ASX: VMM MARKET ANNOUNCEMENT

Viridion Delivers First Rare Earth Oxide to Latin America's Only Magnet Manufacturer

Viridis takes another step in developing a fully integrated domestic rare earth supply chain in Brazil

ASX Release: 27 May 2025

Highlights

- **Viridis Mining and Minerals Ltd ('Viridis' or 'the Company') is pleased to announce that, through its joint venture with Ionic Rare Earths Limited (ASX: IXR), operating under the entity Viridion Pty Ltd ('Viridion'), it has successfully delivered the first locally sourced range of magnetic rare earth oxides to the CIT SENAI ITR facility in Lagoa Santa, Brazil.**
- **As previously announced, both Viridis and Viridion have signed a Memorandum of Understanding ('MoU') with CIT SENAI / FIEMG Innovation and Technology Centre of Minas Gerais[1], owner and operator of Lab Fab, the first rare earth magnet producer in Latin America.**
- **The delivered separated rare earth oxides originate from end-of-life magnets recovered in Brazil. The magnets are primarily sourced from decommissioned magnetic resonance imaging ('MRI') machines and wind turbine generators, containing high-performance permanent magnets rich in neodymium ('Nd'), praseodymium ('Pr'), dysprosium ('Dy'), and terbium ('Tb').**
- **After collection and initial pre-processing in Brazil, the magnets were shipped to Ionic Technologies' facility in Belfast, where they underwent advanced hydrometallurgical separation to produce high-purity individual oxides. The resulting Nd, Pr, Dy, Tb oxides were transported back to Brazil and delivered to CIT SENAI ITR.**
- **CIT SENAI ITR will use the recycled rare earth oxides delivered by Viridion for initial lab-scale experiments to evaluate if the rare earth element ('REE') oxides can be successfully transformed into alloys. From here, magnets will be produced, focusing on assessing the quality and verifying whether the rare earth oxide properties meet the performance standards required for high-end applications.**
- **Delivery of high-purity rare earth oxides, from IXR's proven recycling technology, has positioned Viridion uniquely as the only local source of oxides to Brazil and broader Latin America. With the Colossus Scoping Study showcasing it as the lowest cost rare earth producer globally[2], and exceptional project economics even at today's cyclical low rare earth prices, Viridis is well placed to progress its strategy to develop a fully integrated rare earth supply chain, the first of its kind outside of China.**
- **This significant milestone comes at a pivotal moment, amongst China's recent rare earth export restrictions and the growing necessity for a diversified supply chain, both Viridis and Viridion will be able to play a strategic role in near-term substitution for disrupted critical minerals.**
- **Recent launch by Brazilian Development Bank ('BNDES') and the Financier of Studies and Projects ('FINEP'), looking to allocate a total R$8 Billion (~US $1.4 Billion) to support mining companies focused on the "transformation of strategic minerals", and more importantly maximising the value chain of rare earths from mining to magnets, has Viridis and Viridion well placed with this first delivery of high purity oxides from Brazilian end-of-life magnets, and to capitalise on this significant opportunity and the potential to receive funding arrangements.**

Viridis Mining and Minerals Limited | ACN: 121 969 819
Level 50, 108 St Georges Terrace, Perth, WA 6000
Telephone: + 61 3 9071 1847 Email: info@viridismining.com.au
www.viridismining.com.au.com.au

Chief Executive Officer, Rafael Moreno commented:

"With the Colossus Project now firmly established as one of the leading rare earth projects worldwide, leveraging IXR's industry leading technology is now a reality, and we look forward to progressing on the pathway to creating a circular mine to magnet supply chain, as we look to capitalise on the burgeoning supply chain that is developing in Brazil and more broadly Latin America.

Delivery of high purity Nd, Pr, Dy, Tb oxide to SENAI / FIEMG, in support of Latin America's first magnet manufacture, is another important example of Viridion's capability to help develop a Brazilian and Latin American rare earth magnet industry and ensure security of supply for downstream users looking to decouple its dependence on the Chinese supply chain.

The timing of this delivery of magnetic rare earth oxides, and the outstanding economics shown by our Scoping Study even at today's low rare earth prices, puts us in a strong position compared to peers, to take advantage of the substantial funding now being made available through BNDES and FINEP to support Brazil's strategic mineral initiatives."

Viridis Mining and Minerals Ltd (ASX: VMM) is pleased to announce a significant milestone in its ambition to develop a fully integrated rare earth supply chain, with the delivery of Nd, Pr, Dy, Tb oxides to CIT SENAI - Lab Fab facility in Lagoa Santa, Brazil, the first locally soured range of rare oxides**.**

In December 2024, Viridis' Brazilian subsidiary, Viridion, received formal support from Invest Minas, the investment promotion agency for the State of Minas Gerais, to evaluate the deployment of IXR's proprietary magnet recycling technology within the region. Preliminary assessments indicate the potential for materially lower operating costs for Rare Earth Oxide ('REO') production from alloy feedstock compared to traditional markets.

Discussions are ongoing with Minas Gerais authorities regarding the siting of pilot facilities for both REO refining and magnet recycling operations, strategically located near the Company's Colossus Project in the state.

Local production of magnet REOs in Brazil is anticipated to support the scale-up of domestic magnet manufacturing, including at CIT SENAI's Lab Fab facility, which aims to increase NdFeB (neodymium-iron-boron) magnet production to 100 tonnes per annum by the end of 2026.

Additionally, Viridion plans to incorporate the recycling of waste streams generated during ramp-up operations, furthering the Company's objective of developing a secure, closed-loop NdFeB supply chain in Brazil. This integrated supply chain is expected to support the growth of high-value advanced manufacturing industries within the country.

Viridion: Local Source of Oxides to Brazil and Latin America

Delivering high-purity rare earth oxides from IXR's proven recycling technology uniquely positions Viridion as the only local source of oxides in Brazil and broader Latin America.

The delivered separated rare earth oxides originate from end-of-life magnets recovered in Brazil. The magnets are primarily sourced from decommissioned MRI machines and wind turbine generators, containing high-performance permanent magnets rich in Nd, Pr, Dy, Tb.

After collection and initial pre-processing in Brazil, the magnets were shipped to Ionic Technologies International Ltd's ('Ionic Technologies') facility in Belfast (IXR's wholly owned subsidiary), where they underwent advanced hydrometallurgical separation to produce high-purity individual oxides. The resulting Nd, Pr, Dy, Tb oxides were then transported back to Brazil and delivered to CIT SENAI ITR / FIEMG.

Figure 1: *Recycled high-purity Nd, Pr, Dy, Tb oxides delivered to CIT SENAI ITR / FIEMG, originating from end-of-life magnets recovered in Brazil and processed at Ionic Technologies' facility in Belfast (UK).*

CIT SENAI ITR will use the recycled rare earth oxides delivered by Viridion for initial lab-scale experiments to evaluate if the REE oxides can be successfully transformed into alloys. From here, small quantities of magnets will be produced, with the focus on assessing the quality of the magnet production specifications and verifying whether the rare earth properties meet the performance standards required for high-end applications.

José Luciano Pereira, SENAI ITR's Innovation and Technology Manager, expects all tests with the recycled oxides to be completed during the second half of this year. "We will have a technical assessment of the viability of this process. It is an important step and, without a doubt, a milestone for all involved — FIEMG, SENAI, Viridion, and other partners — in building a national rare earths supply chain based on innovation and sustainability".

The initiative is part of the broader **MagBras Project**, recently approved under the **MOVER program**, which allocates R$73.3 million (~US $13 million) in funding to foster the development of a country's low-carbon, innovation-driven industrial ecosystem. As a key member of the MOVER program, the historic first delivery of recycled rare earth oxides by **Viridion**, highlights its commitment to contributing to the supply of Magnetic Rare Earth Oxides to support the operation of the permanent magnet production facility run by CIT SENAI ITR.[3]

The project has received strong institutional support from the Brazilian Government through Invest Minas, **CIT SENAI ITR, FIEMG, CODEMG** and other stakeholders, reflecting a shared commitment to clean energy innovation, critical mineral sovereignty and circular economy. The oxides, sourced from end-of-life magnets used initially in Brazil, will now be tested for producing new permanent magnets, demonstrating the technical and economic feasibility of rare earth recycling in the Southern Hemisphere.

Flávio Roscoe, President of FIEMG, said, "This is a historic process highlighting the importance of recycling — these materials are not new but have been efficiently reused. The project led by Viridis / Viridion has the potential to meet up to 7% of magnetic rare earth oxides' (MREO) global demand, representing a strategic breakthrough that can significantly reduce dependence on international markets, especially China, for critical inputs essential to the energy transition."[5]

With the Colossus Scoping Study showcasing it as the lowest-cost rare earth producer globally with exceptional project economics even at today's cyclical low rare earth prices, Viridis and Viridion are well placed to progress the strategy to develop a fully integrated rare earth supply chain, the first of its kind outside of China.

Figure 2: *Delivery of high purity Nd, Pr, Dy, Tb oxides to Lab Fab Magnet Factory: from left to right, Ronaldo Barquette (Director at Invest Minas), Rafael Moreno (Viridis CEO), José Luciano (Manager of CIT SENAI), Klaus Peterson (Viridis Brazilian Country Manager).*

Figure 3: *Delivery of high purity Nd, Pr, Dy, Tb oxides to FIEMG: from left to right, Jose Marques Braga Junior (Viridis Brazilian Director), Rafael Moreno (Viridis CEO), Flavio Roscoe (FIEMG President), Klaus Peterson (Viridis Brazilian Country Manager), José Luciano (Manager of CIT SENAI).*

FINEP / BNDES Public Calls: Funding for Critical Mineral Projects in Brazil

The FINEP / BNDES first Public Call (Notice Nº 001/2025), launched in January 2025, will allocate R$5 billion (~US $880 million) to support business plans focused on transforming strategic minerals in Brazil.

The program aims to develop sustainable supply chains for critical minerals, such as rare earths, essential to the energy transition and decarbonisation efforts. The funding encompasses various forms of financial support to invest in a range of projects, including industrial-scale plants, pilot facilities, demonstration projects and necessary research studies, depending on the stage of the projects and technologies involved.

In addition to the R$5 billion Public Call for strategic minerals**, FINEP / BNDES launched a second public call in February 2025, allocating a further R$3 billion (~US $530 million) specifically to support the establishment of Research, Development and Innovation centres across Brazil, such as those planned by both Viridis and Viridion.**

The objective is to attract and enhance Brazil's scientific and technological capabilities in alignment with the "New Industry Brazil" (Nova Indústria Brasil) policy, focusing on vertical integration and downstream products.

Viridis' development strategy aligns with the goals of the FINEP / BNDES Public Calls, which seek to advance Brazil's industrial capacity in the critical minerals sector, reduce reliance on foreign suppliers and ensure the country's leadership in the global clean energy supply chain.

The potential funding available will fast-track the Colossus and Viridion development timelines. Delivering high-purity Nd, Pr, Dy, and Tb oxides to Latin America's only magnet manufacturer is a testament to the strategic relationship between Viridis and IXR. The combination of local and state government support, outstanding project economics exhibited in the Colossus Scoping Study results, and leading refining and recycling technology, has Viridis and Viridion well placed to capitalise on the significant funding opportunities provided by the two FINEP / BDNES Public Calls.

Viridis and Viridion: A fully integrated Rare Earth Supply Chain

Viridis executed a binding term sheet with IXR in April 2024, for the commercialisation of Selective Separation Technology ('SST') to recover the REOs from concentrates and carbonates feed, and exclusive rights to commercialise IXR's Rare Earth Recycling Technology ('RRT') in Brazil[4].

The JV between Viridis and IXR aims to commercialise and implement the Separation and Recycling Technology within a separation plant in Brazil, and is positioned to become the first major producer of the full suite of refined REOs in Latin America.

Viridis and IXR have formed Viridion in Australia and Viridion Rare Earth Technologies Ltda in Brazil, which will hold exclusive global rights (excluding Asia and Uganda) to the SST technology provided by IXR's wholly owned subsidiary, Ionic Technologies, which produces REE Oxides from MREC or equivalent intermediate feed streams.

Viridion will also own any new IP developed from the commercialisation process and will hold exclusive rights in Brazil to monetise, implement and commercialise Ionic Technologies' RRT (Recycling) to a full-scale plant. This will also grant Viridion rights to exclusively commercialise SST for other Rare Earth producers, initially focusing on partnering with existing Brazilian Rare Earth Projects before expanding the technology globally.

Figure 4 above exemplifies the simplicity of processing an ionic clay project and developing an MREC through a single leaching agent. This is seen from the maiden MREC test results[6] from the Northern Concessions of the Colossus Project, which achieved **76% and 78% MREO recovery from Ore to MREC from the Northern Concessions and Southern Complex respectively,** simply through washing with a weak concentration (0.3M) of Ammonia Sulphate (salt solution) at pH 4.5 and room temperature over 30 minutes[6,7].

Given the soft clay and ionic mineralisation, there is no need for blasting, crushing, flotation, corrosive acids, high temperature cracking and leaching to develop an MREC as seen in hard-rock projects. The simplicity in Ionic Clay processing to produce a high-purity (<1%) and high-value MREC yields a superior economic model compared to hard-rock assets. It supports Colossus delivering a project with the lowest all-in-sustaining costs globally for any rare earth project.

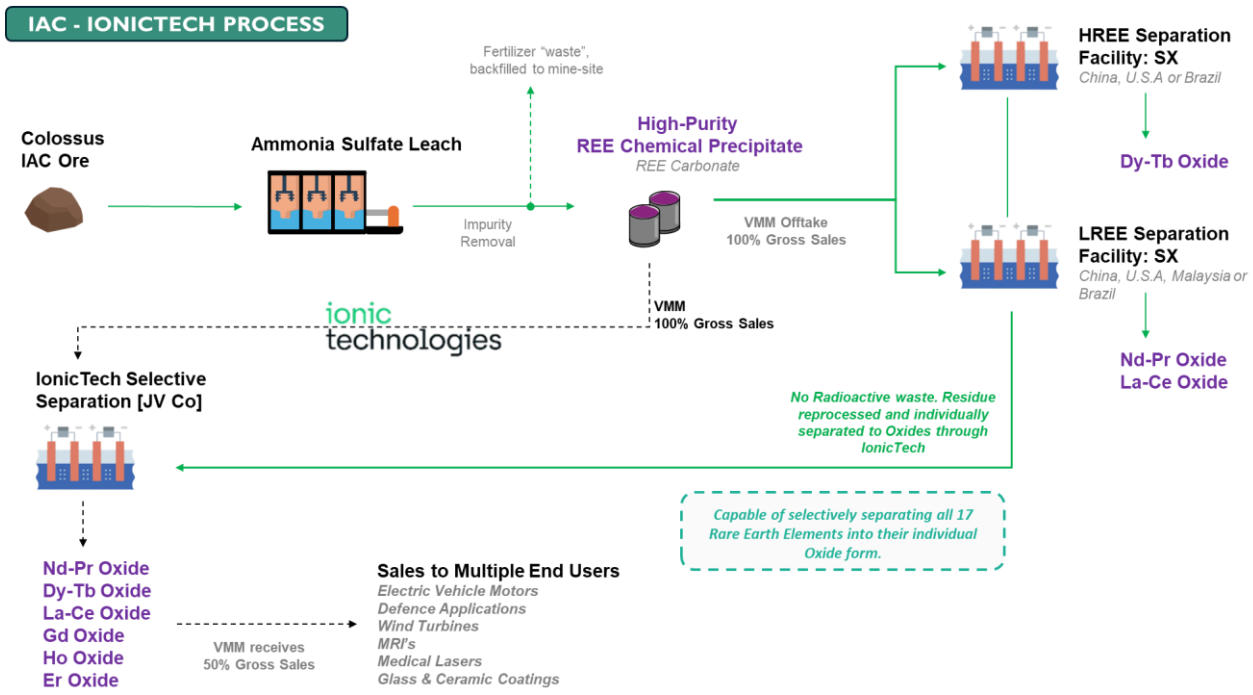

Figure 4: *Simplified and conceptual flowsheet for Colossus integrating Ionic Technologies into its downstream plant.*

Combined with the exclusive rights to use Ionic Technologies' recycling IP and capabilities in Brazil, this will allow Viridis to become one of the premier global Rare Earth developers, having access to a world-class resource and commercially disruptive technology in downstream processing.

This initiative places Brazil at the forefront of global REE separation outside of China, capable of producing both light REE and heavy REE oxides for multiple end users within a unified separation plant.

Future Work

Viridis is progressing several key initiatives to advance the Colossus Project:

- Progress Pre-Feasibility Study: Viridis is continuing to progress the detailed pre-feasibility study with Hatch, which is on track to be completed by the end of Q2 2025.
- Environmental Installation License: Following the successful submission of the Environmental Impact Assessment ('EIA') / Environmental Impact Report ('RIMA') for the Preliminary Environmental License in January 2025[8], the Company has now commenced preparing all technical assessments for the Installation License, which is required before project construction can commence.
- Continued Focus on Project Financing and Offtake discussions: Armed with a globally significant Measured and Indicated resource, industry-leading metallurgical recoveries, and world-leading economics for any REE project globally, Viridis continues to progress important discussions with potential strategic off-takers and project financing options.

Approved for release by the Board of Viridis Mining and Minerals Ltd.

Contacts

For more information, please visit our website, www.viridismining.com.au or contact:

Carly Terzanidis
Company Secretary
Tel: + 61 3 9071 1847
Email: cosec@viridismining.com.au

Rafael Moreno
Chief Executive Officer
Tel: + 61 3 9071 1847
Email: rafael.moreno@viridismining.com.au

About Viridis Mining and Minerals

Viridis Mining and Minerals Limited is a resource exploration and development company with assets in Brazil, Canada and Australia. The Company's Projects comprise:

- The Colossus Project, which the Company considers to be prospective for Rare Earth Elements;
- The South Kitikmeot Project, which the Company considers to be prospective for gold;
- The Boddington West Project, which the Company considers to be prospective for gold;
- The Bindoon Project, which the Company considers to be prospective for nickel, copper and platinum group elements; and
- The Poochera and Smoky Projects, which the Company considers to be prospective for kaolin-halloysite.

Maiden Mineral Resource Estimate

Colossus Project Maiden Resource Estimate at 1,000pm Cut-Off

Category	License	Million Tonnes (Mt)	TREO (ppm)	Pr6O11 (ppm)	Nd2O3 (ppm)	Tb4O7 (ppm)	Dy2O3 (ppm)	MREO (ppm)	MREO/TREO
Indicated	Northern Concessions (NC)	50	2,511	145	441	5	25	616	25%
	Cupim South (CS)	10	3,014	204	612	6	31	853	28%
	Capao Da Onca (CDO)	2	2,481	152	414	4	22	592	24%
	Indicated Sub-Total	**62**	**2,590**	**154**	**467**	**5**	**26**	**653**	**25%**
Inferred	Northern Concessions (NC)	97	2,519	151	473	5	26	656	26%
	Cupim South (CS)	18	3,087	199	620	6	34	859	28%
	Ribeirao (RA)	19	2,544	159	455	4	24	642	25%
	Capao Da Onca (CDO)	5	2,393	132	358	4	22	517	22%
	Inferred Sub-Total	**139**	**2,591**	**158**	**486**	**5**	**27**	**675**	**26%**
GLOBAL RESOURCE (INDICATED & INFERRED)		**201**	**2,590**	**157**	**480**	**5**	**27**	**668**	**26%**

Table 1: *Maiden Mineral Resource Estimate for Colossus REE Project using 1,000ppm TREO Cut-Off Grade. The resource model excludes leached/soil clays, transitional horizon and material under 300ppm MREO[9].*

Competent Person Statement

Dr. José Marques Braga Júnior, the in-country Executive Director of Viridis' Brazilian subsidiary (Viridis Mineração Ltda), compiled and evaluated the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2024, 336416), accepted to report in accordance with ASX listing rules. Dr Braga has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting of Regulation, Exploration Results, Mineral Resources, and Ore Reserves. Dr Braga consents to including matters in the report based on information in the form and context in which it appears.

The Company confirms that it is unaware of any new information or data that materially affects the information included in the market announcements referred to in this release and in the case of estimates of Mineral Resources, Production Targets and forecast financial information that all material assumptions and technical parameters underpinning the estimates in the relevant referenced market announcements continue to apply and have not materially changed. To the extent disclosed above, 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 announcement.
All announcements referred to throughout can be found on the Company's website – viridismining.com.au.

Forward-Looking Statements

This announcement contains 'forward-looking information' based on the Company's expectations, estimates and projections as of the date the statements were made. This forward-looking information includes, among other things, statements concerning the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions and that the Company's results or performance may differ materially. Forward-looking information is subject to known and unknown risks, uncertainties, and other factors that may cause the Company's actual results, level of activity, performance or achievements to materially differ from those expressed or implied by such forward-looking information.

References

1. *VMM ASX announcement dated 6 November 2024, 'Viridis Progresses Downstream Rare Earth Oxide Refining, Magnet Manufacturing and Recycling Partnerships'*
2. *VMM ASX announcement dated 24 February 2025, 'Scoping Study Confirms Colossus as Premier Rare Earth Project Globally with Outstanding Project Economics'*
3. *https://www.fiemg.com.br/cit/noticias/projeto-de-industrializacao-de-terras-raras-e-aprovado-no-programa-mover/*
4. *VMM ASX announcement dated 3 April 2024, 'Viridis enters Joint Venture for Separation, Refining and Recycling of Rare Earths'*
5. *https://www.fiemg.com.br/noticias/brasil-da-passo-historico-com-primeira-entrega-de-oxidos-de-terras-raras-reciclados-pela-viridion/*
6. *VMM ASX announcement dated 24 September 2024, 'Colossus Maiden Mixed Rare Earth Carbonate ('MREC')'*
7. *VMM ASX announcement dated 12 December 2024, 'Maiden Mixed Rare Earth Carbonate ('MREC') Product from Southern Complex'*
8. *VMM ASX announcement dated 28 January 2025, 'Viridis Achieves Critical Environmental and Regulatory Milestones'*
9. *VMM ASX announcement dated 22 January 2025, 'Colossus Delivers Largest Measured & Indicated Resource and Highest MREO Grade IAC Project Globally'*