Goschen-to-Growth

VHM Limited

We initiate coverage on **VHM Ltd (ASX:VHM)** with a **Speculative Buy.** Our **SOTP valuation** yields a geared, post-funding NAV of **A$734m**, or **A$1.81/sh on 406m fully diluted share** implying **~286% upside** versus the current share price of **A$0.470/sh.**

Goschen is a de-risked, shovel-ready project with clear optionality to move up the value chain. This is underpinned by a proven MREC flowsheet, low-capex modular staging over an 890Mt MRE and a diversified Zi-Ti HMC basket that limits single-metal and China exposure while retaining leverage to tightening RE supply. **Uniquely, this report is led by Analyst Patrick M, who worked on the Goschen pilot plant at ANSTO in 2023, providing first-hand insight into the flowsheet & project execution risks.**

Investment Thesis

Tier-1 asset & returns: 100%-owned Goschen (Vic) – one of Australia's largest undeveloped magnet-heavy RE + zircon–titania orebodies, with **220Mt Ore Reserves @ 3.6% THM** within **890Mt MRE @ 2.9% THM**. Staged case delivers **post-tax NPV$_8$ A$761m, 38% IRR, 3.5-year payback (FFP)** over a **22-year LOM**.

Approvals largely de-risked: EES endorsed (Dec 2024), **Mining Licence granted (Apr 2025)**, **EPBC approval (Sept 2025)** and **Major Project Status extended**, positioning Goschen as a shovel-ready Murray Basin critical minerals project.

Diversified basket, not just NdPr: HMC produces zircon, rutile, leucoxene and ilmenite alongside magnet-heavy RE, reducing single-metal/RE price risk and adding leverage to tightening ex-China medium/heavy RE supply.

Capital-efficient build vs hard rock: Shallow, free-dig mineral sands operation with **modular WCP/MUP and relatively simple hydromet**, avoiding the high-capex crushing, grinding and complex concentrators typical of hard-rock REE projects. **Lower capex intensity and execution risk** drive strong **NPV/capex leverage**.

Flowsheet & radiation de-risked; downstream optionality: Phase 1/1A MUP–WCP–RE flotation + hydromet to MREC has been extensively piloted at ANSTO, including U/Th removal to a low-impurity MREC. Our lead analyst worked on the 2023 pilot, adding confidence in technical feasibility. VHM is well placed to supply emerging refiners and potentially step downstream into separated oxides (or partnerships) – margin uplift per tonne of REO not fully captured in our base case.

Long-life growth & satellite upside: The current mine plan draws on **<50% of reserves and <11% of resources**; the **1.5–4.0Bt @ 2.2–3.5% THM Exploration Target** underpins **multi-decade expansion** beyond our model. Cannie/Nowie and remaining Goschen resources are excluded from the NPV and treated on an A$/t THM basis, providing embedded expansion/M&A optionality.

Government-backed strategic asset: Letters of support from **Export Finance Australia** and **US EXIM** underscore Goschen's role as a non-Chinese source of critical RE + zircon–titania feedstock, creating scope for cheaper, longer-tenor debt, grants and/or offtake pre-payments, and **lower equity dilution** than in our base D/E mix.

Sum-of-the-Parts Valuation Summary

Sum-of-the-Parts Valuation	Value (A$M)	NAV/sh (A$/sh)
Goschen Project NPV$_8$ (90% risked)	686	2.633
Remaining Goschen Resource	83	0.319
Cannie Project	30	0.113
Net cash (post-funding)	5	0.019
Less: PV Exploration	(6.65)	(0.03)
Less: PV Corporate G&A	(4.97)	(0.02)
Equity NAV (pre-funding)[1]	792	3.04
Total NAV (geared, post-funding);[2]	**734**	**1.81 (286% TSR)**

[1]Pre-funding NAV per share based on pre raise 260m FD shares.
[2]Post-funding NAV per share based on post raise 406m FD shares.

Recommendation	**Spec. Buy**
Share Price	**A$0.470/sh**
Fair Value	**A$1.81/sh**
TSR	**286%**

Company Profile

Market Cap	A$122M
Cash (Est.)	A$5M
Enterprise Value	A$117M
52-Week Range	A$0.18-0.86/sh

Price Performance

Company Overview

VHM Limited (ASX:VHM) is an ASX-listed mineral sands development company located in The Murray Basin, Victoria. Its flagship asset is The Goschen Project, a fully permitted magnet-heavy rare earths and zircon-titania deposit.

With a published DFS, the project is significantly derisked, targeting FID in H1 2026. VHM is also well-positioned to capitalise on increased government and market interest in the rare earths space, as focus has shifted to establishing supply chains ex-China.

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Majority Shareholders

IOOF Investment Serv. Ltd	11.51%
Ellison (WA) Pty Ltd	7.57%
ACN 664 400 382 Pty Ltd	4.07%
Agens Pty Ltd	1.78%
Mega Holdings Pty Ltd	1.64%

Upcoming Catalysts

Work Plan Approval	Q4 2025
Offtake Agreements	CY 2026
Engineering Works	H1 2026
Final Investment Decision	H1 2026
Early Site Works	H2 2026

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1. Valuation

1.1 Sum-of-the-Parts Valuation Breakdown

Our core valuation is the **Goschen Project post-tax DCF (NPV_8), risked at 90%**, which contributes **A$717m, or A$2.63/sh** on the current 260m FD shares. The DCF is underpinned solely by the **98.8Mt Goschen Ore Reserve (Areas 1 & 3)**, representing <12% of the current 892Mt Global Resource.

We ascribe additional value to **Cannie and the remaining Goschen resource** on an **A$5/t contained THM** basis to reflect their role as long-dated, "beyond-LoM" optionality rather than near-term feed. **Nowie** is currently carried at **nil value** in our base case.

After adding pro-forma net cash and deducting the **PV of exploration and corporate G&A**, we derive an **unfunded equity NAV of ~A$792m, or A$3.11/sh**.

Modelling a funding solution of **A$84m new equity and A$142m of project debt** yields a **geared, post-funding NAV of ~A$734m, or ~A$1.81/sh on 406m FD shares**.

Asset	Method	Risking	Value (A$M)	NAV/Share (A$)
Goschen Project NPV_8	DCF (post-tax)	90%	717	2.633
+ Remaining Goschen Resource	A$ 5/t Insitu THM	—	83	0.319
+ Cannie Project	A$ 5/t Insitu THM	—	30	0.113
+ Nowie Project	No Value	—	—	—
+ Net Cash (PF)	—	—	5.0	0.019
- PV Exploration	—	—	(6.7)	(0.026)
- PV Corporate G&A	—	—	(5.0)	(0.019)
NAV (Equity Value)			792	3.11 A$/sh (260 M shares)
+ Equity Raise (Modelled)			+84 M	—
- Debt Raise (Modelled)			(142) M	—
Total NAV (Geared, Post-Funding)			≈ 734 M	≈ 1.81 A$/sh (406 M shares)

Table 1.1.1 - Sum of Parts Valuation

1.2 Goschen Project Valuation

Our bas-case model mirrors VHM's published Goschen Project Phase 1 flowsheet, assuming production of zircon–titania HMC and REMC concentrates only. On this basis, the project delivers a pre-tax NPV_8 of A$1,114m and post-tax NPV_8 of A$762m, supported by average LOM production of 98ktpa HMC and 6.2ktpa REMC over a 22-year mine life.

The development requires A$160m of pre-production capital and A$115m of expansion capital, generating a post-tax IRR of 38% and a 3.5-year payback from first production (2027). We approximate the 97.8Mt model reserve as 16Mt Proved in Area 1, 31Mt in Area 2 and the balance as Probable in Area 3, for contained THM of ~3.4Mt at 3.6% THM.

We anchor our schedule to VHM's staged expansion case outlined in the 13 February 2025 ASX release "Staged Expansion to Critical Minerals Production":

Stage 1 - operates at 1.5Mtpa for the first three years, front-ending 7.2% HM ore and producing ~4.3ktpa REMC and 69ktpa Zi–Ti HMC;

Stage 2 - throughput then ramps to 3.2Mt in Year 4 and to 5Mtpa from Year 5 at ~3.8% HM, delivering ~6.4ktpa REMC and 100ktpa Zi–Ti HMC at steady state.

Goschen Project	HMC LOM Avg.	REMC LOM Avg.	LOM	Pre-Prod. Capex	Exp. Capex	Pre-Tax NPV_8	Post-Tax NPV_8	Post-Tax IRR	Payback (FFP)
	ktpa	ktpa	Years	A$M	A$M	A$M	A$M	%	Years
Base Case	98	6.2	22	160	115	1,114	762	38	3.5

Table 1.2.1 - Goschen Project Model Design Summary

Area	Class.	Ore (Mt)	THM (Mt)	THM (%)	Zircon (%)	Rutile (%)	Leucoxene (%)	Ilmenite (%)	Monazite (%)	Xenotime (%)
Area 1	Proven	16	0.70	4.10%	28.00%	13.00%	11.00%	27.00%	4.00%	0.80%
Area 1	Probable	31	0.90	2.90%	28.00%	12.00%	9.20%	26.00%	4.60%	0.80%
Area 3	Probable	51	1.77	3.50%	20.00%	9.40%	8.10%	26.00%	3.40%	0.60%
Grand Total		**97.7**	**3.37**	**3.60%**	**23.80%**	**10.84%**	**9.00%**	**26.20%**	**3.84%**	**0.69%**

Table 1.2.2 - Goschen Project Ore Reserves (THM Grades)

1.3 Goschen Project Mine/Production Schedules

Goschen is designed as a long-life, high-margin mineral sands and REE project with value front-loaded through early high-grade mining.

- The schedule ramps from 1.5–3.3 Mtpa in 2027–2030 at ~7.2% THM, before stepping up to 5Mtpa at 3.2% THM for the balance of a 22-year LoM.
- This delivers average annual production of ~98 ktpa zircon/titania HMC and 6.2 ktpa REMC.

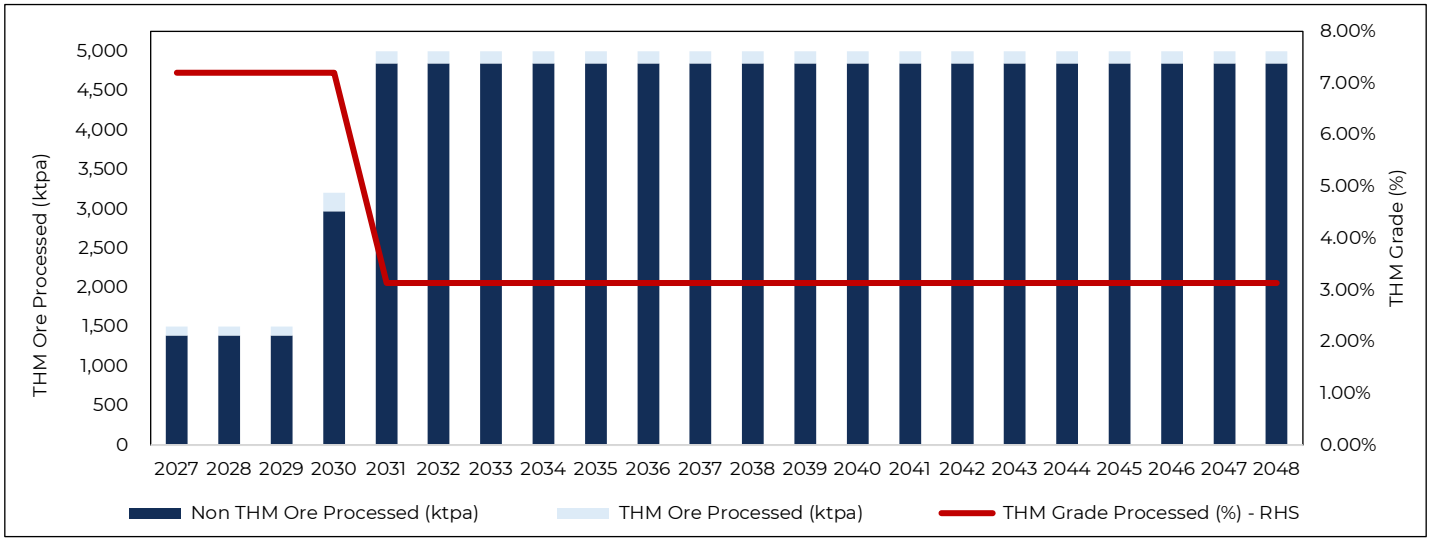

Figure 1.3.1 - VHM Phase 1 LOM Ore Process Schedule

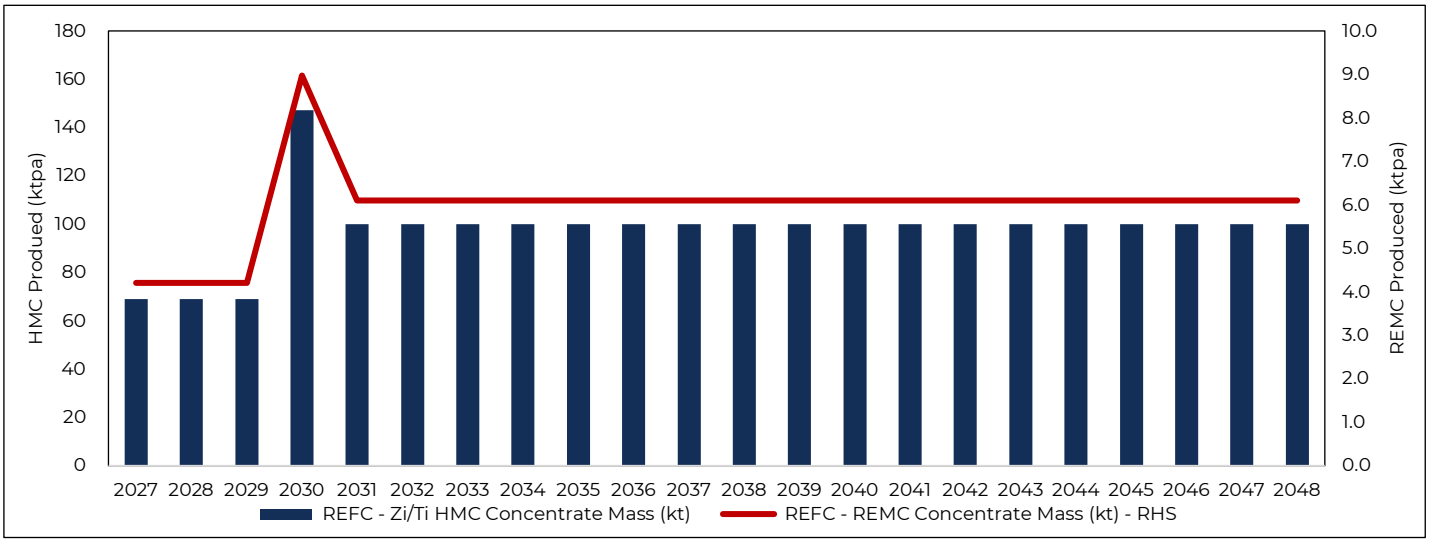

Figure 1.3.2 - VHM Phase 1 LOM Production Schedule

1.4 HMC basket price analysis - NPV

Sensitivity work shows that project value is strongly leveraged to rare-earth and zircon pricing, while ilmenite and leucoxene have only a modest impact on NPV. This section links the HMC basket price back to NPV outcomes and highlights the key value drivers.

Our zircon/titania HMC is a blend of zircon, rutile, leucoxene and ilmenite plus non-paying heavy minerals. The basket price is the weighted average value of this blend based on each mineral's share of the concentrate and its reference price. This equates to a zircon-titania HMC basket price of US$658/t, which underpins the zircon and TiO_2 revenue in the NPV sensitivities below.

Final HMC Concentrate Blend	Share of HMC (%)	2025 Spot Price (US$/t)	Value Contribution (US$/t)
Zircon	25%	1,450	361
Rutile	11%	1,375	156
Leucoxene	9%	480	45
Ilmenite	27%	350	96
2025 Basket Price		**US$658/t**	

Table 1.4.1 - HMC Basket Price Analysis

1.5 Price Sensitivity Analysis – NPV

- Varying Monazite + Xenotime (REMC) prices by ±15% moves NPV from A$762M to A$578–946M, a swing of A$184m. This is the dominant value driver, reflecting the high margin and relatively lower tonnage rare-earth concentrate.
- Zircon prices are the next most important lever, with a ±15% change shifting NPV by A$72m.
- Rutile, ilmenite and leucoxene price changes have comparatively small effects (NPV ranges of A$31m, A$19m and A$9m respectively), indicating that these by-product streams contribute incremental value rather than underpinning the economics.

The near-linear profiles in the sensitivity graph indicate no major non-linearities around the base case, project value scales broadly in proportion to product prices. Overall, the project appears robust at the reference price deck, but the investment case is particularly exposed to REMC and zircon pricing. Securing supportive price levels and offtake for these products will be critical to realising the A$762M NPV outcome.

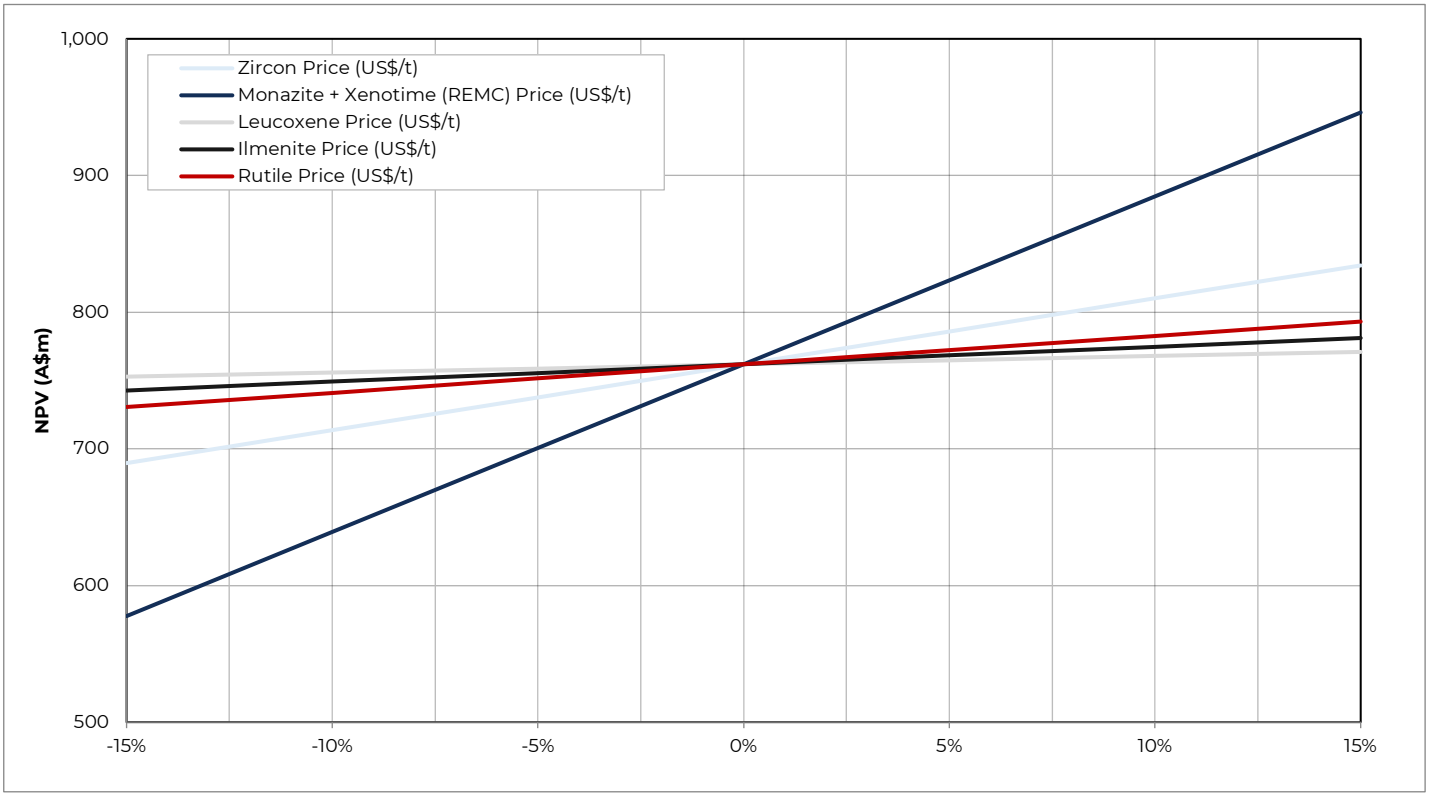

Figure 1.5.1 - NPV Sensitivity Graph

Δ (%)	-15%	-10%	-5%	NPV$_8$ (A$M) Un-Risked	+5%	+10%	+15%	Range (±Δ) (A$M)
Monazite + Xenotime (REMC) Price (US$/t)	578	639	700	762	823	885	946	184
Zircon Price (US$/t)	690	714	738	762	786	810	834	72
Rutile Price (US$/t)	731	741	751	762	772	783	793	31
Ilmenite Price (US$/t)	743	749	755	762	768	775	781	19
Leucoxene Price (US$/t)	753	756	759	762	765	768	771	9

Table 1.5.1 - NPV Sensitivity Output

1.6 Dilution & NAV/Sh Impact

We model a staged funding solution comprising an initial equity raise to fund studies and early works, followed by a balanced debt equity package for Stage 1. The expansion to 5 Mtpa is then funded primarily from operating cash flow with a modest debt top up.

Prefunding, Goschen carries an attributable equity NAV of A$792m, valuing the remaining Goschen THM Resource and Cannie at 83&30M respectively, based on A$5/t contained THM, or A$3.04/sh on a fully diluted basis (260m FD shares).

Under our Base Case funding plan, the FD share count increases to ~405m shares. Once fully funded and geared, NAV equates to A$1.81/sh, which still implies material upside to the current share price of A$0.470/sh, delivering a TSR of 286%.

Stage / Use of Funds	Timing (Indicative)	Capex / Funds (A$m)	Funding Mix	Assumed Issue Price (A$/sh)	New Shares (m)
Pre-Development – (Studies & Early Works)	2025–26	20 (equity only)	A$20m equity	**0.45** (~4% discount to LC)	**46**
Stage 1 – 1.5 Mtpa Mine & Concentrator	2026	160 (incl. IDC/owners)	60% debt / 40% equity (A$96m / A$64m)	**0.65** (~38% premium to LC)	**98**
Stage 2 – 5 Mtpa Expansion	2029	88	60% retained earnings / 40% debt	–	–
Total New Equity		**84**	N/A	N/A	**144**
Final FD Share Count					**405**

Table 1.3.1 - Staged Funding Scenario

Metric	Pre-Funding	Post-Funding (Ungeared)	Post-Funding (Geared)
Equity NAV (A$m)	792	792	**1,009 (after net debt)**
Net Debt (A$m)	–	–	**142**
FD Shares on Issue (m)	260	405	**405**
NAV/sh (A$/sh)	3.04	1.96	**1.81**
TSR (%)			**286%**

Table 1.6.2 - Dilution Analysis & NAV/Sh Impact

1.7 DFS Results Comparison

In March 2023, VHM announced an update to their Definitive Feasibility Study (DFS), highlighting robust returns for the project.

Key Points:

- Pre-Tax NPV_{10} of A$1.45Bn, Pre-Tax IRR of 54% and pay-back of 3 years from commencement of production.
- The DFS is based on mining and processing a total of 98.8Mt Ore Reserves, which is only ~50% of the Ore Reserves.
- Average pre-tax cashflow of A$270M per year over the initial 10 years.
- Long term prices of US$13.50/kg for monazite and xenotime, US$1,201/t for zircon, US$516/t for rutile, US$215/t for leucoxene and US$143/t for ilmenite.

Our forecasts differ for the following reasons:

- Use of spot prices for the THM assemblage and RE mineral product, with 3% p/a price inflation.
- Adjusted Resource applied: Area 1 Proved 16Mt + Area 2 31Mt + Area 3 Probable making up the remainder of the 50.7Mt; total contained THM of 3.4Mt versus 4Mt THM in the earlier scenario.
- Incorporation of a dilution analysis to forecast expected debt and equity raises required for funding.
- Assumptions on individual recoveries for final concentrate production: 9ktpa SS REMC in the DFS versus our 6.4ktpa at 52% TREO, and 134ktpa HMC in the DFS versus our 100ktpa at 86% THM with a composition of 25% Zircon, 11% Rutile, 9% Leucoxene, and 27% Ilmenite.
- Utilisation of Post Tax NPV instead of Pre Tax to derive a NAV/sh, along with the subsequent inclusion of corporate costs.

2. Government support & Grants

A global shift in focus towards rare-earth minerals and their uses in technology, energy and defence applications has incentivised governments to provide grant funding to support the development and commercialisation of prospective projects.

2.1 Export Finance Australia

VHM has received a non-binding, conditional Letter of Support from Export Finance Australia (EFA) for up to A$75 million to support the development of its Goschen Project. The EFA is Australia's export credit agency, providing commercial finance to support export trade and overseas infrastructure projects.

While indicative, the EFA backing underscores the project's strategic significance for Australia's critical minerals supply chain and its potential contribution to downstream value creation. Funding remains subject to due diligence, including environmental, social, financial, credit, and legal assessments.

2.2 Export-Import Bank of United States

In October 2025, VHM received a Letter of Interest (LOI) from the Export–Import Bank of the United States (EXIM) for up to US$200 million (~A$304 million) in potential project financing to advance development of its Goschen Project. The non-binding LOI contemplates a debt package with up to a 15-year tenor, subject to due diligence and compliance with EXIM's eligibility requirements.

The proposed support underscores Goschen's strategic alignment with the U.S. Supply Chain Resiliency Initiative and potential qualification under EXIM's China and Transformational Exports Program, positioning VHM as a key future supplier of critical minerals to Western markets. Through coordinated engagement with EXIM and Export Finance Australia under the Single Point of Entry framework, VHM is pursuing a clear pathway to secure long-term financing. Management views the LOI as a strong endorsement of Goschen's global significance and its role in enhancing critical minerals security amid the energy transition.

2.3 USA & Australia (A$13Bn) Rare Earths Parternship

In October 2025, the Australian and US Governments made a commitment to invest up to A$13bn in rare earths projects – contributing A$4.61bn over the next 3 months. The deal hopes to strengthen supply chains ex-China, who currently dominates the industry. The deal aims to intensify cooperative efforts to accelerate the secure supply of critical minerals and rare earths, unlock a pipeline of projects in Australia & The USA, protect domestic markets from unfair trade practices and encourage international collaboration to develop a global pricing framework.

Key beneficiaries of government interest include:

- **Arafura Rare Earths Ltd (ASX:ARU)** - In October 2025, Export Finance Australia (EFA) announced the conditional approval of an investment up to US$100M in ARU, with the Export-Import Bank of United States also considering US$300M of financing support – focusing on ARU's Nolans Project.
- **Alcoa Corporation (NYSE:AA, ASX:AAI)** - received support of US$200M from the U.S. and Australian governments to advance a gallium plant located at its Wagerup alumina refinery in Western Australia.
- **Australian Vanadium Ltd (ASX:AVL)** - the Australian Government provided a grant of A$49M to support for their flagship project in Western Australia.

3. VHM Company Breakdown

VHM Limited is an ASX listed mineral exploration company with advanced projects located in The Murray Basin, Victoria. With tenements covering 2,860km², their flagship asset, The Goschen Project underpins the company profile. It is a fully permitted, magnet-heavy rare-earth and zircon-titania project with early revenue, secured offtake, and growing funding support from both U.S. and Australian agencies. The company currently has a current market capitalisation of A$122M and A$5M cash as of September 2025.

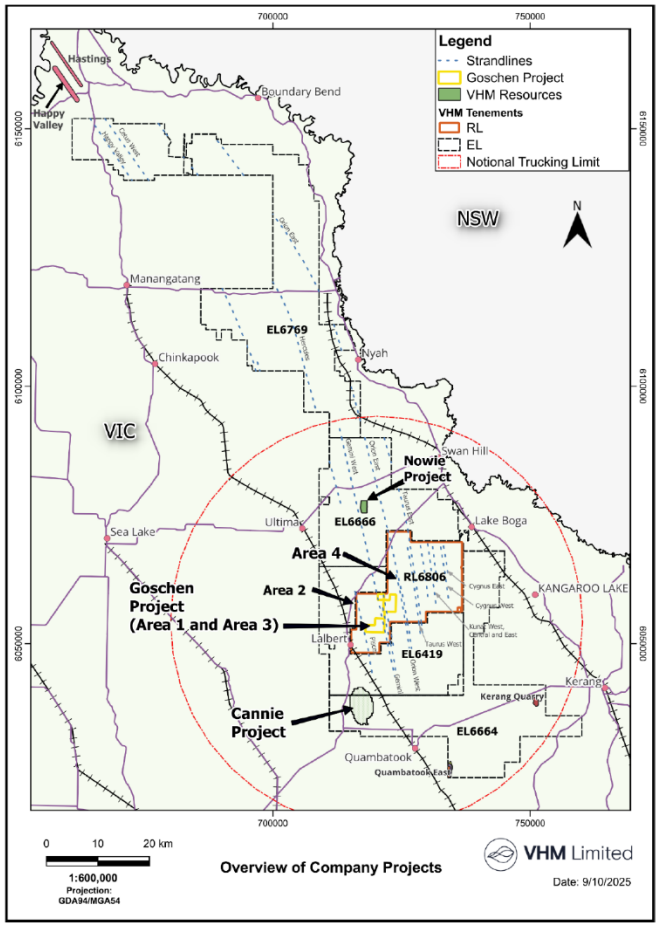

Figure 3.1 - Overview of Company Projects

3.1 Goschen Project

The Goschen Project is located ~35km south of Swan Hill and ~275km north of Melbourne. With a Definitive Feasibility Study (DFS) published in 2023, the project is in advanced stages, targeting Final Investment Decision (FID) in 1H 2026. The project targets high-value rare earth elements, including neodymium, praseodymium, dysprosium, and terbium, which account for approximately 87% of the rare earth basket value and around 70% of projected revenue.

Classification	Material (Mt)	In Situ THM (Mt)	THM (%)	Slimes (%)	Oversize (%)	Zircon (%)	Rutile (%)	Leucoxene (%)	Ilmenite (%)	X + M (%)	TREO + Y2O3 (%)
Proven	16	0.7	4.10	17	3	28.1	13.4	10.5	26.6	4.8	2.52
Probable	200	7.1	3.50	19	3	21.1	9.9	8.5	25.8	4.2	2.67
Total Reserve	**220**	**7.8**	**3.60**	**18**	**3**	**21.7**	**10.2**	**8.6**	**25.8**	**4.2**	**2.658**

Table 3.1.1 - Goschen Project Total Ore Reserves

Area	Category	Material (Mt)	In Situ THM (Mt)	(THM) (%)	Zircon (%)	Rutile (%)	Leucoxene (%)	Ilmenite (%)	X + M (%)	TREO + Y2O3 (%)
Area 1	Measured	25	0.9	3.6	28	13	10	27	4.9	2.7
	Indicated	69	1.7	2.5	26	11	9.6	26	5.2	2.9
	Total	94	2.6	2.8	27	12	9.9	26	5.1	2.8
Area 3	Indicated	200	6.9	3.4	19	9	8	25	3.8	2.2
	Inferred	290	6.7	2.3	17	8.7	7.5	23	3.4	2.1
	Total	490	14	2.8	18	8.9	7.7	24	3.6	2.1
Area 2	Indicated	76	2.4	3.2	21	13	9.5	23	4.1	2.5
	Inferred	5.7	0.18	3.1	19	10	7.6	22	4.2	2.6
	Total	81	2.6	3.2	20	12	9.4	23	4.1	2.5
Area 4	Indicated	18	0.8	4.6	19	11	10	24	4	1.9
	Total	18	0.8	4.6	19	11	10	24	4	1.9
Grand Total	Measured	25	0.9	3.6	28	13	10	27	4.9	2.7
	Indicated	360	12	3.3	20	10	9	25	4.1	2.3
	Inferred	294	6.5	2.7	17	9	7	13	3.4	2.1
	Total	**679**	**19.4**	**2.9**	**20**	**10**	**8**	**19**	**4**	**2.3**

Table 3.1.2 - Goschen Project MRE

Goschen is initially planned as a 20-year operation with a processing capacity of 5Mtpa, producing Rare Earth Mineral Concentrate (REMC), Mixed Rare Earth Carbonate (MREC), and zircon-titania Heavy Mineral Concentrate (HMC). Ore Reserves total 198.7 million tonnes, with a broader Mineral Resource of 629 million tonnes, offering the potential to extend operations well beyond the initial mine plan.

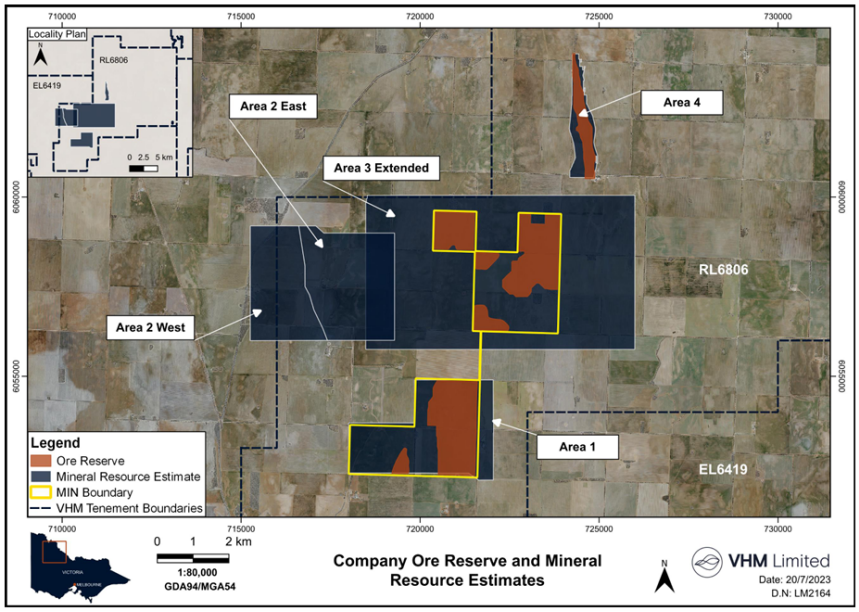

Figure 3.1.1 - Goschen Project Ore Reserve and MRE

3.2 Infrastructure

The project will leverage strong existing infrastructure, including roads, rail, power, water, and local labour. New access roads will be engineered for ground stability. Power will initially come from 12 on-site diesel and gas generators (12 MW), while water will be sourced via a 38km pipeline from Kangaroo Lake, treated on-site, and recycled wherever possible. Processed products will be packaged on-site and transported 18km to Ultima Terminal, then railed to the Port of Melbourne, identified as the most efficient export route.

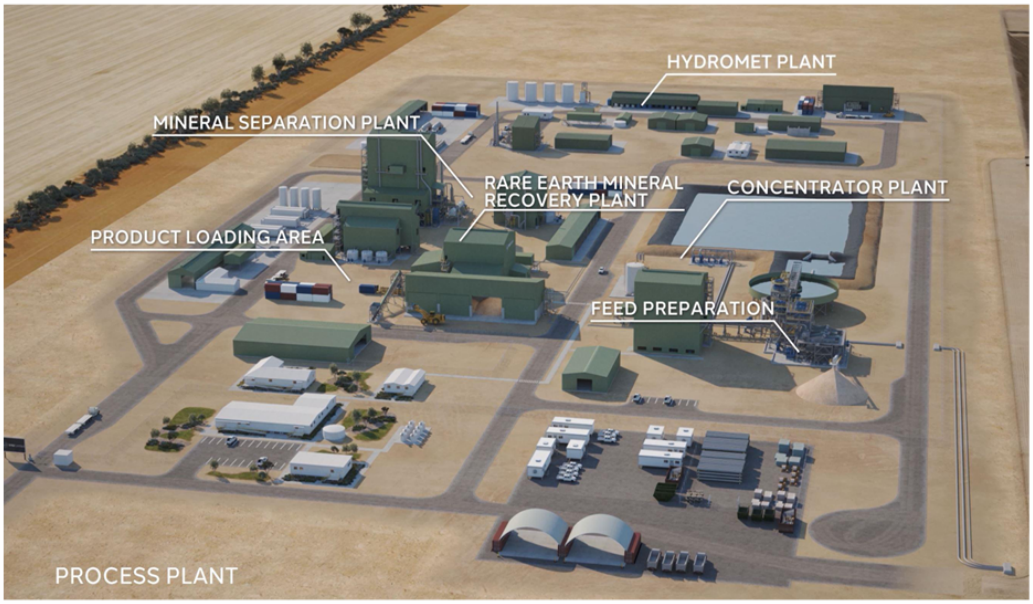

Figure 3.2.1 - Proposed Site Infrastructure

3.3 Approvals Secured

The project is heavily derisked & in advanced stages, with the following key approvals secured in preparation for commencement of mining operations:

- **Endorsement of its Environmental Effects Statement** (EES) received in December 2024,
- **Awarded Major Project Status for 3 additional years** in February 2025 – accelerating investment discussions and strategic partnerships,
- **Mining Licence** approved in April 2025,
- **Environment Protection and Biodiversity Conservation** (EPBC) approval in September 2025,
- **Cultural Heritage Management Plan** (CHMP) approval secured in October 2025 – meeting requirements under the Aboriginal Heritage Act 2006, and
- A **Work Plan submitted**, with approval expected in Q4 2025.

3.4 Offtakes & MOUs Signed

Shenghe Resources Binding Offtake Agreement

In January 2024, VHM executed a three-year binding offtake agreement with Shenghe Resources for Phase 1 of the Goschen Project, covering 6.4ktpa of REMC and 100ktpa of zircon-titania HMC, approximately 60% of annual production. Shenghe will purchase contracted volumes on a take-or-pay basis, with pricing linked to zircon and monazite indices. The deal confirms the high quality and marketability of Goschen's products.

MOU with Currumbin Metals

In April 2025, VHM entered a Memorandum of Understanding (MOU) with Currumbin Minerals Pty Ltd to supply high-grade zircon-titania (HMC) from the Goschen Project for processing at Currumbin's advanced Queensland facility. Currumbin Minerals, family-owned with over 70 years' experience, operates one of Australia's most modern heavy mineral sands treatment plants. The MOU establishes a framework toward a long-term strategic partnership, supporting domestic processing of Goschen products.

Non-Binding Offtake with Mitsui

In July 2025, VHM entered a non-binding Letter of Interest (LOI) with Mitsui & Co. Ltd. for the supply of 40% of HMC from the Goschen Project. The LOI establishes a framework toward a formal agreement enabling Mitsui to purchase HMC over an initial three-year period. Mitsui may, at its discretion and subject to due diligence, provide a trade finance facility to support the transaction.

MOU with Yellow Iron Fleet

VHM has signed a MOU with Yellow Iron Fleet (YIF) to support development of the Goschen Project, focusing on mine planning, fleet requirements, and operational readiness. Under the agreement, YIF will manage mine site setup, equipment procurement and maintenance, and day-to-day operations—including mining, rehabilitation, and tailings management—over the 7+ year life of Area 1. YIF brings 15+ years of experience in large-scale mineral sands and bulk earthworks operations, operating a low-cost, owner/operator fleet with strong local partnerships.

3.5 Cannie Project

The Cannie Critical Mineral Project is located 13.5km south of the Goschen Project. In May 2023, VHM announced a Maiden Inferred MRE of 192 Mt at 3.1% THM. The new resource adds 5.9Mt of contained heavy mineral sands and boosting its Total Rare Earth Oxide inventory by 43% to 589,000t.

Cannie also delivers significant uplifts in:

- **Zircon (+1.4Mt)**,
- **Rutile (+0.9Mt)**, and
- **Leucoxene (+1.4Mt)**.

Project	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	THM (%)	Zircon (%)	Rutile (%)	Leucoxene (%)	Ilmenite (%)	X + M (%)	TREO + Y2O3 (%)	NdPr (%)
Cannie	Inferred	192	5.9	3.05	24.5	15.5	24.3	2	4.9	3	0.5

Table 3.5.1 - Cannie Project MRE

The deposit extends over 7.2km north–south and 4.4km east–west, remaining open in all directions, with grades exceeding those at Goschen. The resource was defined from 38 drill holes, confirming the efficiency of drilling campaigns in adding meaningful increases to the MRE.

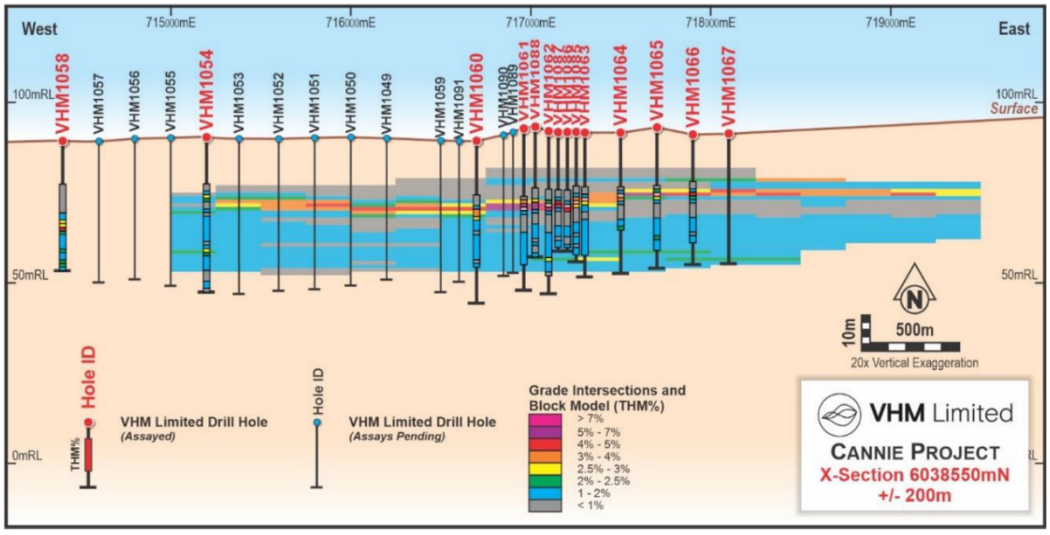

Figure 3.5.1 - Long-Section of Cannie Showing Drill Holes & Extent of MRE Displaying THM Grades

3.6 Nowie Project

The Nowie Project is located 22km north of the Goschen Project. In January 2024, VHM established a Maiden Inferred Mineral Resource of 16.4Mt at 3.8% THM. The maiden estimate confirms a significant Critical Minerals Province extending over 55km from Cannie in the south, through Goschen, to Nowie in the north.

Project	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	THM (%)	Zircon (%)	Rutile (%)	Leucoxene (%)	Ilmenite (%)	X + M (%)	TREO + Y2O3 (%)	NdPr (%)
Nowie	Inferred	16.4	0.6	3.8	16	16	24	5	2.6	1.8	0.33

Table 3.6.1 - Nowie Project MRE

The deposit comprises multiple high-grade strandline systems above a 20m thick moderate-grade sheet-style mineralisation. Strandline deposits, containing 6.4Mt at 6.1% THM, occur near surface and remain open along strike, offering selective high-grade mining potential. Geological continuity is supported by 43 drill holes and airborne geophysics, underpinning the Inferred classification.

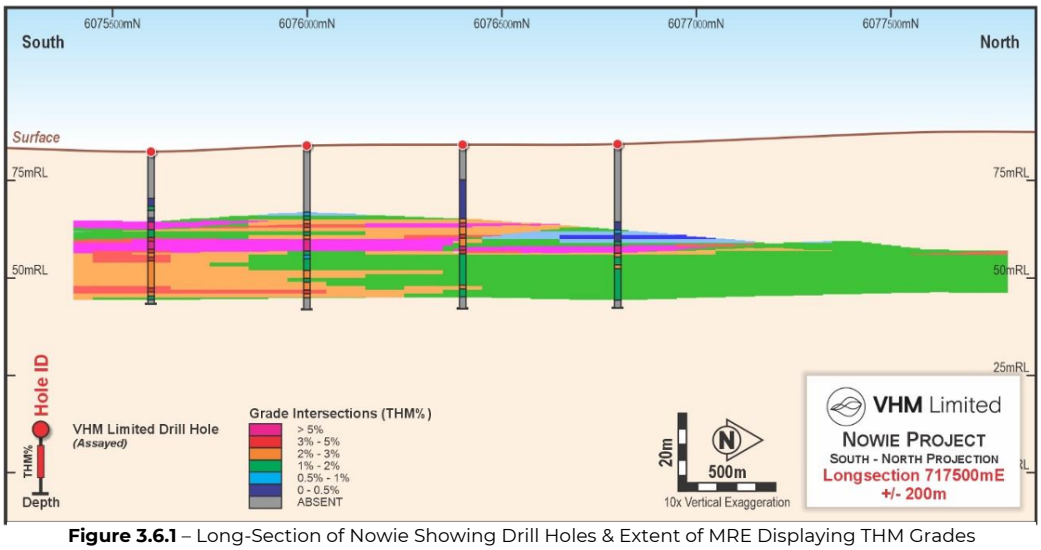

Figure 3.6.1 – Long-Section of Nowie Showing Drill Holes & Extent of MRE Displaying THM Grades

4. Geology

4.1 The Murray Basin

The Murray Basin is a large geological system in Southeastern Australia, spanning parts of Victoria, New South Wales and South Australia. The region is renowned for its sedimentary geology and significant heavy mineral sands (HMS) and rare earth mineral (REM) potential. The resource is classified as a placer monazite-xenotime system, where dense minerals such as monazite and xenotime, rich in rare earth elements, have accumulated in low-energy fluvial, deltaic, and shallow marine environments.

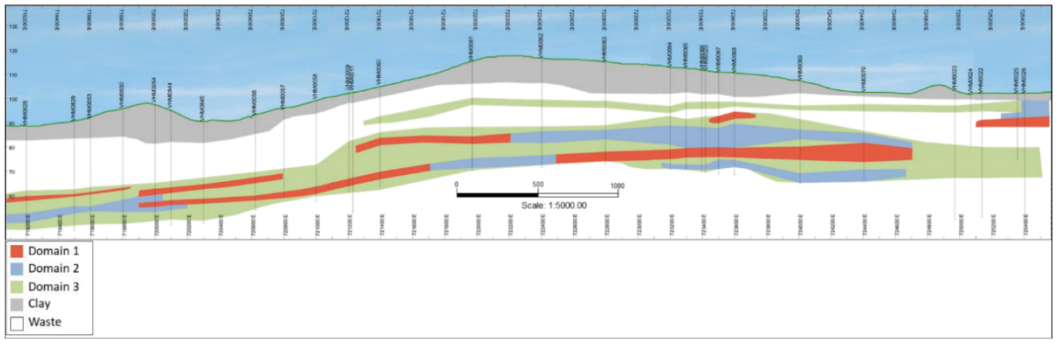

Figure 4.1.1 - Area 3 Cross Section Showing 3 Mineralisation Zones

Two principal deposit styles occur: sheet-style (Wimmera-style) deposits, comprising fine-grained HMS within shallow marine sands, and strandline (beach placer) deposits, which are coarser-grained, higher-grade accumulations formed in high-energy surf zones. In the project area, many strandline deposits have been eroded, leaving dominant sheet-style deposits hosted within Loxton Sand units, forming sub-horizontal bodies surrounded by lower-grade halos containing zircon, titanium minerals, and rare earths. Recent drilling has delineated higher-grade zones exceeding 5% total heavy mineral (THM), demonstrating both large-tonnage and economic potential, while contemporaneous strandline deposits remain along strike, offering further exploration upside.

4.2 The Donald Project – Astron Limited

The Donald Project is located near the town of Minyip, in the Wimmera region of Victoria. With a 1.81Bn tonnes total resource at 4.6% THM, it is a long-life asset containing zircon, titanium, and rare earth elements, including NdPr. Astron Limited (ASX:ATR) ended into a deal where Energy Fuels (NYSE:UUUU, TSX:EFR) will inject A$183m to acquire a 49% stake in the Donald Project and secure an offtake deal for all rare earths concentrate. This confirms the regional endowment of rare earths as well as strong interest in nearby peers of VHM.

4.3 Goschen South – Iluka Resources Limited

Iluka Resources Limited (ASX:ILU) Goschen South Deposit is situated in Victoria's Murray Basin. At Goschen South, heavy minerals such as zircon, rutile and ilmenite accumulated in low-energy offshore settings as sediments eroded from surrounding uplands were transported into the basin and naturally concentrated. The deposit extends over a broad area with consistent thickness and shallow cover, supporting its development potential. Iluka's inaugural JORC Resource defines 630Mt at 3.7% HM for 24Mt contained HM, underpinned by extensive drilling and mineralogical studies completed between 2012 and 2024.

4.4 Exploration Target – Resource Growth Focus

With The Murray Basin being a large system with evidence of mineralisation, there is strong potential for a significant increase in VHM's Total MRE – leading to bulk tonnage scenarios. An exploration target was published by VHM in October 2025 for its Goschen tenements – with further upside being evident through the Cannie & Nowie Projects.

Goschen Project Exploration Target							
Total Tonnage (Mt)	Total Heavy Mineral Grade (%)	Total Heavy Mineral Tonnage (Mt)	Valuable Heavy Mineral Content (Mt)	THM Assemblage			
				Zircon (%)	Ilmenite (%)	Rutile (%)	X + M (%)
1,500-4,000	2.2-3.5	50-90	28-76	16-27	19-26	Sep-16	2.5-5.1

Table 4.4.1 - Goschen Project Exploration Target

VHM's resource growth potential is underpinned by several key factors. The exploration target encompasses mineralisation outside the current MRE at all 3 projects, highlighting significant untapped potential. This is supported by a comprehensive dataset integrating 1,081 VHM drill holes, 571 historic holes, LiDAR topography, and detailed mineralogical analysis, which has refined estimates of potential grade and tonnage.

Aerial magnetic surveys across the tenements have identified multiple high-priority targets for future drill testing, particularly higher-grade strandline and offshore-style mineralisation. Additionally, VHM's tenure extends approximately 100km north of the exploration target area, suggesting further prospective ground along strike. Systematic exploration in these areas is expected to provide opportunities to materially increase the scale, grade, and life of the Goschen Project. Figure 4.2 shows the exploration target in grey relative to the areas with a declared MRE in yellow, displaying the large area subject to additional exploration and MRE updates.

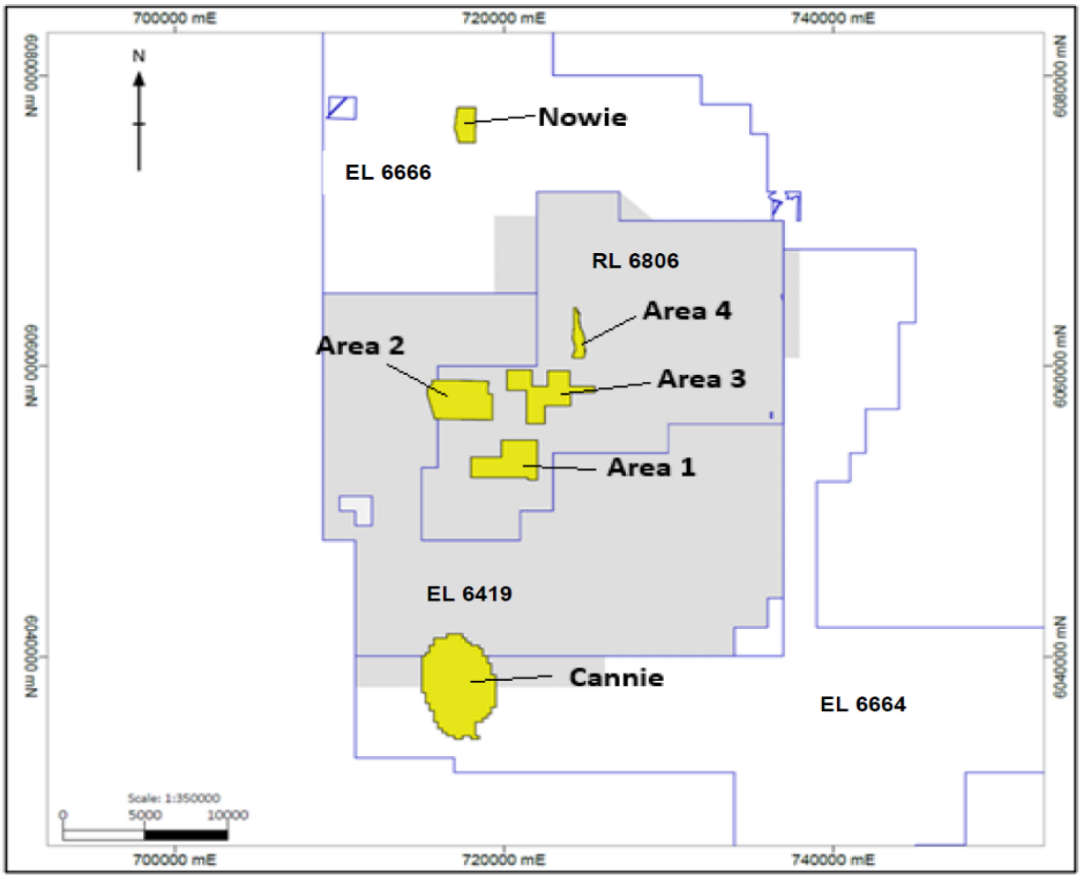

Figure 4.4.1 - Goschen Exploration Target (grey) in Relation to Declared MRE

5. Project design

5.1 Open Pit Mining

Due to the low lying and flat mineralisation structure, open pit mining will be used to extract the ore. Key components of the mining method highlighted in the DFS include:

- **Mining Method:** The operation will use conventional open pit block/strip mining above the water table, reaching depths of 30–40m and no requirement for drilling or blasting. Excavation will be carried out using excavators with ore transported to the Mining Unit Plant (MUP).
- **Pit and Block Design:** Mining blocks are approximately 250m wide by 500m long, with single upper and lower benches and berms for stability. Excavation, tailings deposition, and rehabilitation will be conducted progressively within each block – resulting in minimal impact to the environment.
- **Equipment and Support:** Primary fleet includes 200t and 110t excavators and 130t rigid trucks, supported by bulldozers, scrapers, front-end loaders, graders, and water carts; selective dozer cross-ripping will be used as needed.
- **Operational Efficiencies:** Progressive block/strip mining above the water table with in-pit tailings deposition eliminates the need for an above-ground TSF, reduces material handling, allows continuous rehabilitation, and avoids drilling and blasting, resulting in lower operating costs and streamlined operations.

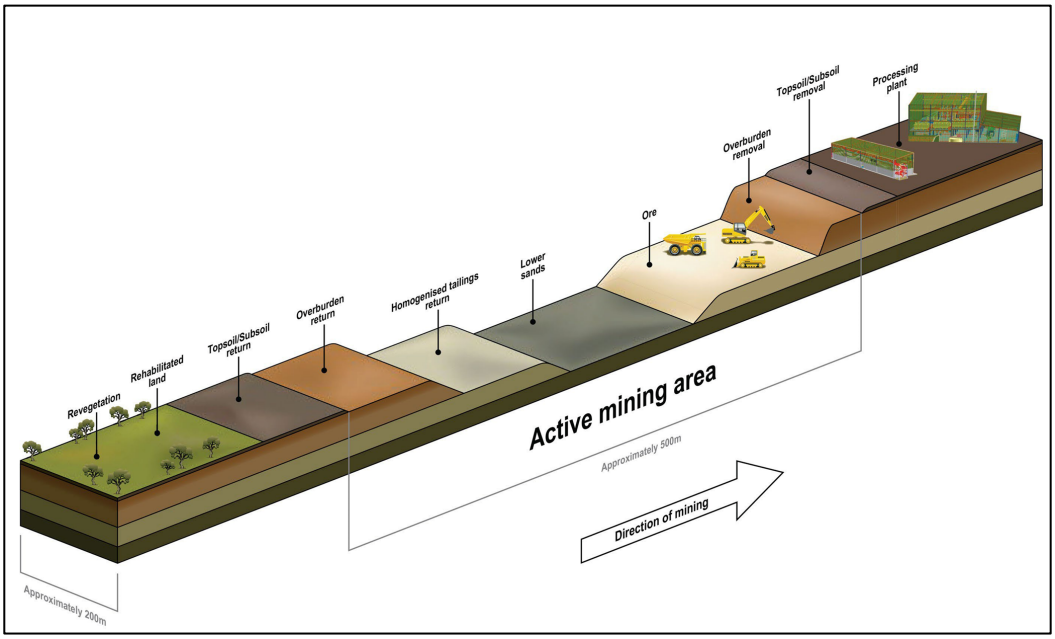

Figure 5.1.1 - Proposed Mining Sequence

5.2 Metallurgy & Processing

Phase 1 – MUP/WCP + REMC flotation (Stage 1 & Stage 2 ramp-up).
Phase 1 uses a Mining Unit Plant (MUP), Feed Preparation Plant (FPP), Wet Concentrator Plant (WCP) and rare-earth flotation circuit to produce two products: a rare earth mineral concentrate (REMC) and a zircon–titania heavy mineral concentrate (HMC). Under the February 2025 "Staged Expansion to Critical Minerals Production" plan, this flowsheet is implemented in two throughput stages: Stage 1 operates at 1.5Mtpa for Years 1–3, before expanding to the fully permitted 5Mtpa from Year 4 onwards (Stage 2), funded largely from operating cash flow.

Phase 1A – Hydrometallurgical circuit (REMC → MREC).
Phase 1A adds an on-site hydromet circuit that cracks the REMC and produces a mixed rare earth carbonate (MREC), lifting payability and stripping out most uranium and thorium ahead of downstream separation.

Phase 2 – Mineral Separation Plant (HMC → final mineral products).
Phase 2 is an expansion stage that would see construction of an additional Mineral Separation Plant (MSP), with optional hot-acid-leach (HAL) and chrome-removal circuits. This plant would take the zircon–titania HMC and separate it into up to five individual products: premium zircon, zircon concentrate, HiTi rutile, HiTi leucoxene and low-chromium ilmenite. Phase 2 remains discretionary and is expected to be timed to market conditions for zircon and titanium feedstocks.

Phase 1 - Feed Preparation Plant and Wet Concentrator Plant

- In Phase 1, ore slurry from the Mining Unit Plant (MUP) is pumped to the **Feed Preparation Plant (FPP)**. Here coarse and fine screens, followed by desliming and scavenger cyclones, separate the sand fraction containing heavy minerals from the clay-rich slimes. Oversize material from the initial coarse screen is returned to the mined-out pit, while cyclone overflow (slimes) is thickened for tailings. The cleaned sand underflow is collected in a surge bin and pumped forward to the **Wet Concentrator Plant (WCP)**.

- Within the WCP, spiral concentrators exploit density differences to separate heavy minerals from the lighter quartz sand. A final screening stage removes coarse silicates and iron oxides, increasing the heavy mineral concentrate (HMC) grade to roughly **92% heavy minerals**. The HMC stream is sent to the Rare Earth Mineral Flotation Circuit, while the rejected sand and thickened slimes are recombined and pumped back into mined-out blocks as in-pit tailings, consistent with VHM's co-disposal strategy.
- Rare Earth Mineral Flotation Circuit (REMFC)

- HMC from the WCP feeds the REMC flotation plant, where attritioning and conditioning prepare the concentrate for a multi-stage flotation circuit. This circuit selectively floats a monazite–xenotime stream, which is then cleaned by gravity separation to remove residual heavy minerals, producing a rare earth mineral concentrate (REMC) and a separate zircon–titania HMC stream.

- The REMC, rich in xenotime and monazite, is either sold as a standalone product or directed to the Phase 1A hydrometallurgical circuit for conversion into mixed rare earth carbonate (MREC). The post-flotation zircon–titania HMC (the "P-flotation concentrate"), which contains significantly reduced radioactivity after rare-earth removal, is either upgraded further in the Wet MSP during Phase 2 or dewatered, stockpiled and trucked to the product-loading area as a saleable concentrate.

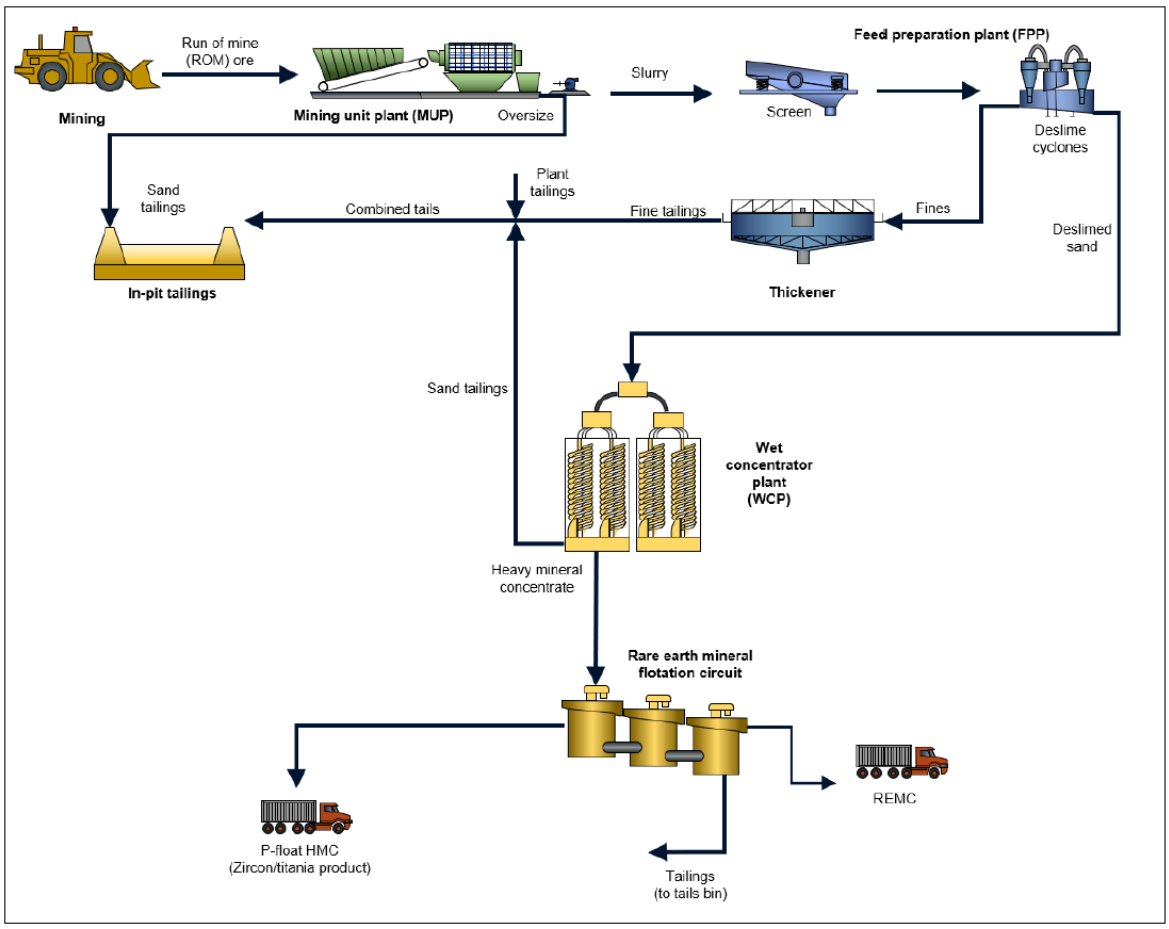

Figure 5.2.1 - Phase 1 - HMC + REMC Schematic Flowsheet

Phase 1A - Hydrometallurgical Circuit (REMC → MREC)

- Phase 1A adds a hydrometallurgical ("hydromet") circuit that upgrades Goschen's rare earth mineral concentrate (REMC) into a mixed rare earth carbonate (MREC). REMC is first dried and mixed with concentrated sulphuric acid to form a paste, which is then subjected to a **sulphation bake** in a gas-fired kiln, converting monazite and xenotime from refractory phosphates into water-soluble sulphates.

- The baked material is **water-leached**, thickened and filtered to discard the barren residue, while the rare-earth-bearing liquor is routed through a multi-stage **purification** train. This sequence removes phosphate, then uses an **aluminium-rejection step** (MgO addition) to precipitate aluminium, iron and most thorium as hydroxides, before **ion-exchange** strips uranium from solution. The cleaned liquor is finally treated with sodium carbonate to precipitate a high-purity mixed rare earth carbonate, which is filtered, washed, dried and bagged for shipment.

- Pilot work at ANSTO has demonstrated that this flowsheet can deliver **very high extractions** (c.97% NdPr and >90% Dy/Tb) with total impurities in the final MREC of only ~2.5–3.0%, and **thorium/uranium at or below detection limits**.

- From an investment perspective, Phase 1 (REMC + zircon-titania HMC) is now largely de-risked and permitted, with the EES endorsed, a 20-year mining licence in place and Federal EPBC approval granted.

- Phase 1A is a bolt-on that **converts a saleable but lower-payability REMC into a cleaner, higher-value MREC**, concentrating the NdPr & DyTb content and removing radioactivity. Management and GPA's Hydromet Validation Study describe this as providing a "significant economic upgrade" to the rare earths revenue stream, while retaining flexibility to time construction to market conditions.

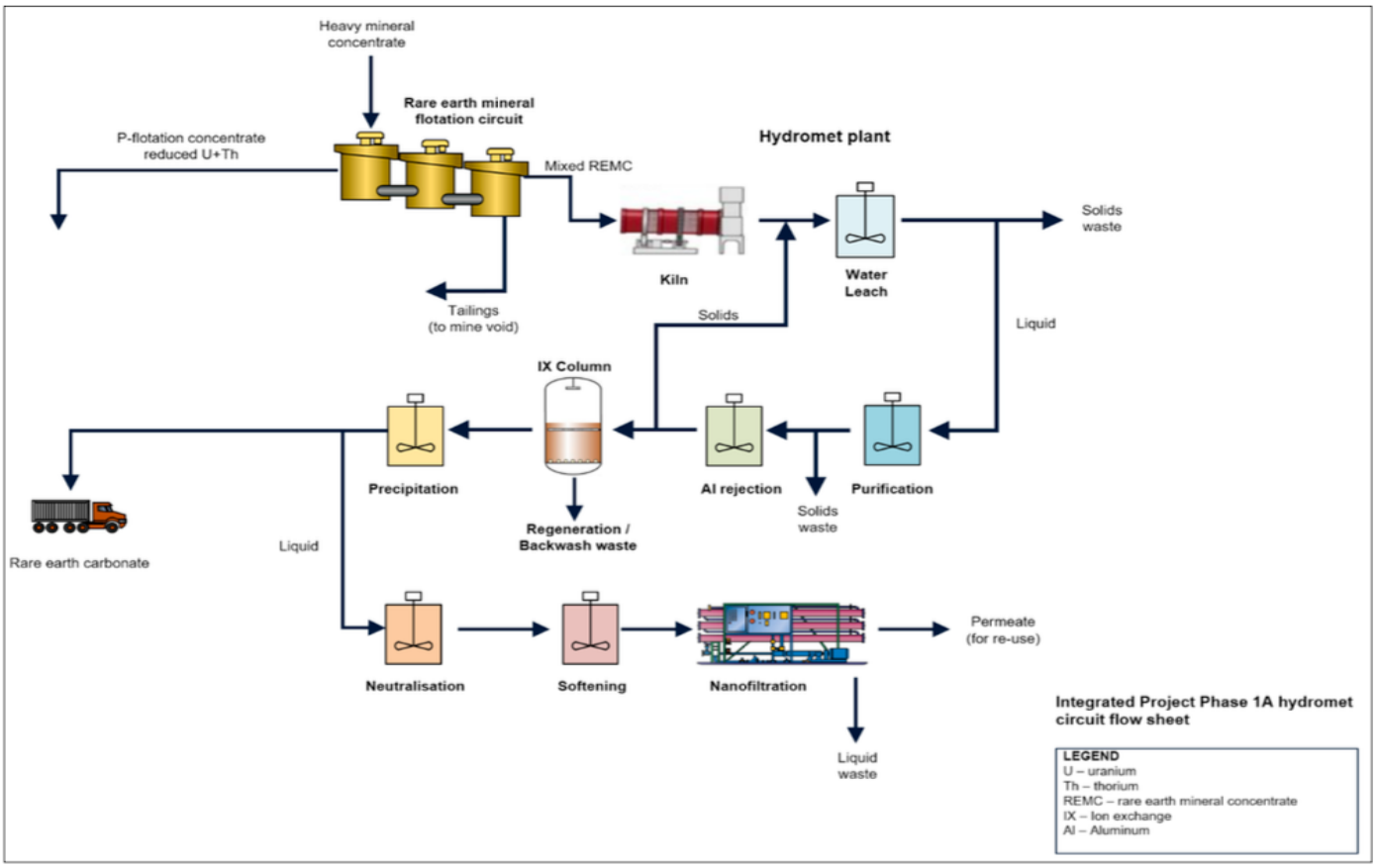

Figure 5.2.2 - Phase 2 Concentrator Schematic Flowsheet

Phase 2 - Mineral Separation Plant (P-flotation concentrate → final products)

- Phase 2 contemplates the addition of a Mineral Separation Plant (MSP) to treat the zircon–titania P-flotation concentrate from Phase 1 into final mineral products. The MSP applies a conventional Murray Basin mineral-sands flowsheet, using wet high-intensity magnetic separation (WHIMS), gravity, dry magnetic and high-tension electrostatic circuits to separate minerals based on grain size, density, magnetic susceptibility, electrical conductivity and surface properties. All tailings streams are collected in a common sump, homogenised and pumped back through the WCP tailings system for co-disposal in the mine void.

- **WHIMS split:** P-flotation concentrate is first treated in WHIMS to produce a magnetic ilmenite-rich HMC and a non-magnetic HMC dominated by zircon and high-TiO_2 titania minerals (rutile and leucoxene).

- **Ilmenite circuit:** The magnetic HMC is cleaned further by flotation and gravity separation, generating a low-chromium ilmenite product suitable as feedstock for pigment and synthetic-rutile producers.

- **Non-magnetic upgrade:** The non-magnetic HMC passes through gravity, dry magnetic and electrostatic (high-tension roll) circuits to produce separate zircon, HiTi rutile, HiTi leucoxene and low-Ti leucoxene products. Subject to market conditions, selected zircon streams can be treated in a hot-acid-leach (HAL) and chrome-removal circuit to reduce uranium, thorium and iron impurities, enabling a premium ceramics-grade zircon product.

- **Reject streams:** Off-spec and middlings fractions rich in zircon and titania minerals are blended into a zircon/rutile-rich concentrate, maximising overall heavy-mineral recovery.

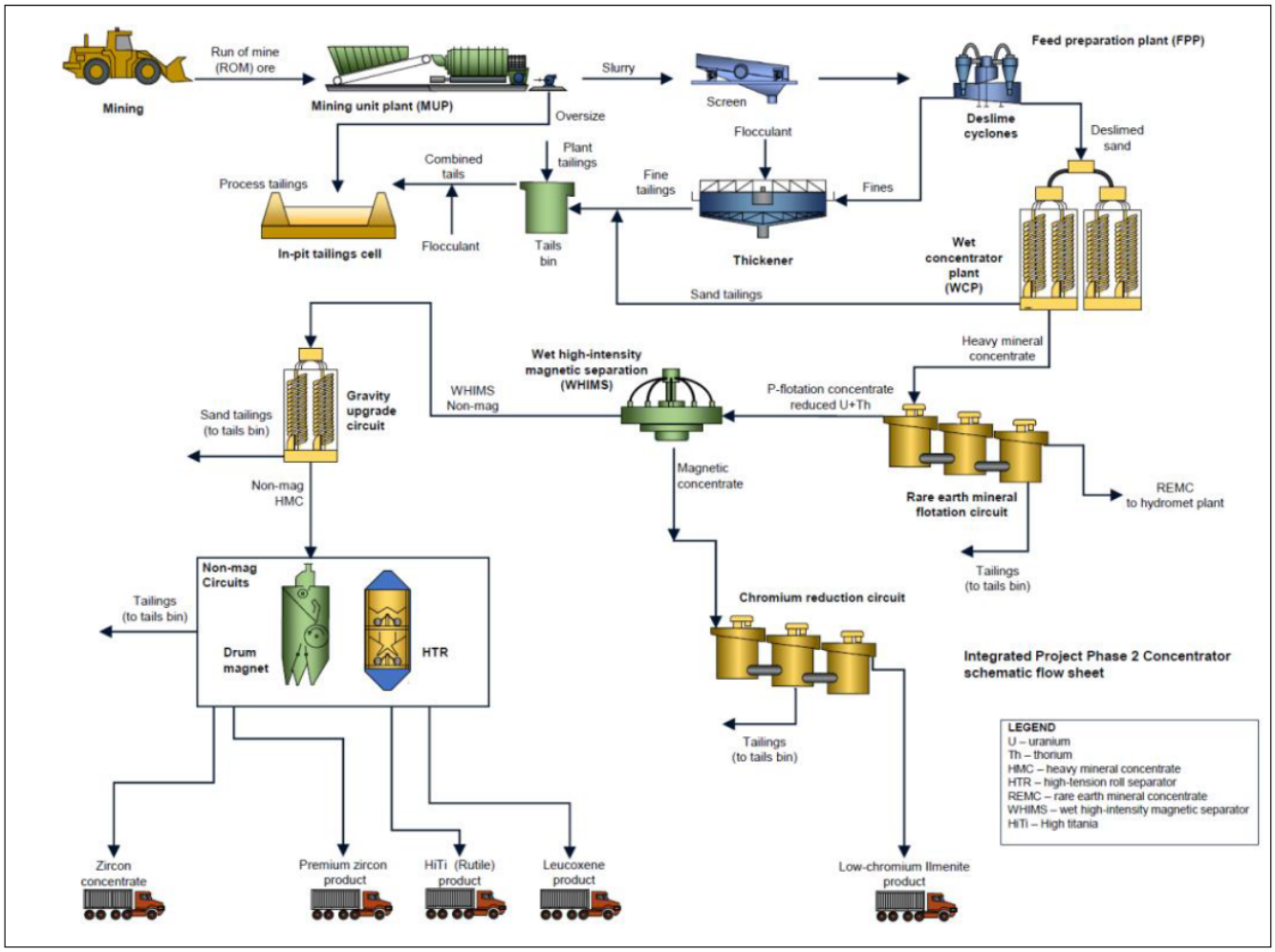

Figure 5.2.3 - Phase 2 Concentrator Schematic Flowsheet

6. Project Risks

Financing Risks

With increased funding requirements to move towards operational status, failure to receive sufficient project finance could have a negative impact on the stock. This could potentially delay the commencement of operations. Funding may also be constrained by increases to interest rates, resulting in a higher cost of debt finance. If indications of interest from The EFA and EXIM do not eventuate in funding support, this may also affect market sentiment.

Development Risks

Delays relating to the commencement of site works and construction of infrastructure could push out timelines with respect to first cash flows. This would also make figures used in the DFS be less reflective of prices at the time of site development, as they would be subject to cost inflation.

Exploration Risks

With a published exploration target for the Goschen Project, this opens up the risk of not meeting internal or market expectations regarding exploration success. If eventual exploration results in figures that are under the lower limits of the proposed target, this may constrain the long-term economic viability of the project.

Offtake Risks

Although the agreement with Shenghe Resources is binding, the other offtake agreements signed are non-binding. If these agreements fail to convert to binding commitments or actual sales volume, revenue assumptions may fail to materialise.

7. Management

IAN SMITH, Non-Executive Chairman

Ian Smith is a mining executive and professional director with 40+ years' experience in domestic and international mining and services. He has held MD and CEO roles at Orica and Newcrest Mining, transforming Newcrest into Australia's largest gold producer. Ian has also held senior positions at Rio Tinto, WMC Resources, CRA, and Pasminco, and has served on multiple industry boards including the Minerals Council of Australia.

ANDREW KING, Chief Executive Officer

Andrew King is a founding Principal and Director of Tanarra Capital, managing $3.3 billion in funds. He has 30+ years of senior executive and board experience across private equity, maritime and logistics, resources, infrastructure, and international trade, including leadership roles at P&O Maritime Services, P&O London, Carter Holt Harvey, and Rothmans International. He holds a Bachelor of Laws and a Diploma in Business (Finance).

RON DOUGLAS, Non-Executive Director

Ron Douglas has 40 years of executive and operational experience across global mining, energy, and manufacturing companies. He brings extensive expertise in major project construction, international operations, compliance, capital program delivery, and corporate transactions, having worked across the Americas, West Africa, Europe, and Australasia.

MAREE ARNASON, Non-Executive Director

Maree Arnason has 35+ years' experience across natural resources, energy, and manufacturing, including roles at BHP, Carter Holt Harvey, Svenska Cellulosa AB, and Wesfarmers. She brings expertise in strategy, sustainability, risk, corporate affairs, stakeholder engagement, and corporate transformations. Maree serves on multiple boards, including Gold Road Resources (Chair of Risk & ESG Committee) and Ardea Resources, and is a Fellow of the Australian Institute of Company Directors (FAICD).

COLIN MOORHEAD, Non-Executive Director

Colin Moorhead is a mining executive with 30+ years' global experience, grounded in geology. He has led exploration and resource development at Newcrest Mining and served as CEO of PT Merdeka Copper Gold, overseeing the successful construction and commissioning of the Tujuh Bukit Gold Mine. Colin has held multiple industry governance roles, including JORC ex-officio member and AusIMM President, and is a Fellow of AusIMM and the Society of Economic Geologists. He is a GAICD graduate and completed Harvard Business School's Advanced Management Program.

DON RUNGE, Non-Executive Director

Don Runge has 40+ years of project and operations experience in the mining industry, including industrial minerals and the development of the Uley Graphite Project (SA). He has held senior roles at Newcrest Mining, including Manager of Ridgeway Underground Project and GM of Cracow Gold Mine

BEN MCCORMICK, Chief Financial Officer

Ben McCormick is a CPA with 25+ years of global mining experience. He has held senior finance roles at REX Minerals, Federation Mining, Andean Precious Metals, Rincon Mining, and Newcrest Mining. Ben brings expertise in capital markets, M&A, corporate restructuring, funding strategies, and governance across multiple jurisdictions. He holds a Bachelor of Business (Accounting) from Monash University.

BERNIE HYDE, Executive General Manager, Operations Readiness

Bernie Hyde has a 40+ year career across coal, gold, copper, and nickel mining and processing in Australia, with 25+ years in supervisory and management roles leading operations and maintenance teams. He chairs the Minerals Council of Australia (Victoria) Safety & Health Working Group and the Cross-Border Industry Taskforce.

Evolution Capital Ratings System

Recommendation Structure	• **Buy:** The stock is expected to generate a total return of >10% over a 12-month horizon. For stocks classified as 'Speculative', a total return of >30% is expected. • **Hold:** The stock is expected to generate a total return between -10% and +10% over a 12-month horizon. • **Sell:** The stock is expected to generate a total return of <-10% over a 12-month horizon.
Risk Qualifier	• **Speculative:** This qualifier is applied to stocks that bear significantly above-average risk. These can be pre-cash flow companies with nil or prospective operations, companies with only forecast cash flows, and/or those with a stressed balance sheet. Investments in these stocks may carry a high level of capital risk and the potential for material loss.
Other Ratings:	• **Under Review (UR):** The rating and price target have been temporarily suppressed due to market events or other short-term reasons to allow the analyst to more fully consider their view. • **Suspended (S):** Coverage of the stock has been suspended due to market events or other reasons that make coverage impracticable. The previous rating and price target should no longer be relied upon. • **Not Covered (NC):** Evolution Capital does not cover this company and provides no investment view.

Expected total return represents the upside or downside differential between the current share price and the price target, plus the expected next 12-month dividend yield for the company. Price targets are based on a 12-month time frame.

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