the material assumptions outlined in this announcement.

The information in this announcement relating to the pit optimisation, pit design, mining inventory and mining schedule (Mining Information) was originally compiled by consultants engaged for the Company's Definitive Feasibility Study announced on 4 October 2022 (**2022 DFS**).

The pit optimisation, pit design and mining schedule determine the mining inventory delivered to the Concentrator and are not dependent on the downstream processing route applied after the Concentrator. As the V-Iron process route is applied downstream of the Concentrator, in the same manner as the SRL process route considered in the 2022 DFS, the Company considers the Mining Information remains valid and applicable for the purposes of this Scoping Study.

The Company has reviewed the commodity price, cost and revenue assumptions underpinning the 2022 DFS pit optimisation and confirms these remain appropriate for the purposes of this Scoping Study. The Company is not aware of any other new information or data that materially affects the Mining Information.

The 2022 DFS Ore Reserve is not relied upon for the purposes of this Scoping Study, as the Ore Reserve was estimated on the basis of the SRL process route and the associated processing modifying factors are not applicable to the V-Iron process route considered in this Scoping Study. No Ore Reserve has been estimated for the Project on the basis of the V-Iron process route, and the production target in this Scoping Study is based on the Mineral Resource referred to above, together with the Mining Information.

On this basis, the Company has reasonable grounds to adopt the 2022 DFS pit optimisation inputs and outputs, final pit designs, life-of-mine schedule and supporting documentation for the purposes of the production target in this Scoping Study.

Of the Life-of-Mine (**LOM**) Production Target approximately 97.5% is in Measured or Indicated Mineral Resource categories and approximately 2.5% is in the Inferred Mineral Resource category. The Company has concluded it has reasonable grounds for disclosing a Production Target which includes approximately 2.5% Inferred Mineral Resources, given that Inferred Mineral Resources represent only approximately 2.5% of the Production Target, are not a determining factor in the estimated economic outcomes of the Scoping Study, and that the early years of production are

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scheduled predominantly from Measured and Indicated Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of additional Measured and Indicated Mineral Resources or that the Production Target itself will be realised. The level of accuracy estimate above includes the uncertainty associated with incorporating Inferred Resources.

The Competent Persons responsible for each of the relevant components have reviewed them against the V-Iron process route and confirmed that they remain appropriate for use in the Scoping Study, as set out in the Competent Person's Statements.

The Scoping Study is based on material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

VR8 holds an 86.49% interest in the Steelpoortdrift Mining Project through VanRes and a 100% interest in VR8 Highveld, the subsidiary through which the V-Iron Plant is proposed to be developed. All figures presented in this Scoping Study, including production targets and financial forecasts, are reported on a 100% basis for both the Steelpoortdrift Mining Project and the V-Iron Plant, without adjustment for VR8's ownership interests.

To achieve the potential development outcomes indicated in the Scoping Study, a feasibility study will need to be completed at an approximate cost of US$3M (based on an indicative estimate obtained from the prospective furnace and fluidised bed equipment supplier; excluding owner's cost, environmental studies, contingencies and costs towards Final Investment Decision (**FID**) and Front-End Engineering Design (**FEED**) and pre-production funding of at least US$400 million (approximately ZAR 6.42 billion, inclusive of contingency) will likely be required to achieve FID. Investors should note that there is no certainty that the Company will be able to raise funding when needed, however the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a "reasonable basis" to expect it will be able to fund the development of the Project. The grounds for this belief include: the appointment of RMB as the Company's exclusive financial adviser and capital sourcing agent; the Company's ongoing engagement with U.S. and other development finance institutions and strategic investors, including through its U.S. roadshow; the non-binding offtake term sheet with USV covering 100% of planned vanadium slag production; the Project's indicative debt servicing capacity under the Base Case (estimated minimum debt service cover ratio (**DSCR**) of approximately 3.5x); the granted Mining Right, Water Use Licence and Integrated Environmental Authorisation for the mine and concentrator; the strategic significance of the Project as a potential source of vanadium supply to the United States and allied markets; and the experience of the Board in project development and financing. As the funding requirement is large relative to the Company's current market capitalisation, the Company expects the majority of development funding to comprise project debt, supplemented by development finance institution funding and grants, with equity forming a smaller component. It is likely that such funding may only be available on terms that may be dilutive to, or otherwise affect the value of, the Company's existing shares. The Company may also seek grant or concessional funding from sovereign and development finance institutions; however, there is no certainty that any such funding will be available. VR8 could also pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the Project. If a sale, partial sale or joint venture is pursued, this could materially reduce VR8's proportionate ownership of the Project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

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V-Iron Plant

SCOPING STUDY HIGHLIGHTS

Forging a New Source of Critical Metals for U.S. and Allied Markets

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All financials are presented on an 100% Project Basis. VR8 holds a 100% interest in the V-Iron plant and an 86.49% interest in the Steelpoortdrift Project. CAPEX & OPEX estimated accuracy of ±30%. The Scoping Study is preliminary and insufficient to establish Ore Reserves or assure economic viability. There is no certainty that its outcomes will be achieved. Refer to the full cautionary statement on pages 1 & 2. Refer Appendix 3 for Commodity Price Methodology.

BASE CASE SCENARIO

2016–2025 real median prices, held flat in real terms. US$456/t FOB Brazil (Pig Iron) and US$7.86/lb V_2O_5 Rotterdam 98% (V_2O_5).

US$842m
Post-tax NPV_{10}

36%
Post-tax IRR

30 Years
Evaluation Period

US$164m
Average annual free cash flow

US$226m
Average annual EBITDA

US$4.4bn
Cumulative FCF, 30-year evaluation

PROPOSED NAMEPLATE PRODUCTION

65,000 tpa
Vanadium-rich slag – targeting U.S. markets
26.7% V_2O_5; 17,300 tpa contained V_2O_5

603,000 tpa
Pig iron – targeting Southern African Steelmaking

PRE-PRODUCTION CAPEX

US$400m
Includes contingency

DEBT SERVICE COVERAGE RATIO

3.5×
Estimated debt service coverage

POST-TAX PAYBACK

2.4 years
From first production
4 years from construction start

OTHER PRICING SCENARIOS

Low Case – US$330/t FOB Brazil (Pig Iron) & US$4.55/lb V_2O_5 Rotterdam 98% (V_2O_5)

US$53m
Post-Tax NPV | 13% IRR

Current Prices – US$486/t FOB Brazil (Pig Iron) & US$5.36/lb V_2O_5 Rotterdam 98% (V_2O_5)

US$665m
Post-Tax NPV | 31% IRR

High Case – US$740/t FOB Brazil (Pig Iron) & US$10.00/lb V_2O_5 Rotterdam 98% (V_2O_5)

US$2.01bn
Post-Tax NPV | 63% IRR

PATHWAY TO DEVELOPMENT

Potential long-term vanadium raw material supply to the United States and allied markets.

Funding & offtake: pursue U.S. development finance institution support, sovereign DFI and strategic equity funding for the V-Iron DFS and progress U.S. Vanadium offtake discussions.

Next study, subject to funding: advance the V-Iron DFS using prior mine and concentrator work, Highveld Industrial Park infrastructure and vanadium–iron co-production precedent.

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HIGHLIGHTS

- Scoping Study results point to clear **momentum behind the V-Iron development pathway**, extending Steelpoortdrift's potential beyond its vanadium content
- Scoping Study indicating potential of the V-Iron Plant as a **long-term source of vanadium raw material supply** to the United States and allied markets
- Potential for robust economic outcomes under a **conservative long-term Base Case** outlook, priced at 2016 to 2025 real median prices held flat in real terms:
  - post-tax NPV[10] of approximately **US$842 million**;
  - post-tax IRR of approximately **36%**;
  - average annual Free Cash Flow of approximately **US$164 million** over the production years (approximately US$4.4 billion cumulative over the 30-year evaluation period, net of construction outflows);
  - average annual EBITDA of approximately **US$226 million**; and
  - Post-tax total project capital payback of approximately **4 years,** and post-tax payback **from first production of 2.4 years.**
- At **current pricing environment** (pig iron FOB Brazil ca. US$486/t; V_2O_5 Rotterdam 98% ca. US$5.36 per pound), the Study indicates an estimated post-tax NPV of approximately US$665 million and an estimated IRR of approximately 31%
- Sensitivity Analysis around the Base Case (based on the 2016 to 2025 real median prices for pig iron and vanadium, a conservative long-term outlook) indicates potential **resilience** and **positive leverage** through:
  - Low Case (based on the lowest annual average real prices for pig iron and vanadium recorded in the past 20 years) indicating post-tax NPV of approximately US$53M and post-tax IRR of approximately 13% and average annual EBITDA of approximately US$77 million, under which the indicative debt structure would not be serviceable without mitigation; and
  - High Case (based on the highest sustained annual average real prices for pig iron and vanadium recorded in the past 20 years) indicating post-tax NPV of approximately US$2.01 billion and post-tax IRR of approximately 63% and average annual EBITDA of approximately US$449 million.
- The proposed V-Iron Plant targets name plate production of:
  - approximately **603,000 tonnes** per annum of pig iron; and
  - approximately **65,000 tonnes** per annum of vanadium-rich slag grading approximately **26.7% V_2O_5** (containing a yearly total of approximately **17,300 tonnes** of contained V_2O_5).
- Pre-production capital cost (including contingency) of approximately **US$400 million (approximately ZAR 6.42 billion)**

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- The Study points to an estimated minimum debt service coverage ratio **(DSCR)** of **approximately 3.5x**, well above the 1.3x to 1.4x minimum typical of project finance
- The Scoping Study results position VR8 strongly to secure support from U.S. Development Finance Institutions and progressing offtake discussions with U.S. Vanadium
- Subject to funding, the Scoping Study results support advancing to a V-Iron DFS, leveraging prior mine and concentrator work, infrastructure at Highveld Industrial Park and established precedent for vanadium–iron co-production
- VR8 now focused on securing funding for the V-Iron DFS by advancing discussions with sovereign development finance institutions and strategic equity partners

Executive Chairman, Mr Jurie Wessels, commented:

"This Scoping Study provides compelling preliminary validation for our decisive pivot to a pyrometallurgical co-production process, which we believe offers greater robustness, reliability and long-term optimisation than the hydrometallurgical methods presently relied upon by most western-hemisphere vanadium producers, reflecting the growing share of global supply held by integrated pyrometallurgical co-producers compared with the operational and funding difficulties experienced by a number of stand-alone hydrometallurgical producers.

Steelpoortdrift's potential to extend its significance beyond its vanadium content strengthens our plans to establish a long-term source of vanadium raw material supply to the United States and allied markets. By recovering the iron to supply South African steel mills, we stand to introduce a second substantial revenue stream, which may also address existing supply gaps critical to South African industrial development, thereby delivering a reciprocal geopolitical advantage.

Positioning VR8 to produce vanadium slag could make VR8 one of the few, and potentially the only, long-term, reliable suppliers of consistent VTM-derived raw material of significant volume to the U.S. market through our growing relationship with U.S. Vanadium. The prospect to progress our relationship with U.S. Vanadium toward a fully committed and reciprocally beneficial offtake, combined with our intention to develop the V-Iron plant at the Highveld Industrial Park brownfield site, places VR8 in a strong position to secure assistance from U.S. Development Finance Institutions."

Chief Executive Officer, Mr Nick Diack, commented:

"Completing the Scoping Study is an important milestone in translating our V-Iron strategy into a defined development opportunity. The Base Case results are robust and compelling, with the downside analysis demonstrating a resilient project.

Equally important is where the product goes. Our developing U.S. Vanadium offtake partnership anchors 100% of planned vanadium-slag production in Western critical-mineral supply chains, with a usable intermediate product moving directly from South Africa to a U.S. refinery without passing through, or depending on, any adversarial jurisdiction. That secure and transparent route to market enhances the strategic value of Steelpoortdrift and, in our view, makes financing considerably more achievable with development finance institutions and partners holding critical-minerals mandates.

Our immediate priority is securing funding to advance directly to the V-Iron DFS. These results will form the basis of progressing funding, offtake and strategic partnerships."

Vanadium Resources Limited (**ASX**: VR8, **FSE: TR3**) (**VR8** or **the Company**) is pleased to announce the completion of a Scoping Study assessing the proposed development of an integrated vanadium and iron co-production operation based on the Steelpoortdrift Project in Limpopo, South Africa (the **Study**). The Study evaluates a development concept incorporating open pit mining, concentrate production and downstream processing through a proposed V-Iron plant and provides a preliminary technical and economic assessment of the potential viability of the V-Iron development pathway.

SCOPING STUDY SUMMARY

V-IRON PLANT

The feedstock for the V-Iron Plant will be derived from the Steelpoortdrift Mining Project located in South Africa's Limpopo Province, which mining project is held through Vanadium Resources (Pty) Limited (**VanRes**), in which VR8 holds an 86.49% interest; the V-Iron plant is to be 100% owned through VR8 Highveld (Pty) Limited (**VR8 Highveld**), a 100% owned subsidiary of VR8. Collectively, the Steelpoortdrift Mining Project and V-Iron Plant represent the Project. Mining and beneficiation through concentration is expected to occur at Steelpoortdrift with downstream processing of the concentrate at the preferred Highveld Industrial Park site, approximately 190 kilometres from Steelpoortdrift by road (Figure 1).

The V-Iron strategy seeks to recover value from both the iron and vanadium contained in Steelpoortdrift's mineralisation. Unlike the salt roast leach processing route assessed in the 2022 DFS[1], the proposed operation would produce saleable pig iron alongside vanadium-rich slag. This approach is intended to broaden the Project's revenue base and reduce its dependence on vanadium prices alone, while building on the mining and concentrator work previously completed.

The proposed operation is designed to commence with the production of approximately one million tonnes of magnetite concentrate per year at Steelpoortdrift for further processing through the V-Iron plant at Highveld Industrial Park where the concentrate would be pre-treated and pre-reduced prior to electric smelting in a furnace, producing vanadium-bearing molten iron. A subsequent selective oxidation stage would recover vanadium into a saleable vanadium-rich slag, leaving a pig iron product for sale to steelmaking and foundry customers and the vanadium-rich slag to refineries who will produce commercially usable vanadium products such as vanadium pentoxide, vanadium nitride and ferro-vanadium.

The processing concept draws on industrial experience at New Zealand Steel and the former Highveld Steel and Vanadium operations in South Africa. Pre-reduction and hot charging of concentrate are intended to reduce the electrical energy required within the smelting furnace. The proposed configuration remains subject to metallurgical test work, process optimisation and detailed engineering during the V-Iron Definitive Feasibility Study (**V-Iron DFS**).

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[1] Refer to ASX release, "*DFS delivers A$1.9Bn NPV confirming World Class Project*", 4 October 2022.

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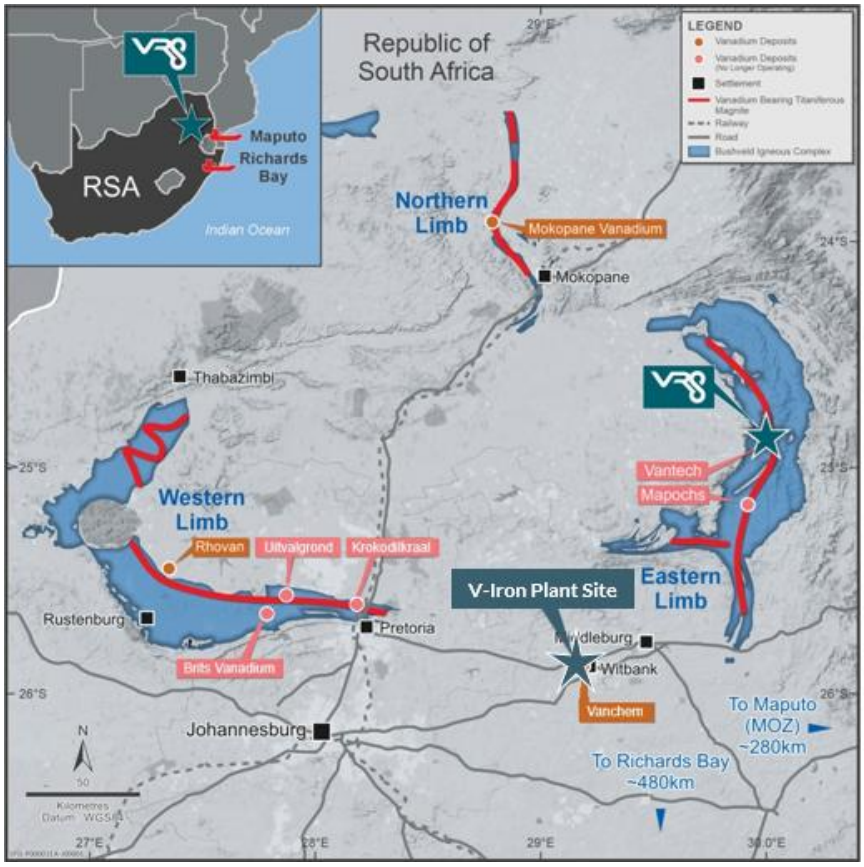


Figure 1: Nearby vanadium deposits, historical operations & processing infrastructure. Includes location of the proposed V-Iron plant site, refer to ASX release 3 September 2026, "*VR8 Secures Rights Over Preferred Site for V-Iron Plant*".

PROCESS DESCRIPTION

The scoping flowsheet comprises three principal processing stages: pre-treatment, open slag bath electric furnace smelting and post-taphole vanadium recovery. A brief process description of each stage is provided.

Stage 1: Pre-treatment Fine vanadium titanomagnetite (**VTM**) concentrate is heated, together with a dolomite flux addition to provide the CaO and MgO required for the downstream smelting slag chemistry. The addition of fluxing agents during the pre-treatment stage is aligned with the practice at New Zealand Steel. In order to maximise the potential for pre-reduction, a pre-oxidation step is contemplated as it is well-established that pre-oxidation destabilises the titanomagnetite structure and improves reduction kinetics ahead of pre-reduction. Conceptually, the oxidised concentrate is pre-reduced in a fluidised bed reactor, using a carbon monoxide rich reducing gas together with supplemental solid carbon, targeting 82% metallisation before smelting. A fluidised bed configuration allows direct treatment of fine concentrate without agglomeration and can be linked to the smelting furnace directly, enabling the feed to enter the furnace at elevated temperatures. The pre-treatment stage is envisioned to consist of an integrated circulating fluidised bed that feeds hot pre-reduced fine concentrate to the furnace utilising coal as the source of energy and reductant. At this stage, a fluidised bed is considered the best approach for pre-reduction of the fine Steelpoortdrift concentrate. The technology selection and process optimisation nonetheless remains open at scoping level and the V-Iron DFS will evaluate alternatives including rotary kilns as alternatives, and the selected equipment for the pretreatment step may change without altering the overall co-production flowsheet in principle.

Stage 2: Open bath DC furnace smelting Hot pre-reduced, concentrate is charged to a sealed, single electrode, open bath DC arc furnace operating at approximately 55 MW nominal power, sized to process about 1.0 Mtpa of concentrate. Confirmation of process and energy requirement for the smelting furnace will form part of the V-Iron DFS which will include detailed engineering of the furnace.

Open bath smelting is the preferred technology for high TiO_2 titanomagnetite slags, given their elevated electrical conductivity and the operating difficulties historically experienced with submerged arc furnaces on this feed type. The furnace separates the feed into a vanadium bearing iron and a titanium enriched discard slag, iron and vanadium preferentially partition to the metal phase. Approximately 89% of vanadium in the concentrate is expected to report to the iron, while approximately 99% of iron reports to the metal phase. Open-bath smelting was demonstrated at Highveld Steel to provide substantial process benefits and the flowsheet aims to build on the concept demonstrated by Highveld Steel.

Stage 3: Vanadium recovery (oxidative blow) Vanadium is recovered from the hot metal through an oxidative blow, using mill scale and oxygen injection, to selectively oxidise vanadium into a vanadium rich slag of approximately 26.7% V_2O_5. The final grade of the vanadium-rich slag will depend on the technology selection, and optimisation of the fluxing regime, but it is expected to exceed what was produced by Highveld Steel as the input grade for Steelpoortdrift is higher than that typically smelted by Highveld Steel. Highveld typically produced slag with 22-24% V_2O_5 from concentrate containing 1.6 to 1.8% V_2O_5. A recovery of 90% from metal to slag is assumed for the process flowsheet, consistent with the 90% to 92% achieved historically by Highveld Steel. The resulting products are a vanadium slag of approximately 65 ktpa for downstream processing or offtake, and a partially de-vanadised iron of approximately 603 ktpa suitable for steelmaking or foundry application.

Slag design target (Highveld equivalence): an explicit objective of the flowsheet design process was to target a vanadium slag near-identical in composition to the slag historically produced by Highveld Steel and Vanadium. The Company has signed a non-binding offtake term sheet with U.S. Vanadium Holding Company LLC (**USV** or **U.S. Vanadium**) for 100% of the vanadium slag from the proposed V-Iron plant[2]. USV holds a historic sample of Highveld slag and has successfully completed test work on that material, confirming its suitability as feedstock for USV's final refining process. Targeting a near-identical slag specification therefore anchors the Steelpoortdrift product to a feedstock already proven in the offtaker's refining circuit and, in the opinion of the Competent Person for the V-Iron Plant, materially de-risks product acceptance under the contemplated USV offtake.

The vanadium enriched slag represents the primary vanadium product stream for downstream processing or offtake.

The overall process concept is designed to maximise:

- vanadium recovery to saleable product;
- iron recovery to metal;
- electrical energy efficiency through pre-reduction and hot charging; and
- operational suitability for fine Bushveld titanomagnetite concentrates.

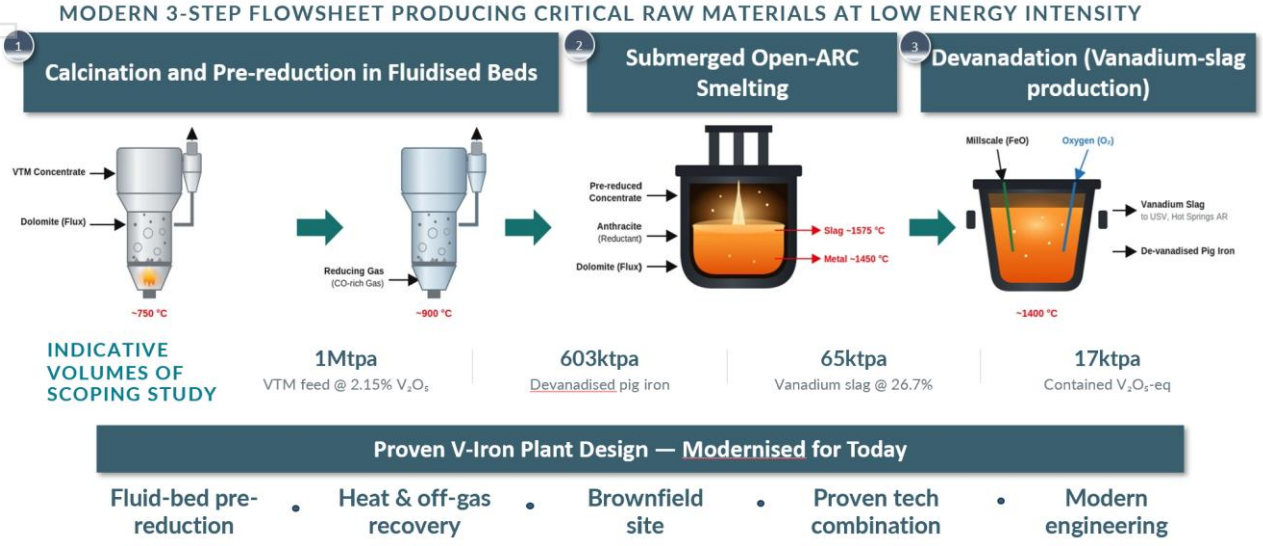


Figure 2: Basic Flowsheet of the proposed V-Iron processing route.

[2] Refer to ASX release, *"US Vanadium Non-Binding Offtake Term Sheet"*, 28 April 2026.

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KEY DESIGN PARAMETERS

The key design parameters for the scoping mass and energy balance, based on a nominal 1.0Mtpa VTM concentrate feed at 2.15% V_2O_5, are summarised below.

Stream	Annual quantity	UoM	Contained V or V2O5 (mass %)	V recovery (%)
VTM concentrate	1,000,000	tpa	2.15	100.0
V-bearing furnace metal	605,500	tpa	1.78	89.0
De-vanadised blown metal	602,900	tpa	0.16	8.9
Vanadium slag	65,000	tpa	26.7	80.6
Metric tonne vanadium	9,710	tpa	n/a	n/a
Electric furnace discard slag	330,000	tpa	0.59	11.0
Furnace size (power) estimate	55	MW	n/a	n/a

Source: VR8 Steelpoortdrift Pyrometallurgical Processing Scoping, High Level Technical Summary, Rev B (2026). Metal streams are stated as contained vanadium (V); concentrate and slag streams as V2O5.

Key 1.0 Mtpa V-Iron plant salient observations and benefits:

- Firstly, it produces a material quantity of iron units, positioning the Project to address the anticipated shortfall of steelmaking input units, both scrap and pig iron, in South Africa.
- Secondly, the resulting smelting duty is met by a 55 MW furnace, which is regarded as an optimal and well-proven scale that remains within the envelope of furnace sizes already demonstrated industrially for this class of duty which are operated up to a rating of 70 MW, rather than extending it beyond established furnace design envelopes.
- Thirdly, the case unlocks both planned phases of the 2022 DFS concentrator at the outset: the required concentrate production aligns with, and falls within, the combined designed capacity of the Phase 1 and Phase 2 modules, such that it is deliverable from plant modules already designed, tested and costed at definitive study level, anchoring the V-Iron case to the 2022 DFS.
- Finally and most importantly, a project of this scale could supply a material share of United States vanadium requirements, which management considers materially strengthens the case for strategic development finance institution (**DFI**) funding.

PRODUCTION TARGET

The Scoping Study contemplates open pit mining of approximately 2.6Mtpa of run-of-mine (ROM) ore for years 1 to 4 rising to approximately 3.0 million tonnes per annum (**Mtpa**). The ROM will be beneficiated on site to approximately 1.0 Mtpa of magnetite concentrate at a grade of approximately 2.15% V_2O_5, which is smelted to produce approximately 603,000 tonnes per annum of de-vanadised pig iron and approximately 65,000 tonnes per annum of vanadium-rich slag grading approximately 26.7% V_2O_5 (approximately 17,300 tonnes per annum of contained V_2O_5), over an evaluation period of 30 years.

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The production target of approximately 90 million tonnes (**Mt**) of ROM ore over the 30-year evaluation period is supported by the existing Mineral Resources[3]. The Scoping Study assumes that the two development phases of the mine and concentrator contemplated in the 2022 DFS are combined into a single configuration matched to the V-Iron plant feed rate; the exact manner of that combination has not been fully studied or quantified and will be addressed in the V-Iron DFS.

PREFERRED PROCESSING SITE

Highveld Industrial Park provides a potential location for construction of the proposed V-Iron plant within an established heavy-industrial precinct. The site offers access to electricity, water and gas infrastructure, established road and rail connections, and a regional workforce with experience in metallurgical processing. Its location also provides opportunities to evaluate renewable electricity supply arrangements as part of the Project's energy strategy.

VR8's wholly owned subsidiary, VR8 Highveld, holds a right of first refusal over suitable portions of the property. Development remains subject to definitive site tenure and utility agreements, with confirmation of infrastructure requirements, logistics and environmental considerations forming part of the next stage of study work.

KEY OUTCOMES AND ASSUMPTIONS

The financial evaluation considers a 30-year operating period, with an 18-month construction period, commissioning and ramp-up modelled at 50% utilisation in the first production year and name plate production from the second year. Financial outcomes are presented in 2026 real terms on an ungeared, 100% project basis, with a real discount rate of 10% applied to the estimated Project cash flows. The discount rate is the computed weighted average cost of capital, derived from a build-up at the anticipated 60/40 debt-to-equity funding structure documented in the financial model; the sensitivity of the estimated Project NPV to the discount rate is approximately US$75 million per half percentage point. The principal assumptions and estimated outcomes are summarised in Table 1 and should be read together with the cautionary statements and detailed material assumptions set out in Appendix 2[4] and commodity price methodology in Appendix 3.

VR8 holds an 86.49% interest in the Steelpoortdrift Mining Project through VanRes and a 100% interest in VR8 Highveld, the subsidiary through which the V-Iron Plant is proposed to be developed. All figures presented in this Scoping Study, including production targets and financial forecasts, are reported on a 100% basis for both the Steelpoortdrift Mining Project and the V-Iron Plant, without adjustment for VR8's ownership interests.

Table 1: V-Iron Plant - Scoping Study Key Outcomes and Assumptions (100% ownership basis) – refer to the Cautionary Statement on pages 1 and 2.

Parameter	Unit	Base Case
Pricing & Financial Assumptions		
Pig iron sales price — local, ex-works	US$/t	Approx. 480
V_2O_5 reference price	US$/lb	7.86
Vanadium slag payability	%	50
Payable V_2O_5 recovery	%	90
Vanadium slag netback — ex-works, per contained lb[2]	US$/lb	Approx. 3.03
Vanadium slag freight	US$/t	Approx. 300
Initial exchange rate	ZAR/US$	16.06
Annual real ZAR depreciation	% p.a.	1.2
Real discount rate	%	10.0
Corporate income tax	%	27
Effective mineral royalty	%	Approx. 0.5

[3] Refer to Asx Announcement 4 October 2022 "*VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project*".

[4] The base case assumes domestic pig iron sales. Under a 100% export sales basis (ex-works netback of approximately US$365/t), the estimated post-tax NPV is approximately US$386 million and IRR approximately 23%; at a 30% local offtake discount, the estimated NPV is approximately US$577 million. Refer to Product Marketing and Sales Assumptions.

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Initial electricity tariff[3]	ZAR/kWh	1.6
Production Assumptions		
Operating period (after construction)	Years	30
Construction period	Years	1.5
First-year utilisation — full production from Year 2	%	50
ROM Ore Mined – steady state	tpa	2.643m (yrs 1-4) / 3.047m (yrs 5-30)
Concentrate feed — steady state	tpa	1,000,000
Concentrate grade — V_2O_5	%	Approx. 2.15
Saleable pig iron production — steady state	tpa	602,900
Vanadium slag production — steady state	tpa	65,000
Vanadium slag grade — V_2O_5	%	Approx. 26.7
Annual Operating Costs — Steady State[4]		
Delivered concentrate	ZARm p.a.	Approx. 950–1,240
Reductants and flux	ZARm p.a.	Approx. 460
Electricity	ZARm p.a.	Approx. 840
Electrodes, refractories and other consumables	ZARm p.a.	Approx. 550
Labour, maintenance and overheads	US$m p.a.	Approx. 26–27
Total C1 Cash Operating Costs	**ZARm p.a.**	**Approx. 3,220**
Carbon tax and mineral royalty	US$m p.a.	Approx. 12
Capital Expenditure & Funding		
Smelting plant and DC furnace	US$m	Approx. 181
Pre-treatment plant	US$m	Approx. 111
Infrastructure, EPCM and owner's costs	US$m	Approx. 66
Concentrator	US$m	Approx. 42
Total Initial Investment[6]	**US$m**	**Approx. 400**
Sustaining CAPEX - furnace reline/refurbishment, every five years	US$m	Approx. 19
Closure and rehabilitation provision	US$m	Approx. 40
Financial Outcomes[5]		
Life of Mine Revenue	US$m	Approx. 11,900
Annual Revenue — Steady State	US$m p.a.	Approx. 407
Average Annual EBITDA — LOM	US$m p.a.	Approx. 226
Post-tax NPV — 10% real discount rate	US$m	Approx. 842
Post-tax IRR	%	Approx. 36
Post-tax payback — from construction start	Years	Approx. 4.0
Post-tax payback — from start of first production year[7]	Years	Approx. 2.4

1 Reference prices use 2016–2025 real medians expressed in 2026 USD and held flat in real terms. Pig iron assumes domestic sales at import-parity pricing incorporating a 15% offtake discount. Sales terms remain subject to agreement.

2 Netback is per pound of contained V_2O_5 after freight. Payable-content recovery is separate from overall metallurgical recovery. Payability remains subject to agreement.

3 Electricity supply assumes 70% Eskom and 30% renewables. Eskom tariffs escalate by 5.7% p.a. in real terms for the first five years and 2% p.a. thereafter; renewable tariffs remain flat in real terms.

4 Delivered concentrate includes mining, beneficiation, logistics and tailings handling. Mineral royalties apply to concentrate transfer value, rather than finished-product revenue. Carbon tax and royalties are additional to C1 operating costs.

5 Results are in 2026 real terms on an ungeared, 100% project basis, with no terminal value. Depreciable capital is depreciated straight-line over 15 years. US dollar figures are converted year by year along the assumed exchange-rate path; Life of Mine Revenue converted at the initial 16.06 rate would be approximately US$14,500 million.

6 Capital items are stated inclusive of contingency, allocated proportionately across the capital items; consistent with scoping study accuracy, capital estimates carry potential variability of approximately 30%.

7 The model timeline uses annual periods: Year 0 covers the first 12 months of the 18-month build and production begins in month 19, during Year 1; measured from actual first production, payback is approximately 2.4 years.

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SENSITIVITY ANALYSIS

The sensitivity analysis assesses the effect of changes in key economic assumptions on estimated project value. The Study has shown that the financial outcomes are most sensitive to the exchange rate and pig iron price, followed by the vanadium price.

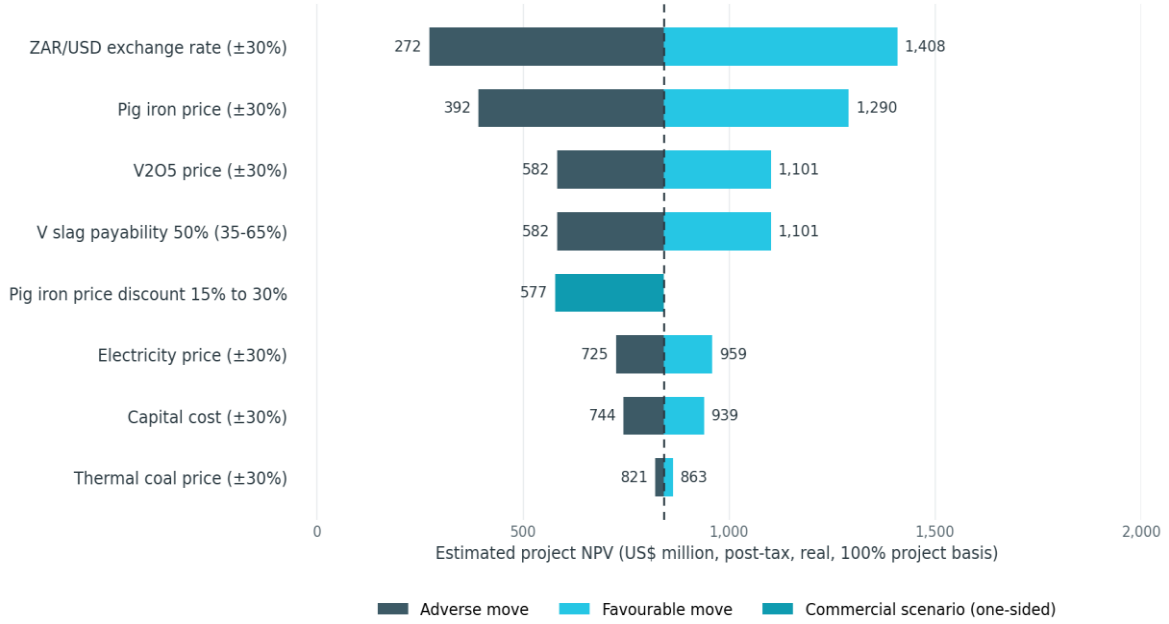


Figure 3: Estimated Project NPV sensitivity tornado (post-tax, 10% real, US$ million): single-variable ±30% cases, together with the two commercial terms tested across their negotiating ranges (vanadium slag payability 35% to 65%, centred on the 50% base; pig iron local offtake discount 15% to 30%, one-sided from the base assumption).

This highlights the importance of both the iron and vanadium revenue streams and the relationship between US dollar-linked revenues and South African operating costs. Estimated Project NPV remains positive across all individual ±30% sensitivities applied to exchange rates, pig iron prices and discounts, vanadium prices, and slag-payability assumptions. These sensitivities vary one assumption at a time and therefore simultaneous adverse movements could produce materially lower outcomes.

The Base Case adopts the median real prices of pig iron and vanadium pentoxide flake over the 10-year period 2016 to 2025, expressed in 2026 US dollars, as summarised in Table 2. An evaluation using spot commodity prices as at 14 September 2026 (pig iron FOB Brazil approximately US$486 per tonne; V_2O_5 Rotterdam 98% approximately US$5.36 per pound) indicates an estimated post-tax NPV of approximately US$665 million and an estimated IRR of approximately 31%. In this scenario, the vanadium reference price is below the Base Case assumption, while the pig iron reference price is higher. These outcomes retain the domestic pig iron sales basis and demonstrate the contribution of both product streams to the modelled economics. Refer to the Cautionary Statement on pages 1 and 2.

In addition to the Base Case, the Study evaluates a Low Case and a High Case price scenario, each defined from the real price history of the past 20 years and applied with all other assumptions unchanged. The Base Case adopts the 2016 to 2025 real median prices for pig iron and vanadium, expressed in 2026 US dollars; the Low Case adopts the lowest annual average real prices recorded over 2006 to 2025 (the 2015–16 trough); and the High Case adopts the highest sustained annual average real prices over the same period (2021 levels, excluding the 2018 price anomaly. These high and low prices represent the years with the highest or lowest average over the past 20 years for pig iron and vanadium pentoxide, respectively. Because the peak years for pig iron and V_2O_5 occurred at different times, the combined “High Price” case is presented for illustrative purposes only to demonstrate the Project’s sensitivity to elevated prices, with the low case calculated on the same basis. It is unlikely that both commodities would peak or trough simultaneously. Estimated outcomes under each scenario are summarised in Table 2.

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Table 2: Estimated outcomes by price scenario (post-tax, real, 100% project basis) – refer to the Cautionary Statement on page 1 & 2 and Commodity Price Methodology in Appendix 3.

Metric (approximate)	Unit	Low Case	Base Case	High Case
Pig iron price, FOB Brazil	US$/t	Approx. 330	456	Approx. 740
V_2O_5 price, Rotterdam 98%	US$/lb	Approx. 4.55	7.86	Approx. 10.00
Annual revenue — steady state	US$m p.a.	Approx. 285	Approx. 407	Approx. 589
Average annual EBITDA — LOM	US$m p.a.	Approx. 77	Approx. 226	Approx. 449
Post-tax NPV — 10% real discount rate	**US$m**	**Approx. 53**	**Approx. 842**	**Approx. 2,010**
Post-tax IRR	%	Approx. 13	Approx. 36	Approx. 63

CAPITAL COST ESTIMATE

The capital estimate is an indicative, benchmarking-based estimate consistent with a scoping level of study. It has not been supported by engineering design for the selected flowsheet, and its accuracy should be regarded as approximately plus or minus 30%, consistent with an order-of-magnitude estimate.

The concentrator component of the capital estimate (approximately ZAR 626 million; AUD 54 million; USD 39 million, including the tailings facility) is derived from the 2022 DFS Class 3 estimate, escalated to 2026 real terms and rescaled to the combined-phase duty. The 2022 DFS concentrator flowsheet has been retained as the design basis for this Scoping Study; the concentrator design, its rating at the re-based 2.6 to 3.0 Mtpa ROM duty, and the combination of the two 2022 DFS phases into a single configuration are to be engineered and costed in the V-Iron DFS.

The smelting complex components are derived from a component-level capital build-up for the V-Iron flowsheet, benchmarked against the escalated capital intensities of comparable smelting projects, including South African chrome smelting in the Steelpoort valley, South African DC-arc ilmenite smelting, and international ferroalloy furnace projects, with stated adjustment factors for the V-Iron duty (furnace scale, the single large vessel, fluidised bed pre-reduction in place of rotary kilns, the vanadium blow step and oxygen supply) and an all-in EPCM and contingency allowance of 25% of direct costs.

Smelting complex capital is estimated on a benchmarked greenfield-plant-on-brownfield-site basis at this level of study.

Capital item	Unit	Approximate amount
Smelting plant and DC furnace	ZAR m	2,730 (AUD 237m; USD 170m)
Pre-treatment plant (fluidised beds)	ZAR m	1,667.8 (ZAR input; AUD 145m; USD 104m)
Infrastructure, EPCM and owner's costs	ZAR m	1,000 (AUD 87m; USD 62m)
Concentrator	ZAR m	626 (AUD 54m; USD 39m)
Contingency (scoping allowance)	ZAR m	400 (AUD 35m; USD 25m)
Total capital investment (incl. contingency)	ZAR m	6,424 (AUD 558m; USD 400m)

Table 3: Indicative capital cost estimate (real 2026 terms; ZAR 16.06/USD and ZAR 11.52/AUD, 30 day averages to 14 September 2026). Source: Co-production Commercialisation Scoping Study FM Rev E; benchmarking exercise described therein. Figures rounded.

Sustaining capital comprises a furnace reline and refurbishment allowance of approximately ZAR 300 million (AUD 26 million; USD 19 million) every five years. Site establishment costs, including land tenure arrangements, remain subject to negotiation.

Closure and rehabilitation: a scoping-level closure and rehabilitation liability of approximately ZAR 650 million (AUD 56 million; USD 40 million; real 2026 terms) is provided for on the NEMA section 24P / GNR 1147 basis, covering mine, plant and tailings rehabilitation, post-closure water management and make-good of the leased site at HIP, subject to determination by the environmental assessment practitioner. It is assumed to be supported by a bank guarantee (2% per annum fee), with concurrent rehabilitation of approximately ZAR 12 million (AUD 1.0 million; USD 0.7 million) per annum from year five and closure expenditure at the end of the evaluation period; all charges are included in the cash flows and scenario outcomes.

DEBT SERVICING CAPACITY

Refer to the Cautionary Statement on pages 1 and 2. All financial outcomes in this report are presented on an ungeared, 100% project basis. To test debt capacity, the Study assumes an indicative structure of 40% equity and 60% USD-denominated amortising project debt (approximately ZAR 3.9 billion / AUD 335 million / USD 240 million) over 10 years at an all-in fixed rate of 10.3% nominal (20-year US Treasury of 5.26% plus a 5.00% risk premium, benchmarked against US development finance institution transactions in Sub-Saharan Africa), equivalent to approximately 7.5% real, with interest only during construction and ramp-up and amortisation from Year 2. This structure is an evaluation construct only; it is not committed funding, and final sizing and terms would be determined with lenders at or after the V-Iron DFS.

On the Base Case, the estimated minimum debt service coverage ratio (**DSCR**) is approximately 3.5x, well above the 1.3x to 1.4x minimum typical of project finance, with an estimated payback of approximately 3.0 years. Coverage remains above these levels across the commercial downside cases tested (approximately 2.0x to 2.9x, the lowest being the 100% export sales basis) and is approximately 7.3x under the High Case deck. Under the Low Case deck, the minimum DSCR falls to approximately 0.96x and the assumed structure would not be serviceable without lower gearing, price protection or completion support.

On the assumed 60/40 structure, the indicative Base Case equity IRR is approximately 68% (equity NPV of approximately ZAR 14.3 billion / AUD 1.24 billion / USD 889 million), ranging from approximately 17% (Low Case) to approximately 125% (High Case). These levered figures are indicative only, are highly sensitive to the financing assumptions and do not form part of the estimated financial outcomes presented elsewhere in this report. Overall, the Project cash flows appear capable of supporting a substantial senior debt component on the base and moderate downside cases, consistent with the funding strategy outlined in the Cautionary Statement on pages 1 and 2.

MINERAL RESOURCES

The Mineral Resource estimate is reported in accordance with the JORC Code, 2012 Edition, effective 30 April 2022, at a cut-off grade of 0.45% V_2O_5.

CLASSIFICATION	VOLUME (m^3)	QUANTITY (Mt)	QUALITY (% V_2O_5 In-situ)	CONTAINED V_2O_5 (Mt)	QUALITY (% Fe_2O In-Situ)	CONTAINED Fe_2O (Mt)
Measured	43.77	145.46	0.72	1.05	22.47	32.68
Indicated	98.75	327.29	0.70	2.29	22.80	74.62
Inferred	63.41	207.38	0.68	1.40	22.90	47.49
Total Mineral Resource	**205.93**	**680.13**	**0.70**	**4.74**	**22.76**	**154.80**

Source: Refer to ASX Announcements 4 October 2022 titled "*VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project*" and "*DFS Delivers A$1.9bn NPV Confirming World Class Steelpoortdrift Vanadium Project*". Tonnage rounded to the nearest 10,000t, contained metal to the nearest 1,000t.

The JORC Code requires that a realistic prospect of eventual economic extraction be demonstrated for material to be classified as a Mineral Resource. This was supported by a pit optimisation exercise carried out using the mining, processing and selling cost assumptions current at the time of the estimate, which returned a positive result.

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MINING SCHEDULE

The Scoping Study assumes extraction from the Mineral Resource by applying the 2022 DFS mine plan on the accelerated schedule described below. The 2022 DFS mine plan was derived from the Measured and Indicated Mineral Resource, depleted by the life of mine schedule, and includes a marginal proportion (less than 5%) of Inferred material. It relies on the 2022 DFS pit optimisation, undertaken within the low environmental and social impact inclusion zone, which identified a suite of nested pit shells based upon the mine design criteria. The pit optimisation exercise assumed production rates of 1.6Mtpa ROM ore for Phase 1 and 3.5Mtpa ROM ore for the Phase 2 expansion (pit optimisation inputs), which is considered adequate for the purposes of the Scoping Study.

The 2022 DFS pit optimisation identified a preferred pit shell (Pit 17) producing approximately 83.4Mt of ore, which was selected as the basis for the 2022 DFS mine design and scheduling only because the larger optimised shells exceeded the 25-year term then remaining on the Mining Right. The Scoping Study instead adopts the larger optimised shell represented by Pits 19 to 20, which the 2022 DFS pit optimisation showed adds greater value than Pit 17 and contains ore comfortably in excess of the approximately 90Mt Production Target extracted over the 30-year evaluation period; renewal of the Mining Right is assumed in the ordinary course, and the corresponding pit design will be completed as part of the V-Iron DFS. The ultimate pit shell within the same environmental inclusion zone contains approximately 213.7Mt of ore at 0.65% V_2O_5 (approximately 1,393kt of contained V_2O_5). By Mineral Resource category, the 2022 DFS preferred shell comprises approximately 32.4Mt of Measured, 47.5Mt of Indicated and 3.5Mt of Inferred material (approximately 83.5Mt at 0.70% V_2O_5, containing approximately 585kt of V_2O_5). The optimised shells therefore supply ore tonnages comfortably in excess of the Production Target.

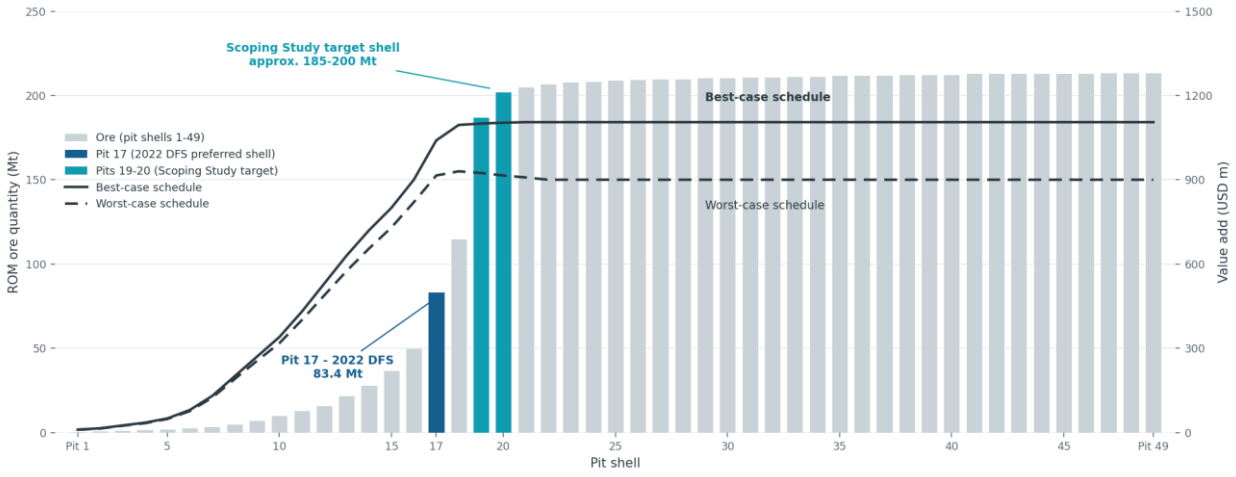


Figure 4: Pit optimisation results: pit shell tonnage and schedule value add, with the 2022 DFS preferred shell (Pit 17) and the Scoping Study target shell (Pits 19 to 20) highlighted. Source: adapted from Steelpoortdrift Project DFS, Figure 0-7 (Sound Mining International, 2022); values digitised from the 2022 DFS figure, indicative.

Mine design and scheduling

The result was three discrete open pits (Pit 1, 2 and 3) to be mined in a series of six pushbacks. The 2022 DFS mine schedule comprised a total of 83.46Mt of ore at an average head grade of 0.71% V_2O_5 with an average strip ratio of 0.88t/t. Only Measured and Indicated material was scheduled for the first four years of mining. Inferred material comprised approximately 4% of the 2022 DFS schedule and was only introduced from Year 5. The 2022 DFS pit design supports a 27-year mine life, although the 2022 DFS schedule was constrained to the 25-year term of the current Mining Right. The Scoping Study applies the 2022 DFS mine plan and pit designs on an accelerated schedule of approximately 2.6Mtpa ROM in years 1 to 4 and approximately 3.0Mtpa thereafter (approximately 44% above the 2022 DFS Phase 1 concentrator design rate of approximately 1.83Mtpa and approximately 5% below the combined Phase 1 and Phase 2 concentrator design rate of approximately 3.2Mtpa), within the Pits 19 to 20 shell, with sequencing otherwise unchanged. On this basis Inferred material represents approximately 2.5% of the Production Target over the 30-year

evaluation period. The mine schedule for the V-Iron case will be refined and reconciled with the 2022 DFS mine plan as part of the V-Iron DFS.

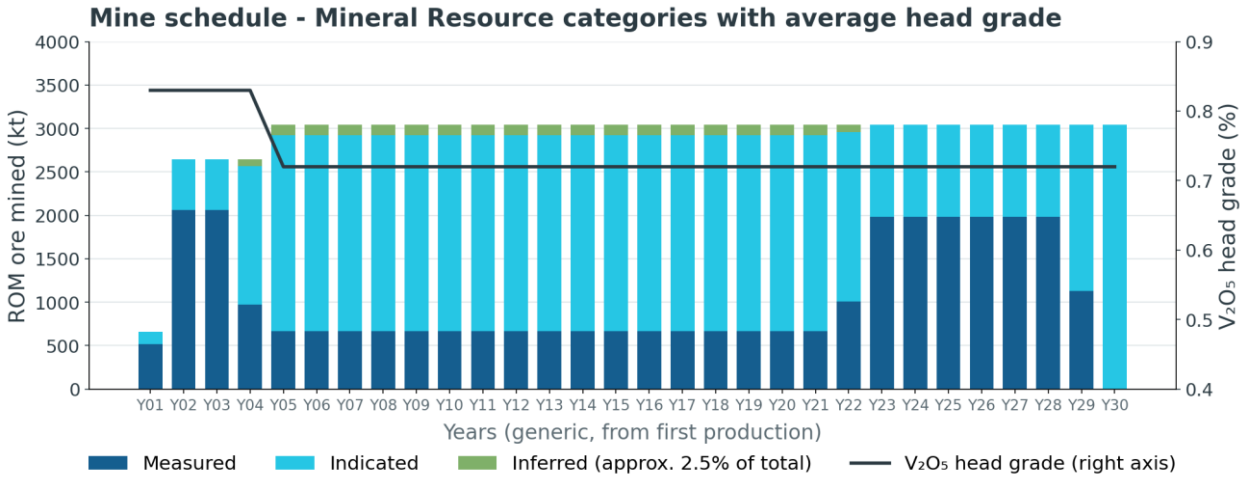


Figure 5: Mine schedule by Mineral Resource category with average head grade, 2022 DFS mine plan applied on the accelerated V-Iron schedule; category make-up re-phased from the 2022 DFS mine schedule (Sound Mining, 2022) by cumulative tonnage, indicative pending the V-Iron DFS mine schedule.

Mining will be undertaken by a contractor using conventional open pit methods (drill, blast, excavate and haul) at a 5m bench height, per the 2022 DFS mine design, which remains the current mining basis and is carried forward for the Scoping Study.

PIT OPTIMISATION, PIT DESIGN AND MINING SCHEDULE

The information in this announcement relating to the pit optimisation, pit design, mining inventory and mining schedule (Mining Information) was originally compiled by consultants engaged for the Company's Definitive Feasibility Study announced on 4 October 2022 (**2022 DFS**).

The pit optimisation, pit design and mining schedule determine the mining inventory delivered to the Concentrator and are not dependent on the downstream processing route applied after the Concentrator. As the V-Iron process route is applied downstream of the Concentrator, in the same manner as the SRL process route considered in the 2022 DFS, the Company considers the Mining Information remains valid and applicable for the purposes of this Scoping Study.

The Mineral Resource estimate underpinning the Mining Information is unchanged from that reported in the 2022 DFS, and remains classified as approximately 97.5% Measured and Indicated and 2.5% Inferred. The Company has reviewed the commodity price, cost and revenue assumptions underpinning the 2022 DFS pit optimisation and confirms these remain appropriate for the purposes of this Scoping Study. The Company is not aware of any other new information or data that materially affects the Mining Information.

The 2022 DFS Ore Reserve is not relied upon for the purposes of this Scoping Study, as the Ore Reserve was estimated on the basis of the SRL process route and the associated processing modifying factors are not applicable to the V-Iron process route considered in this Scoping Study. No Ore Reserve has been estimated for the Project on the basis of the V-Iron process route, and the production target in this Scoping Study is based on the Mineral Resource referred to above, together with the Mining Information.

On this basis, the Company has reasonable grounds to adopt the 2022 DFS pit optimisation inputs and outputs, final pit designs, life-of-mine schedule and supporting documentation for the purposes of the production target in this Scoping Study.

PERMITS AND INFRASTRUCTURE

The Steelpoortdrift Project is held by VanRes under a granted Mining Right covering the whole of the property Steelpoortdrift 365-KT. Following submission of the final phase of the Water Use Licence Application to the Department of Water and Sanitation (**DWS**) in April 2024, the DWS granted the Water Use Licence (**WUL**) for

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the Steelpoortdrift Mine and Concentrator site[5]. The Company subsequently received the Integrated Environmental Authorisation for the Mine and Concentrator site, applied for under the National Environmental Management Act and the National Environmental Management: Waste Act to accommodate the layouts and designs arising from the 2022 DFS, and rezoning of the core 605-hectare area has been conditionally approved by the district tribunal. Together, these approvals provide the regulatory foundation for mining and concentration at Steelpoortdrift. As the V-Iron plant is proposed to be located at Highveld Industrial Park rather than at Steelpoortdrift, the environmental, water use and emissions approvals required for the plant, together with any amendments to the existing Steelpoortdrift authorisations needed to reflect the single mine and concentrator configuration contemplated by the Study, will be addressed as part of the V-Iron DFS.

Steelpoortdrift is located in the Steelpoort Valley on the eastern limb of the Bushveld Complex, an established mining region hosting multiple operating platinum group metal, chrome and vanadium operations. Key infrastructure in close proximity to the Project includes an Eskom substation approximately 12 kilometres away, the De Hoop Dam approximately 15 kilometres away, a rail siding at Steelpoort approximately 30 kilometres away and sealed roads around the Project area, supported by established mining service providers and a skilled workforce in the local community and wider region.

Highveld Industrial Park, situated on the site of the former Highveld Steel and Vanadium works on the outskirts of eMalahleni in Mpumalanga Province, is zoned for heavy industry and offers established utility and logistics infrastructure. Utilities include a direct Eskom electricity feed on Megaflex tariffs, raw and domestic water supply with on-site water purification and sewage treatment, and an internal pipeline network distributing oxygen, nitrogen, argon and methane-rich natural gas. The park lies between the N4 and N12 highways on the Maputo Corridor, within approximately 80 kilometres of eight Eskom power stations, and has an internal road and rail network that includes two electrified rail lines linked to the Transnet network with capacity to handle approximately 8 million tonnes per year, a 21-line marshalling yard, exchange yards, tipplers and weighbridges, providing rail access to the ports of Richards Bay, Maputo and Durban. On-site support includes heavy-duty workshops, a metallurgical and chemical laboratory, an accredited training centre, and emergency response and fire-fighting services. The availability and capacity of these services for the V-Iron plant remain subject to confirmation during the V-Iron DFS and the conclusion of definitive lease and utilities agreements.

PRODUCT MARKETING AND SALES ASSUMPTIONS

The Base Case assumes that pig iron is sold to South African steelmaking and foundry customers using an import-parity pricing approach i.e. what a South African steelmaker would pay for pig iron imported minus a discount. The modelled ex-works sales price is approximately US$480 per tonne, derived from the FOB Brazil reference price less an assumed 15% discount to secure local offtake, plus ocean freight, port handling and inland logistics to the relevant industrial node. The 15% discount is a management estimate informed by the Company's preliminary discussions with potential offtakers, is not supported by a binding agreement or independent market evidence and remains subject to negotiation; at a 30% discount the estimated Project NPV is approximately US$577 million. Securing domestic offtake is an important commercial workstream, as the Study identifies materially stronger returns under the local sales assumptions than under the alternative 100% export sales case (ex-works netback of approximately US$365 per tonne; estimated Project NPV of approximately US$386 million and IRR of approximately 23% under the Base Case price deck). Final pricing and sales terms remain subject to negotiation.

For vanadium-rich slag, the Company's existing non-binding term sheet with USV covers 100% of planned production and provides a framework for progressing a potential supply relationship. The financial evaluation assumes payability of 50% of the V_2O_5 reference price, together with the recovery and freight assumptions detailed in the Study. These commercial assumptions remain subject to agreement, with the parties intending to negotiate a binding offtake agreement following completion of the V-Iron DFS.

[5] Refer to ASX release 8 August 2024, *"Steelpoortdrift Water Use Licence Application Approved"*.

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KEY RISKS

The principal risks to the outcomes presented in this announcement include: commodity price and exchange rate risk, to which the outcomes are most sensitive; metallurgical and process risk associated with a flowsheet that, while based on industrial precedent, has not been piloted in this configuration on Steelpoortdrift concentrate; capital cost estimation risk at the current level of engineering definition; energy cost and supply risk, including tariff escalation and security of electricity supply in South Africa; offtake and payability risk for both the vanadium slag and the pig iron product; logistics and infrastructure risk; funding risk, as described in the Cautionary Statement; regulatory, permitting and tenure risk, including Mining Right renewal, environmental authorisations for a smelting complex, and B-BBEE and Mining Charter compliance; and community and social licence considerations. These risks will be progressively addressed through the V-Iron DFS work program.

NEXT STEPS[6]

To support the advancement of the Steelpoortdrift Project to production, VR8 will focus on the following workstreams:

- **Resource, Reserves and Concentrator:** The proposed V-Iron Plant development is underpinned by the JORC Mineral Resource declared in the 2022 DFS, and no additional resource studies are currently considered necessary. The results of the V-Iron DFS will guide the declaration of a V-Iron specific Ore Reserve, which may be similar to the previously reported Ore Reserve given the V-Iron Plant is intended to use the same concentrate; however, no Ore Reserve has been estimated for the V-Iron pathway and there is no certainty one will be declared. If required, work on the concentrator will be updated to support the V-Iron process and is expected to require optimisation, and potentially lesser capex, rather than redesign. The 2022 DFS concentrate specification is considered suitable feed for the V-Iron Plant; however, test work will assess whether a coarser concentrate could optimise V-Iron Plant performance.
- **Vanadium Slag Offtake**: Continue discussions with U.S. Vanadium to progress the existing non-binding term sheet towards a binding offtake arrangement and evaluate opportunities with U.S. Vanadium to optimise slag performance in their Benton oxidation–reduction circuit and Hot Springs solvent-extraction plant, enabling efficient processing of our high-grade VR8 slag.
- **Securing Project Financing:** VR8 will continue to seek funding from U.S., European and other Development Finance Institutions, alongside other strategic investors, to support the Project through a combination of senior debt, equity, grants, guarantees and political risk insurance, while advancing diversified and risk-mitigated funding strategy for the Project. To assist in these efforts, VR8 has appointed RMB as its exclusive financial advisor and capital sourcing agent.
- **Brownfield Site Securement**: VR8 has secured a Right of First Refusal over portions of the Highveld Industrial Park as the site where the V-Iron plant will be constructed. The site has established heavy industrial zoning and significant environmental and utility footprints, including access to electricity, water and gas infrastructure, proximity to established rail and road logistics corridors, and access to a local skilled workforce with decades of metallurgical processing experience.
- **Brownfield Site Energy Solutions:** Further work will be undertaken to refine the collaboration with the owners of the Highveld Industrial Park, with a particular focus on reducing power consumption and stabilising long-term energy costs. This includes evaluating wheeling arrangements and behind-the-meter renewable energy solutions that can materially lower the plant's operating cost base. Given the V-Iron plant's production profile and the site's industrial footprint, a vanadium flow battery-related partnership could create a closed-loop energy solution that both reduces power

[6] Refer to ASX release, *"Quarterly Activities Report – June 2026"*, 31 July 2026.

consumption costs and enhances the strategic value of our vanadium output. Together, these initiatives form part of a broader optimisation strategy aimed at ensuring that the V-Iron plant operates with the lowest possible energy intensity while leveraging vanadium's unique role in long-duration energy storage.

- **Pig Iron Offtake**: Alongside the proposed vanadium slag offtake with USV, VR8 will continue to focus on securing offtake arrangements for pig iron or strategic investment partnerships with South African steel producers or international markets.
- **Logistics Solutions**: VR8 will establish comprehensive logistical solutions for the efficient transport of concentrate, pig iron and slags, ensuring cost effective and efficient delivery to end users and/or markets.
- **Institutional U.S. Roadshow:** The Company undertook a U.S. roadshow during the week commencing 28 September 2026 for four days to engage with institutional investors, prospective funding, offtake and strategic partners and relevant development finance institutions and government agencies, all of which could support the advancement of the V-Iron plant development pathway.

This announcement has been approved for release by the Board of Vanadium Resources Limited.

For further information, please visit https://vr8.global or contact:

Jurie H. Wessels
Executive Chairman
VANADIUM RESOURCES LIMITED
E: contact@vr8.global

Nick Diack
Chief Executive Officer
VANADIUM RESOURCES LIMITED
E: contact@vr8.global

Erik Bergseng CFA®
Investor Relations
P: (612) 8350 0882
E: ebergseng@nrinvestor.com.au

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APPENDIX 1 – MINERAL RESOURCE ESTIMATE

The Mineral Resource statement as reported on 4 October 2022[7] was as follows:

Table 4: Mineral Resource Estimate (as at 30 April 2022)

CLASSIFICATION	VOLUME (M m^3)	QUANTITY (Mt)	QUALITY % V_2O_5 (In-situ)	CONTAINED V_2O_5 (Mt)	QUALITY % Fe_2O3 (In-Situ)	CONTAINED Fe_2O3 (Mt)
Measured	43.77	145.46	0.72	1.05	22.47	32.68
Indicated	98.75	327.29	0.70	2.29	22.80	74.62
Inferred	63.41	207.38	0.68	1.40	22.90	47.49
Total Mineral Resource	**205.93**	**680.13**	**0.70**	**4.74**	**22.76**	**154.80**

Source: Sound Mining, 2022

Notes:

- Stated at a cut-off grade of 0.45% V_2O_5; no cut-off grade was applied to Fe;
- The Mineral Resources are stated on a 100% attributable basis for VanRes, of which VR8 owns 86.49%; and
- Reported in-situ with any apparent computational errors due to rounding not considered significant.

[7] Refer to ASX Announcement 4 October 2022 *"VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project".*

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APPENDIX 2 – MATERIAL ASSUMPTIONS

The material assumptions on which the Production Target and the forecast financial information in this announcement are based are set out in the table below, together with their basis. References to Part 1 and Part 2 are to the Scoping Study Report.

Table 5: Material assumptions underpinning the Production Target and forecast financial information

Parameter	Assumption	Basis / source
Study type and accuracy	Scoping study; order-of-magnitude accuracy; financial outcomes no better than approximately ±30%	ASX interim guidance; JORC Code clause 38
Ownership	Results on 100% Project basis. Steelpoortdrift mining project: VR8 attributable interest 86.49% via VanRes; 13.51% B-BBEE held through community trust ownership, with a partial exchange of prior B-BBEE interests for listed company shareholding. V-Iron plant: 100% owned through VR8 Highveld, a 100% owned subsidiary of VR8	Corporate structure (Part 1)
Tenure	Mining Right valid to 2048; renewal in the ordinary course assumed for the 30-year evaluation period	Granted Mining Right; MPRDA renewal provisions
Mineral Resource	680.1 Mt at 0.70% V_2O_5 (Measured 21.4%, Indicated 48.1%, Inferred 30.5%), 0.45% cut-off, effective 30 April 2022	Competent Person estimate, JORC 2012 (Part 1)
Extraction basis	Mineral Resource extraction basis: Measured plus Indicated 472.7 Mt at approx. 0.71% V_2O_5; 2022 Ore Reserve not relied upon (estimated under the 2022 DFS extraction configuration; to be re-stated in the V-Iron DFS)	Competent Person estimate, JORC 2012 (Part 1)
Production target	Approx. 2.6 Mtpa ROM yrs 1-4 / 3.0 Mtpa thereafter (approx. 90 Mt over 30 years); 2022 DFS mine plan on an accelerated schedule (approx. +44% vs the Phase 1 design rate; approx. 5% below the combined two-phase rate); extraction from the Mineral Resource (M+I cover more than 5x)	Financial model; Mineral Resource (Part 1)
Mining	Contractor open pit; 2022 DFS Table 5 rate USD 9.53/t ROM (fixed 7.37 + variable 2.16, 2022 USD, no contingency) = approx. ZAR 180/t at LoM strip 0.88, ZAR 123/t in yrs 1-4 at strip 0.28; USD-linked, escalates on the FX path	2022 DFS (SPH contractor schedule), escalated on US CPI to 2026 real terms; no contingency
Mining Information	Pit optimisation, pit design, mining inventory and schedule adopted from the 2022 DFS (independent of the downstream processing route and confirmed appropriate for the V-Iron case); 2022 Ore Reserve not relied upon (SRL modifying factors not applicable); production target based on the Mineral Resource together with the Mining Information	Company review; Competent Person statements (Part 1)
Processing to concentrate	Grade-driven concentrate yield: 0.38 t/t ROM yrs 1-4 (0.83% head grade), 0.33 t/t thereafter (0.72%); concentrator opex 2022 DFS USD 5.50/t ROM all-in (approx. ZAR 104/t; ZAR 78/t net of power carve-out); owner's cost ZAR 20/t ROM	V-Iron DFS testwork and design (Part 1); management estimate
Concentrate and input logistics	Road haulage approx. ZAR 1.30/t.km over the approximately 190 km site distance (per km rates to be re-confirmed with logistics providers during the DFS); consumables priced delivered-to-site	Management estimate from market based prevailing haulage rates
Tailings deposition	Plant residue (approx. 383 ktpa) backhauled to mine; deposition approx. ZAR 90/t plus haulage	Mass balance; management estimate
Smelting flowsheet	Pre-oxidation and fluidised bed pre-reduction to approx. 82% metallisation; 55 MW open bath DC furnace; oxidative blow V-recovery	MEB Rev C; industrial reference operations (Part 1)
Pre-reduction technology	Fluidised bed pre-oxidation and pre-reduction adopted as the reference case, considered the best approach at this stage of study; rotary kiln and/or rotary hearth alternatives to be evaluated in the V-Iron DFS and may be substituted	Management assessment; technology trade-off and testwork in the V-Iron DFS

Metallurgical recoveries	V to furnace metal approx. 89%; V to slag from metal approx. 90%; Fe to metal approx. 99%; slag grade approx. 26.7% V_2O_5	MEB Rev C (28.08.2026) benchmarked against reference operations (Part 1)
Products	Approx. 603 ktpa de-vanadised pig iron; approx. 65.0 ktpa vanadium slag; approx. 15.6 ktpa payable V_2O_5	MEB Rev C
Ramp-up	Year 1 at 50% utilisation; full production from Year 2	Management assumption for brownfield site, greenfield plant commissioning
Pig iron price	Base case 10-yr (2016-2025) real median: FOB Brazil USD 456/t; CFR New Orleans USD 485/t; applied EXW approx. USD 480/t on local import parity incl. 15% offtake discount (to be determined through offtake negotiation; tested to 30%); export netback basis available as fallback (Refer Appendix 3 Commodity Price Methodology)	Compiled price series (VR8 Commodity Price Source Data workbook, Rev G); import parity build-up
V_2O_5 price and payability	USD 7.86/lb (10-yr real median, Rotterdam 98%); slag payability 50% of reference on payable V2O5 (to be determined through offtake negotiation; tested to 35%). (Refer Appendix 3 Commodity Price Methodology)	Compiled price series; non-binding USV offtake term sheet for 100% of slag (announced 28 April 2026); USV testwork confirms product suitability; payability to be agreed
Price scenarios	Low case: lowest annual real averages 2006-2025 (pig iron FOB Brazil approx. USD 330/t; V_2O_5 approx. USD 4.55/lb). High case: highest sustained annual real averages, excl. 2018 anomaly (approx. USD 740/t; USD 10.00/lb). All other assumptions unchanged. (Refer Appendix 3 Commodity Price Methodology)	Compiled real price series in the financial model; see Price scenarios section
Vanadium slag logistics	Approx. USD 300/t slag EXW to delivered US destination	Indicative freight forwarder proposal
Exchange rate	Spot ZAR 16.06/USD (30 day average to 14 September 2026); Base Case +1.23% p.a. real ZAR depreciation vs USD: computed midpoint of the realised 20-year range (+1.0% p.a., Sep-2006 monthly anchor ZAR 7.4465, US Fed G.5; +1.5% p.a., calendar-2006 average ZAR 6.7796, SARB), net of the SA-US CPI differential of approx. 2.9% p.a. (BLS; StatsSA); forward-implied approx. 1.0-1.5% p.a.; full calculation in the financial model FX tab; constant-real tested as conservative reference (approx. ZAR 11.3 billion / AUD 980 million / USD 703 million)	Management assumption
Electricity	ZAR 1.60/kWh blended wheeled (year 1); 0.435 MWh/t conc furnace plus 0.09 MWh/t aux and concentrator auxiliary; Eskom tariffs escalate at 5.7% p.a. real for the first five years and 2% p.a. real thereafter (70% Eskom / 30% renewables); renewable tariffs flat in real terms	Utility proxy and market offer; MEB energy balance
Reductants and flux	Thermal coal 0.246 t/t conc, full heat recuperation basis (approx. ZAR 1,230/t delivered); anthracite 0.051 t/t (approx. ZAR 3,800/t, Hislop Anderson 12-month price history); dolomite 0.16 t/t (approx. ZAR 360/t)	MEB consumption; market prices and benchmark study, delivered per site
Other consumables	Electrodes 3 kg/t conc; refractories, millscale, oxygen and sundries per benchmark rates	Benchmark feasibility study rates
Fixed operating costs	Approx. ZAR 420-430m (AUD 36-37m; USD 26-27m) per annum, incl. labour approx. ZAR 195m (AUD 17m; USD 12m)	Benchmark study and management estimates
Capital cost	Approx. ZAR 6.42 billion (AUD 558m; USD 400m) incl. contingency, per the capital estimate table; indicative benchmarking basis	Component-level comparative benchmarking exercise for the smelting complex (see capital cost section); concentrator per the escalated 2022 DFS estimate (StatsSA PPI) rescaled to the combined-phase duty, growth

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		allowance and contingency removed; concentrator rating at the re-based 2.6-3.0 Mtpa ROM duty and the manner of combination to be engineered in the V-Iron DFS
Sustaining capital	Furnace reline and refurbishment approx. ZAR 300m every 5 years	Management estimate from industry practice
Escalation	Real terms; nil real escalation on prices and costs other than electricity	Methodology assumption
Funding	60% amortising project debt (10 years, USD-denominated, fixed approx. 10.3% nominal USD all-in: 20-yr UST 5.26% plus 5.00% risk premium, benchmarked from significant US development financing institutions' transactions in Sub-Saharan Africa, greenfield risk imputed; applied at approx. 7.5% real with service on the FX path) / 40% equity, used solely to assess debt servicing capacity; all outcomes presented on an ungeared, 100% project basis	Evaluation assumption; see Cautionary Statement
Tax and depreciation	SA corporate tax 27%; capital allowances 40/20/20/20 from first production, unredeemed balance carried forward (accounting depreciation straight-line 15 years, display only)	Prevailing SA corporate tax rate; management assumption
Fiscal charges	Carbon tax (Phase 2; R462/tCO2e real; 30% taxable share; Eskom scope 2 pass-through) approx. ZAR 190m/yr; MPRRA mineral royalty on VTM concentrate at Schedule 2 condition, arm's-length cost-plus transfer price, capex deductible, approx. 0.5% floor (approx. ZAR 5m/yr)	Carbon Tax Act Phase 2 / TLAB 2025; MPRRA s3-s6; ITA s31; to be confirmed with tax and TP advisers
Valuation	Post-tax, real DCF at the computed WACC of 10.0% real USD, applied to ZAR cashflows at the ZAR-equivalent 11.35% (USD rate compounded with the 1.23% p.a. real FX depreciation); ungeared, 100% project basis; no terminal value; levered metrics indicative only (see the debt servicing capacity section)	Methodology assumption reflecting brownfield site, greenfield plant risk
Development timing	No calendar schedule fixed (model expressed in generic years); construction of approximately 18 months from the investment decision with first production in month 19, capital phased approximately two-thirds / one-third across Years 0 and 1; once funding is secured the Company intends to proceed directly to V-Iron DFS (no separate PFS stage); commencement subject to funding, V-Iron DFS completion and permitting	Management; see work program and pathway section

Source: Co-production Commercialisation Scoping Study FM Rev E and Part 1 of the Scoping Study Report. Figures approximate and rounded.

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Competent Persons' Statements and Compliance Statements

Ore Reserves

The Ore Reserve reported on 4 October 2022 was based on using the salt roast leach process to produce vanadium pentoxide. The Project is now being evaluated under a different development plan, comprising the co-production of vanadium slag and pig iron. The change in development plan results in a different processing route, product suite, process operating parameters, economic assumptions and potentially different mining and material-handling requirements from those underpinning the previous Ore Reserve estimate. Consequently, the previously reported Ore Reserve remains current for the Salt Roast Leach development configuration but is not relied upon in this Scoping Study. Any Ore Reserve for the V-Iron development pathway will be estimated as part of the V-Iron DFS. The Company confirms that it is not aware of any new information or data that materially affects the Ore Reserve estimate included in the ASX announcement dated 4 October 2022 and that all material assumptions and technical parameters underpinning that estimate continue to apply and have not materially changed.

Competent Person Statement – Mineral Resources

The information in this announcement that relates to the Mineral Resource estimate for the Steelpoortdrift Vanadium Project is extracted from the ASX announcement entitled 'VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project' dated 4 October 2022 (**MRE Announcement**), which is available to view at www.asx.com.au. The Mineral Resource estimate, including the cut-off grade applied, remains valid as at 4 October 2022 as reported in the MRE Announcement and remains classified as approximately 97.5% Measured and Indicated and 2.5% Inferred. The Scoping Study has not been used as a basis to amend the Mineral Resource estimate or its cut-off grade and does not constitute a basis for doing so.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the MRE Announcement, and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the MRE 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 have not been materially modified from the MRE Announcement.

The information in this announcement that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation compiled by Ms. Sara Turnbull, a Competent Person who was employed by Sound Mining prior to and on 4 October 2022. The Mineral Resource Estimate was also reviewed and confirmed by Ms. Diana van Buren at the time of Ms Turnbull's tenure at Sound Mining. Ms. van Buren is member of SACNASP with membership Pri.Sci.Nat 400107/14. Ms. van Buren is not an employee of Vanadium Resources Limited and is an independent consultant. Ms. Van Buren has sufficient experience 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' (JORC Code). Ms. van Buren holds no securities in the Company and consents to the inclusion in this announcement of the matters based on her information in the form and context in which it appears.

The Company confirms that the Mineral Resource estimate for the Steelpoortdrift Project underpinning the production target in this announcement was prepared by Ms Sara Turnbull, a Competent Person, in accordance with the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), as set out in Appendix 5A of the ASX Listing Rules.

Competent Person Statement – Concentrator

The information in this announcement that relates to the concentrator flowsheet, metallurgical testwork, concentrate yield and grade, and concentrator capital and operating costs is based on, and fairly represents, information and supporting documentation compiled by Mr Alex Oehmen, a Competent Person who is an Associate of South African Institute of Mining and Metallurgy . Mr Oehmen is a full-time employee of Vanadium Resources Limited. Mr Oehmen has sufficient experience that is relevant to the style of mineralisation, the metallurgical processes under consideration and 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' (JORC Code).

The Scoping Study adopts the concentrator design, testwork results, mass yields, V_2O_5 recovery to concentrate and concentrate grade of 2.15% V_2O_5 / 56% Fe, and capital and operating costs from the Definitive Feasibility Study announced on 4 October 2022 (**2022 DFS**). In the 2022 DFS, the magnetite concentrate was the feed to the Salt Roast Leach (SRL) circuit. In the Scoping Study, the same concentrate is the feed to the V-Iron Plant. Mr Oehmen confirms that: (a) the concentrator flowsheet, testwork results, recoveries and product specification are independent of the downstream process route and are unchanged; (b) the concentrate specification in the 2022 DFS, including Fe, V_2O_5, TiO_2, SiO_2, Al_2O_3, S and P, is suitable feed for the V-Iron Plant; and (c) concentrator capital and operating costs of the 2022 DFS remains valid. On this basis, Mr Oehmen considers that the 2022 DFS concentrator results are as applicable to the V-Iron process route as they were to the SRL process route. Mr Oehmen holds securities in the Company in terms of the Company's Employment Share Incentive Plan and consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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Competent Person Statement for the purposes of this Scoping Study and for all information relating to the V-Iron Plant

The information in this announcement that relates to the overall results of the Scoping Study and the V-Iron Plant process design, product recoveries and specifications, and V-Iron Plant capital and operating cost estimates is based on, and fairly represents, information and supporting documentation compiled by Ms Isabel Geldenhuys, a Competent Person who is a Consultant of VR8. Ms Geldenhuys is engaged by the Company as an independent consultant. Ms Geldenhuys has sufficient experience that is relevant to pyrometallurgical processing of titanomagnetite concentrates 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' (JORC Code).

As the V-Iron process route is applied downstream of the concentrator in the same manner as the SRL process route considered in the 2022 DFS, the conclusions of the 2022 DFS in relation to the concentrate remains valid and applicable for the purposes of this Scoping Study. The V-Iron Plant design is based on public domain data and benchmarking of comparable operations and produces pig iron and vanadium slag. Metallurgical recoveries of 99% Fe to pig iron and 81% V_2O_5 to vanadium slag, and vanadium slag grading 27% V_2O_5, have been assumed. Capital and operating cost estimates have been prepared to a Scoping Study level of accuracy of ±30% with a base date of 28 September 2026. Ms Geldenhuys holds no securities in the Company and consents to the inclusion in this announcement of the matters based on her information in the form and context in which it appears.

Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which VR8 operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside VR8's control.

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APPENDIX 3 – COMMODITY PRICE METHODOLOGY

The price history used for the Low and High price scenarios is the annual average (calendar year) real price of each commodity for 20 years (2006 to 2025), and in 2026 US dollars (deflated by US CPI-U). The Low and High Cases are drawn from the full 20-year history, the longest reliable dataset, so the extremes reflect the widest range of conditions actually recorded. The Base Case is drawn from the most recent 10 years (2016 to 2025), so the Base Case reflects recent market conditions. All cases use the same pricing bases for the commodities and are held flat in real terms for the full 30-year evaluation period.

Base Case. The Base Case takes the median of the last ten years (2016 to 2025) for each commodity: pig iron approximately US$456/t FOB Brazil; V_2O_5 approximately US$7.86/lb Rotterdam. The median is used, not the average, so one abnormal year, high or low, cannot move the Base Case. The result is a conservative long-term outlook.

Low Case. The Low Case takes the lowest of the 20 annual averages for each commodity, which for both occurred in the 2015-16 trough: pig iron approximately US$330/t FOB Brazil (US$350/t CFR New Orleans on the export leg); V_2O_5 approximately US$4.55/lb Rotterdam. Both commodities are held at these historical lows, together, for all 30 years. In the actual record the trough lasted about one year, so this case is more severe than anything in the 20-year history.

High Case. The High Case takes the highest of the 20 annual averages for each commodity that came from a normal market cycle, meaning a year in which both commodities were strong and nearby years were at similar levels. That year is 2021: pig iron approximately US$740/t FOB Brazil; V_2O_5 approximately US$10.00/lb Rotterdam. The 2018 vanadium average of approximately US$22.2/lb does not qualify: it was a one-off supply squeeze in one commodity, and the price collapsed within a year. Excluding it lowers the High Case, so the test is conservative.

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