

## Colossus PFS Unlocks World-Class Project Economics

Pre-Feasibility Study Highlights Unmatched Rare Earth Potential and Positions Viridis for Global Leadership Role in the Western Market

ASX Release: 9 July 2025

### Economic Highlights

<b>US \$899M</b>	<b>34%</b>	<b>US \$197M</b>
After Tax NPV <sub>8</sub>	After Tax IRR	Ave Annual Operating Cashflow
<b>US \$5,643M</b>	<b>US \$6.20/kg</b>	<b>US \$286M</b>
Total Revenue (20yr LOM)	C1 Production Cost per kg TREO	CAPEX to 1 <sup>st</sup> Production (Excl-Contingency)

### Highlights

- ▶ Viridis has completed a detailed Pre-Feasibility study ('PFS') for its flagship Colossus Project ('Colossus' or 'Project') and delivered global benchmark economics based on a conservative 20-year Life of Mine ('LOM'), at both current spot pricing and long-term average forecast price ('Base Case'):
- **Pre-tax NPV<sub>8</sub> of approximately US \$1.41 billion (AUD \$2.14 billion)<sup>A</sup> | Based on a conservative long-term average forecast price assumption of US \$90/kg NdPr for its Base Case.**
- **Pre-tax NPV<sub>8</sub> of approximately US \$773 million (AUD \$1.17 billion) | Based on a spot price of US \$63/kg NdPr for its Current Spot Case.**
- **Average Annual Operating Cash Flow of approximately US \$128 million (AUD \$194 million) at spot price of US \$63/kg NdPr, and rising to US \$197 million (AUD \$298 million) at base case forecast pricing.**
- ▶ Colossus is now the first rare earth project in South America to deliver a PFS, marking a major development milestone. With environmental permitting progressing rapidly and strong project economics confirmed, Colossus stands out as the most advanced and financially robust rare earth development in the region.
- ▶ The Base Case NdPr price assumption of \$90/kg NdPr remains well below long-term forecasts from leading independent rare earth pricing agencies (e.g. Project Blue Consulting) and those adopted by industry peers, highlighting the strength and conservatism of Colossus economics.

**Table 1: Colossus Project Key Financial Summary across Various NdPr Pricing Scenarios – See Table 3 for full details**

Project Financial Summary	Unit	Life of Mine (LOM)		
		Current Spot Case	Base Case	Upside Case
<b>Average NdPr Price</b>	<b>US \$/kg NdPr</b>	<b>63</b>	<b>90</b>	<b>111</b>
Average Basket Price TREO	US \$/kg TREO	31	43	53
MREC Payability	%	70	70	70
Total Revenue	US \$M	4,128	5,643	7,050
Annual Operating Cashflow (excl-CAPEX)	US \$M	128	197	260
Total Operating Cashflow (excl-CAPEX)	US \$M	2,568	3,935	5,205
<b>Pre-tax NPV<sub>8</sub></b>	<b>US \$M</b>	<b>773</b>	<b>1,406</b>	<b>1,997</b>
	<b>AUD \$M</b>	<b>1,171</b>	<b>2,130</b>	<b>3,026</b>
Pre-tax IRR	%	30%	43%	55%
<b>After-tax NPV<sub>8</sub></b>	<b>US \$M</b>	<b>481</b>	<b>899</b>	<b>1,289</b>
After-tax IRR	%	24%	34%	43%
Payback Period	Years	3.0	2.0	1.5

<sup>A</sup> FX AUD/USD = 0.66 as of 3 July 2025

- ▶ Colossus demonstrates financial resilience, maintaining a strong **pre-tax NPV<sub>8</sub> of ~US \$773 million** even at the current **depressed spot price of US \$63/kg NdPr**, underscoring its ability to generate substantial value across commodity cycles and remain profitable in challenging market conditions.
- ▶ **Comparison with Colossus Scoping Study ('SS'):**
  - At Spot Price, the PFS has demonstrated significant improvements, with Annual Operating Cashflows improved by 65%. After-tax NPV<sub>8</sub> improved by 24% and After-tax IRR enhanced by 20%.
  - CAPEX reduced to US \$358M with >90% of equipment costs sourced from real-world vendor quotations. Total Direct costs have increased from US \$167M to US \$185M, which is expected and reflects higher engineering definition and changes made to optimise operating costs and ensure environmental compliance. Indirect and Owner's costs remain largely unchanged. Import tax on equipment has reduced from US \$56M to US \$40M, following partial application of the state-level tax agreement secured with Minas Gerais, and CAPEX contingency reduced from 30% to 25% as project confidence improves.

**Table 2: Colossus Project Pre-Feasibility Study (PFS) vs Scoping Study (SS) key financials comparison**

Project Financial Summary	Unit	Life of Mine (LOM) –Spot Price Case		
		PFS	SS	Variance
Average Basket Price TREO	US \$/kg TREO	31	30	+ 3%
MREC Payability	%	70	70	+ 0%
CAPEX (Incl. Contingency)	US \$M	358	373	- 4%
Total Revenue	US \$M	4,128	3,939	+ 5%
<b>Annual Operating Cashflow (excl-CAPEX)</b>	<b>US \$M</b>	<b>128</b>	<b>78</b>	<b>+ 65%</b>
Total Operating Cashflow (excl-CAPEX)	US \$M	2,568	1,564	+ 64%
<b>After-tax NPV<sub>8</sub></b>	<b>US \$M</b>	<b>481</b>	<b>388</b>	<b>+ 24%</b>
After-tax IRR	%	24%	20%	+ 20%

- ▶ **Colossus superior project economics are underpinned by the Project's industry-leading attributes:**
  - **Resource and Mine Plan Optimisation:** The mine plan is strategically designed to prioritise high-value Magnetic Rare Earth Oxide ('MREO')<sup>B</sup> grades over total rare earth content ('TREO')<sup>C</sup>, resulting in a superior LOM average basket price of US \$31/kg at current spot pricing. This approach is supported by the highest reported global grade of MREO within a Measured and Indicated ionic adsorption clay ('IAC') resource<sup>1</sup>.
  - **Low-Cost Processing Enabled by True Ionic Clay Characteristics:** The Project benefits from true IAC mineralisation, allowing for a simple and efficient leaching process using a 0.3M ammonium sulfate ('AMSUL') solution. This metallurgical advantage delivers high "resource-to-MREC" (mixed rare earth carbonate) recoveries<sup>2,3</sup>, resulting in low **operating** costs with a LOM average C1 OPEX of US \$6.2/kg TREO and All-In Sustaining Costs ('AISC') of US \$9.30/kg TREO.
- ▶ Following a comprehensive metallurgical program led by Australian Nuclear Science and Technology Organisation ('ANSTO'), and with strategic input from Viridis and leading industry consultants, Hatch has delivered a detailed PFS outlining a compelling case for project development. Key metrics include:
  - **High-Throughput Production:** A well-engineered mining and processing operation designed for 5Mtpa (dry) of rare earth ionic clay, supporting long-term scalability.
  - **Capital Efficiency:** Initial development capital of ~US \$286M (excluding contingency), prepared to AACE Class 4 standards, and importantly, over 90% of equipment packages costed using vendor quotations, underscoring the robustness of the estimate and reducing pricing risk escalation in future phases.
  - **Low-Cost Operations:** Forecast C1 operating costs of US \$6.20/kg TREO and an AISC of US \$9.30/kg TREO, positioning the Project competitively in the global cost curve.

**Robust Production Profile:** Expected average annual output of 9,500 tonnes of TREO and 3,500 tonnes of MREO, with a high-value mix comprising 36% NdPr oxides and 2% DyTb oxides.
- ▶ **Premium MREC Product with Strong Market Appeal:**
  - **High-value basket:** MREC product enriched with MREO delivers premium feedstock for global refineries.

<sup>B</sup> Magnetic Rare Earth Oxides ('REO'): Dy<sub>2</sub>O<sub>3</sub> + Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> + Tb<sub>4</sub>O<sub>7</sub>

<sup>C</sup> Total Rare Earth Oxides: La<sub>2</sub>O<sub>3</sub> + Ce<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub>

- **Superior purity profile:** Low levels of radionuclides and impurities (<1% in Northern Concessions, 0.7% in Southern Complex) make Colossus feedstock highly attractive to downstream processors, supporting potential for premium pricing versus industry peers.
- **Outstanding upside potential to improve PFS results:**
  - **Vast resource base, minimally tapped:** Only 13% of the Colossus landholding is included in the current JORC resource of **493Mt @ 2,508ppm TREO and 601ppm MREO<sup>1</sup>**.
  - **PFS mine plan conservatively based** on just 20% of the total resource and limited to two project areas.
  - **Multiple levers for value expansion:** Potential to extend the current 20-year LOM, increase production throughput, and boost head grades with high-grade areas such as Tamoyo averaging 770ppm MREO.
  - **Process optimisation and cost efficiency:** Ongoing metallurgical test work and engineering studies aim to further reduce costs, enhance recovery and derisk the process flowsheet in future study phases.
- **Clear and De-Risked Pathway to Production**
  - **Advanced permitting:** Environmental Impact Assessment submitted; key approvals such as the Certificate of Regularity for Land Use already secured, critical milestones toward the Preliminary License
  - **Established mining region:** Poços de Caldas is home to mature mining operations and chemical facilities, offering access to skilled labour, paved roads, and essential infrastructure.
  - **Production targeted for 2028,** with a clear timeline toward construction and commissioning.

#### Cautionary Statement

The Pre-Feasibility Study (PFS) referred to in this ASX release is a preliminary technical and economic assessment of the potential viability of producing a Mixed Rare Earth Carbonate (MREC) from the Mineral Resource of the Colossus Project. It is based on low-level assessments (with an estimated accuracy of ±30%) and does not support the estimation of Mineral Reserves, nor does it provide certainty that the conclusions will be realised. Further exploration, testwork, and studies are required before Viridis can estimate any Mineral Reserves or confirm the economic viability of the Project.

The production target is based on a 20-year mine plan, which contemplates processing 98.5 million tonnes of Mineral Resources, of which approximately 0.7% is classified as Measured and 99.3% as Indicated. Inferred Resources were not included in the mine plan or financial model, and Viridis is satisfied that the exclusion of Inferred Resources is not a determining factor for the Project's viability. Furthermore, there is a low level of geological confidence associated with Inferred Resources, and there is no certainty that further exploration will result in their conversion to Indicated Resources. The Mineral Resource estimates were prepared by Competent Persons in accordance with the JORC Code (2012).

This release, along with the information, opinions, and conclusions expressed herein, includes forward-looking statements and financial forecasts based on material assumptions disclosed throughout the document. Viridis considers these assumptions to represent a reasonable basis for such forward-looking statements and forecasts, including reference pricing, the defined production target, and the associated financial information. The basis for these conclusions is provided in various sections of this release, and all relevant assumptions, including the JORC modifying factors, are also disclosed. However, these forecasts and estimates are not guarantees of future performance and involve known and unknown risks and uncertainties. Actual results may differ materially from those expressed or implied. There are numerous risks, both specific to Viridis and of a general nature, that may affect the future operational and financial performance of the company, as well as the value of an investment in Viridis. These include, but are not limited to: title risk, renewal risk, general economic conditions, stock market volatility, commodity demand and price movements, timing of infrastructure access, environmental approval timelines, regulatory and operational risks, reliance on key personnel, reserve estimations, risks related to cultural heritage, foreign exchange fluctuations, and risks associated with the development, construction, and commissioning of the Project.

To achieve the development outcomes outlined in the release, the PFS estimates that funding of at least US \$286 million will likely be required. Shareholders and investors should be aware that there is no certainty that Viridis will be able to raise the required funding when needed and it is possible that such funding may only be available on terms that may be highly dilutive or otherwise adversely affect Viridis shareholders' exposure to the project economics. Specifically, as outlined in this PFS, Viridis intends to pursue potential third party partnerships (with parties who have the potential to be joint venture partners in the Project) to advance the Project and may pursue other value realisation strategies such as a sale or partial sale of the Project or underlying future commodity streams. If it does so, such arrangements may materially reduce Viridis' proportionate ownership of the Project and/or adversely affect Viridis shareholders' exposure to the project economics.

Hatch's report was prepared exclusively for Viridis and is based on information provided by the company. Hatch does not guarantee the feasibility or outcome of the Project.

Investors are cautioned that this PFS is a preliminary study and should not form the sole basis for any investment decision. Future performance may differ materially due to technical, economic, regulatory or market-related risks.

#### Chief Executive Officer, Rafael Moreno commented:

*"The Pre-Feasibility Study confirms what we've believed from day one: Colossus is emerging as one of the most economically robust and strategically significant rare earth projects globally. With its high-grade MREO profile, scalable resource base, and simple, low-cost metallurgy, Colossus stands out in a market increasingly defined by quality, security, and supply chain diversification.*

*At current cyclical lows (US \$63/kg NdPr), the Project still delivers an outstanding ~US \$128 million in annual operating cash flow. It remains cash-positive even at US \$50/kg NdPr, highlighting its first-quartile cost position and exceptional downside resilience.*

*In under two years, Viridis has transformed Colossus from an acquisition to a PFS-stage asset through disciplined drilling, metallurgy, ESG groundwork, and engineering. The result is a de-risked, sustainable operation with strong economics and a globally competitive cost curve.*

*We now turn our focus to advancing offtake and funding discussions, supported by the strength of the PFS. With a high-quality MREC product and increasing strategic interest, Viridis is well-positioned to become a key player in the Western rare earth supply chain, delivering long-term value for shareholders and supporting critical global industries."*

## PRE-FEASIBILITY STUDY OVERVIEW

Viridis Mining and Minerals Limited ('Viridis' or 'the Company') is pleased to report the results of the PFS for its flagship Colossus Rare Earth Project in Poços de Caldas, Brazil. Led by globally recognised engineering firm Hatch, the PFS outlines a technically robust, low-risk development pathway for one of the most compelling rare earth projects in the world today.

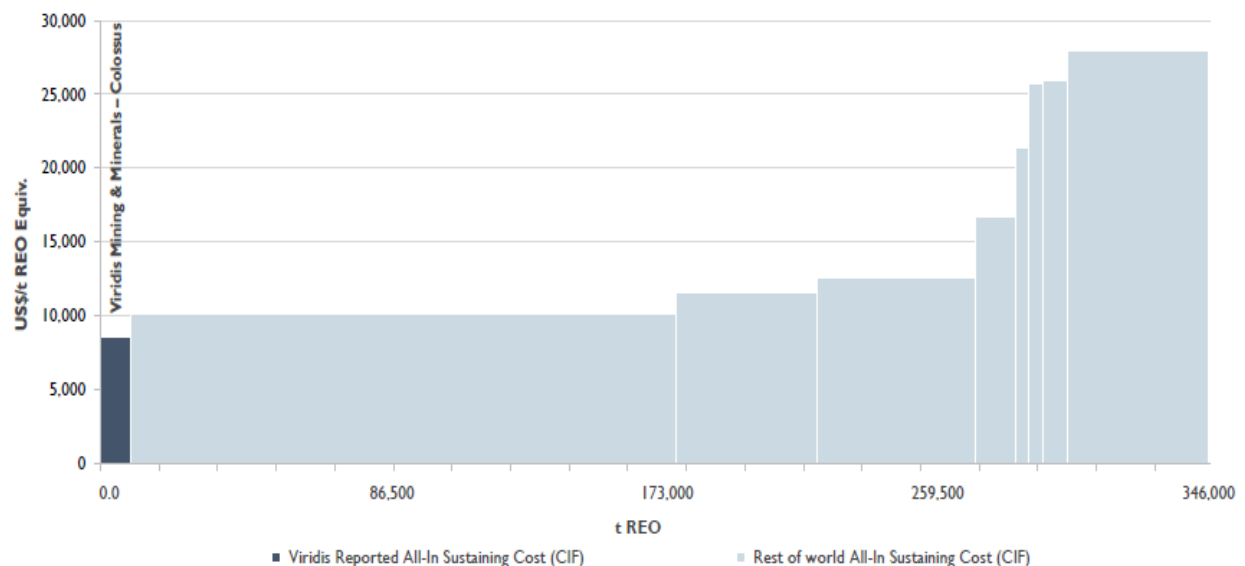
Based on the updated Mineral Resource Estimate announced in January 2025, the PFS evaluates a scalable 5Mtpa production facility with a 20-year mine life, underpinned by Measured and Indicated Resources from only the Northern Concessions and Cupim South prospects, representing just 12.8% of the Company's total tenement area and 20% of the global JORC-compliant resource base of 493Mt.

### Key Investment Highlights:

- **Lowest-Known Global Cost Base:** The PFS estimates a sector-leading AISC of US \$9.30/kg TREO, positioning Colossus as the lowest-cost rare earth producer globally based on 2025 cost curve forecasts from Project Blue Consulting ('Project Blue') in Figure 1.
- **Premium-Grade Resource Driving Margins:** Colossus boasts the world's largest and highest-grade MREO Measured & Indicated resource, supporting a consistent 20-year feed of >936ppm MREO.
- **High-Value Product Mix:** The mine design and scheduling strategically optimise for MREO:TREO ratio (28%) rather than total TREO volume, enhancing basket value and margin potential by prioritising rare earths with greater market value.
- **Unique Metallurgical Advantage:** Colossus features true ionic adsorption clay mineralisation, enabling superior recoveries through a simple, low-cost AMSUL-based flowsheet with minimal impurities.
- **Strong ESG and Infrastructure Synergies:** The Project benefits from 100% renewable grid power, a skilled local workforce, and excellent infrastructure access, delivering a low-carbon, cost-effective operation from development through to production.

With these competitive advantages, Colossus is well-positioned to deliver resilient, high-margin returns through rare earth commodity cycles, meeting the surging global demand for secure, sustainable supply of magnet rare earths.

The PFS confirms the project's potential to set a new industry benchmark in terms of cost, sustainability, and economic performance, reinforcing Viridis' position as a future leader in the global rare earth sector.



Source: Project Blue Consulting

**Figure 1:** Rare Earth Industry Cost Curve for February 2025 (source: Project Blue Consulting) highlights Colossus as one of the lowest-cost MREC producers worldwide.

## EXECUTIVE FINANCIAL OUTCOMES

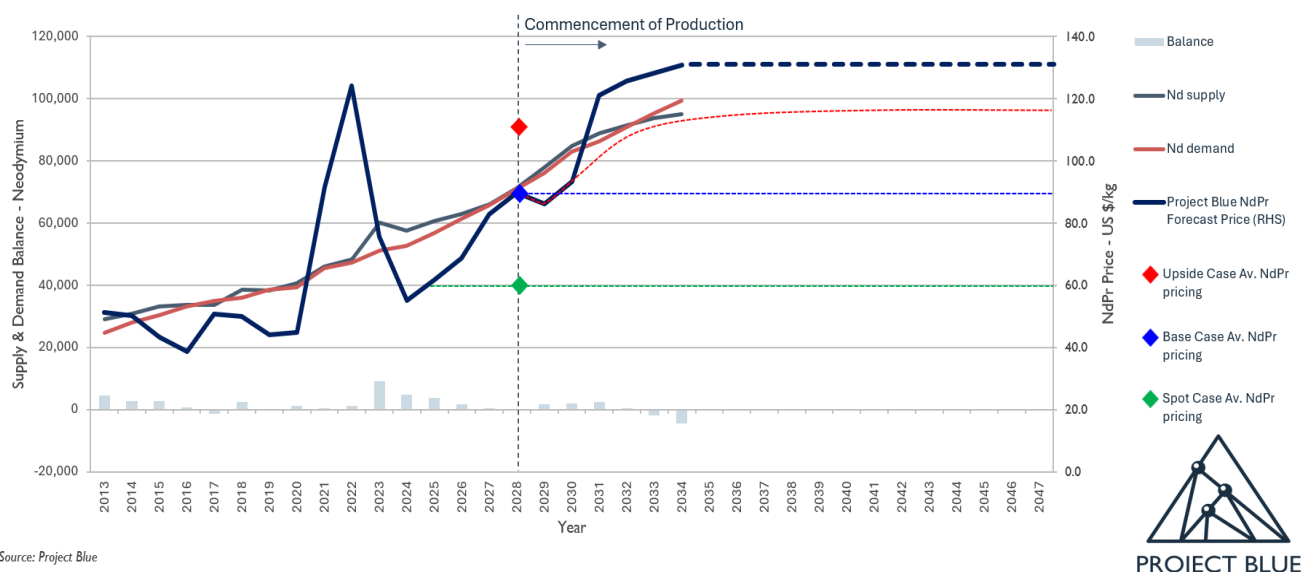
### Key Capital Expenditure and Financial Metrics

The total capital expenditure for the initial processing facility and mining fleet is estimated at approximately US \$286 million (excluding contingency), representing a low capital intensity relative to peer rare earth projects worldwide.

The exceptional financial metrics of the Project are underpinned by its world-class operating cost efficiency, exceptional MREO basket and low capital requirements. Key economic assumptions include:

- Viridis has modelled the Project's economics across three price scenarios to reflect real-world market dynamics and investor risk considerations (see Figure 2 below):
  - Base Case Price Scenario, US \$90/kg NdPr:** Aligned with Project Blue's 2028 forecast price of US \$90/kg NdPr in Figure 2, Ex works and applied without indexation over the LOM. This pricing scenario provides a balanced view of future demand and supply dynamics. This case is significantly more conservative than peer assumptions (often exceeding US \$110/kg NdPr), offering realistic return expectations.
  - Spot Case Price Scenario, US \$63/kg NdPr:** Based on Shanghai Metal Markets spot pricing on 7 July 2025 of US \$63/kg NdPr, Ex works and applied without indexation over the LOM. This stress test demonstrates Colossus' robust economics even at cyclical lows, highlighting the Project's ability to generate positive free cash flow without relying on elevated pricing.
  - Upside Case Price Scenario, US \$111/kg NdPr:** Based on the average price for REEs across the Project Blue forecast in Figure 2, between 2028 (start of production) and 2034 (final year of Project Blue forecasting), which is considerably lower than the forecasted US \$134/kg NdPr. This scenario highlights significant upside potential if the market tightened further during Colossus' early production years.
- Favourable Tax Position:** While conservatively modelled with Brazil's full 34% corporate income tax rate, Viridis has secured significant state-level tax exemptions and deferrals through a binding fiscal agreement with the Minas Gerais State Treasury, boosting project cash flows without altering the 34% tax rate assumption. Additional federal incentives are under negotiation, offering further potential to enhance post-tax cash flows and materially improve project returns.
- Unlevered Free Cash Flow Approach:** Financial modelling reflects a conservative capital structure, providing a clear view of project-level returns without debt-related variables.
- 8% Real Discount Rate:** Applied to ensure risk-adjusted valuation aligned with industry benchmarks.

### Pricing Model and Financial Outcomes for Colossus



**Figure 2: Rare Earth Industry and NdPr Pricing Forecast February 2025 (source: Project Blue Consulting), with the average LOM NdPr Price (US \$/kg) modelled across three scenarios within Table 3 below.**



The financial outcomes outlined in Table 3 highlight Colossus as a standout opportunity in the global rare earths sector, combining high margins, low costs, and robust economics that support rapid development progression. With a clear pathway to strong cash flow generation and resilient returns across market scenarios, Colossus is well-positioned to attract strategic partners and financing. Viridis remains focused on advancing the Project through permitting, Demonstration Plant, Definitive Feasibility Study, and technical de-risking, while accelerating engagement with potential offtake and funding partners to unlock long-term value for shareholders.

**Table 3: Colossus Project Key Production, Costs and Financial Summary**

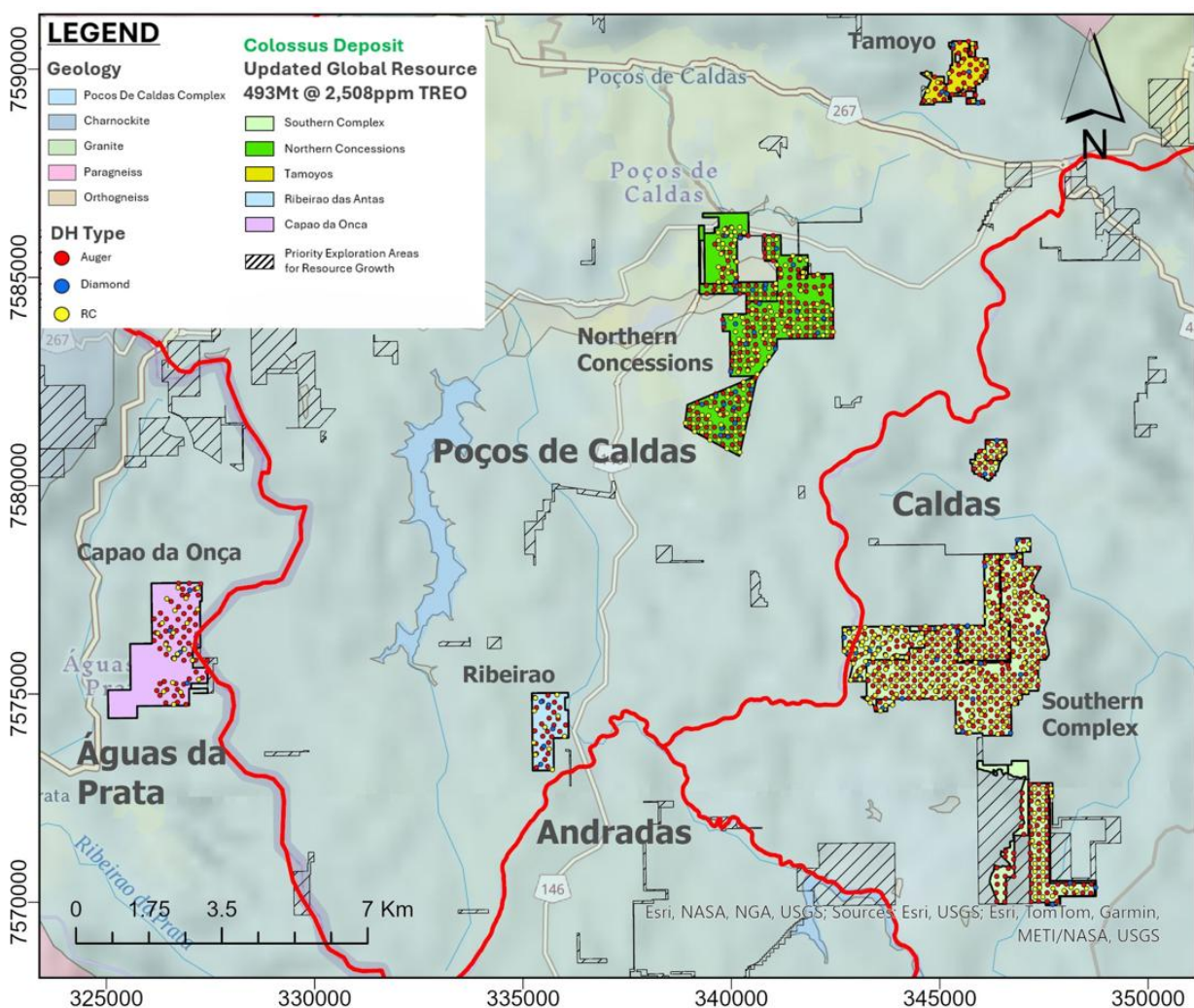
Production Metrics	Unit	Life of Mine (LOM)		
Mining - Northern Concessions and Cupim South (Measured and Indicated Only)				
Life of Mine	Years	20		
Production Facility Nameplate (Dry)	Mtpa	5		
Mineral Resource Considered	Mt	98.5		
Strip Ratio	waste:Mineral Resource	0.4		
Average TREO Feed Grade	ppm	3,380		
Average MREO Feed Grade	ppm	936		
Average MREO:TREO Feed Ratio	%	28		
Metallurgy				
TREO Recovery	%	57		
MREO Recovery	%	76		
Production				
Annual Production (REO)	t	9,448		
Total Production (REO)	t	188,954		
Annual Production (MREO: Nd, Pr, Dy, Tb)	t	3,518		
Total Production (MREO: Nd, Pr, Dy, Tb)	t	70,364		
NdPr % in TREO Concentrate	%	36		
Capital and Operating Cost	Unit	Life of Mine (LOM)		
CAPEX (inclusive of 25% contingency)	US \$M	358		
Annual Operating C1 Cost	US \$M	59		
Annual Operating C1 Cost per kg TREO	US \$/kg TREO	6.2		
Annual AISC (Spot Case)	US \$M	87		
Annual AISC per kg TREO (Spot Case)	US \$/kg TREO	9.3		
Project Financial Summary	Unit	Life of Mine (LOM)		
		Current Spot Case	Base Case	Upside Case
Average NdPr Price	US \$/kg NdPr	63	90	111
Average Basket Price TREO	US \$/kg TREO	31	43	53
Payability	%	70	70	70
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	AUD \$M	195	298	394
Total Operating Cashflow (Excl-CAPEX)	US \$M	2,568	3,935	5,205
Pre-tax NPV₈	US \$M	773	1,406	1,997
	AUD \$M	1,171	2,131	3,026
Pre-tax IRR	%	30%	43%	55%
After-tax NPV₈	US \$M	481	899	1,289
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Payback Period	Years	3.0	2.0	1.5

## STRATEGIC LOCATION - UNDERSCORES COLOSSUS INVESTMENT APPEAL

Viridis continues to build momentum, with the latest PFS outlining plans for a high-margin MREC production facility. Designed to process mineralised material from the Company's flagship Colossus Rare Earth deposit, the Industrial Facility will be centrally located within Viridis' tenements in Poços de Caldas, Minas Gerais, Brazil — optimising transport logistics and reducing operational costs by minimising haul distances from multiple mining sites.

The Poços de Caldas region hosts the largest alkaline complex in the Southern Hemisphere, enriched with rare earth mineralisation and home to major mining and chemical operations. Since acquiring its initial stake in August 2023, Viridis has aggressively expanded its footprint to 20,966 hectares (210 km<sup>2</sup>), consolidating its position in one of South America's most geologically prospective and mining-friendly jurisdictions.

Importantly, the region offers a strong operational advantage, with local infrastructure highly developed and featuring sealed roads, a renewable grid power system, an experienced mining workforce, and a community support network rooted in decades of bauxite, alumina, and clay mining. The presence of industry majors such as Alcoa and CBA further validates Poços de Caldas as a world-class mining hub and de-risks Viridis' path to development.



**Figure 3:** Colossus REE Project tenements, with all drill holes overlain and Upgraded Resource Concessions highlighted.

## GEOLOGY

The Colossus Project is located within the Poços de Caldas Alkaline Complex, a globally significant geological formation spanning ~800 km<sup>2</sup>. This unique caldera system, shaped by historic volcanic and intrusive activity, hosts some of the most promising REE deposits in the world.

At Colossus, critical REEs such as Nd, Pr, Dy, Tb are enriched within the regolith and saprolite zones. These elements are concentrated through natural weathering processes, where the breakdown of bastnaesite minerals releases REEs that bind ionically to clay minerals, creating high-value ionic adsorption clays.

This type of mineralisation is particularly attractive, as it supports low-impact, sustainable mining practices and enables efficient, cost-effective processing. Metallurgical testing confirms high REE recoveries using low molar concentrations of ammonium sulfate leaching under ambient conditions, significantly lowering capital and operating costs compared to hard rock and non-ionic clay-hosted REE projects.

## MINERAL RESOURCE

The Colossus Project hosts a globally significant rare earth endowment, with a total JORC-compliant Mineral Resource of 493 million tonnes at 2,508 ppm TREO, including 601 ppm MREO (Nd, Pr, Dy, Tb) as of the latest update on January 22, 2025. The resource spans five main project areas: Northern Concessions, Southern Complex (including Cupim South and Centro Sul), Tamoyos, Ribeirão, and Capão da Onça.

For the current PFS, Viridis has only drawn from two of these five areas — the Northern Concessions and part of the Southern Complex, which alone are sufficient to support a robust 20-year mine life based on high-grade MREO resource and ample volumes.

The Measured and Indicated resource base across these zones stands at 329Mt @ 2,680ppm TREO (659ppm MREO), making Colossus the largest and highest-grade MREO IAC project globally. Importantly, only 20% of this high-confidence resource has been included in the PFS, highlighting the conservative and scalable approach taken by Viridis.

**Crucially, project economics are underpinned by the enrichment of magnet rare earth oxides (MREOs), Nd, Pr, Dy, and Tb, which directly determine product pricing, basket value, and revenue.** Colossus' mine plan prioritises MREO content and MREO:TREO ratios over simply high TREO grades, ensuring a premium production profile aligned with global demand for electric vehicles ('EVs'), wind turbines, and advanced technologies.

The location of the selected resource areas near the planned beneficiation and production hubs further enhances operational efficiency, reducing haulage distances and associated costs.

Looking ahead, Colossus offers outstanding growth potential. Significant portions of the resource — including the Centro Sul zone, large areas of Inferred resources, and over 700 hectares of unexplored ground in the Southern Complex — provide clear pathways for mine life extension and scale-up. Additionally, the Tamoyos prospect, with the highest average MREO grade (770ppm, 27% MREO:TREO ratio), stands out as a future high-value feedstock source. Early drilling from the Southern Complex expansion zone also shows promising continuity of mineralisation, reinforcing the Project's long-term upside.

Colossus Project Updated Resource Estimate at 1,000ppm Cut-Off

Category	License	Million Tonnes (Mt)	TREO (ppm)	Pr6O11 (ppm)	Nd2O3 (ppm)	Tb4O7 (ppm)	Dy2O3 (ppm)	MREO (ppm)	MREO/TREO
Measured	Northern Concessions (NC)	1	2,605	133	437	5	28	603	23%
	<b>Measured Sub-Total</b>	<b>1</b>	<b>2,605</b>	<b>133</b>	<b>437</b>	<b>5</b>	<b>28</b>	<b>603</b>	<b>23%</b>
Indicated	Northern Concessions (NC)	169	2,434	143	441	5	26	614	25%
	Southern Complex (SC)	157	2,947	169	502	6	30	708	24%
	Capao Da Onca (CDO)	2	2,481	152	414	4	22	592	24%
	<b>Indicated Sub-Total</b>	<b>329</b>	<b>2,680</b>	<b>156</b>	<b>470</b>	<b>5</b>	<b>28</b>	<b>659</b>	<b>25%</b>
Inferred	Northern Concessions (NC)	45	1,753	92	290	4	20	405	23%
	Southern Complex (SC)	77	2,122	104	295	4	21	424	20%
	Tamoyos (TM)	18	2,896	156	577	6	30	770	27%
	Ribeirao (RA)	19	2,544	159	455	4	24	642	25%
	Capao Da Onca (CDO)	5	2,393	132	358	4	22	517	22%
	<b>Inferred Sub-Total</b>	<b>163</b>	<b>2,162</b>	<b>114</b>	<b>345</b>	<b>4</b>	<b>22</b>	<b>485</b>	<b>22%</b>
<b>GLOBAL COLOSSUS TOTAL RESOURCE</b>		<b>493</b>	<b>2,508</b>	<b>142</b>	<b>429</b>	<b>5</b>	<b>26</b>	<b>601</b>	<b>24%</b>

**Table 4: Updated Mineral Resource Estimate for Colossus REE Project using 1,000ppm TREO Cut-Off Grade.** The resource model excludes leached/soil clays, transitional horizon under 330ppm MAG\_REO\*, and regolith material under 300ppm MAG\_REO\*. The Measured and Indicated resources consist solely of regolith, while the Inferred resource includes both transitional and regolith.



## PRODUCTION FACILITY: FAST TRACK PATH TO PRODUCTION BACKED BY GOVERNMENT SUPPORT

Viridis has taken a deliberate and strategic approach to fast-track the development of its Colossus Rare Earth Project, with a strong focus on de-risking and permitting. Shortly after acquiring the Project, the Company conducted detailed due diligence and engaged early with both local government officials and specialist environmental consultants.

As a result, Viridis selected the Northern Concessions in the Municipality of Poços de Caldas as the optimal location for its production facility and initial mining operations. This decision was driven by a clear understanding that environmental and municipal approvals are critical path items for rare earth development. That early alignment with regulators would streamline project timelines.

This approach has already delivered results, having secured key municipal endorsement through the issuance of the Certificate of Regularity for Land Use and Occupation<sup>4</sup>. This significant milestone enables the development of the Colossus Project across the four core Northern Concession tenements. This endorsement represents a significant de-risking event and confirms strong local government support for the Project.

The site selection was also supported by a detailed trade-off study that assessed grade, metallurgical recoveries, logistics, and infrastructure. The southern half of the Northern Concessions was chosen as the central hub for the Colossus Production Facility, providing the best access to high-grade MREO pits and proximity to the Southern Complex. This location ensures low CAPEX/OPEX, high operational efficiency, and potential for throughput expansion beyond the current 5Mtpa design, a critical factor given the strong economics demonstrated in the PFS and increasing interest from prospective offtake partners.

Importantly, the facility will be developed near Alcoa's long-established bauxite mine and alumina plant (operating since 1965), allowing Viridis to leverage existing infrastructure in the Poços de Caldas Alkaline Complex and minimise construction and development risk.



**Figure 4:** Colossus REE Project looking east to high-grade starter pits in the Northern Concessions.

## MINING AND RESIDUE HANDLING

The Colossus Project's 20-year PFS mine plan will be exclusively supplied from the Northern Concessions and part of the Southern Complex, highlighting a highly selective initial development strategy with substantial upside. With only two of five major project areas included, Colossus offers significant room to scale production in future phases as additional high-grade MREO zones are brought online.

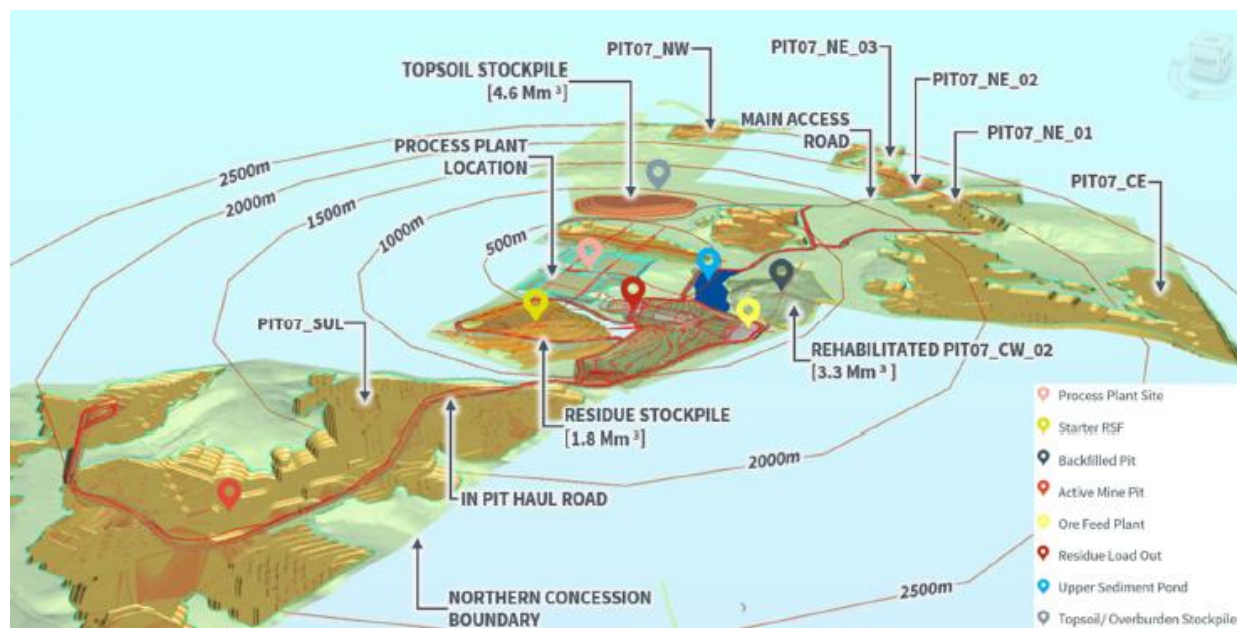
A standout feature of the Colossus mine design is its strong ESG credentials. The operation integrates a progressive residue backfill strategy, where processed resource is returned to depleted pits in real-time. This approach

supports fast-track environmental rehabilitation, reduces the Project's surface footprint, and ensures alignment with best-in-class sustainability standards.

Mining and backfill are designed as a single, integrated process, streamlining operations and reducing both capital and operating costs. Beneficiation hubs will be established within both mining zones, allowing mineral resources to be pre-processed close to the source and slurried to a centralised processing facility. The system has been engineered to recycle process water and optimise logistics over short-haul distances, thereby limiting water consumption and increasing cost efficiency.

Mining will be carried out by an owner-operated truck-and-excavator fleet using conventional, shallow, open-pit methods. Notably, the clay-hosted mineralised body allows for free-digging, eliminating the need for drilling and blasting. This reduces environmental impact, equipment wear, and operating complexity.

Processed residue will be returned via conveyor to a central dump point, then backhauled to the mined-out pits using the same haul fleet, thereby maximising truck utilisation and minimising transport costs and traffic. Material movement is kept highly efficient via private haul roads.



**Figure 5:** Northern Concessions mining and residue handling overview.

The proposed mining operation for the Southern Complex will follow the same approach as in the Northern Concessions. To support this strategy and enable efficient truck haulage of material to and from a central location within the Southern Complex, a second beneficiation hub is required, as shown in Figure 6.

The slurry from the southern beneficiation hub will tie into the slurry line from the northern beneficiation hub, which supplies resource feed to the central process plant. The residue from the main process plant will be conveyed to the beneficiation hub in the south, thereby allowing mining Articulated Dump Trucks (ADTs') to collect the material via a truck load out and backhaul for final placement within available mined-out voids.

With the fixed infrastructure in the south, the materials handling synergies between mineral resources and residues can be realised over both operating areas throughout the LOM, substantially reducing haulage distance and thereby reducing the size of the trucking fleet and associated maintenance and labour costs. The infrastructure and equipment required for the Southern Complex have been allocated as sustaining CAPEX, incurred at the end of operating year 3 and commissioned by mid-year 5.

The estimated mining and residue backfill cost is **US \$3.1/t of run of mine ('ROM')**, developed using first-principles and industry benchmarking, underscoring Colossus' potential to be a low-cost producer in the rare earth space.

#### Sustainable Mining in Practice:

- **Topsoil Management:** Carefully removed and stockpiled for post-mining rehabilitation.
- **Free-Dig Clay Mining:** Low-impact truck-and-excavator method.
- **Efficient Resource Transport:** Short-haul routes to beneficiation hubs; slurry pipeline to central plant.

- **Residue Backfill:** Dewatered clay is transported back for dry stacking and compaction in mined pits.
- **Land Rehabilitation:** Restored landforms using stockpiled topsoil, enabling natural vegetation regrowth.



**Figure 6:** Southern Complex mining and residue handling overview.

## CIVIL DESIGN: PHASED DESIGN SUPPORTS LOW-COST RAMP-UP AND LONG-TERM EXPANSION

The civil design during the PFS has been strategically engineered to align with the mine plan and integrated residue backfill system, supporting both capital efficiency and streamlined development. A comprehensive civil assessment was completed, including capital costs, construction scope, and future expansion pathways.

### Capital Optimisation from Day One:

The design focuses on minimising upfront capital expenditure while ensuring operational readiness. Mining will commence in the Northern Concessions from pits CW-01, CW-02, and CW-03, all located within close proximity to the central processing facility, as shown in Figure 7. This eliminates the need for early construction of long-haul roads, deferring these costs until later mine stages.

### Key Civil Infrastructure Highlights:

- **Optimised Haul Routes:** Central haulage corridors and the primary beneficiation hub are included in initial CAPEX, while more distant eastern and southern haul roads are deferred as sustaining capital, beginning after year 6.
- **Temporary Residue Storage:** Capacity to store six months (~2.5Mt) of residue is built in from the start, enabling uninterrupted early production before the first pit is ready for backfilling, and smoothing the Project's production ramp-up.
- **Stockpile Capacity:** Topsoil and unmineralised overburden storage planned for up to 92 hectares of disturbed area, accommodating early-stage excavation and future rehabilitation efforts.
- **All-Weather Access:** Haul roads are engineered for robust, year-round operation, designed with 10% max gradient and 14m width to handle 60-tonne ADTs, enhancing logistics resilience.
- **Weather Risk Mitigation:** An off-spec residue stockpile pad is located at the residue load-out conveyor discharge point, serving as a buffer during heavy rainfall (>10 mm/day). This feature ensures safe, continuous operation when direct backfilling is not possible due to soft ground conditions.
- **Phased Southern Expansion:** The Southern Complex will be integrated into operations after six years of continuous mining in the north, enabling a staged development model that aligns with sustained cash flow and operational maturity.



This civil design strategy supports a low-risk, capital-efficient development model with flexibility to scale as required. The phased investment structure preserves capital during the early years while enabling future growth, giving Viridis the agility to respond to market demand and potential offtake partnerships without compromising operational continuity or ESG standards.



**Figure 7: The General Site Layout of the Colossus Project illustrates the location of the mining areas, haul roads, and infrastructure in the Northern Concessions.**

## MINE DESIGN AND PLANNING

The Colossus development strategy is based on a low-impact, high-margin open-pit operation, optimised for near-surface IAC mineralisation. This geological advantage enables cost-effective rare earth extraction with minimal environmental disruption, a key differentiator in the global REE market.

The mine plan is built around selective high-grade mining, prioritising:

- MREO grade
- MREO:TREO ratio
- Progressive residue backfill
- Operational efficiency and minimal stripping

With a 20-year LOM, Colossus features a one-year ramp-up, beginning at 3.5Mtpa and reaching steady-state production of 5Mtpa ROM from year two onward. The mine's low stripping ratio of 0.4:1 waste-to-mineral resource ensures low operating costs and a robust production profile over the long term.

The first five years of production will focus exclusively on the Northern Concessions, allowing for early cost optimisation by targeting high-grade MREO pits located near the central processing facility, as shown in Figure 7. This early-stage strategy maximises cash flow and accelerates project payback.

In later stages, mining will expand into the Southern Complex (Cupim South) to further optimise resource utilisation, access high-grade MREO pits, and extend operational flexibility. The key operational parameters are summarised in Table 5.



**Table 5: Key Operational Parameters of the Colossus Project**

Parameter	Unit	Value
Life of Mine (LOM)	years	20
Production Facility Nameplate [Dry]	Mtpa	5
Total Quantity Mined [Dry]	Mt	98.5
TREO Feed Grade (Average)	ppm	3,380
MREO Feed Grade (Average)	ppm	936
Strip Ratio	waste:Mineral resource	0.4
Total Production (REO)	t	188,954
Annual Average Production (REO)	t	9,448
LOM average TREO Recovery	%	57
LOM average MREO Recovery	%	76

The result is a scalable, economically resilient operation underpinned by a consistent high-value feed of Nd, Pr, Dy, and Tb, the core inputs for EVs, wind turbines, and advanced electronics. The Colossus mine plan ensures that Viridis is not only positioned for strong early returns but also for sustained long-term value creation.

#### **Pit Design:**

Viridis has partnered with top-tier engineering and mining consultants, including Hatch, Prominas, and BNA Mining Solution, to deliver a highly efficient and low-impact mining and waste management plan for the Colossus Project. Their combined expertise underpins a world-class development model built around high-grade resource recovery, safety, and ESG performance.

#### **Efficient, Phased Mine Plan with High-Grade Focus**

- Pit designs and mine sequencing were optimised to maximise MREO recovery while minimising waste and haul distances.
- Mine depths are shallow (maximum 30m, average 15m), with 5-metre benches and 35-degree slope angles, ensuring safe, low-cost extraction and fast rehabilitation.
- A full suite of ancillary infrastructure, including haul roads (14m wide), stockpiles, and temporary dry stack storage, has been incorporated to ensure streamlined operations.

The proximity of both the beneficiation hubs and the central production facility to the mining areas provides significant logistical advantages, resulting in reduced operating costs and a lower environmental impact. Mineral resources will be transported via dedicated haul trucks along a well-planned road network, with dust suppression measures in place to ensure compliance and protect the community.

#### **Best-In-Class Tailings and Waste Management:**

Viridis has embedded progressive backfilling into its mine design from the outset, a sustainable strategy that reintegrates both overburden and processed residue into mined-out pits. This eliminates the need for surface tailings dams and large waste dumps, significantly reducing the Project's surface footprint and long-term environmental liabilities.

Key benefits of the Colossus tailings and residue approach:

- No wet tailings dam required; dry-stacked tailings will be filtered and pressed to a moisture level similar to the original mineral resource.
- Recycled process water and reagents (e.g. ammonium sulfate) enhance environmental performance and reduce reagent costs.
- Interim storage of spent resource is limited to ~6 months before mined-out pits become available for in-pit residue backfilling, supporting continuous rehabilitation and landform restoration.

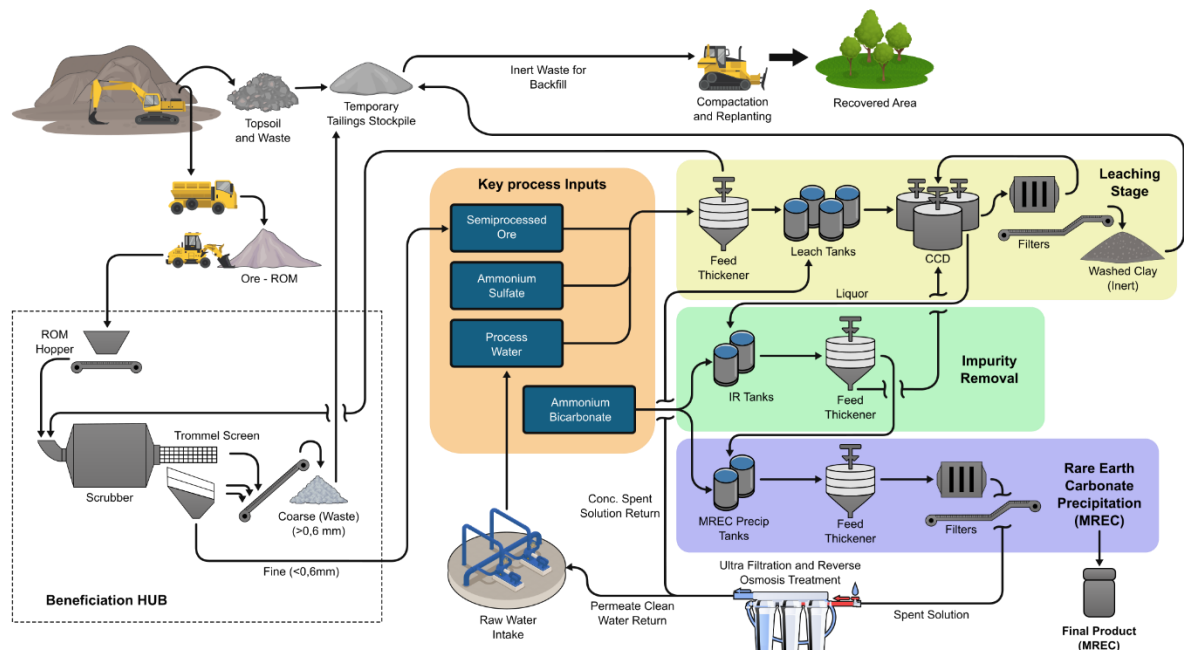
## PROCESSING AND METALLURGY

The Colossus production facility will be in the southern half of the Northern Concessions, adjacent to three high MREO grade pits that make Phase I of the production profile. The production facility will treat 5Mtpa (dry) ROM feed and produce a MREC product. The design and subsequent cost estimate reflect a production facility with a plant operating factor of 90% (7,884 operating hours per year).

### Process Overview: Simple, Scalable Processing Flowsheet Delivering High-Value REE Output

The proposed flowsheet in Figure 8 has been designed for the efficient and low-impact extraction of magnet rare earth elements (Nd, Pr, Dy, Tb) from ionic adsorption clay using proven, scalable technology. The process maximises metallurgical recoveries while minimising reagent use, water consumption, and waste generation, supporting both strong economics and ESG performance. Key processing includes:

- **Mineral Beneficiation:** ROM material is transported to centralised beneficiation hubs, where it is scrubbed and screened. Oversized material is stockpiled, while undersized material is pumped as a slurry to the central processing plant.
- **Leaching:** The slurry undergoes ambient-temperature leaching using ammonium sulfate in stirred tanks. This low-energy, low-reagent method capitalises on the clay-hosted mineralised material's natural reactivity.
- **Solids Management:** The leached slurry is washed and filtered via a counter-current decantation ('CCD') circuit and pressure filters. Washed residue is temporarily stored before being returned to mined-out pits as part of the progressive backfill strategy.
- **Purification and Precipitation:**
  - The rare earths rich solution is purified by increasing the pH to ~5.5 using ammonium bicarbonate, selectively removing impurities such as aluminium.
  - Further pH adjustment to ~7.1 leads to the precipitation of high-purity rare earth carbonates.
  - The resulting MREC filter cake is washed, filtered, and bagged for sales.
- **Reagent and Water Recycling:** Spent process solution is treated using ultrafiltration ('UF') and reverse osmosis ('RO') to recover clean water and recycle ammonium sulphate.



**Figure 8:** Colossus Project Process Flow showing the sustainable process for producing MREC, including selective resource extraction, ammonium-based reagent flowsheet, water recirculation via reverse osmosis, and backfilling of Non-hazardous residue into mined-out pits to promote environmental restoration.

### ‘Mineral Resource to MREC’: Recoveries Anchored by ANSTO Test Work

Viridis has validated a robust set of metallurgical recoveries from Mineral Resource to MREC product for the Colossus Project, underpinning the PFS with practical, testwork-based inputs rather than assumptions.

Recovery inputs used in the PFS are based on flowsheet test work conducted by ANSTO, a globally respected authority in rare earth metallurgy. ANSTO simulated realistic operating conditions for the proposed Colossus Processing Plant, delivering recovery profiles tailored to the two core production areas:

- Northern Concessions Bulk Composite
- Southern Complex Bulk Composite

This dual-source testing strategy allowed Viridis to apply site-specific recovery assumptions, increasing accuracy and avoiding the oversimplified approach of applying a single recovery rate across the entire mine plan.

#### Statistical Validation Across the Mine Plan

As part of its metallurgical due diligence, Viridis undertook a rigorous statistical validation to confirm that the ANSTO recovery profiles are not only technically achievable but also representative across the actual mineralised body<sup>6</sup>.

- Randomised, non-targeted sampling was conducted across various depths and grades in both the Northern Concessions and Southern Complex.
- Unoptimised diagnostic leach tests were performed to reflect true metallurgical variability across spatially distributed mineralised zones.
- The resulting dataset was benchmarked against ANSTO’s recovery performance, confirming the applied recoveries are statistically valid and operationally achievable across the mine schedule.

This level of metallurgical validation significantly de-risks project assumptions and builds investor confidence in the PFS financial outcomes.

#### Northern Concessions ‘Mineral Resource to MREC’ Recoveries by ANSTO

The individual REO recoveries from Mineral Resource to final saleable MREC product within the Northern Concessions Bulk Composite are shown below, with an overall impurity level of 1.04%, including negligible levels of Uranium (‘U’) and Thorium (‘Th’), an important aspect for offtake partners. This has been used in the PFS calculation for the mine pits and subsequent feed Mineral Resource, which pertains to the Northern Concessions<sup>2</sup>.

**Table 6:** ANSTO net Resource to MREC recoveries for Northern Concessions using 0.3M AMSUL pH4.5 leaching and sodium bicarbonate for impurity removal and precipitation. Note that the MREC TREO composition depends on the grade composition of the resource fed. The MREC recoveries are applicable and have been statistically validated as practical, following the mine plan scheduled for the Northern Concessions.

Northern Concessions	MREC Recovery (%)	MREC TREO Composition
	Resource to final MREC precipitation	
La <sub>2</sub> O <sub>3</sub>	75%	44.5%
CeO <sub>2</sub>	9%	2.4%
Pr <sub>6</sub> O <sub>11</sub>	77%	8.3%
Nd <sub>2</sub> O <sub>3</sub>	76%	29.1%
Sm <sub>2</sub> O <sub>3</sub>	73%	3.2%
Eu <sub>2</sub> O <sub>3</sub>	77%	0.8%
Gd <sub>2</sub> O <sub>3</sub>	74%	2.1%
Tb <sub>4</sub> O <sub>7</sub>	71%	0.3%
Dy <sub>2</sub> O <sub>3</sub>	67%	1.2%
Ho <sub>2</sub> O <sub>3</sub>	67%	0.2%
Er <sub>2</sub> O <sub>3</sub>	63%	0.5%
Tm <sub>2</sub> O <sub>3</sub>	55%	0.1%
Yb <sub>2</sub> O <sub>3</sub>	51%	0.3%
Lu <sub>2</sub> O <sub>3</sub>	51%	0.0%
Y <sub>2</sub> O <sub>3</sub>	65%	6.9%
TREO	64%	100%
MREO	76%	39%

### Southern Complex 'Mineral Resource to MREC' Recoveries by ANSTO

The individual REO recoveries from Mineral Resource to final saleable MREC product within the Southern Complex Bulk Composite is shown below with an overall 0.7% impurity level, again with negligible U and Th, and has been used in the PFS calculation for the mine pits and subsequent feed Mineral Resource, which pertains to the Southern Complex<sup>3</sup>.

**Table 7: ANSTO net recoveries for Southern Complex Mineral Resource to final saleable MREC using 0.3M AMSUL pH4.5 leaching and sodium bicarbonate for impurity removal and precipitation. Note that the MREC TREO composition depends on the grade composition. The MREC recoveries are applicable and have been statistically validated as practical, following the mine plan scheduled for the Northern Concessions.**

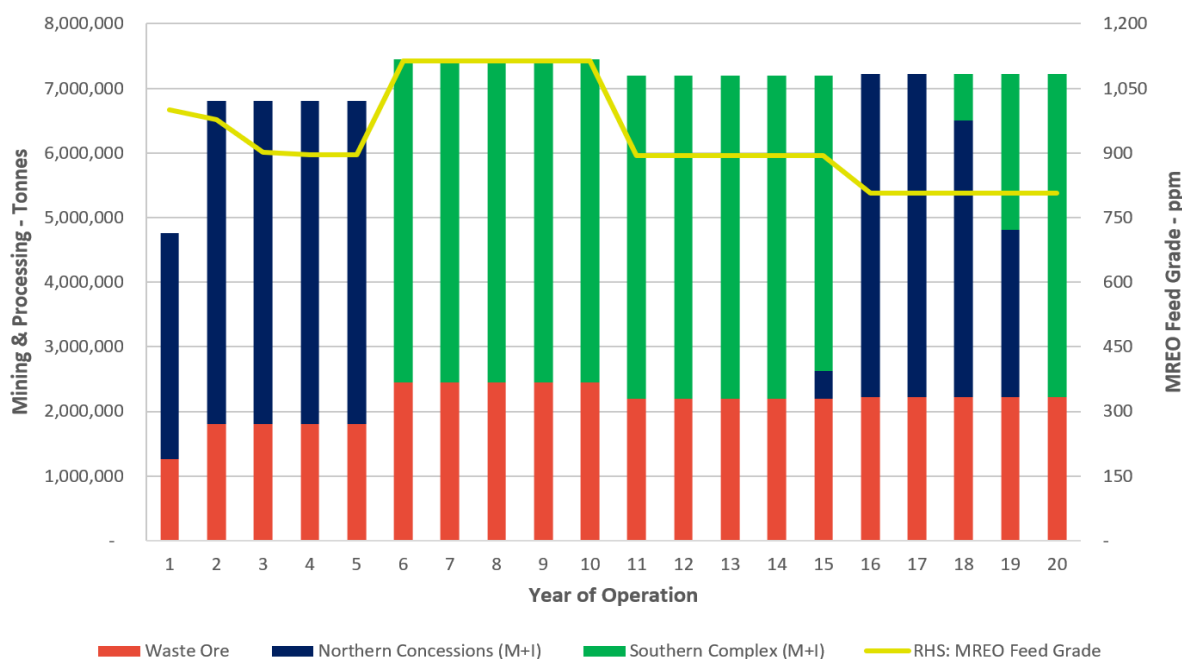
Southern Complex	MREC Recovery (%)	
	Resource to final MREC precipitation	MREC TREO Composition
La <sub>2</sub> O <sub>3</sub>	78%	48.2%
CeO <sub>2</sub>	3%	0.6%
Pr <sub>6</sub> O <sub>11</sub>	77%	8.7%
Nd <sub>2</sub> O <sub>3</sub>	79%	27.9%
Sm <sub>2</sub> O <sub>3</sub>	77%	3.1%
Eu <sub>2</sub> O <sub>3</sub>	75%	0.7%
Gd <sub>2</sub> O <sub>3</sub>	78%	1.9%
Tb <sub>4</sub> O <sub>7</sub>	69%	0.2%
Dy <sub>2</sub> O <sub>3</sub>	65%	1.1%
Ho <sub>2</sub> O <sub>3</sub>	65%	0.2%
Er <sub>2</sub> O <sub>3</sub>	61%	0.4%
Tm <sub>2</sub> O <sub>3</sub>	54%	0.1%
Yb <sub>2</sub> O <sub>3</sub>	50%	0.3%
Lu <sub>2</sub> O <sub>3</sub>	49%	0.0%
Y <sub>2</sub> O <sub>3</sub>	66%	6.7%
TREO	66%	100%
MREO	78%	38%



## PRODUCTION PROFILE

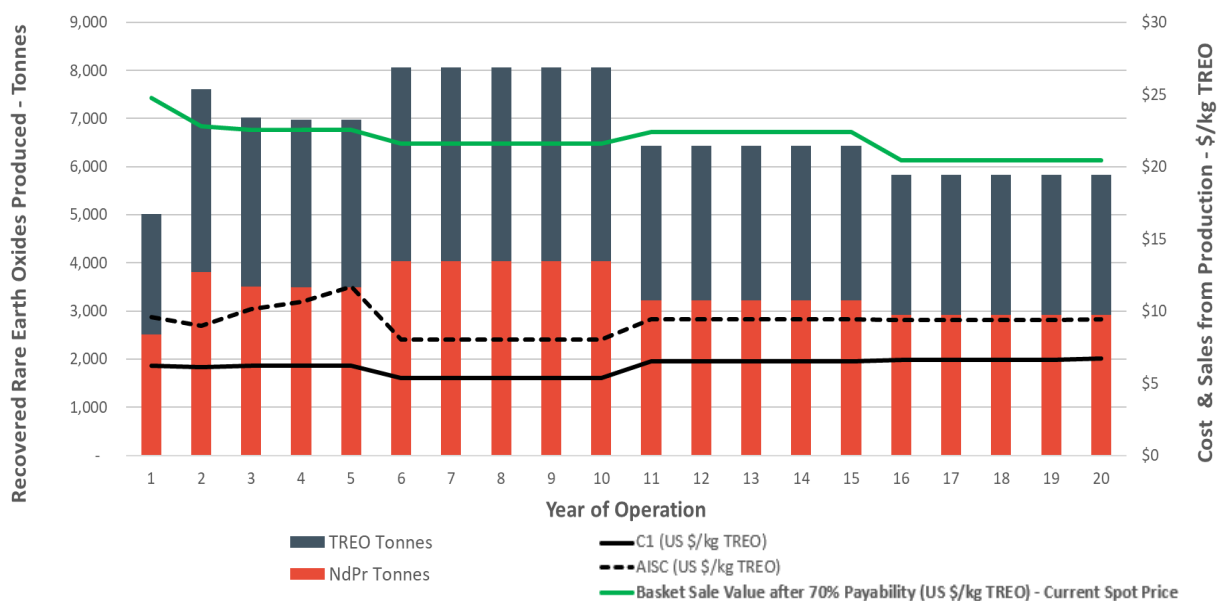
The production profile for the Colossus Project includes four phases, each phase consisting of a five-year block, leading to a total 20-year project LOM as shown in Figure 9.

- Stage 1 (Years 1-5) = Ultra-high MREO grade ('UHMG') from the Northern Concessions. >28% MREO.
- Stage 2 (Years 6-10) = UHMG from the Southern Complex. >28% MREO.
- Stage 3 (Years 11-15) = High MREO grade ('HMG') from the Southern Complex. >27% MREO.
- Stage 4 (Years 16-20) = HMG from the Northern Concessions and Southern Complex. >25% MREO.



**Figure 9: Mine planning sequence and subsequent production profile for 20-year LOM versus MREO feed grade.**

Total Production over the current LOM will be 189 kt of Rare Earth Oxides, corresponding to 266 kt of MREC. Figure 10 illustrates Colossus C1 operating cost and AISC per kilogram of NdPr, compared to MREC basket value at the current spot price of US \$63/kg NdPr, showcasing the healthy margins even at today's depressed rare earth prices.



**Figure 10: Colossus project production forecast of TREO and NdPr versus the C1 OPEX and AISC per kg TREO.**

## PROJECT CAPITAL COST ESTIMATE

The PFS has delivered a detailed and reliable capital cost estimate for the Colossus Project, supporting the development of a 5Mtpa processing facility and mining infrastructure in the Northern Concessions. The estimate is prepared in USD (June 2025 base date) and follows AACE Class 4 standards with target accuracy range of  $\pm 30\%$ .

### Key Highlights:

- The capital estimate is grounded in real-world pricing, with over 90% of mechanical equipment costs sourced from vendor quotations, delivering a high degree of confidence and reducing cost-risk exposure.
- All direct and indirect costs, as well as taxes and owner's costs, are fully accounted for in the estimate.
- A prudent 25% contingency allowance has been applied to ensure financial flexibility and safeguard against cost escalations during next phases of development.

The total estimated project capital (including contingency) is ~US \$358 million, positioning Colossus as a capital-efficient rare earth project with a strong value-to-cost profile. A CAPEX summary is provided in Table 8 below.

**Table 8: PFS Capital Cost Estimate**

Cost Element	Capital Cost (Million USD)
Equipment Supply and Installation (Mining and Processing Plant)	106
Bulk Commodities (Civils, Concrete, Structural, Buildings, Piping, Electrical power)	79
Total Indirect Costs	52
Owner's Cost	9
Taxes	40
Contingency	72
Forward Escalation	Excluded
<b>TOTAL PRE-PRODUCTION CAPEX CAPITAL COST</b>	<b>358</b>

### Scoping Study Comparison:

Direct costs in the PFS have increased from US \$167M to US \$185M, reflecting greater engineering definition and design adjustments to optimise operations and meet environmental standards, an expected outcome at this stage of study. Indirect and owner's costs remain stable, with a minor reduction of US \$3M. Overall capital requirement however, has decreased due to two key improvements: a reduction in import taxes from US \$56M to US \$40M through the partial application of a state-level tax agreement (with local specialist tax consultants), and a lower CAPEX contingency, reduced from 30% to 25%, supported by increased confidence in cost estimates.

## PROJECT OPERATING COSTS ESTIMATE

A compelling operating cost structure for the Project has been confirmed, with detailed operating cost estimates developed as part of the PFS. These estimates are based on June 2025 pricing, align with 90% operational uptime, and are built on realistic assumptions tailored to the mine's 20-year LOM.

### C1 Operating Costs – Positioned at lowest end of First Quartile:

The average C1 OPEX over LOM is estimated at US \$6.20/kg TREO and summarised in Table 9. This places Colossus firmly in the lowest cost quartile globally and among the most cost-competitive rare earth projects outside China.

- Utilities, reagents, and power consumption were extracted from the mass-energy balance model and vendor quotations
- Labour costs were estimated based on a head account of a typical mining operation of this size, complexity, and position salaries, which were benchmarked against local industry.
- Maintenance costs and materials were factored on equipment costs and allowances were included for general and administration costs and consumables, based on experience with similar facilities.
- Fleet costs for both mining and residue backfilling were incorporated in full.
- No contingency added to OPEX, but conservative allowances made for undefined miscellaneous costs.

### AISC – Support Industry Leading Economics:

The total AISC, incorporating C1 OPEX, royalties, sustaining capital, and expansion capital, is estimated at just US \$9.30/kg TREO across the LOM. This positions Colossus as one of the lowest-cost REE producers globally, offering strong long-term margin resilience even under conservative pricing scenarios.

#### Royalty and Fiscal Environment

Three production royalties are included in the AISC, are calculated based on product value at market prices:

- 4.75% to the project vendor
- 2% Compensação Financeira pela Exploração de Recursos Minerais('CFEM') state royalty
- 1% to landholders

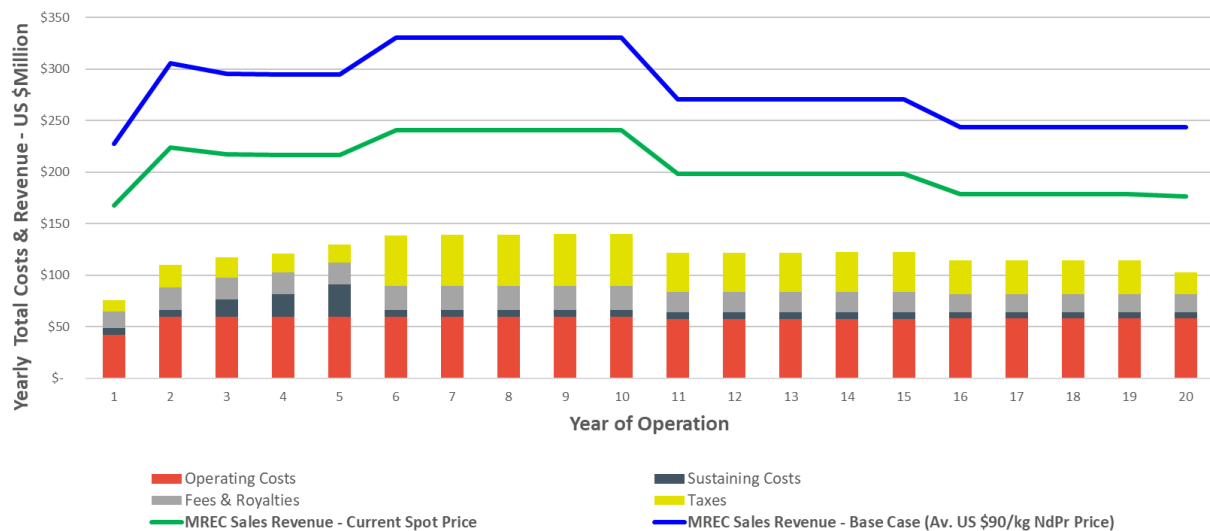
#### Capital Allocation and Expansion Pathway

- Sustaining capital is budgeted at 3.5% of Direct CAPEX, or approximately US \$6.5M/year, to maintain operational capacity and regulatory compliance.
- An additional US \$50M in expansion capital is planned across Years 3–5 to fund the build-out of the Southern Complex beneficiation hub, slurry pipelines, and residue conveyor, all of which are already factored into the financial model.

While conservatively modelled with Brazil's full 34% corporate income tax rate, Viridis has secured significant state-level tax exemptions and deferrals through a binding fiscal agreement with the Minas Gerais State Treasury, boosting project cash flows without altering the 34% tax rate assumption. Additional federal incentives are under negotiation, offering further potential to enhance post-tax cash flows and materially improve project returns.

**Table 9: PFS Annual Operating Cost Estimate Summary across the 20-year LOM**

Cost Element	Unit	Phase I	Phase II	Phase III	Phase IV	LOM Average
		Year 1 - 5	Year 6 - 10	Year 11 - 15	Year 16 - 20	Year 1 - 20
C1 Operational Costs						US \$M/Yr
Mining / Residue Handling	US \$ Million/Yr	13.0	16.0	16.4	15.6	57.7
Processing and Transportation	US \$ Million/Yr	39.9	38.8	37.6	39.4	
General and Administration	US \$ Million/Yr	3.4	3.5	3.6	3.6	
Sustaining and Royalty Operational Costs						US \$M/Yr
Sustaining CAPEX	US \$ Million/Yr	16.5	6.5	6.5	6.5	29.2
Royalties and Fees (Spot Price)	US \$ Million/Yr	20.4	23.6	19.4	17.4	
Production						Tonnes/Yr
TREO	Tonnes/Yr	9,095	11,139	8,855	8,723	9,448
Basket Value (Excl. Payability): Current Spot Case Pricing	US \$/kg TREO	32	31	32	29	31
Basket Value (Excl. Payability): Base Case Pricing	US \$/kg TREO	45	42	44	40	43
NdPr	Tonnes/Yr	3,358	4,025	3,213	2,916	3,374
DyTb	Tonnes/Yr	150	160	144	125	145
MREO (Nd, Pr, Dy, Tb)	Tonnes/Yr	3,509	4,185	3,357	3,041	3,518
TOTALS						LOM Average
Total Annual Operating Cost (C1)	US \$M/Yr	56.2	58.3	57.6	58.7	57.7
Total AISC Operating Cost (AISC)	US \$M/Yr	93.1	88.3	83.4	82.6	86.8
C1 Cost per kg of TREO	US \$/kg TREO	6.2	5.2	6.5	6.7	6.2
C1 Cost per kg of MREO	US \$/kg MREO	16.0	13.9	17.2	19.3	16.6
AISC Cost per kg of TREO	US \$/kg TREO	10.2	7.9	9.4	9.5	9.3
AISC Cost per kg of MREO	US \$/kg MREO	26.5	21.3	24.9	27.2	24.9



**Figure 11:** Cost breakdown of All-in-sustaining Costs versus Project Revenue scenarios, including taxes.

## RARE EARTH OXIDE AND MREC PRICING BASIS

The global rare earth market remains heavily influenced by Chinese supply dominance and evolving geopolitical dynamics, making long-term price forecasting inherently uncertain. To ensure a realistic and bankable pricing foundation, Viridis has adopted a conservative and data-driven approach to the PFS.

### REE Price Scenarios Informed by Independent and Institutional Forecasts:

Viridis conducted a comprehensive review of rare earth pricing outlooks, drawing from a wide range of domestic and international brokerage and investment bank forecasts, which generally estimate NdPr prices between US \$80–111/kg.

To enhance credibility, Viridis also engaged Project Blue, an independent rare earth market specialist, to provide third-party pricing analysis. Project Blue forecasts NdPr demand to double again over the next decade, continuing the rapid growth seen over the past 10 years, underpinned by surging demand from EVs, wind turbines, and advanced technology sectors.

### Three Price Scenarios Modelled for Sensitivity and Resilience:

Viridis assessed Colossus' economics under three clearly defined price scenarios to reflect market variability and support potential project financing:

#### 1. Base Case – US \$90/kg NdPr

- Based on Project Blue's 2028 forecast (in Figure 12), aligned with the expected timing of Colossus reaching nameplate production.
- Assumes a flat, unindexed price across the 20-year LOM, offering a realistic, risk-adjusted benchmark.
- Notably more conservative than pricing assumptions used by many peer projects (>US \$110/kg NdPr).

#### 2. Spot Case – US \$63/kg NdPr

- Based on the Shanghai Metals Market spot price as of 7 July 2025.
- Reflects a highly conservative scenario using the lower end of the current market cycle.

#### 3. Upside Case – US \$111/kg NdPr

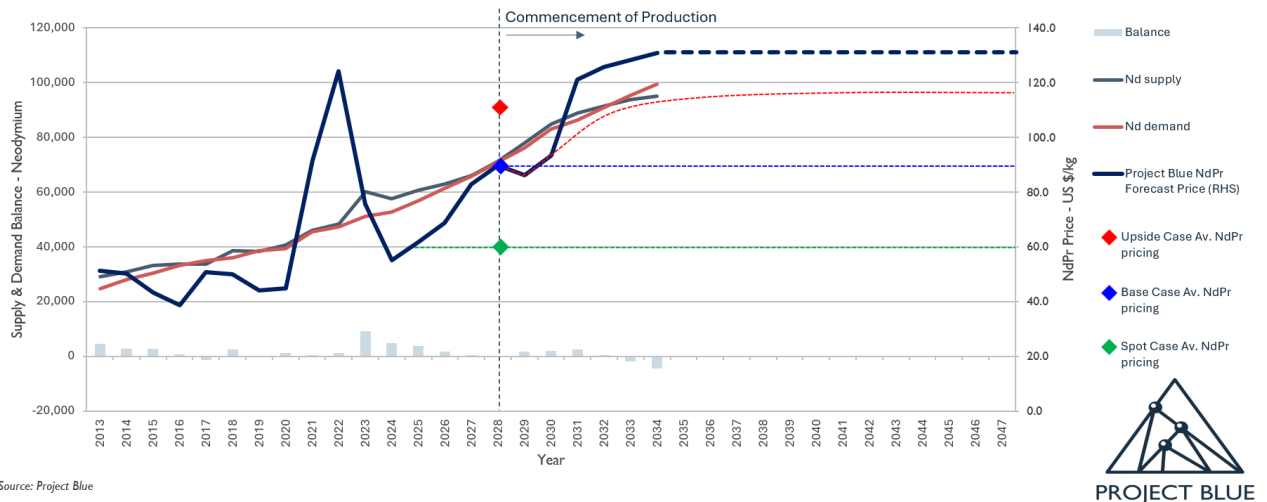
- Based on Project Blue's 2028 forecast (in Figure 12), between 2028 (start of production) and 2034 (final year of Project Blue forecasting), which is considerably lower than the forecasted US \$134/kg NdPr



- Reflects the upper range of broker consensus and potential upside in a tightening supply-demand environment.

This tiered scenario modelling ensures robust project economics across market cycles, demonstrating that Colossus remains economically resilient even at current subdued spot prices.

Furthermore, Figure 12 highlights the importance of having a project with financial resilience and the ability to withstand fluctuations in the REE market at today's subdued spot NdPr price of US \$63/kg.



**Figure 12:** Historical and Forecast Nd Demand – Supply – Price of Rare Earth Industry and NdPr Pricing Forecast February 2025 (source: Project Blue Consulting), with the average LOM NdPr Price (US \$/kg) modelled across three scenarios within Table 3.

#### Premium MREC Product Supports Strong Payability:

Initial metallurgical testing by ANSTO confirms that Colossus will produce a high-purity MREC product with industry-leading impurity levels of <1% (including negligible uranium and thorium content). This positions Colossus to command superior payability in future offtake agreements.

- Benchmark payability for MREC typically ranges between 70–85% of REO basket value, depending on impurity levels and buyer requirements.
- Viridis has adopted a conservative 70% payability assumption for its financial modelling until an offtake agreement is formalised, despite clear indicators that Colossus MREC may attract terms at the upper end of this range.

## PROJECT ECONOMICS

The Colossus Project has been assessed using a detailed discounted cash flow ('DCF') model, built on annualised projections over a 20-year LOM. The model incorporates:

- Forecast facility production volumes
- Conservative REO pricing assumptions
- Fully loaded AISC
- Initial and sustaining capital expenditure

This comprehensive financial analysis provides a clear view of the Project's cash flow generation and value potential under multiple market conditions. The key economic assumptions are summarised in Table 10.

**Table 10: Colossus Project Key Production, Costs and Financial Summary**

Production Metrics	Unit	Life of Mine (LOM)		
Mining - Northern Concessions and Cupim South (Measured and Indicated Only)				
Life of Mine	Years	20		
Ore Mined	Mt	98.5		
Strip Ratio	waste:M.Resource	0.4		
Average TREO Feed Grade	ppm	3,380		
Average MREO Feed Grade	ppm	936		
Average MREO:TREO Feed Ratio	%	28		
Metallurgy				
TREO Recovery	%	57		
MREO Recovery	%	76		
Production				
Annual Ave Production (REO)	t	9,448		
Total LOM Production (REO)	t	188,954		
Annual Ave Production (MREO: Nd, Pr, Dy, Tb)	t	3,518		
Total Production (MREO: Nd, Pr, Dy, Tb)	t	70,364		
NdPr % in TREO Concentrate	%	36		
Capital and Operating Cost	Unit	Life of Mine (LOM)		
CAPEX (inclusive of 25% contingency)	US \$M	358		
Annual Operating C1 Cost	US \$M	59		
Annual Operating C1 Cost per kg TREO	US \$/kg TREO	6.2		
Annual AISC (Spot Case)	US \$M	87		
Annual AISC per kg TREO (Spot Case)	US \$/kg TREO	9.3		
Project Financial Summary	Unit	Life of Mine (LOM)		
		Current Spot Case	Base Case	Upside Case
Average NdPr Price	US \$/kg NdPr	63	90	111
Average Basket Price TREO	US \$/kg TREO	31	43	53
Payability	%	70	70	70
Annual Revenue	US \$M	206	282	353
Total Revenue	US \$M	4,128	5,643	7,050
Annual Post-Tax Cashflow (excluding CAPEX)	US \$M	128	197	260
Total Post-Tax Cashflow (excluding CAPEX)	US \$M	2,568	3,935	5,205
Pre-tax NPV₈	US \$M	773	1,406	1,997
	AUD \$M	1,171	2,131	3,026
Pre-tax IRR	%	30%	43%	55%
After-tax NPV₈	US \$M	481	899	1,289
After-tax IRR	%	24%	34%	44%
Payback Period	Years	3.0	2.0	1.5

### Financial Summary: Strong Cash Flow Generation and Rapid Capital Payback

The Project demonstrates exceptional cash flow performance under both base and conservative pricing scenarios, underscoring its financial resilience and capital efficiency.

- Under the Base Case pricing assumption of US \$90/kg NdPr, the Project achieves payback of initial capital within just 2 years (pre-tax).
- Even at the current spot price of US \$63/kg, the Project delivers a rapid payback in 3.0 years, highlighting robust economics even in a subdued market.

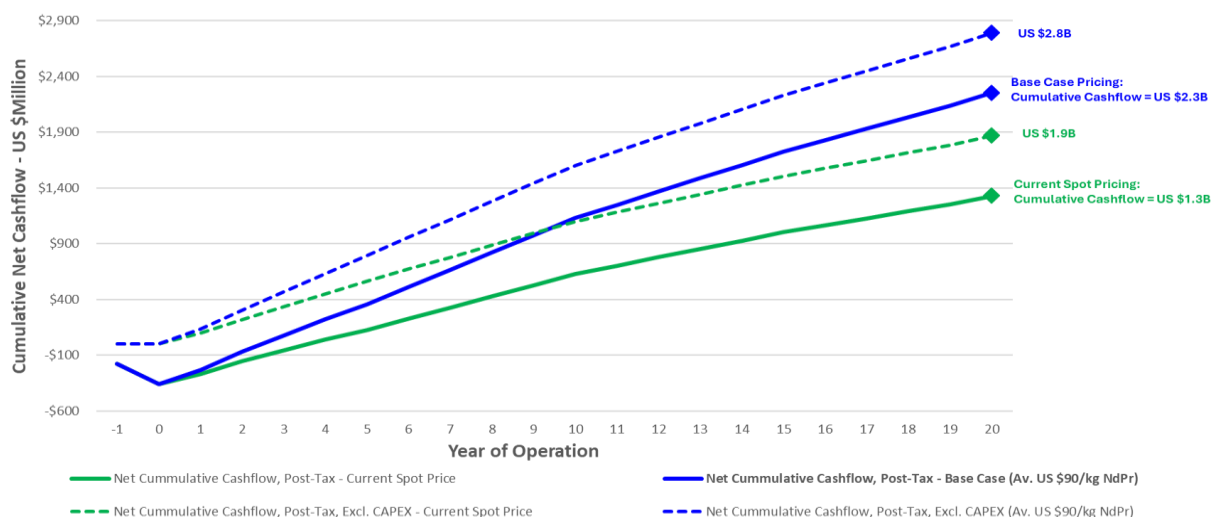
Post-tax cumulative cash flow (excluding CAPEX):

- US \$2.8 billion (Base Case)
- US \$1.9 billion (Spot Price Case)

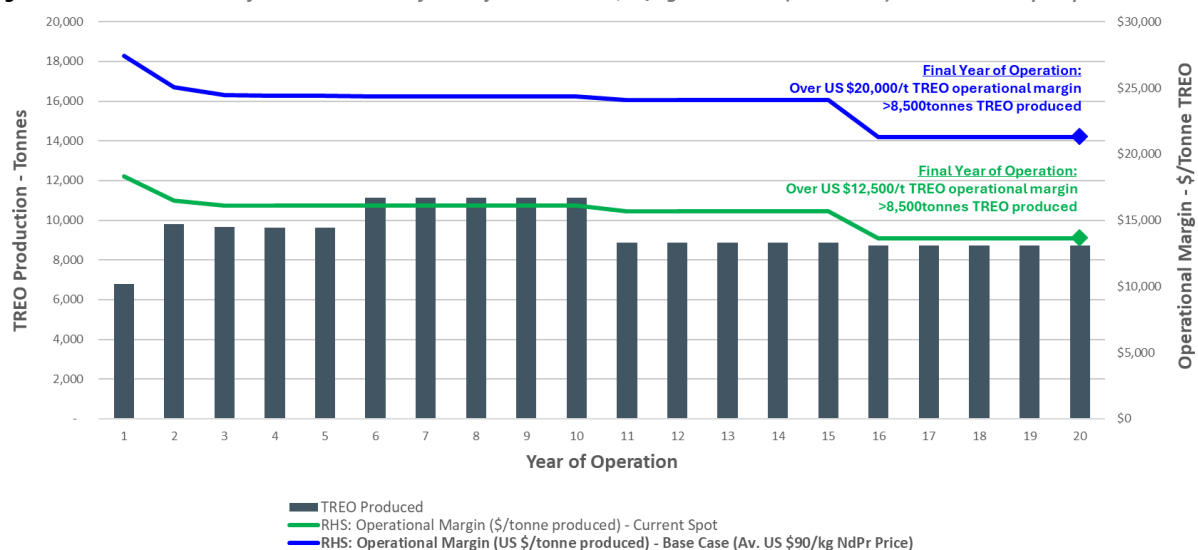
Post-tax cumulative cash flow (including CAPEX with 25% contingency):

- US \$2.3 billion (Base Case)
- US \$1.3 billion (Spot Price Case)

These figures reinforce Colossus' potential as a high-margin, cash-generative rare earth operation, capable of delivering strong returns across commodity cycles, a critical differentiator in today's volatile global market. The ability to ramp-up to capacity in comparatively shorter durations than complex hard rock / non-ionic clay operations facilitates a more immediate revenue stream.



**Figure 13:** Cumulative Cashflow across LOM for Project Blue US \$90/kg Av. NdPr (Base Case) and current spot price scenarios.



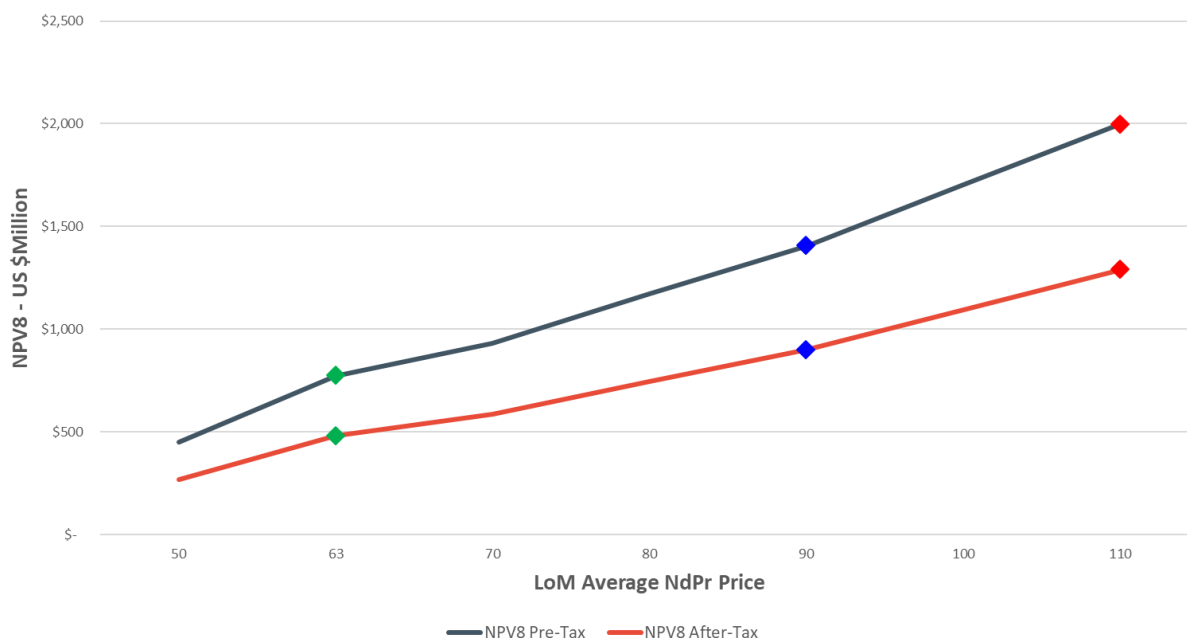
**Figure 14:** Operational margins across the LOM operation on Spot Case Scenario pricing and Base Case Scenario pricing.

## SENSITIVITY ANALYSIS

To highlight the robust economics of the Colossus Project, a sensitivity analysis was conducted to assess how different financial, project and operational factors could influence its economic performance.

The figures below present the results of this sensitivity analysis across key financial measures under the Base Case and Spot pricing scenarios. They demonstrate the robust nature of the Colossus Project even under different financial, project, and operational factors.

### Sensitivity of NdPr Pricing Versus NPV<sub>8</sub>



**Figure 15: Sensitivity Analysis of NdPr pricing and effects on NPV<sub>8</sub>.**

Figure 15 highlights the exceptional financial resilience of the Colossus Project, which remains cash-positive even under a highly conservative NdPr price of US \$50/kg, well below the current spot price of US \$63/kg and levels widely viewed as unsustainable. This performance reinforces Colossus' position as a first-quartile cost producer, capable of generating solid margins even as many global peers operate at or below breakeven.

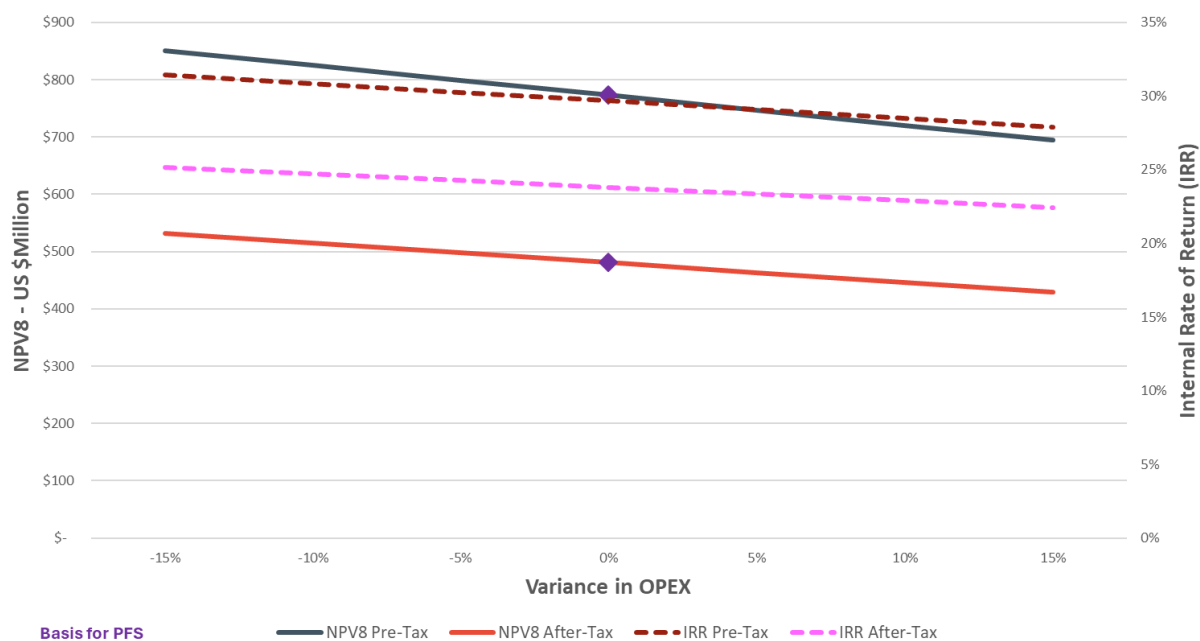
Despite the current softness in the rare earth market, Viridis reaffirms the strong technical and economic fundamentals underpinning Colossus. The Project's low-cost structure, high-grade resource base, and premium MREC product translate into sustainable cash flows and debt-service capacity, key attributes for attracting project-level financing. As Viridis advances toward development, these fundamentals position Colossus as a highly bankable and globally competitive rare earth opportunity.

### Sensitivity of OPEX Variance Versus NPV<sub>8</sub> and IRR – Spot Price of US \$63/kg NdPr

Figure 16 demonstrates the robust economic resilience of the Colossus Project, even in a high-inflation environment and under static NdPr spot pricing. In a downside scenario that assumes a 15% increase in operating costs and maintains the current spot price, the Project still delivers a compelling US \$695 million Pre-Tax NPV and a 28% IRR.

This performance underscores the cost flexibility and margin strength of Colossus. The limited variation in NPV across a  $\pm 15\%$  OPEX sensitivity range highlights the Project's ability to absorb cost inflation without compromising financial viability, a key advantage in today's volatile cost environment. Colossus remains firmly positioned as a resilient, high-quality investment opportunity, regardless of short-term pricing or cost pressures.

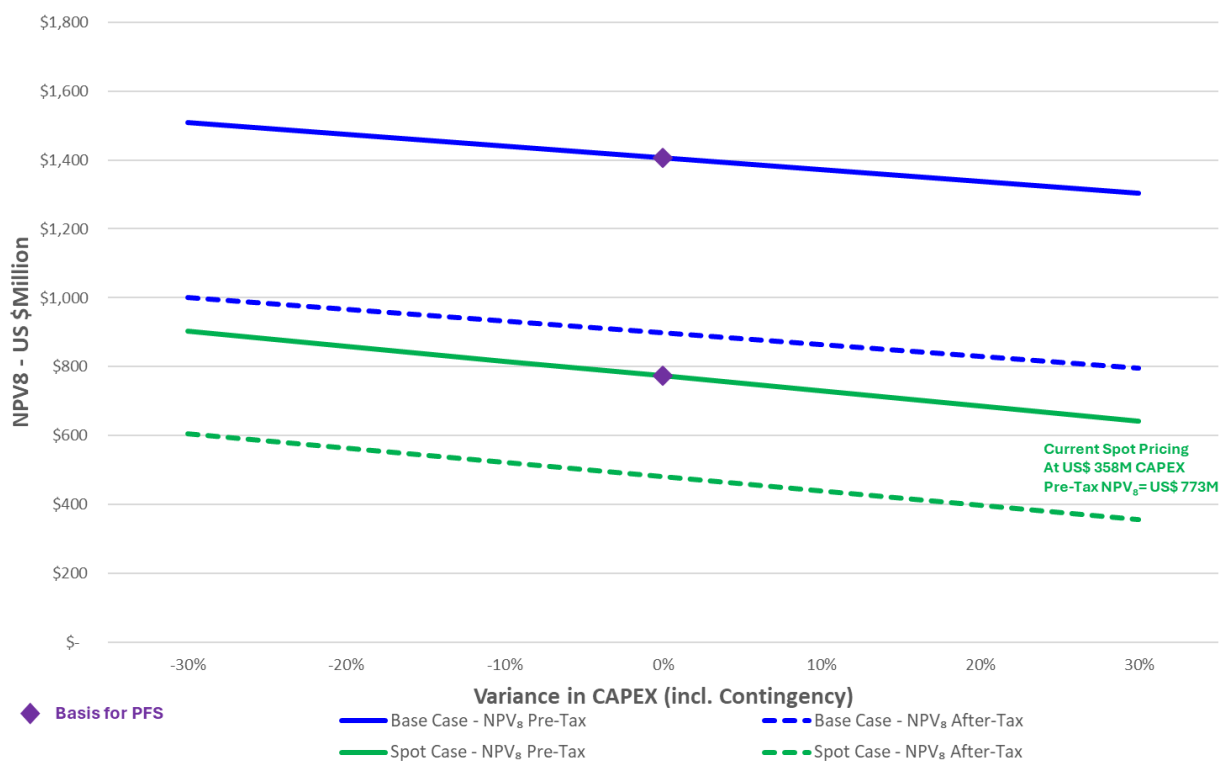




**Figure 16:** Sensitivity Analysis of OPEX Variance and effects on NPV<sub>8</sub> and IRR at a Spot Price of US \$63/kg NdPr.

### Sensitivity of CAPEX Variance Versus NPV<sub>8</sub>

Figure 17 highlights that across all modelled CAPEX sensitivities, the Project continues to deliver a substantial NPV, reinforcing its capital efficiency and financial strength. This demonstrates that even in a higher-cost environment, Colossus remains a high-value, bankable rare earth development, offering investors strong returns and a resilient margin profile.

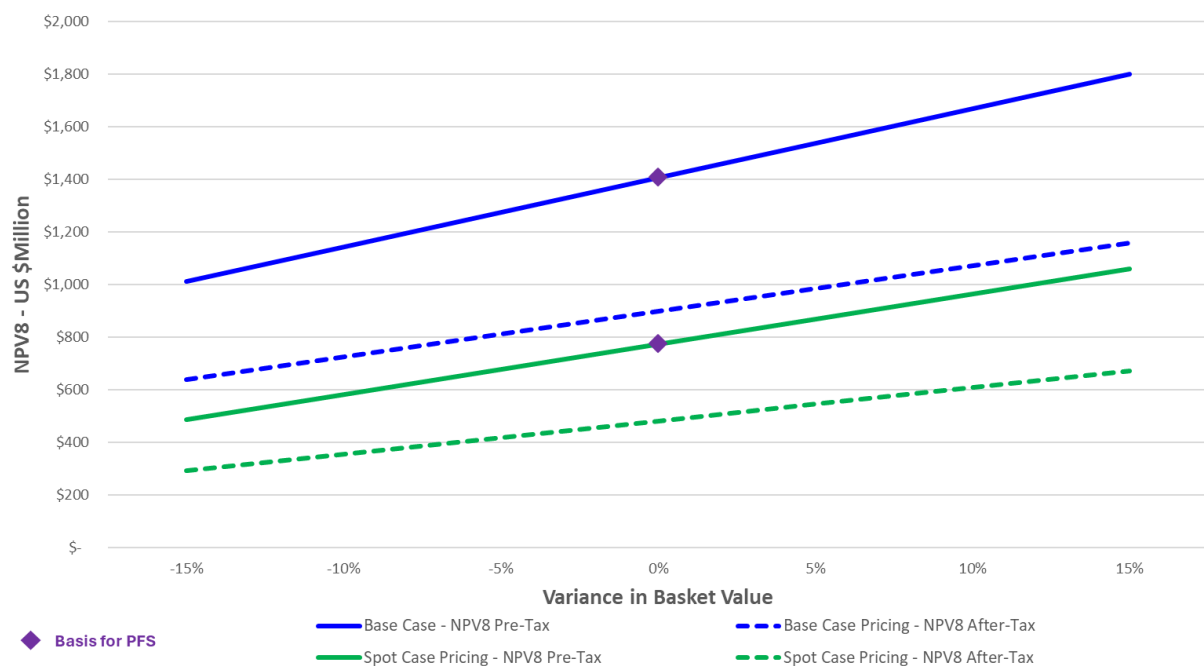


**Figure 17:** Sensitivity Analysis of CAPEX Variance and effects on NPV<sub>8</sub> at Base Case Price of US \$90/kg NdPr and a Spot Price of US \$63/kg NdPr.

### Sensitivity of Basket Value and Payability Versus NPV<sub>8</sub>

The figures below illustrate the sensitivity of Colossus Project economics to changes in REE Basket Value and MREC Payability — two key revenue drivers. Colossus has clear scope to unlock higher Basket Values by prioritising high-grade MREO-rich feed from Inferred resources, the Southern Complex expansion area, and future greenfield targets.

As the Project progresses, improvements in REE pricing, recovery rates, and MREO:TREO ratios across various pits will enhance both the revenue profile and overall payability. This highlights a clear pathway for value uplift beyond the current base case, further reinforcing Colossus as a strategically positioned, high-margin rare earth development.



**Figure 18: Sensitivity Analysis of Basket Value Variance and effects on NPV<sub>8</sub> and IRR under Spot Case and Base Case scenarios.**

Figures 18 and 19 highlight the exceptional economic leverage embedded within the Colossus Project. As Viridis continues to refine its mine plan and incorporate higher-recovering, MREO-rich pits through resource expansion and upgraded confidence, the Project is well-positioned to achieve substantially higher basket values than those assumed in the current PFS.

Even modest improvements deliver material upside:

- A 5% increase in Basket Value at spot pricing lifts Pre-Tax NPV<sub>8</sub> from US \$773M to US \$869M.
- Under the Base Case pricing scenario, the same 5% improvement in Basket Value results in a US \$131M uplift in NPV<sub>8</sub>, a clear demonstration of Colossus' sensitivity to value realisation at the product level.

Further upside lies in MREC payability. While the PFS uses a conservative 70% payability assumption, data gathered from market engagement and peer benchmarking indicates that offtake payability varies with MREC composition. Given Colossus' high MREO content and industry-leading low impurities, there is a strong case for achieving superior payability terms, which would directly and materially enhance revenue and project returns.

As mine planning continues to optimise feed grades and offtake discussions progress, both Basket Value and Payability represent key catalysts for unlocking significant upside in the Colossus Project's long-term economics.

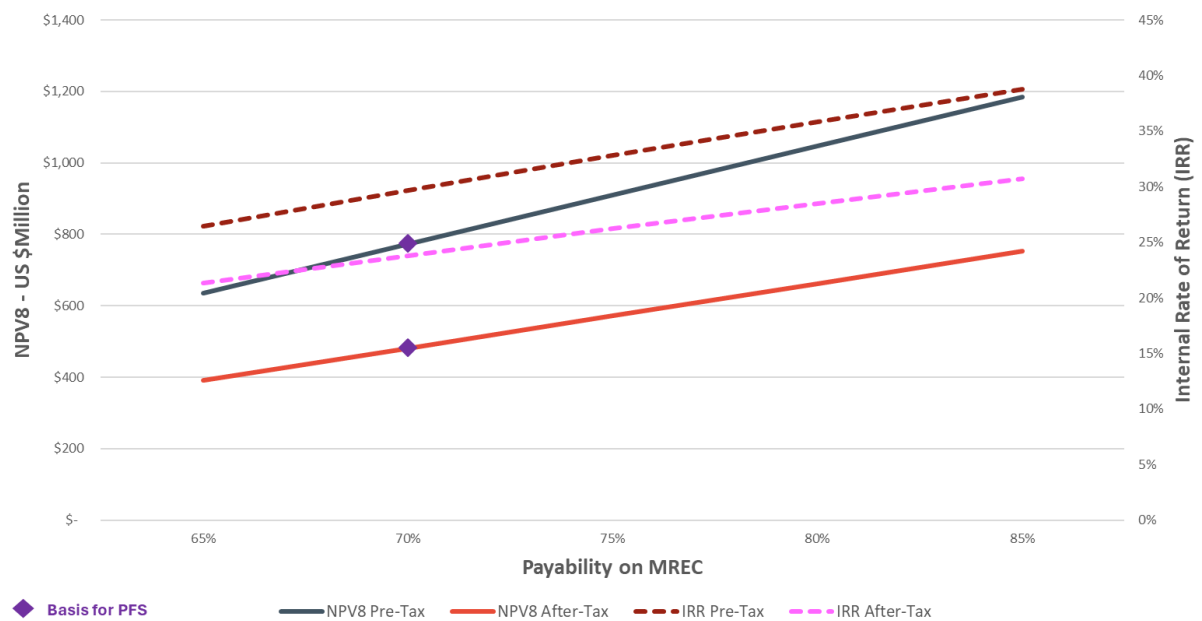


Figure 19: Sensitivity Analysis of Payability of MREC and effects on NPV and IRR for Spot Case Scenario.

### Sensitivity of Discount Rate Versus NPV<sub>8</sub> – Spot Price

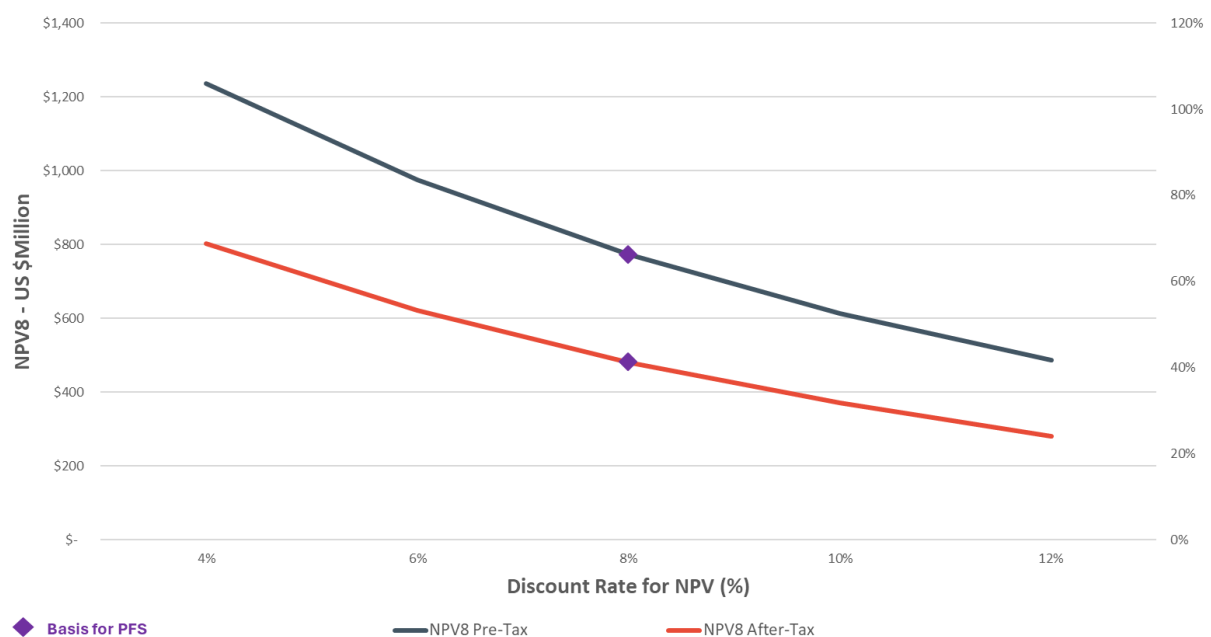


Figure 20: Sensitivity Analysis of Discount Rate applied and effects on NPV for Spot Case Scenario.

## PROJECT EXECUTION SCHEDULE

Viridis has developed a robust and clearly defined execution schedule for the Colossus Project, following detailed planning and risk assessment during the PFS. The schedule outlines a structured, step-by-step pathway to production, aligned with industry best practices.

Key workstreams include:

- Completion of the Definitive Feasibility Study ('DFS')
- Final metallurgical testwork and optimisation
- Environmental licensing and permitting
- Design and Construction of Demonstration Plant
- Appointment of engineering, procurement, construction and management ('EPCM') contractors
- Construction and operational ramp-up

The timeline reflects a disciplined project delivery framework, designed to support an efficient transition to final investment decision ('FID') and into early-stage production.

Viridis remains committed to transparent progress reporting and will continue to update shareholders as the Company advances through critical milestones, reaffirming its focus on near-term development and long-term value creation.

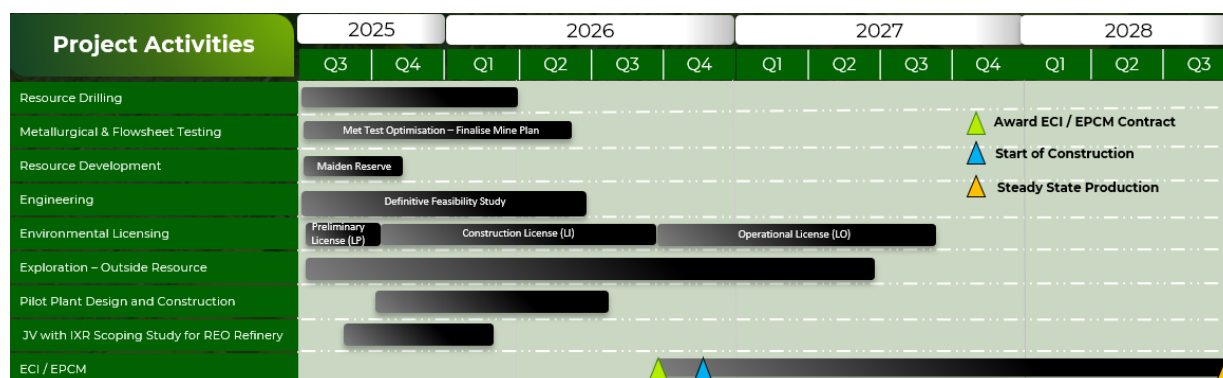


Figure 21: Colossus Project Execution Schedule to Start of Production.

## SUSTAINABILITY

Viridis is committed to delivering the Colossus Project as a low-impact, community-integrated, and environmentally responsible rare earth development, aligned with global ESG standards and investor expectations.

### Environmental Licensing: De-risked and Advancing on Schedule

Viridis has submitted a comprehensive Environmental Impact Assessment ('EIA') and Environmental Impact Report ('RIMA') to FEAM, covering the Northern Concessions in the Municipality of Poços De Caldas, which makes up part of its application for a Preliminary License, the first of a three-step Environmental Approval Process (refer to ASX announcement 28 January 2025).

The submission is the result of eight months of extensive fieldwork and environmental modelling, including assessments of biodiversity, water, air, noise, vibration, and community impact. The studies also detail sustainable practices for construction, operation, and closure phases, reinforcing Viridis' commitment to responsible resource use and minimal environmental impact.

### Key Sustainable Process Features:

- **Selective Mining:** Limits disturbance to mineralised zones only.
- **Chemical-Free Initial Processing:** Early beneficiation uses physical separation only.
- **Low-Impact Reagents:** Uses ammonium sulfate and bicarbonate, both environmentally benign.



- **Waste Management:** The residue after washing is non-hazardous and meets Brazilian regulatory requirements for return to pits via progressive backfilling.
- **Water Efficiency:** ~75% of process water is recycled on site, with no discharge to natural waterways.

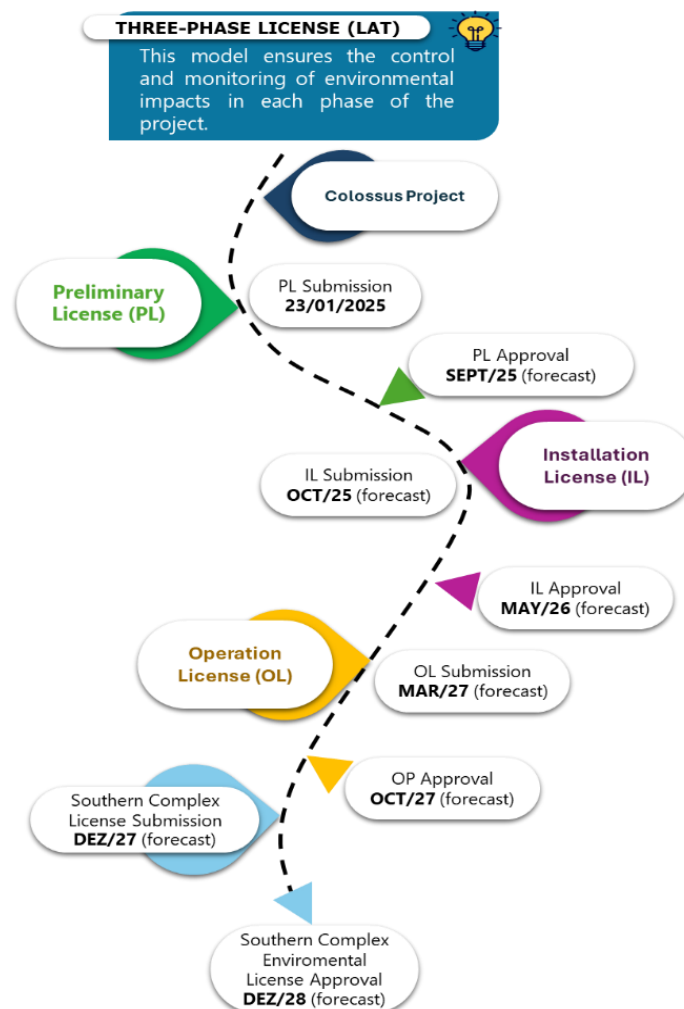
CLAM Consultoria ('CLAM') prepared the Colossus EIA with the support of Alger Consultoria ('Alger'). The study confirmed that, based on the proposed activities and project area, the environmental licensing process will proceed at the state level, as required by law. This approach significantly reduces the complexity and the timeline for obtaining regulatory approvals.

The licensing process involves three stages under state regulations as shown in Figure 22:

1. **Preliminary License ('PL'):** This certifies the environmental feasibility of the Project's design and location and outlines basic requirements and conditions for the subsequent phases.
2. **Installation License ('IL'):** Authorises project construction based on approved plans, programs, and projects, including necessary environmental controls.
3. **Operation License ('OL'):** This license grants permission to operate after confirming compliance with PL and IL requirements, environmental controls, and if needed, deactivation conditions.

The PL submission was completed according to the Colossus development timeline, reflecting the Company's commitment to adhering to its development schedule. This milestone keeps the Colossus Project on track to achieve subsequent licensing stages, ensuring operations can commence, as planned, by the start of 2028. This timely progress underscores the Project's robust planning and alignment with regulatory requirements.

As per the contract with Alger, once the OL for the Northern Concessions is approved, Viridis will apply for mining approval for its Southern Complex. Based on current project benchmarks, Alger expects Viridis to attain the Environmental License to mine the Southern Complex after 12 months of OP approval.



**Figure 22: Three-Phase Licensing Timeline for the Colossus Project, outlining key milestones for Preliminary, Installation, and Operation Licenses, with approvals forecasted from 2025 to 2027.**

**Certificate of Regularity for Land Use and Occupation: Strong Local Government Support**

Viridis has received the Certificate of Regularity for Land Use and Occupation from the Municipality of Poços de Caldas, a critical prerequisite for environmental licensing under State Decree No. 47,383/2018.

This approval demonstrates strong local support and legal alignment, covering all four tenements that make up the Northern Concessions. It affirms municipal approval for activities including open-pit mining, wet treatment, waste handling, and progressive in-pit disposal, all without the need for tailings dams.

**Power, Water, and Low-Carbon Operations**

Colossus has been designed for energy-efficient and low-emission operations, utilising 100% renewable energy, primarily hydropower, to reduce greenhouse gas emissions.

Based on the PFS Mechanical Equipment List, the following installed and operating power has been determined:

- Total Installed power = 23 MW.
- Total Operating power = 16.7 MW.

The installed power was determined through calculations and the power stipulated in vendor quotations for the equipment packages. The operating power is calculated from the installed power, considering batch factors for standby, duty, and intermittent operations. Viridis has commenced discussions with the Departamento Municipal de Eletricidade ('DME') in Poços de Caldas, who will take the lead in installing infrastructure at the site boundary.

A comprehensive water management system has been incorporated into the Colossus Project to ensure operational stability and environmental responsibility.

Raw water will be supplied to the process plant boundary from four nominated dams that are not used for public or commercial purposes. Overall, the project strategy is based on minimising the amount of fresh river water required by maximising the recycling and recovery of the water in the process plant using suitable water treatment technologies.

Potable water will be supplied to the plant boundary by the local government. A provision of 3-5 m<sup>3</sup>/h has been requested. A stormwater control system and pit dewatering plan will be implemented to manage surface runoff and maintain safe working conditions.

**Hydrogeological Studies and Environmental Monitoring Network:**

Viridis has undertaken a series of specialised hydrogeological studies within the Northern Concession area of the Colossus Project to support mine planning, environmental licensing, and the application for a groundwater abstraction permit. These studies were conducted by MDGEO Serviços de Hidrogeologia Ltda. ('MDGEO'), an independent and reputable consulting firm based in Minas Gerais. MDGEO reviewed the conceptual hydrogeological model prepared by CLAM, and based on this, they developed the numerical hydrogeological model, the design of a comprehensive water monitoring network, and the preparation of the formal application for a hydrogeological research permit with the Minas Gerais Water Management Institute ('IGAM').

The conceptual hydrogeological model defined the main aquifer systems in the region, comprising both granular and fractured rock aquifers, mapped recharge and discharge zones, identified the primary directions of groundwater flow, and established key hydrodynamic parameters for the local lithologies within the Poços de Caldas Alkaline Complex. Based on this understanding, a detailed monitoring network was proposed, incorporating Casagrande-type piezometers, automated observation wells, and surface and groundwater quality control points.

The study also included the evaluation of over 50 water points, streamflow measurements, and a comprehensive physicochemical assessment of water quality. Results demonstrated low contaminant levels and generally good water quality across the project area. Additionally, permeability tests and topographic surveys were conducted to support the design of a dewatering system for mining operations.

The findings confirm the technical feasibility of mine development and ensure that water resources will be managed responsibly and sustainably. The information generated through these studies is being integrated into the design of the beneficiation plant and the Project's environmental management plan.

### **Community Integration and Social Investment**

Viridis is committed to responsible resource development, prioritising community engagement and socio-economic benefits for the Poços de Caldas region. The company has secured the Certificate, ensuring compliance with municipal and state regulations.

A structured stakeholder engagement program has been implemented, fostering transparent communication with local communities, authorities, and key interest groups. Social initiatives include:

- **Education and Workforce Development:**
  - Partnerships with Universidade Federal de Alfenas ('UNIFAL') and Instituto Federal de Minas Gerais ('IFMG') to provide technical training in mining and processing.
  - Sponsorship of SENAI's "Trilha da Mineração I" program, offering free vocational training for local workers.
- **Community Support and Social Programs:**
  - Implementation of the Montessori educational methodology in a shelter for children in vulnerable situations, fostering cognitive and emotional development through an enriched learning environment.
  - Participation in volunteer and social impact initiatives, including the "Dia da Gentileza" program and regular blood donation campaigns.
  - Donation of computers to local schools and to the "Projeto Bem Viver", promoting digital inclusion for children and adolescents.
  - Support for sports initiatives aimed at underprivileged children, such as judo, through the donation of equipment.
  - Engagement in cultural events within the municipality, including the promotion of cultural diversity.
- **Environmental and Social Impact Management:**
  - The EIA and RIMA include extensive studies on potential social impacts, ensuring the development of proactive mitigation strategies.
  - The company has engaged with 28 rural properties and 17 urban neighbourhoods, ensuring fair consultation and integration of local stakeholders into the project's development process.
  - Support for municipal initiatives such as the donation of seedlings and solid waste management programs, reinforcing the Company's commitment to environmental responsibility.

### **Government Support**

Viridis has entered into two crucial non-binding Memorandums of Understanding ('MoU') with the State Government of Minas Gerais and the associated State Secretary for Economic Development ('Invest Minas') and the local Municipality of Poços De Caldas, as announced by Viridis on 4 March 2024.

#### **1. State of Minas Gerais and Invest Minas**

- Provides a formal framework to fast-track approvals, support interagency coordination, and promote sustainable economic development.

#### **2. Municipality of Poços de Caldas**

- Ensures access to essential infrastructure (power, water, sewage), and secures municipal support for environmental licensing.

These agreements significantly de-risk and streamline the Project's execution timeline, highlighting Colossus' alignment with regional development priorities and its growing recognition as a strategic resource project for Brazil.

## PROJECT FUNDING STRATEGY

Viridis has launched a multi-tiered funding strategy to support the development of the Colossus Rare Earth Project, targeting strategic partnerships, government support, and project-level financing from aligned investors across the global energy transition ecosystem.

Since early 2024, Viridis has been actively engaging with a broad range of potential funding partners, including:

- Brazilian government institutions, including the Brazilian National Bank for Economic and Social Development ('BNDES') and the Federal Agency for Funding Authority for Studies and Projects in Brazil ('FINEP')
- Export Credit Agencies ('ECAs') and development banks across Europe, North America, South America, and Australasia
- Original equipment manufacturers ('OEMs') and downstream magnet producers
- Trading houses and resource-focused investors
- REE refining and separation specialists

Initial feedback has been highly encouraging, with multiple parties expressing strong interest. The release of the PFS now serves as a key catalyst to advance these discussions into more formal negotiations, having meaningfully de-risked capital and operating cost assumptions.

As per the announcement on 13 June 2025, Viridis has been formally selected by BNDES/FINEP, as one of the successful companies to receive significant potential funding to progress the Colossus Project. This initial round of financing from BNDES/FINEP aims to deploy BRL \$5 billion (US \$903 million) across leading strategic mineral projects in Brazil. Having now been formally selected, Viridis has commenced discussions with BNDES/FINEP to finalise the funding structure, which includes economic grants, debt facility and equity participation.

While these structures and processes remain in preliminary stages and discussions are conceptual at this point, the interest reflects a clear appetite that aligns with Viridis' strategy to build a western rare earth supply chain, built on strong technical and ESG credentials and outstanding economic fundamentals, which can thrive in any market pricing cycle. Following the completion of the PFS, Viridis expects these preliminary discussions to mature further as the PFS will have de-risked an element of the CAPEX and OPEX escalation.

### Post-PFS Funding Strategy: Structured to Minimise Dilution, Maximise Leverage

Following the PFS, Viridis will appoint a leading corporate advisor to help structure and execute an optimal financing plan. The strategy is designed to:

- Secure pre-FID funding
- Advance technical and commercial de-risking
- Maximise non-dilutive financing options ahead of full-scale development

The Company anticipates a balanced, staged funding model for the EPCM (execution) phase, which includes the following indicative Project Funding Composition:

- 50–75% Debt Financing – supported by strong project economics and interest from ECAs and development banks
- Strategic Partner and Offtake Contributions – covering a major portion of remaining costs through direct investment, prepayments, or offtake-linked funding
- Targeted Equity Component – only to the extent required, with a strong focus on minimising shareholder dilution

### Multiple Levers Supporting Financing Confidence

A combination of project fundamentals, market conditions, and corporate strength underpins Viridis' confidence in securing financing for Colossus:

- **High-Quality Project Economics:** Simple, scalable mining and processing, low OPEX, and strong margins, even at conservative NdPr spot pricing (US \$63/kg)
- **Favourable Market Backdrop:** Ongoing global investment in rare earth supply chains; recent funding successes by ASX-listed peers (e.g., Iluka Resources (ASX: ILU), Arafura Rare Earths (ASX: ARU))

- **Strong Strategic Interest:** Preliminary discussions already underway with prospective partners exploring offtake, equity, or hybrid arrangements
- **Unencumbered Ownership:** Viridis retains 100% of Colossus, with no debt and a clean capital structure, highly attractive to financiers
- **JV-Driven Downstream Exposure:** The Viridion Pty Ltd (“Viridion”) JV with Ionic Rare Earths (ASX: IXR) provides future optionality in refining, separation, and recycling, differentiating Colossus from many upstream-only projects<sup>4</sup>
- **Proven Leadership Team:** Deep experience in resource development, rare earth processing, financing, and ASX-listed project execution

The Company will continue to advance its funding strategy in parallel with project development and stakeholder engagement. The Company remains focused on securing low-cost, strategically aligned capital to bring Colossus into production, while preserving shareholder value and positioning as a key player in the Western critical minerals supply chain.

## PROJECT OPPORTUNITIES – UNLOCKING SIGNIFICANT VALUE ADD

While the Colossus PFS presents a robust and conservative development case, Viridis has identified a range of value-enhancing initiatives that will be pursued in upcoming phases. These opportunities represent clear paths to strengthen project economics, expand resource scale, and reinforce Colossus’ role as a globally competitive, ESG-aligned supplier of rare earths.

### 1. Substantial Resource Growth Upside

The current 493Mt @ 2,508ppm TREO Mineral Resource Estimate represents just 13% of Viridis’ total landholding, highlighting significant untapped potential.

- Centro Sul (Southern Complex): Less than 38% drilled — presents a compelling near-term growth target.
- Tamoyo Prospect: Hosts the highest average MREO grades in the project area.
- Ongoing infill and extension drilling will prioritise zones with elevated MREO:TREO ratios, to upgrade resources and expand high-value mineralised zones.

### 2. Mine Plan Optimisation

As additional Measured and Indicated resources are brought online through drilling, the mine schedule will be refined to prioritise higher-grade, higher-margin feed, particularly from Centro Sul and Tamoyo. This will enhance early cash flow and long-term project returns.

### 3. Flowsheet Refinement and Technology Selection to Reduce CAPEX and OPEX

Viridis is undertaking detailed flowsheet and technology optimisation to enhance efficiency further and reduce costs:

- Equipment review with selected suppliers contracted during the PFS
- Targeted engineering design reviews
- Mining and Residue Fleet Selection
- Additional metallurgical testwork
- Collaboration with rare earth processing experts

These initiatives are expected to deliver measurable improvements in recovery, reagent use, and energy efficiency.

### 4. Major Tax Incentive Upside

While the current economic model assumes a conservative 34% corporate tax rate, discussions are underway with the federal government to secure fiscal tax agreements to reduce this level of corporate tax.

Viridis has already secured a state-level tax relief agreement through the “Protocolo De Intenções Simplificado” signed with Minas Gerais in January 2025. Viridis has engaged a leading tax specialist to review the import tax implications associated with the selected imported equipment packages, which comprise the majority of the Project’s procurement cost. Viridis has taken a conservative approach in applying this tax agreement at the PFS stage.



When modelled, these tax reliefs provide a substantial windfall for the Project and will be included in future studies.

## **5. Bifurcated Ex-China Market**

There is significant upside to project economics for rare earth companies positioned to supply mixed rare earth products (such as MREC) into the growing ex-China supply chain, which is rapidly expanding due to geopolitical shifts, government-backed funding, and strategic demand from Western manufacturers. As end-users in Europe, North America, and allied markets push for diversification away from China-dominated refining and processing, projects that can deliver high-purity, low-impurity MREC are increasingly attractive and capturing premium pricing.

## **6. Enhanced MREC Payability from Ultra-Low Impurities**

Colossus is positioned to deliver a premium MREC product with industry-leading low impurity levels:

- <1% impurities (Northern Concessions)
- ~0.7% impurities (Southern Complex)

This quality supports higher payability terms, likely exceeding the 70% baseline assumed in the PFS, with the potential to approach or exceed 80–85%, thereby improving revenue without incurring additional production costs.

## **7. Strategic Offtake and Partner Engagement Underway**

Viridis is actively advancing discussions with:

- OEMs
- Rare earth separators
- Key trading and downstream groups

These talks focus on securing offtake, prepayment, and potential equity-linked strategic partnerships. Early feedback validates strong market interest in Colossus' low-impurity, high-value MREC product.

## **8. Financing Readiness and Capital Structure Advantage**

A disciplined project funding strategy is in motion, prioritising:

- Non-dilutive capital through ECAs and development banks
- Brazilian government agencies
- Strategic partner contributions
- Minimised equity dilution

Viridis' clean capital structure, zero debt, and 100% project ownership enhance its attractiveness to financiers seeking exposure to critical minerals.

## **9. Downstream Integration: Mine-to-Magnet Strategy**

Through its Viridion JV with IXR, Viridis is pursuing opportunities to integrate mining with:

- Rare earth separation and refining
- End-of-life recycling
- Long-term participation in the circular economy for magnets

This strategy strengthens supply chain security for global partners and enhances Viridis' long-term strategic relevance in the clean energy transition.

## FUTURE WORK

Issuing the PFS results is a significant milestone for the Project, as it has enabled the Company to gain critical insight into the detailed project economics. Other key scopes that will be executed in the near term include:

- The Company will continue focusing its attention on progressing the technical scope for the Environmental Installation License submission, now that it has submitted its EIA.
- Continued Focus on Project Financing and Offtake discussions: Armed with a globally significant Measured and Indicated resource, industry-leading metallurgical recoveries, and outstanding project economics, 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](http://www.viridismining.com.au) or contact:

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### Rafael Moreno

Chief Executive Officer

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## 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 prospective for kaolin-halloysite.

## Competent Person Statement

### Dr José Marques

Dr José Marques Braga Júnior, the in-country Executive Director of Viridis' Brazilian subsidiary (Viridis Mineração Ltda), compiled and evaluated the Exploration work information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2025, 336416), accepted to report the Exploration work 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 include matters in the report based on information in the form and context in which it appears.

### General

The information in this release related to Mineral Resource Estimates was prepared by BNA Mining Solutions and released on the ASX on 22 January 2025. The Company confirms that it is unaware of any new information or data materially affecting the information contained in the original Mineral Resource Estimate release. The Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource Estimate continue to apply and have not materially changed. The Company confirms that the form and context in which the BNA Mining Solutions findings are presented have not been materially modified from the original market announcement.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements referenced above and, in the case of production target and forecast financial information for the Colossus Project, that all material assumptions and technical parameters underpinning the production target and forecast financial information in those 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 announcements.

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 that all material assumptions and technical information referenced in the market announcements continue to apply and have not materially changed.

All announcements referred to throughout can be found on the Company's website – [viridismining.com.au](http://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 22 January 2025, 'Colossus Hits Largest M&I and Highest-Grade MREO Resource'
2. VMM ASX announcement dated 24 September 2024, 'Colossus Maiden Mixed Rare Earth Carbonate ('MREC') Product'
3. VMM ASX announcement dated 12 December 2024, 'Maiden MREC Product from Southern Complex'
4. VMM ASX announcement dated 28 January 2025, 'Viridis Achieves Key Environmental & Regulatory Milestones'
5. VMM ASX announcement dated 3 April 2024, 'VMM JV For Separation, Refining & Recycling Rare Earths'
6. VMM ASX announcement dated 25 February 2025, 'Colossus Scoping Study Highlights Outstanding Economics'

## APPENDIX 1: JORC Table 1

### Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<b>Sampling techniques</b>	<p>The Colossus Project's PFS is based on the Measured and Indicated Mineral Resources from the Northern Concessions and Southern Complex, as reported in the latest Mineral Resource Estimate (MRE) update (VMM ASX announcement dated 22 January 2025). No new drilling data has been incorporated since that announcement.</p> <p>The deposit was sampled using powered auger (open hole), diamond drilling, and reverse circulation (RC) drilling techniques. These methods ensured representative sampling across the targeted mineralised zones.</p> <p><b>Auger drill holes:</b></p> <ul style="list-style-type: none"> <li>Each drill site was cleaned, removing leaves and roots from the surface. Tarps were placed on either side of the hole, and samples of clayey soil and saprolite were collected every 1 or 2 metres in advance. They were logged, photographed, and subsequently bagged in plastic bags, and each sample was identified.</li> </ul> <p><b>Diamond drill holes:</b></p> <ul style="list-style-type: none"> <li>The intact drill cores are collected in plastic core trays, and depth markers record the depth at the end of each drill run (blocks).</li> <li>Samples were collected at 1 or 2 metres intervals. In the unconsolidated zone, the core was halved with a metal spatula and bagged in plastic bags, while a powered SA halved the fresh rock, bagged, and each sample was identified.</li> </ul> <p><b>Reverse Circulation drill holes:</b></p> <ul style="list-style-type: none"> <li>Samples were collected and identified from every 1 or 2 metres of the RC rig.</li> <li>All samples were sent for preparation to the contracted laboratories, ALS and SGS Geosol (SGS).</li> </ul>
<b>Drilling techniques</b>	<p><b>Powered Auger:</b></p> <ul style="list-style-type: none"> <li>Powered auger drilling employed a motorised post-hole digger with a 2.50 to 3.00-inch diameter. All holes were drilled vertically. The maximum depth achieved was 22.00 metres, the minimum was 1.50 metres, and the average was 9.38 metres, providing the hole did not encounter fragments of rocks/boulders within the weathered profile and/or excessive water. Final depths were recorded according to the length of rods in the hole.</li> </ul> <p><b>Diamond Core:</b></p> <ul style="list-style-type: none"> <li>Diamond drilling was conducted vertically, and samples were initially collected at 1.00-metre intervals and later at 2.00-metre intervals using a Maquesonda MACH 1210 Machine. The drilling used an HWL diamond core of 3.06-inch diameter in the unconsolidated portion, switching to an HQ diamond core 2.63 inches from the depth transitional zone. Drilling within each hole was conducted by the diamond core rig and terminated upon intercepting between 2 to 5 metres of hard-rock material, indicative of penetration into the fresh rock. Diamond drilling was predominantly used nonsystematic to gain further lithological understanding and test high-priority auger targets.</li> </ul> <p><b>Reverse Circulation:</b></p> <ul style="list-style-type: none"> <li>RC drilling was conducted using two drill rig models: one being the Atlas Copco EXPLORAC R50 RC, configured with a 4.75-inch diameter, and the other being a Boart Longyear DB525, configured with a 5.50-inch diameter. For both types of machines, the drill site preparation included clearing, levelling the ground, and delineating the drilling area. The RC rigs performed the drilling until they intercepted transitional material or fresh rock. RC drilling was predominantly used systematically, forming a grid with 200-metre spacing for the Northern and Southern Concessions targets. Samples were collected at intervals of 1.00 to 2.00 metres.</li> </ul>
<b>Drill sample recovery</b>	<p><b>Auger sample recovery:</b></p> <ul style="list-style-type: none"> <li>Estimated visually based on the sample recovered per 1m or 2m interval drilled. Recoveries generally ranged from 75% to 110%. If estimates dropped below 75%</li> </ul>

Criteria	Commentary
	<p>recovery in a 1m interval, the field crew aborted the drill hole and redrilled the hole.</p> <p><b>Diamond drill hole recovery:</b></p> <ul style="list-style-type: none"> <li>Calculated after each run, comparing the length of core recovery vs. drill depth. Overall core recoveries are 97.08%, achieving 96.26% in the regolith target horizon, 97.96% in the transition zone (saprolite), and 98.16% in fresh rock.</li> </ul> <p><b>Reverse Circulation recovery:</b></p> <ul style="list-style-type: none"> <li>Every 1m or 2m sample is collected in plastic bags and weighed. Each sample averages approximately 19.79kg for 1m samples and 39.16 kilograms for 2m samples. This is considered acceptable, given the hole diameter and the specific density of the material. The 2-metre samples underwent a mass reduction in the field using the quartering method with a "Jones" type splitter, resulting in an average of 10.43 kg per sample.</li> </ul>
<b>Logging</b>	<p>Geological descriptions are made using a tablet with the MX Deposit system, which directly connects the geological descriptions to the database in the MX Deposit system managed by the Viridis geologist team.</p> <p><b>Auger drilling:</b></p> <ul style="list-style-type: none"> <li>Material is described in a drilling bulletin every 1m and photographed. The description is made according to tactile-visual characteristics, such as material (soil, colluvium, saprolite, rock fragments), material colour, predominant particle size, presence of moisture, indicator minerals, and extra observations.</li> <li>The chip trays of all drilled holes have a digital photographic record and are retained at the core facility in Poços de Caldas.</li> </ul> <p><b>Diamond drilling:</b></p> <ul style="list-style-type: none"> <li>Geological descriptions are made in a core facility, focused on the soil (humic) horizon, regolith, transition zone, and fresh rock boundaries. The geological depth is honoured and described with downhole depth (not metre by metre). Parameters logged include grain size, texture, colour, mineralogy, magnetism, type of alterations (hydrothermal or weathering) and type of lithologic contact, which can help to identify the parent rock before weathering.</li> <li>All drill holes are photographed and stored at the core facility in Poços de Caldas.</li> </ul> <p><b>Reverse Circulation drilling:</b></p> <ul style="list-style-type: none"> <li>A geologist logs the material at the drill rig. Logging focuses on the soil (humic) horizon, regolith/clay zones, and transition boundaries. Other parameters recorded include grain size, texture, and colour, which can help identify the parent rock before weathering.</li> <li>Due to the nature of the drilling, logging is done at 1-2 m intervals. 1m samples weighing approximately 19kg are collected in a bucket and presented for sampling and logging.</li> <li>The chip trays of all drilled holes have a digital photographic record and are retained at the core facility in Poços de Caldas.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<p><b>Powdered Auger Drilling:</b></p> <ul style="list-style-type: none"> <li>Collection and Labeling: Samples of clayey soil, regolith, and saprolite were collected at 1 or 2 metres intervals, placed into clear plastic bags, sealed, and labelled.</li> <li>Weighing and Lab Analysis: The samples were weighed and sent to SGS for analysis.</li> </ul> <p><b>Reverse Circulation:</b></p> <ul style="list-style-type: none"> <li>Collection and Labeling: Samples of clayey soil, regolith, saprolite, and transitional material were collected at 1 or 2 metres intervals, placed in transparent plastic bags, sealed, and labelled.</li> <li>Weighing and Lab Analysis: The samples were weighed and sent for analysis to SGS or ALS Laboratories.</li> </ul> <p><b>Diamond Core Drilling:</b></p> <ul style="list-style-type: none"> <li>Collection and Labeling: Samples of diamond cores were taken at 0.5 to 2m intervals from clayey soil, regolith, saprolite, transitional, and hard-rock material. The cores were split longitudinally using a spatula for unconsolidated portions and a rock-</li> </ul>



Criteria	Commentary																																																																				
	<p>cutting saw for hard rock. The samples were placed in labelled plastic bags and sent to SGS or ALS Laboratories for analysis.</p> <ul style="list-style-type: none"><li>Field Duplicates: Duplicates were taken approximately every 20 samples using quarter core for QA/QC procedures and sent to ALS Laboratories in Vespasiano (MG).</li><li>As part of the QA/QC procedures, blank samples (with rare earth element content absent or much lower than the original samples) and standard samples with known concentrations were also included. Both control samples were inserted into the batches every 20 samples for analysis.</li></ul> <p><b>Sample Preparation (PRP102_E) at SGS Geosol in Vespasiano (MG):</b></p> <ul style="list-style-type: none"><li>Upon arrival at the lab, samples were dried at 105°C, crushed to 75% less than 3mm, homogenised, and passed through a Jones riffle splitter (250g to 300g). This aliquot was then pulverised in a steel mill until over 95% had a size of 150 microns.</li><li>Analysis (IMS95A): Samples were fused with lithium metaborate and read using the ICP-MS method to determine the rare earth elements assays.</li></ul> <p><b>Sample Preparation at ALS Laboratories (Vespasiano, MG):</b></p> <ul style="list-style-type: none"><li>Dried at 60°C.</li><li>Fresh rock was crushed to sub 2mm.</li><li>Saprolite was disaggregated with hammers.</li><li>Riffle split to obtain an 800g sub-sample.</li><li>The sub-sample was pulverised to 85% passing 75um, monitored by sieving.</li><li>Aliquot selection from the pulp packet.</li><li>Analysis (ME-MS81): The aliquot was sent to ALS Lima to analyse Rare Earth Elements and</li><li>Trace Elements by ICP-MS for 32 elements using fusion with lithium borate.</li></ul>																																																																				
Quality of assay data and laboratory tests	<p><b>SGS Geosol</b></p> <ul style="list-style-type: none"><li>The samples sent and analysed at the SGS laboratory were analysed in batches of approximately 50 samples containing control samples (duplicate, blank, and standards). The sample preparation method employed was PRP102_E: the samples were dried at 105°C, crushed to 75% less than 3mm, homogenised, and passed through a Jones riffle splitter (250g to 300g). This aliquot was then pulverised in a steel mill until over 95% had a size of 150 microns.</li><li>ICP95A - Determination by Fusion with Lithium Metaborate - ICP MS for Major Oxides. Some elements and their detection limits include:<table><tr><td>Al<sub>2</sub>O<sub>3</sub></td><td>0.01 - 75 (%)</td><td>Ba</td><td>10 - 100,000 (ppm)</td></tr><tr><td>Fe<sub>2</sub>O<sub>3</sub></td><td>0.01 - 75 (%)</td><td>K<sub>2</sub>O</td><td>0.01 - 25 (%)</td></tr><tr><td>Na<sub>2</sub>O</td><td>0.01 - 30 (%)</td><td>P<sub>2</sub>O<sub>5</sub></td><td>0.01 - 25 (%)</td></tr><tr><td>TiO<sub>2</sub></td><td>0.01 - 25 (%)</td><td>V</td><td>5 - 10,000 (ppm)</td></tr><tr><td>CaO</td><td>0.01 - 60 (%)</td><td>Cr<sub>2</sub>O<sub>3</sub></td><td>0.01 - 10 (%)</td></tr><tr><td>MgO</td><td>0.01 - 30 (%)</td><td>MnO</td><td>0.01 - 10 (%)</td></tr><tr><td>SiO<sub>2</sub></td><td>0.01 - 90 (%)</td><td>Sr</td><td>10 - 100,000 (ppm)</td></tr><tr><td>Zn</td><td>5 - 10,000 (ppm)</td><td>Zr</td><td>10 - 100,000 (ppm)</td></tr></table></li><li>PHY01E: Loss on Ignition (LOI) was determined by calcining the sample at 1,000°C.</li><li>IMS95R: Lithium Metaborate Fusion followed by Inductively Coupled Plasma Mass Spectrometry (ICP MS) was employed to determine concentrations of Rare Earth elements. Detection limits for some elements include:<table><tr><td>Ce</td><td>0.1 – 10,000 (ppm)</td><td>Dy</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Gd</td><td>0.05 – 1,000 (ppm)</td><td>Ho</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Nd</td><td>0.1 – 10,000 (ppm)</td><td>Pr</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Th</td><td>0.1 – 10,000 (ppm)</td><td>Tm</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Yb</td><td>0.1 – 1,000 (ppm)</td><td>Eu</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Er</td><td>0.05 – 1,000 (ppm)</td><td>Lu</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>La</td><td>0.1 – 10,000 (ppm)</td><td>Tb</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>Sm</td><td>0.1 – 1,000 (ppm)</td><td>Y</td><td>0.05 – 1,000 (ppm)</td></tr><tr><td>U</td><td>0.05 – 10,000 (ppm)</td><td></td><td></td></tr></table></li></ul>	Al <sub>2</sub> O <sub>3</sub>	0.01 - 75 (%)	Ba	10 - 100,000 (ppm)	Fe <sub>2</sub> O <sub>3</sub>	0.01 - 75 (%)	K <sub>2</sub> O	0.01 - 25 (%)	Na <sub>2</sub> O	0.01 - 30 (%)	P <sub>2</sub> O <sub>5</sub>	0.01 - 25 (%)	TiO <sub>2</sub>	0.01 - 25 (%)	V	5 - 10,000 (ppm)	CaO	0.01 - 60 (%)	Cr <sub>2</sub> O <sub>3</sub>	0.01 - 10 (%)	MgO	0.01 - 30 (%)	MnO	0.01 - 10 (%)	SiO <sub>2</sub>	0.01 - 90 (%)	Sr	10 - 100,000 (ppm)	Zn	5 - 10,000 (ppm)	Zr	10 - 100,000 (ppm)	Ce	0.1 – 10,000 (ppm)	Dy	0.05 – 1,000 (ppm)	Gd	0.05 – 1,000 (ppm)	Ho	0.05 – 1,000 (ppm)	Nd	0.1 – 10,000 (ppm)	Pr	0.05 – 1,000 (ppm)	Th	0.1 – 10,000 (ppm)	Tm	0.05 – 1,000 (ppm)	Yb	0.1 – 1,000 (ppm)	Eu	0.05 – 1,000 (ppm)	Er	0.05 – 1,000 (ppm)	Lu	0.05 – 1,000 (ppm)	La	0.1 – 10,000 (ppm)	Tb	0.05 – 1,000 (ppm)	Sm	0.1 – 1,000 (ppm)	Y	0.05 – 1,000 (ppm)	U	0.05 – 10,000 (ppm)		
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	<ul style="list-style-type: none"><li>Quality Control: The laboratory follows strict quality control procedures, ensuring the accuracy and precision of the assay data. Internally, the laboratory uses duplicate assays, standards, and blanks to maintain quality.</li></ul> <p><b>ALS Laboratories</b></p> <ul style="list-style-type: none"><li>The samples sent to the ALS (accredited) laboratory were analysed in batches of approximately 144 samples containing control samples (duplicate, blank, and standards). Upon arriving at the ALS preparation lab, samples receive additional preparation (drying, crushing, splitting, and pulverising).</li><li>The aliquot obtained from the physical preparation process at Vespasiano were sent to ALS Lima and analysed by ME-MS81 – which consists of the analysis of Rare Earths and Trace Elements by ICP-MS for 32 elements by fusion with lithium borate as seen below (with detection limits):</li></ul> <p>Analytes G range (ppm)</p> <table><tr><td>Ba</td><td>0.5 – 10,000</td><td>La</td><td>0.1 – 10,000</td><td>Tb</td><td>0.01 – 1,000</td></tr><tr><td>Ce</td><td>0.1 – 10,000</td><td>Lu</td><td>0.01 – 1,000</td><td>Th</td><td>0.05 – 1,000</td></tr><tr><td>Cr</td><td>5 – 10,000</td><td>Nb</td><td>0.05 – 2,500</td><td>Ti</td><td>0.01 – 10%</td></tr><tr><td>Cs</td><td>0.01 – 10,000</td><td>Nd</td><td>0.1 – 10,000</td><td>Tm</td><td>0.01 – 1,000</td></tr><tr><td>Dy</td><td>0.05 – 1,000</td><td>Pr</td><td>0.02 – 1,000</td><td>U</td><td>0.05 – 1,000</td></tr><tr><td>Er</td><td>0.03 – 1,000</td><td>Rb</td><td>0.2 – 10,000</td><td>V</td><td>5 – 10,000</td></tr><tr><td>Eu</td><td>0.02 – 1,000</td><td>Sc</td><td>0.5 – 500</td><td>W</td><td>0.5 – 10,000</td></tr><tr><td>Ga</td><td>0.1 – 1,000</td><td>Sm</td><td>0.03 – 1,000</td><td>Y</td><td>0.1 – 10,00</td></tr><tr><td>Gd</td><td>0.05 – 1,000</td><td>Sn</td><td>1 – 10,000</td><td>Yb</td><td>0.03 – 1,000</td></tr><tr><td>Hf</td><td>0.05 – 10,000</td><td>Sr</td><td>0.1 – 10,000</td><td>Zr</td><td>1 – 10,000</td></tr><tr><td>Ho</td><td>0.01 – 1,000</td><td>Ta</td><td>0.1–2,500</td><td></td><td></td></tr></table> <ul style="list-style-type: none"><li>Standard Samples:RESEARCH &amp; EXPLORATION P/L supplies standard samples. These samples vary in concentration from low to high grades, and the supplier specifies the sample weight.</li><li>Duplicate Samples: These are field duplicates (sampling duplicates) collected during RC, Auger (AG) and Diamond Drilling (DD) procedures. The sample weight is consistent with the original sample collected.</li><li>Blank Samples: Blank samples are characterised by their material origin and weight. They are used to check for contamination and ensure the accuracy of the analytical process.</li><li>The project encompasses three targets, two laboratories, three types of drilling, and related procedures for every kind. Each cluster was analysed separately.</li></ul>	Ba	0.5 – 10,000	La	0.1 – 10,000	Tb	0.01 – 1,000	Ce	0.1 – 10,000	Lu	0.01 – 1,000	Th	0.05 – 1,000	Cr	5 – 10,000	Nb	0.05 – 2,500	Ti	0.01 – 10%	Cs	0.01 – 10,000	Nd	0.1 – 10,000	Tm	0.01 – 1,000	Dy	0.05 – 1,000	Pr	0.02 – 1,000	U	0.05 – 1,000	Er	0.03 – 1,000	Rb	0.2 – 10,000	V	5 – 10,000	Eu	0.02 – 1,000	Sc	0.5 – 500	W	0.5 – 10,000	Ga	0.1 – 1,000	Sm	0.03 – 1,000	Y	0.1 – 10,00	Gd	0.05 – 1,000	Sn	1 – 10,000	Yb	0.03 – 1,000	Hf	0.05 – 10,000	Sr	0.1 – 10,000	Zr	1 – 10,000	Ho	0.01 – 1,000	Ta	0.1–2,500		
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Ho	0.01 – 1,000	Ta	0.1–2,500																																																																
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"><li>BNA Mining Solutions, an independent company, verified and approved the data during the audit and execution of resource estimation and classification services.</li><li>Primary data collection follows a structured protocol with standardised data entry procedures. Data verification procedures ensure that any anomalies or discrepancies are identified and rectified. All data is stored in physical forms, such as hard copies and electronically, in secure databases with regular backups.</li><li>Given the nature of the ionic clay mineralisation, visual checks are not appropriate for verifying mineralised intercepts. The lithological classification was also based on analytical results, which better highlight the different weathering horizons through elements such as K, Mg, Si, Al, Na, Fe, and TREO.</li><li>The data were adjusted, transforming the elemental and oxide values. The conversion factors used are included in the table below.</li></ul> <table><tr><td>Element</td><td>Oxide</td><td>Factor</td></tr><tr><td>Ce</td><td>CeO<sub>2</sub></td><td>1.2284</td></tr><tr><td>La</td><td>La<sub>2</sub>O<sub>3</sub></td><td>1.1728</td></tr><tr><td>Sm</td><td>Sm<sub>2</sub>O<sub>3</sub></td><td>1.1596</td></tr><tr><td>Nd</td><td>Nd<sub>2</sub>O<sub>3</sub></td><td>1.1664</td></tr><tr><td>Pr</td><td>Pr<sub>6</sub>O<sub>11</sub></td><td>1.2082</td></tr><tr><td>Dy</td><td>Dy<sub>2</sub>O<sub>3</sub></td><td>1.1477</td></tr></table>	Element	Oxide	Factor	Ce	CeO <sub>2</sub>	1.2284	La	La <sub>2</sub> O <sub>3</sub>	1.1728	Sm	Sm <sub>2</sub> O <sub>3</sub>	1.1596	Nd	Nd <sub>2</sub> O <sub>3</sub>	1.1664	Pr	Pr <sub>6</sub> O <sub>11</sub>	1.2082	Dy	Dy <sub>2</sub> O <sub>3</sub>	1.1477																																													
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Criteria	Commentary																											
	<table><tr><td>Eu</td><td>Eu<sub>2</sub>O<sub>3</sub></td><td>1.1579</td></tr><tr><td>Y</td><td>Y<sub>2</sub>O<sub>3</sub></td><td>1.2699</td></tr><tr><td>Tb</td><td>Tb<sub>4</sub>O<sub>7</sub></td><td>1.1762</td></tr><tr><td>Gd</td><td>Gd<sub>2</sub>O<sub>3</sub></td><td>1.1526</td></tr><tr><td>Ho</td><td>Ho<sub>2</sub>O<sub>3</sub></td><td>1.1455</td></tr><tr><td>Er</td><td>Er<sub>2</sub>O<sub>3</sub></td><td>1.1435</td></tr><tr><td>Tm</td><td>Tm<sub>2</sub>O<sub>3</sub></td><td>1.1421</td></tr><tr><td>Yb</td><td>Yb<sub>2</sub>O<sub>3</sub></td><td>1.1387</td></tr><tr><td>Lu</td><td>Lu<sub>2</sub>O<sub>3</sub></td><td>1.1371</td></tr></table> <ul style="list-style-type: none"><li>• The TREO (Total Rare Earth Oxides) was determined by the sum of the following oxides: CeO<sub>2</sub>, Dy<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, La<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Pr<sub>6</sub>O<sub>11</sub>, Sm<sub>2</sub>O<sub>3</sub>, Tb<sub>4</sub>O<sub>7</sub>, Tm<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>. For the MREO (Magnetic Rare Earth Oxides), the following oxides were considered: Dy<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Pr<sub>6</sub>O<sub>11</sub>, and Tb<sub>4</sub>O<sub>7</sub>.</li><li>• Grades (ppm) were rounded to the nearest whole figure, and lengths (m) were rounded to the nearest 0.5m.</li><li>• For samples with Pr concentrations exceeding 1,000 ppm, it was necessary to conduct an overlimit head analysis.</li><li>• The drilling conducted by Viridis is recorded into MX Deposit tables (collar, survey, geology, sample) using tablets/laptops in the Core Shed. Geologists use the MX deposit system to describe samples and upload them directly into the database. The data is stored in the MX Deposit database (Sequent). Data validation is turned ON during the import of data to avoid errors.</li></ul>	Eu	Eu <sub>2</sub> O <sub>3</sub>	1.1579	Y	Y <sub>2</sub> O <sub>3</sub>	1.2699	Tb	Tb <sub>4</sub> O <sub>7</sub>	1.1762	Gd	Gd <sub>2</sub> O <sub>3</sub>	1.1526	Ho	Ho <sub>2</sub> O <sub>3</sub>	1.1455	Er	Er <sub>2</sub> O <sub>3</sub>	1.1435	Tm	Tm <sub>2</sub> O <sub>3</sub>	1.1421	Yb	Yb <sub>2</sub> O <sub>3</sub>	1.1387	Lu	Lu <sub>2</sub> O <sub>3</sub>	1.1371
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Location of data points	<p><b>Diamond, auger and RC collars</b></p> <ul style="list-style-type: none"><li>• The positioning of the drill has been achieved with high precision using a GPS RTK (Real - Time Kinematic) system CHC i73. This sophisticated GPS provides real-time corrections. The horizontal accuracy in RTK is 8mm + 1ppm RMS, and the Vertical accuracy is 15mm + 1ppm RMS, with a startup time of under 10 seconds and a Startup Reliability greater than 99.9%. The project’s grid system is based on the SIRGAS 2000 UTM coordinate system. This universal grid system facilitates consistent data interpretation and integration with other geospatial datasets.</li><li>• Benchmark and control points were established within the project area to ensure the quality and reliability of the topographic location data.</li></ul> <p><b>Topography imaging survey</b></p> <ul style="list-style-type: none"><li>• The topographic surveys conducted using drones were carried out in two distinct campaigns led by two companies. Both campaigns were planned and executed to complement each other, ensuring comprehensive coverage of the areas of interest.</li><li>• First Topographic Survey - HC2 Soluções did a detailed imaging and topographic survey. The survey was done using a DJI Matrice 300 RTK drone with a horizontal accuracy of 1cm + 1ppm and vertical accuracy of 1.5 cm + 1 ppm. On-board LiDAR Velodyne Ultra Puck (VLP-32) sensor was used, which has a range of 200 metres, an accuracy of 3 to 5cm, acquisition tax of 600,000 points per second (first pass), 1,200,000 points per second (second pass), equipped with a DJI camera with 960 Pixels and an integrated GNSS receptor (L1L2). The base points were used for a GPS CHCNAV i73 RTK GNSS, which could conduct real-time data surveys and kinematic locations (RTK-Real Time Kinematic). It consists of two GNSS receivers, a BASE and a ROVER. The horizontal accuracy in RTK is 8mm + 1 ppm, and the vertical accuracy is 15mm + 1ppm.</li><li>• Second Topographic Survey - A detailed imaging and topographic survey was conducted by Nuvve. The survey utilised a DJI Matrice 350 RTK drone, with a flight autonomy of up to 55 minutes, a maximum cruising speed of 23 m/s, wind resistance of up to 12 m/s, and a flight ceiling of 7000m. The drone operates from -20°C to 50°C and has a multi-frequency PPK GNSS system. A Zenmuse L2 LiDAR system was used, with a typical power consumption of 28W (maximum 58W) and a weight between 900 and 910g. The system operates from -20°C to 50°C and is mounted on the Matrice 350 RTK. It has a detection range of 450m with 50% reflectivity (0 klx) and</li></ul>																											

Criteria	Commentary
	250m with 10% reflectivity (100 klx). The point cloud rate reaches a maximum of 240,000 pts/s for single returns and 1,200,000 pts/s for multiple returns, supporting up to 5 returns. The range accuracy is 2cm at 150m, with a laser wavelength of 905 nm and a laser pulse emission frequency of 240 kHz. The maximum pulse emission power is 46,718W within five nanoseconds. Base points were acquired using a HI-TARGET V60 RTK GPS, capable of tracking multiple constellations (GPS, Glonass, Beidou, and Galileo) and specific frequencies: GPS L1/Ca, L2E, L2C, L5; Glonass L1/Ca, L1P, L2C/A (Glonass M), L2P SBAS L1/Ca, L5; Galileo L1 BOC, E5A, E5B, E5AltBOC; DBS/Compass B1, B2; and QZSS L1 C/A, L1 SAIF, L2C, L5. This system allows simultaneous RTK and static data recording, ensuring high accuracy.
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>The auger drilling was conducted on a regular grid with 200 x 200 metres spacing. This grid spacing provides a detailed exploration framework suitable for the area of interest. It aims to assist in defining our initial resource and offer a foundational understanding of the geological and grade continuity in the targeted zone.</li> <li>Diamond drilling, on the other hand, is not being conducted on a predefined exploration grid. Instead, exploratory boreholes are being drilled to provide insights into specific areas of interest and potential mineralisation zones. The exploratory nature of the diamond drilling further supports the overall geological understanding, although its data spacing is not predefined.</li> <li>RC drilling was carried out on a structured grid with a 200x200 metres Spacing. This grid pattern is tailored to facilitate a comprehensive exploration strategy suitable for the designated area, with the primary goal of enhancing our understanding of the mineral distribution and geological consistency across the target zone. The broader spacing of 400 x 400 metres for the RC drilling is strategically chosen to cover a larger area efficiently while still providing valuable insights into the potential mineralisation patterns and geological features.</li> <li>No sample compositing has been applied to report the exploration results. Each sample is treated and reported individually to maintain the highest level of detail and accuracy. <ul style="list-style-type: none"> <li>Auger samples were collected at intervals of 1.00 or 2.00 metres.</li> <li>The diamond samples were collected at intervals of up to 2.00 metres, respecting the geological contacts.</li> <li>RC samples were collected at intervals of 1.00 or 2.00 metres.</li> </ul> </li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>All drill holes were vertically oriented, which is deemed appropriate given the nature of the deposit. The deposit in question is a supergene deposit with a much larger areal extent than the thickness of the mineralised body. This type of deposit tends to be horizontally extensive with relatively consistent thickness.</li> <li>Given the vast area extent of the deposit and its relatively consistent thickness, vertical drilling is best suited to achieve unbiased sampling. This orientation allows for consistent intersecting of the horizontal mineralised zones and provides a representative view of the overall geology and mineralisation.</li> <li>There is no indication that drilling orientation has introduced any sampling bias about the crucial mineralised structures. The drilling orientation aligns well with the deposit's known geology, ensuring accurate representation and unbiased sampling of the mineralised zones. Any potential bias due to drilling orientation is considered negligible in this context.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>All samples were collected by field personnel and carefully packed in labelled plastic bags. Once packaged, the samples were transported directly to the SGS or ALS laboratories in Brazil. The samples were secured during transportation to ensure no tampering, contamination, or loss. Chain of custody was maintained from the field to the laboratory, with proper documentation accompanying each batch of samples to ensure transparency and traceability of the entire sampling process. Using two reputable laboratories further reinforces the sample security and integrity of the assay results.</li> </ul>

Criteria	Commentary
<b>Audits or reviews</b>	<ul style="list-style-type: none"><li>A site visit was carried out by Volodymyr Myadzel from BNA Mining Solutions on 25 October 2024, to inspect drilling and sampling procedures, verify survey methods, inspect the storage shed, verification geological records, review QAQC procedures and review the geologic model.</li></ul>



## Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Listed in Appendix 3</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Historical exploration in the area comprises notable endeavours by various entities:</li> <li>The Colossus project is geologically intertwined with the Caldeira Project, sharing the same geological context.</li> <li>Varginha Mineração previously undertook regional drilling exercises, utilising a powered auger drill rig to produce open holes.</li> <li>This historical data provides essential context and complements current exploration efforts in understanding the region's geological potential.</li> <li>On 4 June 2024, the maiden Mineral Resource Estimate (MRE) for the Colossus project was announced, following JORC standards, showing a total of 201 million tonnes at 2,590 ppm of total rare earth oxide (TREO), with a 1,000 ppm TREO cut-off, positioning Colossus as the leading development project for Ionic Adsorption Clay (IAC) Rare Earth Elements (REE).</li> </ul>
<b>Geology</b>	<p>The geology of the region where the deposit is located can be summarised as follows:</p> <ul style="list-style-type: none"> <li><b>Deposit Nature:</b> The deposit is recognised as an IAC REE deposit. Its spatial positioning is within and adjacent to the renowned Poços De Caldas Alkaline Complex.</li> <li><b>Poços de Caldas Complex:</b> This geological entity stands as one of the most extensive alkaline massif intrusions globally, enveloping an area of roughly 800km<sup>2</sup>. It stretches across the Brazilian states of São Paulo and Minas Gerais. From a macro perspective, it portrays a near-circular structure with an approximate diameter of 30km. This formation resembles a collapsed caldera. Delving deeper, the dominant rocks within the alkaline complex encompass phonolite, nepheline syenites, sodalite syenites, and many volcanic rocks. This diverse geological setting has played a crucial role in dictating mineral occurrences and potential mining prospects.</li> <li><b>REE Mineralisation:</b> The specific REE mineralisation highlighted in this disclosure leans towards the Ionic Clay type. Evidence pointing to this is mainly derived from its occurrence within the saprolite/clay zone of the weathering profile of the Alkaline granite basement. The enriched MREO (Magnetic Rare Earth Oxides) composition also attests to this classification. Additionally, previously announced metallurgical recovery data using ammonium sulfate at ambient temperature and pH 4 by Viridis demonstrated recoveries exceeding 60% for the MREO.</li> <li><b>Relevant Additional Information:</b> The IAC REE deposits, particularly in regions like Poços de Caldas, have recently gained significant attention due to the global demand surge for rare earth elements. These elements, especially the magnetic rare earth, have vital applications in modern technologies such as renewable energy systems, electronics, and defence apparatus. The ability of these deposits to offer relatively environmentally friendly mining prospects compared to traditional hard rock REE mines further enhances their appeal.</li> <li>In general, the target areas show higher concentrations of rare earth elements in the regolith horizon.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>All drill holes used for the MRE that are part of this announcement were previously reported by Viridis in ASX releases.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>Data collected for this project includes surface geochemical analyses, geological mapping, and auger and diamond drilling results. All analytical methods and aggregation were done according to industry best practices, as detailed in previous discussions.</li> </ul>
<b>Mineralisation widths vs</b>	<ul style="list-style-type: none"> <li>All holes are vertical, and mineralisation is developed in a flat-lying clay and transition zone within the regolith and transitional layers. As such, reported widths are considered to equal true widths.</li> </ul>

Criteria	Commentary
<b>intercept lengths</b>	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>The diagrams and figures included in this report are designed to clearly represent the project's geological, mining, and processing assumptions.</li> <li>Key illustrations include resource block models, pit optimisation shells, mine scheduling diagrams, and processing flowsheets, which support the economic and technical assessments presented in the PFS.</li> <li>Additionally, infrastructure layouts, environmental management plans, and logistical schematics are incorporated to enhance the reader's understanding of the project's development pathway.</li> <li>These visuals aim to ensure transparency and accessibility of the study's findings, aligning with best practices for project reporting and decision-making.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>This report provides a transparent and comprehensive assessment of the Colossus Project at the PFS level, incorporating key technical, economic, and environmental considerations.</li> <li>The study presents a balanced evaluation, outlining the project's positive aspects—such as its low-cost mining method, high-value rare earth basket, and substantial economic returns—while also acknowledging areas requiring further study and optimisation, including metallurgical refinements and permitting processes.</li> <li>All assumptions related to resource estimation, mining, processing, infrastructure, and environmental factors have been detailed, ensuring that the report faithfully represents the current project understanding.</li> <li>Where relevant, cross-references to previous exploration results and resource updates have been included to maintain continuity and clarity in reporting.</li> <li>The findings are presented without undue bias, including sensitivity analyses and risk assessments to highlight the range of potential outcomes as the project progresses toward feasibility-level studies.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>There is no additional substantive exploration data to report currently.</li> </ul>
<b>Further work</b>	<p>The completion of this PFS represents a significant milestone in the advancement of the Colossus Project. It provides a preliminary technical and economic assessment that supports further development of the project. The study builds upon the updated Mineral Resource Estimate, incorporating key assumptions related to mining, processing, and infrastructure, and sets the foundation for future feasibility-level studies.</p> <p>The following steps in the project development include:</p> <ul style="list-style-type: none"> <li>Infill drilling (75m x 75m) at the Northern and Southern Concessions will improve resource confidence, support the conversion of Indicated Resources into the Measured category, and establish a drilling program for pre-mining operations.</li> <li>Exploration drilling in adjacent areas to assess additional mineralised zones that could enhance the project's resource base and mine life.</li> <li>Pilot plant installation to conduct continuous metallurgical test work, focusing on impurity removal and Rare Earth Carbonate (MREC) precipitation to optimise process efficiency and validate industrial-scale performance.</li> <li>Completing the detailed mining sequencing for the Northern Concessions and Southern Complex, refining pit designs, scheduling, and operational planning.</li> <li>Advancement to the Definitive Feasibility Study (DFS) in 2025, incorporating detailed engineering, cost refinements, and risk assessments to improve the confidence level of economic and technical assumptions.</li> <li>Downstream study and product qualification testing with Ionic Rare Earths, evaluating the potential for selective separation to produce high-purity Rare Earth Oxides (REOs), enhancing product payability and market positioning.</li> </ul>

### Section 3 Estimation & Reporting of Mineral Resources (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>All data was imported into Micromine Software. The database was validated using specific processes to verify the existence of the errors listed below:</li> <li>The name of the drill hole is present in the collar file but is missing from the analytical database;</li> <li>The name of the drill hole is present in the analytical database but is absent in the collar file;</li> <li>The name of the drill hole appears repeated in the analytical database and the collar file;</li> <li>The name of the drill hole does not appear in the collar file and the analytical database;</li> <li>One or more coordinate notes are absent from the collar file;</li> <li>FROM or TO are not present in the analytical database;</li> <li>FROM &gt; TO in the analytical database;</li> <li>Sampling intervals are not continuous in the analytical database (there are gaps between the logs);</li> <li>Sampling intervals overlap in the analytical database;</li> <li>The first sample does not correspond to 0m in the analytical database;</li> <li>The total depth of the hole is shallower than the depth of the last sample.</li> <li>Random checks of the original data received from SGS and ALS laboratories were compared with the provided database. No errors were found.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Volodymyr Myadzel conducted a site visit from BNA Mining Solutions on 25 October 2024. The objectives of the site visit were an overview of the site situation, an inspection of the storage shed, verification of geological documentation and a general geological introduction.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in the geological interpretation of the rare earth mineralisation in regolith rocks is very high, as exploration activities were conducted using regular and relatively close-spaced drill spacing.</li> <li>The resource estimation is based on the Company's geological exploration data.</li> <li>Where mineralisation was present at the end of the drill hole (in areas of known deep weathering), the mineralisation was assumed to extend up to medium body thickness. The mean body thicknesses were calculated for each Target individually.</li> <li>Factors affecting the rare earth deposit in regolith rocks are the degree of weathering of the primary rocks and variations in mineralisation, which can be investigated in detail by further exploration drilling or other surface exploration methods.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The Mineral Resource is spread across three prospects over a ~21 km strike in the N-S direction and ~11 km in the E-W direction. Individual dimensions are: <ul style="list-style-type: none"> <li>Northern Concession: 5,800m x 3,600m</li> <li>Southern Concessions: 11,250m x 6,600m</li> </ul> </li> <li>The top of the rare earth mineralisation seam is the topographic surface or base of the soil layer. Its base of the mineralisation is saprolite rock.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The results are based on the block model interpolated by the Ordinary Kriging (OK) method using the Micromine software. Ordinary Kriging was selected as the method for grade interpolation as the sampling data has a log-normal distribution represented by a single generation.</li> <li>All analysed elements were interpolated to the empty block model using OK and IDW3 (Inverse Distance Weighting with inverse power 3) methods. The IDW3 method was used for control and comparison.</li> <li>The grade estimation was performed in four consecutive steps (rounds) using different sizes of search radius, criteria of number of composite samples and number of holes.</li> </ul>

Criteria	Commentary						
	Search Ellipse parameters by Pass for Northern Concessions.						
	Pass	Search Ellipse (size factor)	Min. No. Composites	Max. No. Composites	Min. No. Drill Holes		
	01	0.667	4	4	3		
	02	1	3	4	2		
	03	2	2	4	1		
	04	100	1	4	1		
	Search Ellipse parameters by Pass for Southern Concessions.						
	Pass	Search Ellipse (size factor)	Min. No. Composites	Max. No. Composites	Min. No. Drill Holes		
	01	0.667	4	4	3		
	02	1	3	4	2		
	03	2	2	4	1		
	04	100	1	4	1		
	<ul style="list-style-type: none"><li>Column Min No. Composites is the minimum number of composites required for each of the estimation passes. Column Max No. Composites is the maximum number of samples allowed for each of the four sectors of the ellipsoid used for the elements' estimation process.</li><li>The Block Model was created in the process of discretisation of the wireframes using the sub-blocking process. Initially, the model was filled with blocks measuring 25 (X) by 25 (Y) by 10 (Z) metres, which were divided into subunits of smaller size, with a factor for size subdivision of 10 by 10 by 10 in contact with the surrounding three-dimensional wireframes.</li><li>The variograms determined the radio and the orientation of the search ellipse. The limitations presented by each sector of a search ellipse were the maximum number of points in the sector and the minimum number of points in the interpolation that varies depending on the size of the ellipse, from 3 to 1. Thus, the maximum number of samples involved in the interpolation was 16.</li></ul>						
	Radii of Search Ellipsoid by element for all Deposits.						
	Element	Northern Concessions			Southern Concessions		
		X	Y	Z	X	Y	Z
	La (ppm)	360	210	10	185	185	10
	Ce (ppm)	360	210	15	180	130	10
	Pr (ppm)	360	210	10	185	185	10
	Nd (ppm)	360	210	10	185	185	10
	Sm (ppm)	360	210	10	185	185	20
	Eu (ppm)	360	210	10	240	190	20
	Gd (ppm)	360	210	10	185	185	10
Tb (ppm)	360	210	10	240	190	20	
Dy (ppm)	360	210	10	235	190	20	
Ho (ppm)	360	210	10	260	190	20	
Er (ppm)	360	210	10	220	190	20	
Tm (ppm)	360	210	10	240	180	10	
Yb (ppm)	360	210	10	180	130	10	
Lu (ppm)	360	210	10	230	230	20	
Y (ppm)	360	210	10	185	180	10	
Th (ppm)	360	210	20	185	130	10	
U (ppm)	300	200	20	185	185	10	

Criteria	Commentary																																																						
	<p><i>Orientation of Azimuth of the search ellipsoid for every element by Deposit (Dip = 0, Plunge = 0 for all elements in all Deposits).</i></p> <table><tr><th>Element (ppm)</th><th>Northern Concessions</th><th>Southern Concessions</th></tr><tr><td>La</td><td>108</td><td>024</td></tr><tr><td>Ce</td><td>144</td><td>024</td></tr><tr><td>Pr</td><td>108</td><td>024</td></tr><tr><td>Nd</td><td>108</td><td>024</td></tr><tr><td>Sm</td><td>108</td><td>024</td></tr><tr><td>Eu</td><td>108</td><td>024</td></tr><tr><td>Gd</td><td>108</td><td>024</td></tr><tr><td>Tb</td><td>108</td><td>024</td></tr><tr><td>Dy</td><td>108</td><td>024</td></tr><tr><td>Ho</td><td>108</td><td>024</td></tr><tr><td>Er</td><td>108</td><td>024</td></tr><tr><td>Tm</td><td>096</td><td>108</td></tr><tr><td>Yb</td><td>096</td><td>108</td></tr><tr><td>Lu</td><td>108</td><td>024</td></tr><tr><td>Y</td><td>108</td><td>078</td></tr><tr><td>Th</td><td>24</td><td>024</td></tr><tr><td>U</td><td>144</td><td>024</td></tr></table> <ul style="list-style-type: none"><li>The block model was validated in several ways: running an Inverse Distance Weighted interpolation and comparing the results and the means and standard deviations of the block grades to the composite data set.</li></ul>	Element (ppm)	Northern Concessions	Southern Concessions	La	108	024	Ce	144	024	Pr	108	024	Nd	108	024	Sm	108	024	Eu	108	024	Gd	108	024	Tb	108	024	Dy	108	024	Ho	108	024	Er	108	024	Tm	096	108	Yb	096	108	Lu	108	024	Y	108	078	Th	24	024	U	144	024
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Lu	108	024																																																					
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Moisture	<ul style="list-style-type: none"><li>All estimations are reported as a dry tonnage.</li></ul>																																																						
Cut-off parameters	<ul style="list-style-type: none"><li>Cut-off grades for TREO were used to prepare the reported resource estimates. The selection of the cut-off was based on the experience of the Competent Person, plus a peer review of publicly available information from more advanced projects with comparable mineralisation styles (i.e. clay-hosted rare earth mineralisation) and comparable conceptual processing methods.</li><li>The chosen cut-off grade of 1,000ppm TREO is consistent with this.</li><li>The two mineralised horizons considered for the resource were Regolith (accumulation zone) and Saprolite (transitional material) with the following cut-off grades for MREO:<ul style="list-style-type: none"><li>Regolith - 300 ppm of MREO</li><li>Saprolite - 330 ppm of MREO</li></ul></li><li>Leached clays were not considered.</li></ul>																																																						
Mining factors or assumptions	<ul style="list-style-type: none"><li>The use of open pit mining with resource transportation by trucks has been considered. However, the possibility of pumping the mineral resource from the mining area to the industrial site is being evaluated, which could reduce transportation costs and environmental impact.</li></ul>																																																						
Metallurgical factors or assumptions	<p><b>Northern Concessions and Southern Complex</b></p> <ul style="list-style-type: none"><li>Extensive metallurgical testing programs have been conducted on bulk samples from the Northern Concessions and the Southern Complex (Cupim South and Centro Sul). The programs executed by SGS and ANSTO evaluated the metallurgical performance of these concessions to define and optimise the process flowsheet for mixed rare earth carbonate (MREC) production.</li></ul> <p><b>Testing Overview:</b></p> <ul style="list-style-type: none"><li><b>Northern Concessions:</b> Bulk composite samples weighing 40kg were subjected to diagnostic leach tests and impurity removal studies. ANSTO optimised a low-cost, ammonia-based leaching process at pH 4.5 using 0.3M ammonium sulfate (AMSUL). This produced high MREC recoveries of 76% for MREO, with impurity levels below 1%.</li></ul>																																																						



Criteria	Commentary
	<ul style="list-style-type: none"> <li>• <b>Southern Complex:</b> A 41kg bulk composite sample underwent similar testing, achieving the highest recorded recoveries for an IAC project, with 78% MREO recovery. Impurity levels were further reduced to approximately 0.7%.</li> </ul> <p><b>Process Flowsheet:</b></p> <ul style="list-style-type: none"> <li>• The proposed process includes leaching with AMSUL at ambient temperature and atmospheric pressure. The leachate is treated through impurity removal, followed by precipitation of the MREC product at near-neutral pH levels, minimising reagent consumption.</li> </ul> <p><b>Recoveries:</b></p> <p><b>Northern Concessions:</b></p> <ul style="list-style-type: none"> <li>• Neodymium (Nd): 76%</li> <li>• Praseodymium (Pr): 77%</li> <li>• Dysprosium (Dy): 67%</li> <li>• Terbium (Tb): 71%</li> </ul> <p><b>Southern Complex:</b></p> <ul style="list-style-type: none"> <li>• Neodymium (Nd): 79%</li> <li>• Praseodymium (Pr): 77%</li> <li>• Dysprosium (Dy): 65%</li> <li>• Terbium (Tb): 69%</li> </ul> <p>These results highlight the consistency of MREC recoveries across both deposits.</p> <p><b>Product Quality:</b></p> <ul style="list-style-type: none"> <li>• The MREC product from both concessions contains approximately 60% TREO (Northern Concessions) and 58% TREO (Southern Complex), with MREOs accounting for 39% and 38%, respectively. These ratios represent some of the highest globally reported values for IAC projects.</li> </ul> <p><b>Economic Implications:</b></p> <ul style="list-style-type: none"> <li>• The optimised flowsheet reduces operating costs by lowering reagent consumption while maintaining high recoveries. This provides a significant competitive advantage in terms of CAPEX and OPEX.</li> </ul> <p>These initial results suggest that optimisation efforts by ANSTO, which are planned for the next phase, will likely improve recovery rates for both resource types.</p>
<b>Environmental factors or assumptions</b>	<p>The Colossus Project is located entirely within the Atlantic Forest biome, protected by the Atlantic Forest Law (Federal Law No. 11,428/2006). Mining activities require prior environmental licensing supported by Environmental Impact Assessment (EIA) and Environmental Impact Report (RIMA) studies. The project includes portions of the Atlantic Forest Biosphere Reserve's core zones and buffer zones, a region critical for preserving Brazilian biodiversity.</p> <p>A mosaic of vegetation characterises the region due to ongoing anthropogenic activities, including mining, forestry, and agriculture, which have altered the natural environment. Despite this, phytosociological studies indicate high levels of plant diversity and a natural succession cycle that promotes ecological regeneration. Certain areas within the prospect are classified as protected, such as Permanent Preservation Areas (APPs) and Legal Reserves; however, the activities are considered a public utility under Law No. 20,922/2013 and can proceed with appropriate authorisations and environmental compensations.</p> <p>In compliance with State Decree No. 47,941/2019, buffer zones of 3,000 metres surrounding integral and sustainable protection units were established to mitigate potential impacts. The Resource's Areas do not intersect any conservation units or their respective buffer zones. Following the advancements in engineering and exploration, the environmental regularisation process has been initiated for the Northern Concessions. Licenses are being pursued sequentially, starting with the preliminary license and followed by installation and operational permits.</p> <p>EIA and RIMA studies provided a comprehensive area diagnosis, identified potential impacts, and proposed mitigation measures. Significant environmental impacts include:</p> <ul style="list-style-type: none"> <li>• Alteration of surface water quality,</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>Changes in air quality,</li> <li>Noise and vibration emissions,</li> <li>Hydrological dynamic alterations,</li> <li>Native vegetation suppression and habitat loss,</li> <li>Local fauna displacement,</li> <li>Socioeconomic benefits include job creation, population training, increased tax revenue, and local economic investment.</li> </ul> <p>Mitigation measures include:</p> <ul style="list-style-type: none"> <li>Erosion control programs,</li> <li>Monitoring of groundwater and surface water quality,</li> <li>Fauna monitoring,</li> <li>Flora compensation programs,</li> <li>Air, noise, and vibration quality monitoring,</li> <li>Operational measures include dust suppression, equipment encapsulation, and preventive maintenance.</li> </ul> <p>Existing reservoirs will meet water requirements for this phase, with an estimated 75% recirculation rate supported by reverse osmosis and filtration systems. This will ensure no industrial effluent is discharged into waterways. Tailings generated during processing will be backfilled into mined-out pits, facilitating rapid environmental recovery.</p> <p>These measures collectively ensure that the Colossus Project adheres to sustainable operational practices throughout its lifecycle.</p>
<b>Bulk density</b>	<p>Three sample collection methodologies were used to determine the specific weight of the saprolite and rock.</p> <ul style="list-style-type: none"> <li>a) samples from diamond drilling holes Caliper Method This technique consists of driving a template of 20cm in length (internal measurement of the template) and a width encompassing the entire diameter of the core sample in the box. The core sample removed from the template is placed in a plastic bag and weighed on a digital scale, with its weight recorded on the density test sheet, as well as the sample's length and the core's diameter, which should be checked using a calliper. The volume of the sample is obtained through the template's dimensions and the core's diameter. The wet density, in turn, is calculated by the ratio between the mass and the volume of the material.</li> <li>b) samples collected in outcrops Sand Cone Method The sand cone method is conducted in situ on friable materials by the ABNT NBR 7185 standard and was carried out by the contracted company Torres Geotecnia Ltda. This method consists of digging a hole with a known depth (15cm) and diameter, guided by a square metal tray that must be levelled, for sampling the friable material. The friable material is removed from the hole and weighed. Subsequently, this hole is filled with sand of known density that is stored in a jar and funnel set. A portion of the material removed from the hole is inserted into a "Speedy" device to obtain the moisture content. Thus, the moisture content is calculated through the pressure values obtained from the manometer reading and the weight of the sample.</li> <li>c) gamma-gamma density logging Gamma-gamma density logging is an active-nuclear method to determine the bulk formation wet densities of borehole-intersection formations. It involves inserting a probe into the open hole and taking wet density measurements every 1 centimetre depth. This method was conducted by the contracted company Neogeo Geotecnologia Ltda. Data acquisition was performed using an FDGS (Formation Density Sonde) probe, sonde I002013, with a diameter of 51mm and length of 2.97m, produced by Robertson Geologging Limited. The probe consists of a Cesium 137 source with 3.7 GBq of activity and two sodium iodide detectors (i.e. scintillometers) called LSD (Long Space Density) and HRD (High-Resolution Density). The calliper is a tool that provides information about</li> </ul>

Criteria	Commentary
	<p>the diameter of the drill hole and can be used to control the quality of the drill hole. This method was applied in 38 borehole drilling, including diamond and reverse circulation drilling. Bulk density was calculated using parameters such as the density of electrons, atomic number, and atomic weight.</p> <p>The moisture content of the drilling samples was measured using the Halogen Moisture Analyzer HE53 (Mettler Toledo). Measurements were conducted at 105°C using a 10g sample aliquot.</p> <p>With the wet density obtained from the gamma-gamma logging conducted in the field and the moisture content, the dry density for each sample can be calculated by subtracting the identified moisture content (%) directly from the wet density (g/cm<sup>3</sup>).</p> <p>Northern Concessions Target average dry density of 1.40 g/cm<sup>3</sup> (89 samples) for regolith and 1.93 g/cm<sup>3</sup> (23 samples) for saprolite.</p> <p>Southern Concessions Target average dry density of 1.35 g/cm<sup>3</sup> (200 samples) for regolith and 1.85 g/cm<sup>3</sup> (85 samples) for saprolite.</p>
<b>Classification</b>	<ul style="list-style-type: none"> <li>All Mineral Resources for the project have been classified as Inferred, Indicated and Measured.</li> <li>The Competent Person is satisfied that the classification is appropriate based on the current drill hole spacing, geological continuity, variography, and bulk density data available for the project.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>As yet, there have been no third-party audits or reviews of the mineral resource estimates.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The block model with interpolated grades was subject to visual and statistical verification. Histograms and probability graphs of the interpolated grades were built. Then, the interpolated grades of the block model were compared with the composite samples' identical histograms and probability graphs. The histograms and charts of the interpolated grades and composite samples were similar, and the block model histograms were smoother than the composite histograms. The comparisons confirmed the validity and consistency of the built block model.</li> <li>The mineral resource is a global resource estimate, and local resource estimates may vary negatively or positively.</li> </ul>

## Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<p>The Mineral Resource estimate used as the basis for this PFS is 493Mt @ 2508ppm TREO (601ppm MREO), as announced by Viridis on 22 January 2025. Mineral Resources are classified under the JORC Code (2012) and consist of measured, indicated, and inferred categories. However, for this study, only the Measured and Indicated resources from the Northern Concessions and Cupim South were considered, totalling 98.5Mt over a 20-year Life of Mine (LOM) as follows:</p> <ul style="list-style-type: none"> <li>○ 0.7% Measured</li> <li>○ 99.3% Indicated</li> <li>○ 0% Inferred</li> </ul> <p>No Ore Reserves have been declared at this stage. The mineral resources are reported, including any potential ore reserves that will be defined in future studies. Further work, including detailed feasibility studies, metallurgical optimisation, and economic assessments, will be required to upgrade portions of the Mineral Resource to Ore Reserve status following the JORC Code (2012).</p>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>• Volodymyr Myadzel from BNA Mining Solutions conducted a site visit on 25 October 2024.</li> <li>• The visit covered an overview of the site, inspection of the storage shed, verification of geological documentation, and a general geological introduction.</li> <li>• Future site visits are planned for feasibility studies, metallurgical testing, and environmental monitoring.</li> </ul>
<b>Study status</b>	<ul style="list-style-type: none"> <li>• The current study is a PFS, which provides a preliminary technical and economic assessment of the potential viability of the Colossus Project. Hatch, an independent professional services firm with expertise in rare earth engineering, conducted the study based on the updated Mineral Resource Estimate announced on January 22, 2025.</li> <li>• The PFS evaluates the conceptual feasibility of developing a 5Mtpa rare earth processing facility over a 20-year LOM. It considers only the Measured and Indicated resources from the Northern Concessions and Cupim South Complex. The study follows industry best practices, incorporating geological modelling, metallurgical test work, mine design, financial modelling, and environmental considerations.</li> <li>• Further detailed studies, including a Definitive Feasibility Study (DFS) and additional metallurgical, environmental, and economic assessments, will be required to demonstrate technical and economic viability at a higher confidence level.</li> <li>• Material-modifying factors such as mining, processing, metallurgical recovery, infrastructure, environmental, legal, and financial parameters have been preliminarily assessed but will require further validation in future study phases.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• The cut-off grades for TREO were established based on the experience of the Competent Person and a peer review of comparable clay-hosted rare earth projects with similar mineralisation styles and processing methods.</li> <li>• A 1,000 ppm TREO cut-off was selected for reporting the global Mineral Resource estimate.</li> <li>• For the MRE, two mineralised horizons were defined with distinct cut-off grades: <ul style="list-style-type: none"> <li>• Regolith (accumulation zone): 300ppm MREO</li> <li>• Saprolite (transitional material): 330ppm MREO</li> </ul> </li> <li>• Leached clays and rock were not considered as Mineral Resource.</li> </ul>

Criteria	Commentary
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Mining Method and Design               <ul style="list-style-type: none"> <li>○ The selected mining method is open-pit mining, utilising a truck-and-shovel, free-digging approach due to the soft nature of the ionic adsorption clay-hosted rare earth mineralisation.</li> <li>○ No drilling or blasting is required, reducing mining costs and environmental impact.</li> <li>○ The mining strategy is based on a progressive backfilling system, where processed and washed residue returns to depleted pits to aid environmental rehabilitation and minimise external waste storage requirements.</li> </ul> </li> <li>• Geotechnical Parameters and Pit Optimisation               <ul style="list-style-type: none"> <li>○ Preliminary geotechnical assumptions suggest a maximum pit depth of 30 metres with an average depth of 15.</li> <li>○ Bench heights are 5 metres, with overall slope angles optimised at 35 degrees to ensure stability.</li> <li>○ Haul roads are designed with a 14-metre width to accommodate efficient truck movement and operational safety.</li> <li>○ The mine sequencing is structured to prioritise high-value MREO feed zones rather than simply maximising TREO grades.</li> </ul> </li> <li>• Mining Factors and Recovery Assumptions               <ul style="list-style-type: none"> <li>○ A dilution factor of 5% has been applied to account for unintended mixing of barren material with mineralised material.</li> <li>○ A mining recovery factor of 90% has been assumed, considering potential losses during excavation and handling.</li> <li>○ The strip ratio is low, at 0.4:1 (waste:resource), ensuring cost-effective mining operations.</li> <li>○ Minimum mining widths have not been explicitly defined but are not expected to be a limiting factor, as the deposit consists of laterally extensive clay horizons.</li> </ul> </li> <li>• Resource Model and Use of Inferred Resources               <ul style="list-style-type: none"> <li>○ The mine plan does not include Inferred Mineral Resources, as only Measured and Indicated resources from the Northern Concessions and Cupim South Complex are considered for the PFS.</li> <li>○ Future exploration and resource conversion drilling may allow for an extension of the mine life or inclusion of additional high-grade zones in subsequent studies.</li> </ul> </li> <li>• Infrastructure Requirements               <ul style="list-style-type: none"> <li>○ The mining operation will utilise private haul roads with an average haulage distance of 3 km to the beneficiation hubs.</li> <li>○ Mineral resource will be slurried and transported via pipeline to the central processing plant, reducing dust emissions and haulage costs.</li> <li>○ The processing facility is centrally located within the Northern Concessions, ensuring proximity to high-grade pits and minimising transport distances.</li> <li>○ The project benefits from existing infrastructure in Poços de Caldas, including paved roads, skilled mining labor, and access to renewable energy sources.</li> </ul> </li> <li>• Future Considerations               <ul style="list-style-type: none"> <li>○ The mining assumptions in this PFS will be refined through additional geotechnical investigations, detailed mine scheduling, and grade control drilling as part of subsequent Feasibility Studies.</li> </ul> </li> </ul>



Criteria	Commentary
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Metallurgical Process and Suitability to Mineralisation               <ul style="list-style-type: none"> <li>○ The Colossus Project is an ionic adsorption clay-hosted rare earth deposit, a mineralisation style that allows for low-cost, simple metallurgical processing.</li> <li>○ The proposed metallurgical process involves leaching with ammonium sulfate (AMSUL) at pH of around 5, followed by impurity removal using ammonium bicarbonate (pH 5.4) and MREC precipitation, with additional ammonium bicarbonate (pH 7.1) added to produce a Mixed Rare Earth Carbonate (MREC).</li> <li>○ This process is highly suitable for the mineralisation type, as ionic adsorption clay deposits enable selective rare earth extraction at ambient temperature and pressure without complex beneficiation techniques such as flotation or roasting.</li> </ul> </li> <li>• Technology Maturity               <ul style="list-style-type: none"> <li>○ The well-established AMSUL-based leaching process has been successfully implemented in ionic clay REE operations, particularly in China.</li> <li>○ The Colossus flowsheet has been optimised to achieve industry-leading recoveries using a more neutral pH solution, reducing reagent consumption and operational costs while ensuring high selectivity for valuable rare earth elements.</li> <li>○ The process eliminates the need for aggressive acid leaching, significantly lowering environmental impact compared to hard rock rare earth processing.</li> </ul> </li> <li>• Metallurgical Test Work and Recovery Factors               <ul style="list-style-type: none"> <li>○ The Australian Nuclear Science and Technology Organisation (ANSTO) conducted extensive metallurgical test work to validate the proposed process.</li> <li>○ The test work included bulk composite samples from the Northern Concessions and Southern Complex, representing the mineralised-body's variability.</li> <li>○ The average recoveries demonstrated by ANSTO's flowsheet test work are:                   <ul style="list-style-type: none"> <li>○ TREO Recovery: 57%</li> <li>○ MREO Recovery: 76%</li> </ul> </li> <li>○ These recovery factors have been statistically validated against randomised diagnostic leach tests conducted on a wide range of mineralised samples, confirming their reliability across the mine plan.</li> </ul> </li> <li>• Deleterious Elements and Assumptions               <ul style="list-style-type: none"> <li>○ The MREC product has been confirmed to contain low levels of impurities, with impurity levels measured at:                   <ul style="list-style-type: none"> <li>○ &lt;1% for the Northern Concessions</li> <li>○ 0.7% for the Southern Complex</li> </ul> </li> <li>○ No significant deleterious elements have been identified that would impact process efficiency or product quality.</li> <li>○ The low impurity levels enhance the potential payability of the final product, positioning it as a premium feedstock for downstream rare earth separation plants.</li> </ul> </li> <li>• Bulk Sample and Pilot-Scale Testing               <ul style="list-style-type: none"> <li>○ While pilot-scale testing has not yet been conducted, the metallurgical work program included bulk composite samples, considered representative of the mineralised-body.</li> <li>○ The statistical validation process, based on over 500 leach tests, confirmed that the metallurgical recoveries are consistent across spatial locations and grades within the deposit.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ A pilot plant is planned as part of the following study phase to refine process parameters further and validate scalability before final plant design.</li> <li>● Mineralogy and Product Specification <ul style="list-style-type: none"> <li>○ The mineralisation is dominated by adsorbed light and heavy rare earth elements, focusing on Nd, Pr, Dy, and Tb, critical for the permanent magnet industry.</li> <li>○ The MREC produced meets industry specifications, with a high MREO-to-TREO ratio (39%), ensuring a competitive basket price.</li> <li>○ The mineralogy has been carefully studied, and only high-payability feedstock is included in the mine plan, optimising revenue potential.</li> </ul> </li> <li>● Future Considerations <ul style="list-style-type: none"> <li>○ The PFS results confirm the technical feasibility of the proposed process.</li> <li>○ Subsequent feasibility phases will include additional pilot-scale testing and downstream separation test work to refine process efficiency and enhance playability.</li> <li>○ Further metallurgical domaining studies may allow for optimised pit sequencing, prioritising high-recovery zones to improve overall project economics.</li> </ul> </li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>● Environmental Studies and Impact Assessment <ul style="list-style-type: none"> <li>○ A comprehensive Environmental Impact Assessment (EIA) and Environmental Impact Report (RIMA) have been submitted to the Environmental Agency of Minas Gerais (FEAM) as part of the application for a Preliminary License (PL).</li> <li>○ The EIA/RIMA covers all tenements within the Northern Concessions, assessing potential impacts on air quality, water resources, biodiversity, noise, and socio-economic factors.</li> <li>○ The study includes 8 months of extensive environmental fieldwork, with surveys on flora, fauna, hydrology, air quality, and community engagement.</li> <li>○ The Municipality of Poços de Caldas has granted a Certificate of Regularity for Land Use and Occupation, a key legal requirement for environmental licensing under State Decree No. 47,383/2018, Article 18.</li> </ul> </li> <li>● Waste/topsoil Characterisation and Residue Management <ul style="list-style-type: none"> <li>○ The mining process involves extracting ionic adsorption clay-hosted rare earths, which do not generate acid mine drainage or pose significant risks of heavy metal contamination.</li> <li>○ Waste/topsoil is primarily low-grade kaolinite clays, which are chemically inert and pose minimal environmental risk.</li> <li>○ No traditional tailings dams will be required, as all spent mineral resources will be progressively backfilled into mined-out pits in a dry-stacked, compacted form.</li> <li>○ The spent residue is washed to remove excess sulfate before backfilling, ensuring compliance with environmental safety standards.</li> <li>○ The progressive backfill approach significantly reduces the surface footprint of waste storage and facilitates rapid site rehabilitation.</li> </ul> </li> <li>● Processing Residue and Site Selection <ul style="list-style-type: none"> <li>○ The processing plant location has been selected based on proximity to high-grade pits, minimising transportation distances and environmental disruption.</li> <li>○ The processing facility will recycle water via ultrafiltration and reverse osmosis (RO) systems, ensuring zero discharge into natural waterways.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ The project will operate with 100% renewable energy sourced from existing hydro, solar, and wind power in Minas Gerais, significantly reducing its carbon footprint.</li> <li>○ Potential dust emissions from mining activities will be mitigated through wet suppression methods, including recycled process water.</li> <li>● Approval Status and Next Steps <ul style="list-style-type: none"> <li>○ FEAM is reviewing the preliminary license (PL) application with strong support from state and local government representatives.</li> <li>○ Once the PL is granted, the following stages will include: <ul style="list-style-type: none"> <li>■ Installation License (IL): Approval for construction of the mine and processing plant.</li> <li>■ Operational License (OL): Approval for full-scale production.</li> </ul> </li> <li>○ The project is expected to receive the IL in Q3 2026, aligning with the development timeline for construction and commissioning.</li> </ul> </li> <li>● Hydrogeological studies <ul style="list-style-type: none"> <li>○ Independent consultant MDGEO conducted specialised hydrogeological studies to support baseline characterisation and water management planning. A conceptual hydrogeological model was developed for the Northern Concession, identifying key aquifer systems, recharge and discharge zones, and subsurface flow patterns. A comprehensive monitoring network was proposed, including piezometers, surface water points, and water quality sampling stations. These studies support the environmental impact assessment, dewatering design, and the application for a hydrogeological research permit, ensuring sustainable water use and compliance with relevant regulations.</li> </ul> </li> <li>● Future Considerations <ul style="list-style-type: none"> <li>○ The Colossus Project's environmental strategy aligns with best practices in sustainable mining, with a strong focus on water conservation, progressive rehabilitation, and reducing its carbon footprint.</li> <li>○ Ongoing community engagement programs will ensure alignment with local stakeholders, and regulatory authorities throughout the permitting process.</li> </ul> </li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>● Existing Infrastructure and Site Accessibility <ul style="list-style-type: none"> <li>○ The Colossus Project is strategically located in Poços de Caldas, Minas Gerais, a well-established mining and industrial region with significant infrastructure.</li> <li>○ The project area spans 22,156 hectares (221 km<sup>2</sup>), providing ample land for mine development, processing infrastructure, and future expansions.</li> <li>○ Poços de Caldas is home to existing bauxite, alumina, clay, and chemical processing plants, ensuring access to an experienced mining and industrial workforce.</li> <li>○ The mine site and processing facility are well-connected via a network of paved roads and private haul roads, facilitating efficient transportation of ROM.</li> </ul> </li> <li>● Power Supply <ul style="list-style-type: none"> <li>○ The Colossus Project will utilise 100% renewable energy from hydroelectric, solar, and wind power available through the existing grid infrastructure in Minas Gerais.</li> <li>○ The project is located near high-capacity power transmission lines, ensuring a stable and reliable energy supply for mining and processing operations.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• <b>Water Supply and Management</b> <ul style="list-style-type: none"> <li>○ The project will incorporate advanced water recycling technologies, including ultrafiltration and reverse osmosis (RO) systems, to minimise freshwater consumption and ensure zero industrial effluent discharge.</li> <li>○ The beneficiation process is designed for high water efficiency, with most process water recirculated within the plant.</li> <li>○ Additional hydrogeological studies are planned to optimise water sourcing and management strategies further.</li> </ul> </li> <li>• <b>Mineral Resource Transport and Logistics</b> <ul style="list-style-type: none"> <li>○ The Mineral Resource will be slurried and transported via pipeline from beneficiation hubs to the central processing facility, reducing haulage costs, dust emissions, and truck traffic.</li> <li>○ The project benefits from proximity to major highways, facilitating the transport of MREC products to export hubs and end-users.</li> <li>○ Brazil's well-developed port infrastructure, including Santos (São Paulo) and Vitória (Espírito Santo), provides efficient access to global markets.</li> </ul> </li> <li>• <b>Labour and Accommodation</b> <ul style="list-style-type: none"> <li>○ Poços de Caldas is a mining-friendly city with a large, skilled workforce, reducing the need for fly-in-fly-out (FIFO) labour.</li> <li>○ No on-site accommodation is required, as the city provides sufficient housing, amenities, and services for workers.</li> <li>○ The project is expected to create significant employment opportunities, benefiting the local economy and strengthening community support.</li> </ul> </li> <li>• <b>Future Considerations</b> <ul style="list-style-type: none"> <li>○ The existing infrastructure significantly reduces the project's risk, as it eliminates the need for capital expenditures on building new roads, power lines, or water supply networks.</li> <li>○ The processing facility location was carefully selected to ensure minimal environmental impact and logistical efficiency.</li> <li>○ Additional investment in site infrastructure will focus on enhancing water management, optimising resource transport logistics, and expanding processing capacity in future project phases.</li> </ul> </li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• <b>Capital Cost Estimates</b> <ul style="list-style-type: none"> <li>○ The total capital expenditure (CAPEX) for the Colossus Project is estimated at US \$286 million, excluding contingency.</li> <li>○ A 25% contingency has been applied, bringing the total pre-production CAPEX to US \$358 million.</li> <li>○ The CAPEX estimate follows an AACE Class 4 methodology (<math>\pm 30\%</math> accuracy), consistent with a PFS-level assessment.</li> <li>○ The capital cost breakdown includes: <ul style="list-style-type: none"> <li>▪ US \$185M in direct costs (mining fleet, processing plant, infrastructure).</li> <li>▪ US \$61M in indirect costs (engineering, owner's costs, construction support).</li> <li>▪ US \$40M in taxes.</li> <li>▪ US \$72M in contingency allowances.</li> </ul> </li> <li>○ Future Feasibility Studies will refine CAPEX estimates with additional engineering and vendor quotations.</li> </ul> </li> <li>• <b>Operating Cost Estimates</b> <ul style="list-style-type: none"> <li>○ The operating cost (OPEX) estimates are based on detailed process modeling, cost benchmarking, and industry comparisons.</li> <li>○ The estimated C1 OPEX (direct operating cost) is US \$6.2/kg TREO, making Colossus one of the lowest-cost rare earth producers globally.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ The All-In Sustaining Cost (AISC), which includes sustaining CAPEX, royalties, and site rehabilitation, is US \$9.3/kg TREO over the 20-year LOM.</li> <li>○ The key components of annual operating costs are: <ul style="list-style-type: none"> <li>▪ Mining and residue handling: US \$15.5M.</li> <li>▪ Processing and transportation: US \$39.6M.</li> <li>▪ General and administration: US \$3.6M.</li> <li>▪ Sustaining CAPEX: US \$6.5M/year (3.5% of direct CAPEX).</li> <li>▪ Royalties and fees: Variable based on basket price and payability.</li> </ul> </li> <li>• Deleterious Elements and Treatment Costs <ul style="list-style-type: none"> <li>○ The MREC product is of high purity, with impurity levels &lt;1% for Northern Concessions and 0.7% for the Southern Complex.</li> <li>○ No material penalties or additional refining costs are expected for deleterious elements.</li> <li>○ No allowances have been made for excess impurity removal, as metallurgical test work has confirmed the low-contaminant nature of the mineralised-body.</li> </ul> </li> <li>• Exchange Rates and Inflation Adjustments <ul style="list-style-type: none"> <li>○ The study assumes a US dollar-denominated financial model, with costs converted where necessary from Brazilian Reais (BRL) based on historical exchange rate trends.</li> <li>○ Inflation adjustments have not been explicitly modeled, but CAPEX and OPEX estimates include industry-standard contingency factors to accommodate potential cost escalations.</li> </ul> </li> <li>• Transportation and Logistics Costs <ul style="list-style-type: none"> <li>○ The Mineral Resource transport costs are minimised by slurry pipelines from beneficiation hubs to the central processing facility.</li> <li>○ Product transportation costs are based on industry benchmarks for bulk concentrate shipments.</li> <li>○ The logistics cost estimates include: <ul style="list-style-type: none"> <li>▪ Mine-to-plant slurry transport: Included in OPEX.</li> <li>▪ Product transportation to port: Estimated at US \$54 per tonne of MREC.</li> <li>▪ Export costs and port fees: Assumed based on Brazilian port handling fees for mineral concentrates.</li> </ul> </li> </ul> </li> <li>• Treatment and Refining Charges <ul style="list-style-type: none"> <li>○ The economic model assumes a payability of 70% for MREC, based on benchmarked offtake agreements for rare earth carbonates.</li> <li>○ Additional refining charges and penalties for off-spec products are not anticipated, given the high-purity nature of the MREC confirmed through metallurgical test work.</li> <li>○ Future studies will include direct engagement with potential offtake partners to refine pricing assumptions.</li> </ul> </li> <li>• Royalties and Government Payments <ul style="list-style-type: none"> <li>○ The Colossus Project is subject to multiple royalties, including: <ul style="list-style-type: none"> <li>▪ 4.75% vendor royalty (payable to the original project owner).</li> <li>▪ 2.0% CFEM (Brazilian government mining royalty).</li> <li>▪ 1.0% landholder royalty.</li> </ul> </li> <li>○ These royalties are calculated based on the value of the TREO in the final MREC product and have been incorporated into the AISC model.</li> <li>○ Viridis has secured ICMS (import tax) deferrals and exemptions through an MoU with the Minas Gerais State Treasury and is actively negotiating additional federal tax incentives.</li> </ul> </li> </ul>



Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Future Considerations <ul style="list-style-type: none"> <li>○ The CAPEX and OPEX estimates will be further refined in the Feasibility Study phases, incorporating:</li> <li>○ More detailed vendor quotes for major equipment and construction.</li> <li>○ Additional process optimisation to reduce reagent and energy costs.</li> <li>○ Finalised offtake agreements to confirm payability and transport logistics.</li> <li>○ Further government incentives and tax exemptions may improve financial outcomes, reducing overall cost burdens.</li> </ul> </li> </ul>
<b>Revenue factors</b>	<ul style="list-style-type: none"> <li>• Revenue Assumptions and Price Forecasting <ul style="list-style-type: none"> <li>○ The revenue assumptions for the Colossus Project are based on the production of Mixed Rare Earth Carbonate (MREC), benchmarked against market prices for separated rare earth oxides (REOs).</li> <li>○ The head grade assumption used in the financial model is 3,380 ppm TREO (936 ppm MREO), based on the Measured and Indicated Mineral Resource from the Northern Concessions and Cupim South.</li> <li>○ The study assumes a payability factor of 70%, reflecting the expected commercial terms for MREC sold to downstream separation facilities.</li> <li>○ The weighted basket price used in the study is US \$90/kg for NdPr oxide, representing the long-term consensus forecast from industry analysts prepared by Project Blue.</li> <li>○ A sensitivity analysis was performed using a spot price scenario of US \$63/kg NdPr oxide, which results in an NPV<sub>8</sub> of US \$773M and an IRR of 30%.</li> <li>○ The financial model also considers potential pricing premiums for the high MREO:TREO ratio (39%), which enhances the value of the final product.</li> </ul> </li> <li>• Metal Price Assumptions and Market Outlook <ul style="list-style-type: none"> <li>○ The price assumptions for the primary revenue-generating REOs are as follows: <ul style="list-style-type: none"> <li>▪ Neodymium (Nd<sub>2</sub>O<sub>3</sub>)/Praseodymium (Pr<sub>6</sub>O<sub>11</sub>): US \$90/kg (Base Case) and US \$63/kg (spot case)</li> <li>▪ Dysprosium (Dy<sub>2</sub>O<sub>3</sub>): US \$269/kg (Base Case).</li> <li>▪ Terbium (Tb<sub>4</sub>O<sub>7</sub>): US \$888/kg (Base Case).</li> </ul> </li> <li>○ The price assumptions are derived from a combination of historical averages, supply-demand fundamentals, and industry forecasts, reflecting expected future market conditions.</li> <li>○ Given the increasing demand for REOs in permanent magnets, particularly for EVs and wind turbines, the price forecast assumes long-term market stability and supply constraints from non-Chinese sources.</li> </ul> </li> <li>• Exchange Rates and Economic Model Inputs <ul style="list-style-type: none"> <li>○ The economic model is denominated in US dollars (USD), with local cost estimates converted from Brazilian Reais (BRL) using an assumed exchange rate of 5.0 BRL/USD.</li> <li>○ The exchange rate assumption is based on long-term historical trends and does not factor in speculative currency fluctuations.</li> <li>○ The project's exposure to foreign exchange risks will be further assessed in future study phases, considering potential hedging strategies.</li> </ul> </li> <li>• Transportation and Treatment Charges <ul style="list-style-type: none"> <li>○ Transportation charges for MREC exports are estimated at US \$54 per tonne, based on logistics cost benchmarks for bulk mineral concentrates exported from Brazil.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ Treatment and refining charges are not directly applicable, as the product is an intermediate feedstock for separation facilities rather than a fully refined REO product.</li> <li>○ No smelter penalties are expected, as the MREC has been confirmed to meet industry purity requirements through ANSTO metallurgical test work.</li> <li>● Net Smelter Return (NSR) and Revenue Calculation             <ul style="list-style-type: none"> <li>○ The NSR calculation incorporates:                 <ul style="list-style-type: none"> <li>▪ MREC payability: 70%.</li> <li>▪ Weighted basket price based on Nd, Pr, Dy, Tb content.</li> <li>▪ Transportation and handling costs are deducted from gross revenue.</li> <li>▪ Royalties (government and private) applied post-NSR calculation.</li> </ul> </li> </ul> </li> <li>● Future Considerations             <ul style="list-style-type: none"> <li>○ Future feasibility studies will refine the revenue model based on:</li> <li>○ Advanced marketing and offtake agreements, confirming final payability terms.</li> <li>○ Updated market forecasts, reflecting shifts in supply-demand dynamics for critical REOs.</li> <li>○ Potential government incentives, including tax exemptions and subsidies for critical mineral production.</li> </ul> </li> </ul>
<b>Market assessment</b>	<ul style="list-style-type: none"> <li>● Market Demand and Supply Outlook             <ul style="list-style-type: none"> <li>○ The Colossus Project will produce Mixed Rare Earth Carbonate (MREC), primarily composed of Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb), all of which are critical for permanent magnets used in electric vehicles (EVs), wind turbines, and high-tech industries.</li> <li>○ Global demand for rare earth permanent magnets is forecasted to grow at 8–10% CAGR over the next decade, driven by the rapid expansion of EV adoption, renewable energy infrastructure, and defence applications.</li> <li>○ Current global rare earth oxide (REO) demand exceeds 180,000 tonnes per year, with projected shortages for NdPr, Dy, and Tb by 2030 due to increasing reliance on non-Chinese supply sources.</li> <li>○ China currently dominates over 90% of global REO separation capacity, making diversification of supply chains a strategic priority for governments and industries worldwide.</li> </ul> </li> <li>● Competitive Landscape and Market Positioning             <ul style="list-style-type: none"> <li>○ The Colossus Project is one of the few ionic clay-hosted REE projects outside of China, offering low-cost production and high-value MREO output.</li> <li>○ The project's MREO-to-TREO ratio (39%) is among the highest globally, enhancing its competitiveness against existing and emerging REE producers.</li> <li>○ Key competitors include:                 <ul style="list-style-type: none"> <li>▪ Serra Verde (Brazil) – The only other ionic adsorption clay operation outside China, producing an REE carbonate with a lower MREO ratio.</li> <li>▪ Lynas Rare Earths (Australia/Malaysia) – A significant REE producer but primarily from hard rock monazite deposits, requiring complex processing.</li> <li>▪ MP Materials (USA) – Producing REO concentrates from hard rock mining at Mountain Pass, California.</li> </ul> </li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Customer Analysis and Market Window               <ul style="list-style-type: none"> <li>○ MREC's target market includes REE separation facilities, magnet manufacturers, and strategic industrial users in North America, Europe, Japan, and South Korea.</li> <li>○ Market interest in non-Chinese REE supply chains is growing, with strong demand from:                   <ul style="list-style-type: none"> <li>▪ EV manufacturers (Tesla, BYD, Volkswagen, Stellantis, etc.).</li> <li>▪ Wind turbine producers (Vestas, Siemens Gamesa, GE Renewables).</li> <li>▪ Defence and aerospace industries require Dy and Tb for high-performance magnets.</li> </ul> </li> <li>○ Potential offtake discussions are underway with multiple Tier-1 industry players, with formal agreements anticipated during the Feasibility Study phase.</li> <li>○ The market window for new REE production is highly favorable, as Western governments introduce strategic policies and incentives to develop domestic REE supply chains.</li> </ul> </li> <li>• Price and Volume Forecasts               <ul style="list-style-type: none"> <li>○ The price forecast for key REOs is based on benchmark industry analyses (Project Blue) and accounts for:                   <ul style="list-style-type: none"> <li>▪ Projected supply deficits for Nd, Pr, Dy, and Tb.</li> <li>▪ Geopolitical risks affecting Chinese REE exports.</li> <li>▪ Government subsidies for REE supply chain development in the US, EU, and Japan.</li> </ul> </li> <li>○ Key price assumptions (Base Case):                   <ul style="list-style-type: none"> <li>▪ NdPr Oxide: US \$90/kg (long-term forecast).</li> <li>▪ Dysprosium Oxide: US \$269/kg.</li> <li>▪ Terbium Oxide: US \$888/kg.</li> </ul> </li> <li>○ The project's annual production of 5Mtpa resource is expected to yield 10,000–12,000 tonnes of MREC per year, positioning Colossus as a significant supplier to the global market.</li> </ul> </li> <li>• Industrial Mineral Specifications and Acceptance Requirements               <ul style="list-style-type: none"> <li>○ The MREC product is being tested against commercial specifications required by leading separation plants.</li> <li>○ ANSTO metallurgical test work has confirmed that the MREC meets industry standards for purity and impurity thresholds.</li> <li>○ Final customer qualification testing will be conducted as part of future pilot plant production, with expected acceptance based on preliminary results.</li> <li>○ The projected MREC composition aligns with industry requirements for efficient downstream REE separation and refining.</li> </ul> </li> <li>• Future Considerations               <ul style="list-style-type: none"> <li>○ Future market engagement strategies will focus on securing binding offtake agreements with strategic partners.</li> <li>○ The Feasibility Study phase will refine the pricing and demand outlook, incorporating updated market forecasts and customer feedback.</li> <li>○ Government-backed policies for critical minerals could enhance project economics through funding, tax incentives, and trade agreements.</li> </ul> </li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• Economic Inputs and Confidence Levels               <ul style="list-style-type: none"> <li>○ The Colossus Project's economic analysis is based on a detailed financial model incorporating capital expenditures (CAPEX), operating costs (OPEX), revenue projections, and financial assumptions.</li> </ul> </li> </ul>

Criteria	Commentary																														
	<ul style="list-style-type: none"><li>○ The Net Present Value (NPV) calculation uses a real, post-tax discount rate of 8% (NPV<sub>8</sub>), consistent with industry standards for mining projects in emerging markets.</li><li>○ Inflation assumptions are not explicitly factored into the financial model, as all cost and revenue estimates are presented in real (constant) 2025 US dollars.</li><li>○ Financial inputs are derived from:<ul style="list-style-type: none"><li>▪ Benchmarking against operational rare earth mines.</li><li>▪ Vendor quotations for major capital items.</li><li>▪ Metallurgical test work for process recoveries.</li><li>▪ Independent expert reports on rare earth pricing.</li></ul></li><li>● Base Case Economic Outcomes<ul style="list-style-type: none"><li>○ The Base Case assumes an NdPr oxide price of US \$90/kg, consistent with long-term market forecasts.</li><li>○ Key financial indicators:<ul style="list-style-type: none"><li>▪ Pre-tax NPV<sub>8</sub>: US \$1.41B.</li><li>▪ Post-tax NPV<sub>8</sub>: US \$899M.</li><li>▪ Pre-tax IRR: 43%.</li><li>▪ Post-tax IRR: 34%.</li><li>▪ Payback period: 2.0 years.</li></ul></li><li>○ The model includes sustaining capital expenditures (sustaining CAPEX) at 3.5% of total CAPEX per year.</li><li>○ Royalties (CFEM and private) are accounted for at a total effective rate of 7.75%.</li></ul></li><li>● Sensitivity Analysis<ul style="list-style-type: none"><li>○ A sensitivity analysis was conducted on key financial variables, including:<ul style="list-style-type: none"><li>▪ Rare earth oxide (REO) prices.</li><li>▪ Operating costs (OPEX).</li><li>▪ Capital costs (CAPEX).</li><li>▪ Metallurgical recoveries.</li></ul></li><li>○ The NPV sensitivity results are as follows:</li></ul></li></ul> <table><tr><th>Variable</th><th>-30% case</th><th>-15% case</th><th>Base case</th><th>+12% case</th><th>+23% case</th></tr><tr><td>NdPr Price (US \$/Kg)</td><td>\$ 63.00</td><td>\$ 76.50</td><td>\$ 90.00</td><td>\$ 100.00</td><td>\$ 111.00</td></tr><tr><td>Pre-tax NPV<sub>8</sub> (US \$M)</td><td>\$773M</td><td>\$1.09B</td><td>\$1.41B</td><td>\$1.7B</td><td>\$2.0B</td></tr><tr><td>Pre-tax IRR (%)</td><td>30%</td><td>36%</td><td>43%</td><td>49%</td><td>55%</td></tr><tr><td>Payback Period (years)</td><td>3.0</td><td>2.5</td><td>2</td><td>1.7</td><td>1.5</td></tr></table> <ul style="list-style-type: none"><li>○ The project remains robust under all tested scenarios, even at a low-price assumption of US \$63/kg for NdPr oxide.</li><li>○ A break-even analysis indicates that the project remains economically viable at NdPr prices as low as US \$50/kg.</li><li>● Future Considerations<ul style="list-style-type: none"><li>○ The economic analysis will be further refined in the Definitive Feasibility Study (DFS) to incorporate:<ul style="list-style-type: none"><li>○ Updated cost estimates from vendor quotes and detailed engineering.</li><li>○ Potential tax incentives or government subsidies.</li><li>○ Formalised off-take agreements to improve payability terms.</li></ul></li><li>○ The strong project economics, low cost structure, and high-value rare earth basket position the Colossus Project as a globally competitive supplier of rare earths with significant financial upside.</li></ul></li></ul>	Variable	-30% case	-15% case	Base case	+12% case	+23% case	NdPr Price (US \$/Kg)	\$ 63.00	\$ 76.50	\$ 90.00	\$ 100.00	\$ 111.00	Pre-tax NPV <sub>8</sub> (US \$M)	\$773M	\$1.09B	\$1.41B	\$1.7B	\$2.0B	Pre-tax IRR (%)	30%	36%	43%	49%	55%	Payback Period (years)	3.0	2.5	2	1.7	1.5
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Criteria	Commentary
<b>Social</b>	<ul style="list-style-type: none"> <li>Stakeholder Engagement and Social License to Operate <ul style="list-style-type: none"> <li>Viridis has established strong relationships with local authorities and community stakeholders, ensuring alignment with regional development plans and sustainability initiatives.</li> <li>The company has secured the Certificate of Regularity for Land Use and Occupation from the Municipality of Poços de Caldas, a critical milestone for advancing the Colossus Project.</li> <li>The project is committed to long-term community engagement programs, focusing on employment, training, and local economic development.</li> </ul> </li> <li>Community Programs and Social Contributions <ul style="list-style-type: none"> <li>Partnerships with Universidade Federal de Alfenas (UNIFAL) and Instituto Federal de Minas Gerais (IFMG) to provide training and professional education.</li> <li>Sponsorship of SENAI's "Trilha da Mineração I" program, offering free vocational training in mining, prioritising local workforce development.</li> <li>Social initiatives include the "Dia da Gentileza" program, promoting volunteer work, and regular blood donation campaigns.</li> <li>Support local education by donating computers to the "Projeto Bem Viver" and improving digital inclusion for children and adolescents.</li> </ul> </li> <li>Mitigation of Social and Economic Impacts <ul style="list-style-type: none"> <li>The EIA and RIMA include extensive community impact studies, ensuring proactive mitigation of potential disruptions.</li> <li>The project area includes 28 rural properties and 17 urban neighborhoods, where the Company is actively working on social integration and economic support strategies.</li> <li>Infrastructure investments include road maintenance and improvement projects, benefiting both the project and the surrounding communities.</li> </ul> </li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>Naturally Occurring Risks: <ul style="list-style-type: none"> <li>No significant geological, seismic, or environmental risks have been identified that could materially impact project execution.</li> <li>The mineralisation does not contain uranium (U) or thorium (Th), eliminating the need for radiological monitoring and complex environmental handling.</li> <li>A comprehensive hydrogeological study has been conducted, and no major concerns regarding groundwater contamination or flooding risks have been identified.</li> </ul> </li> <li>Legal Agreements and Marketing Arrangements: <ul style="list-style-type: none"> <li>Viridis has signed two Memorandums of Understanding (MoU): <ul style="list-style-type: none"> <li>With the State Government of Minas Gerais (Invest Minas) to fast-track regulatory and environmental approvals.</li> <li>With the Municipality of Poços de Caldas, securing infrastructure support (power, water, and sewage) and assistance in obtaining environmental licenses.</li> </ul> </li> <li>The Certificate of Regularity for Land Use and Occupation has been obtained, ensuring compliance with municipal and state regulations.</li> </ul> </li> <li>Government Approvals and Statutory Compliance: <ul style="list-style-type: none"> <li>The project's mineral tenements are in good standing, covering four National Mining Agency (ANM) processes (009.031/1966, 830.113/2006, 007.737/1959, and 830.927/2016).</li> <li>The Preliminary License (LP) was officially submitted on 23 January 2025 to FEAM).</li> <li>The Installation License (LI) and Operation License (LO) applications will follow as per the established project timeline.</li> </ul> </li> </ul>



Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ Viridis is working with Alger Consultoria to secure all remaining statutory approvals within the expected project timeframe.</li> <li>• Material Dependencies on Third Parties: There are no significant unresolved third-party issues affecting mineral exploration or project development at this stage. Land access has been secured through surface rights agreements allowing for the geological exploration work.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• No Ore Reserves have been defined for the Colossus Project at this stage, as the project is currently at the PFS level.</li> <li>• The MRE was classified in accordance with the JORC Code (2012), considering geological confidence, data density, and continuity of mineralisation, but no conversion to Ore Reserves has been made.</li> <li>• The current study does not allow for classification into Proven or Probable Ore Reserves.</li> <li>• The results presented in the PFS align with the Competent Person's view of the deposit, and further technical studies will be undertaken to support a future Ore Reserve estimate.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• No Ore Reserve estimate has been defined for the Colossus Project at this stage; therefore, no Ore Reserves audits or external reviews have been conducted.</li> <li>• The MRE has undergone internal peer review and was prepared following the JORC Code (2012), ensuring compliance with industry best practices.</li> <li>• Future Ore Reserve estimates will be subject to independent audits and reviews as part of the DFS process.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• No Ore Reserves have been defined for the Colossus Project, and therefore, no quantitative assessment of reserve accuracy or confidence has been conducted.</li> <li>• The MRE has been classified following JORC (2012) guidelines, with confidence levels assigned based on geological continuity, drill spacing, and QA/QC validation.</li> <li>• The current study provides a global estimate of Mineral Resources, and further technical studies, including a DFS, will be required to refine local-scale confidence and define Ore Reserves.</li> <li>• The accuracy of modifying factors (mining, metallurgical, environmental, economic, and legal) remains preliminary at this stage, requiring additional test work and engineering studies before achieving the confidence level necessary for Ore Reserve classification.</li> <li>• The results presented in the PFS align with the Competent Person's assessment of the deposit, and the next study phases will focus on reducing uncertainty and improving accuracy through additional drilling, geostatistical analysis, and pilot-scale metallurgical validation.</li> </ul>

## Appendix 2: Mineral tenement and land tenure status

Prospect	License	Status	Rare Earth Mining Right owner	Area (ha)
Northern Concession	007737/1959	Mining Permit	Viridis Mineracao Ltda	182.71
	009031/1966	Mining Permit	Viridis Mineracao Ltda	446.66
	830113/2006	Mining Requirement	Viridis Mineracao Ltda	137.36
	830927/2016	Research License	Viridis Mineracao Ltda	70.37
Southern Complex	830518/2023	Research License	Viridis Mineracao Ltda	16.87
	832759/2023	Research License	Viridis Mineracao Ltda	4.34
	831129/2023	Research License	Viridis Mineracao Ltda	10.42
	833560/1996	Mining Requirement	Viridis Mineracao Ltda	154.2
	830464/1982	Mining License	Viridis Mineracao Ltda	783
	830340/1979	Mining License	Viridis Mineracao Ltda	161.86
	806605/1973	Mining License	Viridis Mineracao Ltda	29.62
	806604/1973	Mining License	Viridis Mineracao Ltda	23.9
	830747/2023	Research License	Viridis Mineracao Ltda	11.02

## Appendix 3: Mining Pit Location

