

03 April 2024

Land Sale and Exploration Boosts

NEED TO KNOW

- UK freehold land sets up potential significant cash boost
- Ngualla exploration broadens critical minerals suite
- Rare earths the main game but may not be the first product

UK freehold land sets up potential significant cash boost: Peak (PEK) has converted 19 hectares of prime UK leasehold land to freehold. The site is strategically located in the Teesside freeport area in northern England, which is an emerging green energy hub. PEK has had several unsolicited approaches, and as this is no longer a core asset, PEK will assess exit options. We estimate a sale price of up to A\$28m, significantly boosting cash from its current position of A\$15.9m (as at 31/12/23).

Ngualla exploration broadens critical minerals suite: PEK has completed a drilling campaign targeting the Northern Zone and the Breccia Zone at Ngualla. Strong occurrences of phosphate and bonanza grade results for fluorspar mean PEK will assess potential low-cost development options for these two critical commodities.

Ngualla development – rare earths the main game but may not be the first cash flow: PEK continues to work towards funding and developing the Ngualla rare earths project; however, with the high-grade phosphate and fluorspar results, early cash flow may come from those products.

Investment Case

Ngualla ticks the boxes on scale, quality, margin: Ngualla is one of the world's largest and highest-grade undeveloped NdPr oxide projects, with an initial mine life of 24 years, producing an attractive NdPr-rich concentrate.

Peak a crucial supplier to strategic partner: Shenghe, China's largest rare earth concentrate importer and PEK's major shareholder (19.8%), has a binding agreement for 100% of Ngualla's concentrate and 50% of future mixed rare earth carbonate. This fills a significant supply gap for Shenghe.

Progressing a de-risked development pathway: Peak's MOU with Shenghe provides a fixed-price development package, potential funding solution and non-controlling strategic stake in Ngualla while prioritising cost efficiency, accelerated construction, and minimal equity dilution. FID is targeted for June 2024 with PEK initiating a strategic partnering process that covers evaluation of other options to ensure maximum shareholder return.

Global trends shaping rare earths demand: The demand for NdPr is set to rise due to its use in EV motors and wind turbines.

Valuation: A\$1.32 (Previous A\$1.29)

Our base-case valuation is A\$1.32/share, fully diluted. This assumes PEK maintains its 84% ownership of Ngualla and raises A\$236m equity to fund PEK's contribution to the project. Where PEK divests a minority stake in the project and implements the strategic development and funding solution with Shenghe, our valuation would rise to A\$3.59/share, fully diluted.

Risks

Key risks include funding, delays, increased capital costs and NdPr price.

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Materials

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Peak Rare Earths, a leading mineral exploration and development company, is driving low-carbon technology advancements with its Ngualla Rare Earth Project. Since its discovery in 2010, Ngualla has grown to be a global leader in high-grade NdPr deposits, essential for manufacturing electric vehicles and wind turbines. The company's strategic focus on this project embodies its commitment to sustainable development and green transformation. www.peakrareearths.com

Valuation	A\$1.32 (from A\$1.29)
Current price	A\$0.20
Market cap	A\$53m
Cash on hand	A\$15.9m (31/12/23)

Upcoming Catalysts / Next News

Period	
1HCY24	Teesside sale advancement
1HCY24	Fluorspar/phosphate advanced
1HCY24	Project funding finalised
June 2024	FID
2HCY24	Project construction commenced

Share Price (A\$)



Source: FactSet, MST Access.

Figure 1: Financial summary for Peak Rare Earths

PEK Limited						PEK.AX
Year end 30 June						
MARKET DATA						
Share Price	A\$/sh	0.20				
52 Week Low	A\$/sh	0.19				
52 Week High	A\$/sh	0.74				
Market Cap (A\$m)	A\$m	53				
Net Debt/ (Cash) (A\$m)	A\$m	(10)				
Enterprise Value (A\$m)	A\$m	43				
Shares on Issue	m	266				
Performance rights	m	13				
Shares Issued during Capital Raise	m	554				
Potential Shares on Issue (Diluted)	m	833				
12-Month Relative Performance vs S&P/ASX Metals & Mining						
INVESTMENT FUNDAMENTALS						
		FY22A	FY23A	FY24E	FY25E	FY26E
Reported NPAT	A\$m	(23)	(11)	(17)	(19)	(24)
Underlying NPAT	A\$m	(23)	(11)	(17)	(19)	(24)
EPS Reported (undiluted)	¢ps	(11.7¢)	(5.5¢)	(8.3¢)	(3.9¢)	(3.2¢)
EPS Underlying (undiluted)	¢ps	(11.7¢)	(5.5¢)	(8.3¢)	(3.9¢)	(3.2¢)
P/E Reported (undiluted)	x	N/A	N/A	N/A	N/A	N/A
P/E Underlying (undiluted)	x	N/A	N/A	N/A	N/A	N/A
Operating Cash Flow / Share	A\$	(0.06)	(0.05)	(0.08)	(0.03)	(0.03)
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	n/m
Free Cash Flow / Share	A\$	(0.06)	(0.05)	(0.08)	(0.61)	(0.03)
Price / Free Cash Flow	x	(3.4)	(3.7)	(2.4)	(0.3)	(6.1)
Free Cash Flow Yield	%	-29.8%	-27.4%	-41.7%	-303.2%	-16.5%
Book Value / Share	A\$	0.34	0.42	0.34	0.41	0.38
Price / Book	x	0.59	0.47	0.59	0.48	0.52
NTA / Share	A\$	0.34	0.42	0.34	0.41	0.38
Price / NTA	x	0.59	0.47	0.59	0.48	0.52
Year End Shares	m	207	208	208	762	762
Market Cap (spot)	A\$m	41	42	42	152	152
Net Cash / (Debt)	A\$m	9	25	8	(219)	(244)
Enterprise Value	A\$m	32	16	34	371	396
EV / EBITDA	x	n/m	n/m	n/m	n/m	n/m
Net Debt/ Enterprise Value		(0.2)	(0.6)	(0.2)	5.1	5.6
PRODUCTION AND PRICING						
		Jun-25e	Jun-26e	Jun-27e	Jun-28e	Jun-29e
Ore Mined (Kt)		-	-	186	1,800	1,521
Total Mill Feed (Kt)		-	-	-	723.0	804.0
Concentrate production at 45% TREO (Kt)		-	-	-	33.34	39.22
NdPr Price (US\$/kg)		-	-	-	160.7	166.3
Realised Basket Price (US\$/kg)		-	-	-	21.1	21.6
Profit & Loss (A\$m)						
		FY22A	FY23A	FY24E	FY25E	FY26E
Sales		-	-	-	-	-
Expenses		(15)	(11)	(17)	(24)	(25)
EBITDA		(15)	(11)	(17)	(24)	(25)
D&A		(0)	(0)	(0)	(0)	(0)
EBIT		(15)	(12)	(18)	(24)	(25)
Interest		(8)	0	0	5	0
Tax		-	-	-	-	-
Underlying NPAT		(23)	(11)	(17)	(19)	(24)
Exceptionals						
Reported Profit		(23)	(11)	(17)	(19)	(24)
Balance Sheet (A\$m)						
		FY22A	FY23A	FY24E	FY25E	FY26E
Cash		9	25	8	27	2
Receivables		1	0	0	0	-
Inventory		-	-	-	-	-
PP&E		0	0	0	471	471
Exploration		59	60	60	60	60
Other		4	4	4	4	4
Assets		74	90	72	562	537
Creditors		2	1	1	1	-
Debt		-	-	-	246	246
Other		0	0	0	0	0
Liabilities		3	1	1	247	246
Shareholder's Equity		71	88	71	315	291
Cashflow (A\$m)						
		FY22A	FY23A	FY24E	FY25E	FY26E
Receipts from Customers		-	-	-	-	0
Payments to suppliers and employees		(12)	(11)	(18)	(24)	(26)
Interest Received		0	0	0	5	0
Other						
Net Cash From Operations		(12)	(11)	(17)	(19)	(25)
Capex		(0)	(0)	-	(471)	-
Exploration		-	-	-	-	-
Other		0	-	-	28	-
Net Investing Cashflow		(0)	(0)	-	(443)	-
Equity		33	28	-	236	-
Borrowings		-	-	-	246	-
Other		(14)	(0)	(0)	(0)	(0)
Net Financing Cashflow		19	27	(0)	481	(0)
Effects of FX		(0)	(0)	-	-	-
Net Increase / (Decrease) in Cash		7	16	(17)	19	(25)

Source: Company data, MST Access.

UK Freehold Land Purchase Opens up Cash Boost

PEK has acquired the freehold title over its 19-hectare Teesside site for £125,000. The land holding is located within the Wilton International Site, which is near the town of Middlesbrough in the Tees Valley, United Kingdom (see Figures 2–3).

PEK originally exercised a £1,858,712 option to enter a 250-year lease in May 2021 after entering into the option agreement in July 2018.

The benefits of freehold title over a long-term lease include that a freehold title:

- supports a higher land value and greater flexibility around future development opportunities
- provides exit options.

Ngualla in-country strategy sees Teesside no longer a core asset; PEK to pursue sale

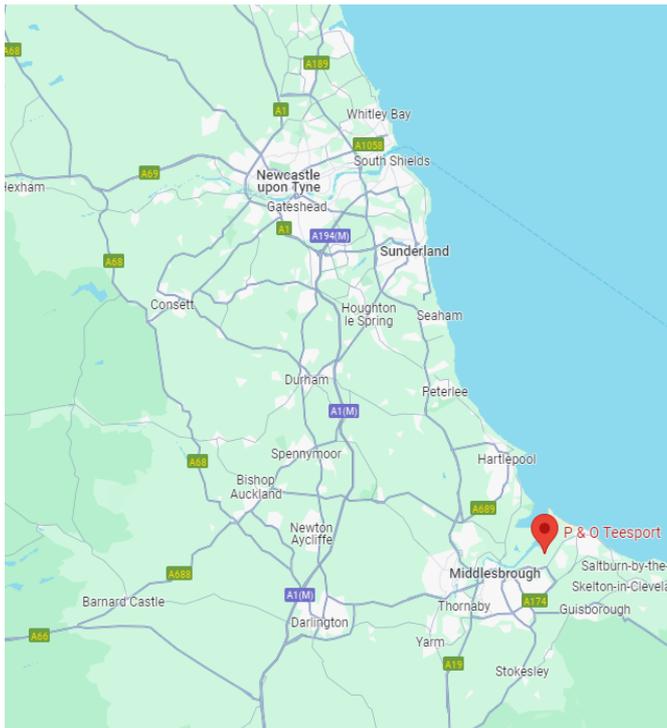
Originally the site was to be home to a rare earth refinery and separation plant designed to process 32,700 tonnes per year of beneficiated ore from Ngualla. However, as Ngualla has progressed, the Tanzanian Government has been supportive of further processing being performed in country in Tanzania, with:

- the adoption of a sequenced development strategy entailing the initial development of the Ngualla Project as a stand-alone high-grade concentrate project
- a longer-term intention of developing Tanzanian downstream operations, including a mixed rare earth carbonate (MREC) facility.

The Teesside land is no longer core to PEK's strategy. Given that it has received a number of unsolicited approaches in relation to the land, PEK has decided to exit the asset and pursue a sale.

Some details on the site

Figure 2: Location of Teesside, northern England



Source: Google Maps.

Figure 3: Location of Teesside, northern England



Source: Google Maps.

Figure 4: Regional view of the Wilton International Site



Source: PEK.

Figure 5: PEK's location in the Wilton International Site



Source: PEK.

The Wilton International Site and broader Teesside area has emerged as a green energy hub. PEK's site is strategically positioned within the Teesside designated freeport and within 3km of the third-largest deep-water port in the UK. It also benefits from existing access to reliable, competitively priced power, utilities and services. The site is 19 hectares (190,000sqm) in size.

Possible value of the transaction: around A\$18–28m based on regional sales

We have reviewed a number of sales of industrial sites in the immediate area, both ongoing and conducted recently. We note that the PEK site is a premium site with its proximity to the port and power, and thus we believe it may have the potential to sell at a higher price than the comparable sales indicated in Figure 6.

Figure 6: Industrial land sales, Teesside area

Date	Name	Location	Value (£)	Value Type	Area (sq.ft)	Value/Sq.ft (£)	Area (Acres)	Value/Acre (£)	Implied price - Teesside (£)	Implied price - Teesside (A\$)
2024	Land at Telford Rd	Middlesbrough	550,000	Listing price - unsold	77,101	7.13	1.8	310,734	14.6	28.2
2024	Land at Haverton Hill road	Middlesbrough	500,000	Listing price - unsold	174,240	2.87	4.0	125,000	5.9	11.3
2024	Land at Haverton Hill Road	Billingham	500,000	Guide Price - Unsold	174,240	2.87	4.0	125,000	5.9	11.3
2024	Site 6 Urlay Nook	Eaglescliffe	775,000	Listing price - unsold	165,528	4.68	3.8	203,947	9.6	18.5
2024	Plot 5 Urlay Nook	Eaglescliffe	1,950,000	Listing price - unsold	339,768	5.74	7.8	250,000	11.7	22.7
2024	Plot 4 Urlay Nook	Eaglescliffe	1,425,000	Listing price - unsold	248,292	5.74	5.7	250,000	11.7	22.7
2024	Uray Nook (whole plot)	Eaglescliffe	7,160,000	Listing price - unsold	1,386,950	5.16	31.8	224,874	10.6	20.4
2024	Land at Skelton Industrial Estate	Redcar	550,000	Listing price - unsold	148,540	3.70	3.4	161,290	7.6	14.6
2024	Mannion Park Development Opportunity	Redcar	6,000,000	Listing price - unsold	1,231,441	4.87	28.3	212,239	10.0	19.3
2023	Land at South Bank	Middlesbrough	15,000,000	Sale Price	3,920,400	3.83	90.0	166,667	7.8	15.1
2022	Cooling Towers & Land, Haverton Hill Road	Billingham	600,000	Guide Price	163,786	3.66	3.8	159,574	7.5	14.5
Average								199,030	9.3	18.1
Median								203,947	9.6	18.5
Min								125,000	5.9	11.3
Max								310,734	14.6	28.2

Source: Regional Real Estate comparable sales and properties for sale

As can be seen, the above transactions/potential sales imply an average price for PEK's land at ~A\$18m and a high price of ~A\$28m (£9.3m–£14.6m).

We have assumed that there is no tax payable on the sale due to PEK's accumulated tax losses.

The total cost of acquiring the freehold land has been:

Original long-term lease acquisition £1.859m

Freehold acquisition £0.125m

Total acquisition cost £1.984m

PEK's December cash A\$15.9m; sale provides significant boost

At 31 December 2023, PEK had A\$15.9m in cash. Assuming a cash burn of A\$5m for March, we estimate the March cash balance to be A\$10m. The potential cash generated from a sale of the land would increase cash significantly. If we assume the bottom of our range of A\$18m for the sale of land, PEK's adjusted cash balance would be ~A\$28m, and assuming the top of our range of A\$28m cash would be A\$38m, compared to a market cap of A\$53m.

Significant Exploration Success Around Ngualla

Pursuing Early Cash Flows from Phosphate and Fluorspar

PEK has completed an extensive drilling campaign in the Northern Zone and the Breccia Zone of the Ngualla Project. These zones are located ~2km north and north-east, respectively, from the Bastnaesite Zone that forms the basis of the Ngualla Rare Earth Project's Ore Reserves and Mineral Resources.

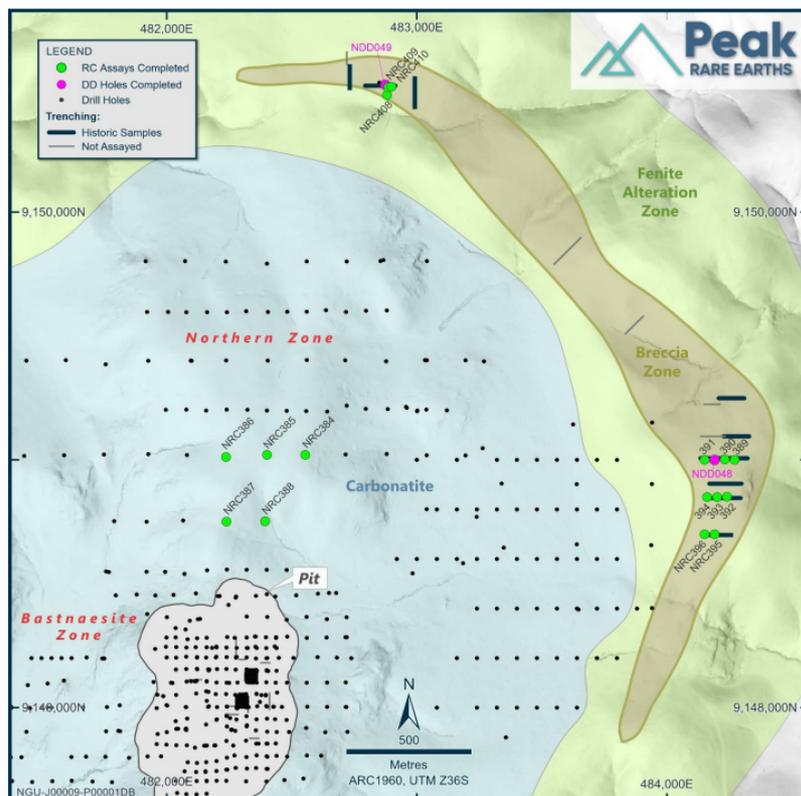
Both zones sit outside the current resource for the project. The campaign revealed significant high-grade mineralisation of the critical minerals phosphate and fluorspar as well as niobium and other rare earths.

Figure 7: Drilling Program Details

	Holes	Distance (m)
Northern Zone		
RC Holes	44	3,104
Breccia Zone		
RC Holes	11	885
DD Holes	2	211
Total Holes	57	4,200

Source: PEK

Figure 8: Ngualla exploration, Northern and Breccia Zones



Source: PEK

The Breccia Zone – bonanza grade fluorspar

PEK completed a Reverse Circulation (RC) and Diamond Drill (DD) drilling program in the Breccia Zone of the Ngualla Project.

Drilling has confirmed extensive high-grade and thick intercepts of fluorspar across the Breccia Zone supporting the potential of a globally significant fluorspar deposit at Ngualla. High-grade rare earth mineralisation and elevated levels of niobium have also been intercepted within the Breccia Zone.

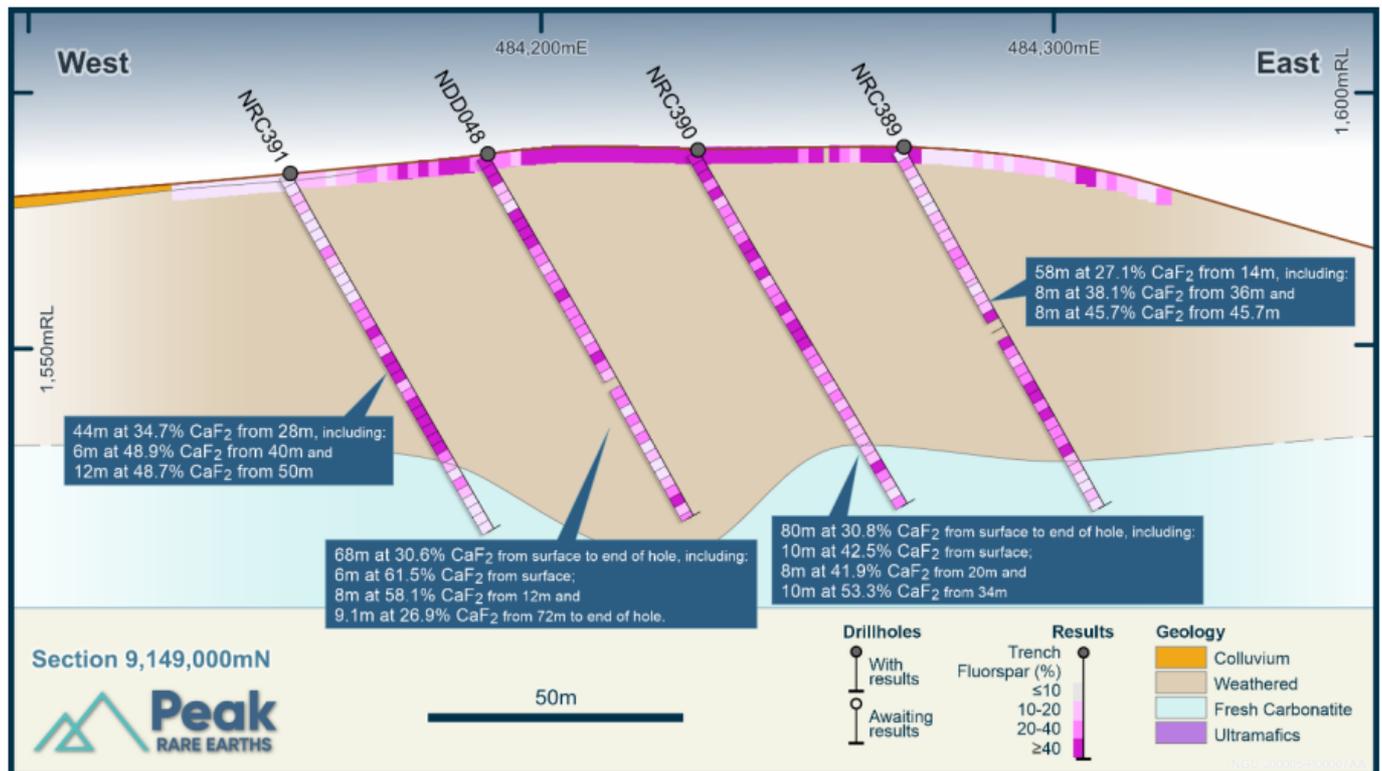
Key fluorspar interceptions – potential for early cash flow

The Breccia Zone proved to have mineralisation of fluorspar, niobium and rare earths. The key findings from the 11 RC and 2DD holes drilled in the Breccia Zone was that there are significant amounts and bonanza grades of fluorspar that have strong potential for rapid development and early cash flow.

Key results included:

- 80m at 30.8% CaF₂ from surface to end of hole, including 10m at 42.5% CaF₂ from surface, 8m at 41.9% CaF₂ from 20m and 10m at 53.3% CaF₂ from 34m
- 68m at 30.6% CaF₂ from surface to end of hole, including 6m at 61.5% CaF₂ from surface and 8m at 58.1% CaF₂ from 12m and 9.1m at 26.9% CaF₂ from 72m to end of hole
- 58m at 27.1% CaF₂ from 14m, including 8m at 38.1% CaF₂ from 36m and 8m at 45.7% CaF₂ from 52m
- 44m at 34.7% CaF₂ from 28m, including 6m at 48.9% CaF₂ from 40m and 12m at 48.7% CaF₂ from 50m
- 34m at 44.2% CaF₂ from surface, including 10m at 59.2% CaF₂ from surface and 12m at 47.9% CaF₂ from 16m
- 16m at 34.8% CaF₂ from surface, including 4m at 72.5% CaF₂ from surface.

Figure 9: Bonanza grade fluorspar from surface at Ngualla



Source: PEK.

The fluorspar market for PEK

Fluorspar is a mineral that is mainly used in steel and iron making, refrigeration and air conditioning, aluminium making, solid fluoropolymers for cookware and cable insulation, fluorochemicals, nuclear uranium fuel and processes for oil refining. It is primarily used to lower the melting point of metals in metallurgical processes and as a flux in the production of steel and aluminum.

Fluorspar is also used in electrolytes within lithium batteries and to purify graphite anodes.

There are two principal commercial grades of fluorspar: metallurgical grade (60–96% CaF₂) and acid grade (+97% CaF₂). Metallurgical-grade fluorspar accounts for approximately 35–40% of total fluorspar production with the principal applications being in steel production and cement. Acid-grade fluorspar accounts for approximately 60–65% of total fluorspar production with the principal applications being in aluminium production and in the manufacturing of hydrofluoric acid (HF).

Next steps regarding Northern Zone fluorspar

Immediate next steps relating to the fluorspar opportunity include:

- Mineralogical analysis of the fluorspar DD core from the Breccia Zone;
- Further exploration fieldwork which could include soil sampling and further trenches;
- Preliminary flowsheet development and metallurgical work; and
- Continue engagement with strategic parties around low-cost fluorspar development options that could complement the delivery of the Ngualla Rare Earth Project.

Peak will also evaluate additional drilling in the Breccia Zone.

Northern Zone: key results – phosphate and niobium

PEK completed an RC drilling program in the Northern Zone of the Ngualla project.

The drilling program was designed to test the extent of niobium and phosphate mineralisation and to assess the continuity of mineralisation between the two existing Northern Zone drill lines and the Southern Rare Earth Zone.

Mineralisation has been extended in both the northern and eastern directions based on the results received with the continuity of mineralisation between the Northern Zone and the Southern Rare Earth Zone and remains open in these directions.

Key phosphate interceptions – potential for early cash flow

The Northern Zone proved to have mineralisation of phosphate, niobium and rare earths. The key finding from the 44 RC holes drilled in the Northern Zone was that there are significant amounts of phosphate that have strong potential for rapid development and early cash flow.

Key results included:

- 60m at 20.5% P₂O₅ from 10m
- 41m at 22.9% P₂O₅ from 39m to end of hole
- 40m at 20.3% P₂O₅ from 6m
- 32m at 22.0% P₂O₅ from surface
- 28m at 16.7% P₂O₅ from 6m
- 14m at 14.5% P₂O₅ from 16m
- 11m at 18.8% P₂O₅ from 46m
- 10m at 23.0% P₂O₅ from surface
- 10m at 19.5% P₂O₅ from 38m
- 10m at 13.6% P₂O₅ from 12m
- 8m at 22.3% P₂O₅ from 64m.

Bioavailability analysis: if highly soluble, it's highly usable in fertilisers

The high-grade, widespread and shallow interceptions clearly demonstrate the significance of the drilling and the deposit's large potential for the commercialisation of the phosphate, supporting the recently identified opportunity to supply phosphate into the local fertiliser market.

Bioavailability analysis is a standard test undertaken on phosphorous rock sources to determine the solubility of phosphate in soils. The analysis is useful in determining whether a particular phosphate rock type is suitable for direct fertiliser applications whereby the phosphate is applied directly to the soil for uptake.

Bioavailability analysis has been completed on two composite phosphate samples from the Northern Zone. Composite samples from the Northern Zone returned an **average bioavailability value for phosphorous of 10.80%**, which is **above the industry threshold of 9.4% for a 'high' bioavailability classification**.

The bioavailability results demonstrate the potential for phosphate from the Northern Zone to be used in local fertiliser applications, which is further supported by low levels of deleterious elements including cadmium, mercury and lead.

The phosphate market for PEK

Phosphate is **the natural source of phosphorous**, an element that provides a quarter of all the nutrients that plants need for their growth and development. Phosphorous is used in many products, and is an essential ingredient in all fertilizers. Phosphate rock is an increasingly important commodity with critical mineral status in the EU and China as well as strategic materials status in Australia.

Phosphate rock is processed to produce phosphorous, which is one of the three main nutrients most commonly used in fertilizers (the other two are nitrogen and potassium). Phosphate can also be turned into phosphoric acid, which is used in everything from food and cosmetics to animal feed and electronics. Phosphate products can be used to deliver customized fertilizers for the specific needs of local soil, climate and crops and lead to higher crop yields, meaning higher crop production from less acreage.

Phosphate is also an important precursor to lithium-ion phosphate (LFP) battery technology, which has recently become the dominant EV battery technology in China.

Phosphate rock prices have increased at a CAGR of 65% over the last three years due to rising global demand to support agricultural yields and food security as well as the rapid emergence of LFP EV technology.

The near-term opportunity exists for PEK to supply phosphate rock into the Tanzanian and broader East African fertiliser market. Current phosphate fertiliser use within the East and Central Africa region remains amongst the lowest globally.

Rock from the Northern Zone could potentially be used as a direct application fertiliser, which would minimise beneficiation requirements and significantly simplify future development pathways.

Next steps regarding Northern Zone phosphate

The path to development of a phosphate project will require PEK to:

- update the conceptual model of the Northern Zone to identify future drill targets and preferential areas of mineralisation for future development
- Ongoing engagement with strategic parties around low-cost phosphate development
- Peak will also consider further drilling in the Northern Zone

Northern Zone – niobium: furthering the critical mineral inventory

The 44 RC drill holes drilled in the Northern Zone also intersected significant niobium mineralisation.

Key results were:

- 62m at 1.26% Nb₂O₅ from surface including 36m at 1.88% Nb₂O₅ from 22m – the highest-grade niobium intercept at Ngualla
- 30m at 0.46% Nb₂O₅ from surface, including 4m at 0.92% Nb₂O₅ from 24m
- 26m at 0.81% Nb₂O₅ from surface including 14m at 1.09% Nb₂O₅ from 14m
- 24m at 0.53% Nb₂O₅ from 6m, including 8m at 0.66% Nb₂O₅ from 12m and 4m at 0.72% Nb₂O₅ from 22m
- 24m at 0.40% Nb₂O₅ from surface including 10m at 0.49% Nb₂O₅ from 28m including 4m at 0.72% Nb₂O₅ from 30m
- 14m at 0.55% Nb₂O₅ from 14m including 10m at 0.61% Nb₂O₅ from 14m
- 10m at 0.55% Nb₂O₅ from surface including 4m at 0.69% Nb₂O₅ from 6m.

The niobium market for PEK

Approximately 90% of all niobium used is consumed as ferroniobium in steelmaking. Adding niobium to steel significantly increases strength, so less steel is required overall, reducing costs. The capacity for increased intensity of niobium use is in long products (rebar). Niobium is listed as a critical mineral by Australia, India, Japan, China and the EU and is ranked second within the USA's critical mineral list.

Quantities of niobium are being used in nickel, cobalt, and iron-based superalloys for applications such as jet engine components, gas turbines, rockets and turbochargers. The use of niobium in rechargeable batteries is developing, with Toshiba's rechargeable battery for electric vehicles featuring a niobium anode, allowing for higher-performance, longer-life, faster-charging, and safer batteries.

Peak aims to continue evaluating potential opportunities relating to its niobium.

Mineralisation extended in Northern Zone and Breccia Zone for rare earths – higher-value heavy Rare Earths present

The Breccia Zone holes intersected high-grade rare earths in addition to the fluorspar. Based on current spot prices, the basket value of the Breccia rare earth (RE) assemblage is 21% higher than the Bastnaesite Zone (current resource and reserve). Results of recent drilling include:

- 34m at 3.77% rare earth oxides (REO) from surface, including 8m at 4.87% REO from 2m and 16m at 4.63% REO from 14m.

Drill samples from the Breccia Zone have been analysed for deleterious element levels with low levels of radionuclides (thorium and uranium) and arsenic.

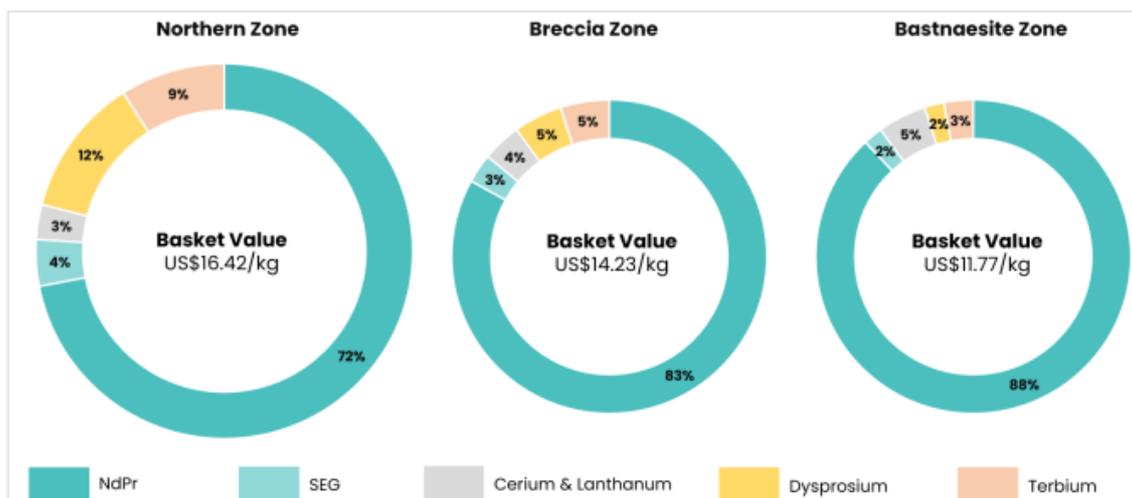
An evaluation of the Northern Zone rare earth mineralisation also demonstrates a higher proportion of magnet rare earths relative to total REO in the Bastnaesite Zone. Based on current spot prices, the basket value of the Northern Zone rare earth assemblage is 40% higher than the Bastnaesite Zone. Drill results included:

- 18m at 1.45% total rare earth oxides (TREO) from surface
- 16m at 1.16% TREO from surface
- 12m at 1.06% TREO from surface
- 10m at 1.54% TREO from 30m
- 10m at 1.48% TREO from surface.

Next steps regarding rare earths in Northern and Breccia Zones

PEK will review the results from the Northern and Breccia zones in order to assess the potential to include the ore into the current plans for the Ngualla development.

Figure 10: Basket value of rare earth assemblage within Northern, Breccia Zone and Bastnaesite Zone



Source: PEK.

Revisiting our Investment Thesis:

Developing the Ngualla Rare Earths Project is the Focus

High-Grade, De-risked Project at World-Class Deposit

PEK is advancing the Tier-1 Ngualla Rare Earths Project in Tanzania. The project is situated 1,050km from Dar es Salaam port. The company has an 84% interest in the project via its fully-owned subsidiary, Ngualla Group UK Limited, with the Tanzanian Government holding the other 16% through a free-carry agreement.

Flagship asset, Ngualla: a world-class, high-grade deposit with a de-risked, sequenced strategy

The Ngualla Project is one of the world's largest rare earth mineral resources, with 214.4Mt at 2.15% TREO. Notably, its Ore Reserve measures 18.5Mt at 4.8% TREO, where valuable NdPr represents 1.02%, placing it as the second-highest NdPr concentration in the world, only surpassed by Lynas (ASX:LYC). The NdPr oxide contributes to 92% of PEK's basket value. The project's early years of production, Years 1–6, indicate annual mining of 1,223.6 ktpa at a grade of 5.4% TREO. This production will lead to a concentrate output of 40.5 ktpa, maintaining a consistent concentrate grade of 45.0% TREO, with NdPr forming 22.2% of this concentrate basket. This resource profile, combined with the strategic reserve figures, emphasise Ngualla's longevity and potential for sustained value creation.

Securing Ngualla's future with offtake agreement

Binding offtake agreement with Shenghe

PEK and Shenghe Resources have signed a binding offtake agreement and a non-binding MOU covering concentrate offtake and strategic co-operation in developing and funding the Ngualla Project. Shenghe is a leading entity in rare earth mining, processing, and distribution. The company is listed on the Shanghai Stock Exchange with a market capitalisation of around US\$3.1 bn; and is currently the largest importer of rare earth concentrate into China, distributing its products within China and to overseas markets. The offtake agreement guarantees the purchase of 100% of Ngualla's concentrate production and half of any future Mixed Rare Earth Carbonate (MREC) and separated oxide output for an opening span of 7 years. Shenghe holds an approximate 19.8% stake in PEK and appointed a Non-Executive Director to PEK's board in November 2022, strengthening the companies' alliance.

Exit of MP Minerals opens additional opportunity

Shenghe has been importing 100% of the concentrate from MP Materials (operator of one of the world's largest rare earth mines, Mountain Pass) into the Chinese market over the last 5 years following the restart of the Mountain Pass Mine in 2017. However, MP Materials, a NYSE-listed company valued at US\$4 bn, is moving downstream to produce NdPr oxide and magnets as part of its strategic expansion. This transition will cut around 15% of the global rare earth mineral concentrate supply, leading to a procurement shortfall for Shenghe and an opportunity for PEK to supply the required concentrate.

Financial discussions accelerating

PEK, requiring funding for its ~US\$287m pre-production capital and other associated costs, has also entered a non-binding MOU with Shenghe. This MOU supports both development and funding, with Shenghe proposing a fixed-price EPC solution and the provision of a project funding solution on mutually agreeable terms. Importantly, Shenghe is considering acquiring a substantial non-controlling equity stake in the project via a PEK subsidiary, thereby reducing PEK's financial burden. The strategy aims to limit equity dilution for PEK shareholders, combining Shenghe's investment, potential prepayments for sales, and possible access to Chinese banking solutions.

Rare earths outlook: fuelling future energy transformation

We project the price of rare earths, especially NdPr, to rise, driven predominantly by the surging demand in energy-transition applications like EV motors and wind turbines. In 2022, these applications consumed magnet rare earth oxides, including NdPr, valued at \$3.8 bn, *Adamas Intelligence predicts this figure will experience a 19.1% CAGR, surging to \$36.2 bn by 2035. This escalating demand is primarily driven by passenger EV traction motors and increased by wind power generators.

NdPr oxide is anticipated to witness the most significant value increase, expected to skyrocket 11-fold by 2035 as per Adamas Intelligence. This surge is attributed to comprehensive demand growth, escalating prices, and a trend towards employing more NdPr in high-grade rare earth magnets (NdFeB). However, supply analyses from Adamas Intelligence suggest that by 2035, NdPr oxide supply will struggle to meet this booming demand, leading to pronounced shortages of these essential magnet materials.

Exploration adds options; potential early cashflow

The outstanding exploration results identifying substantial fluor spar in the Breccia Zone and phosphate in the Northern Zone has added significant optionality to the project. Due to the near-surface and high-grade nature of the discoveries, there may be opportunities to direct ship the ore or establish low-capital-cost processing plants and create the potential for early cash flow generation. We see the possibility that phosphate and/or fluor spar may generate cash before the Ngualla Rare Earth Project is fully developed.

Tanzania: attractive business jurisdiction

Tanzania offers political stability, economic growth, and expanding industry, marking it as a notable investment destination in East Africa. The nation has achieved a growth rate of 7.6% pre-pandemic, coupled with declining inflation and poverty.

Mining sector growth

Under President Samia Suluhu Hassan's leadership, Tanzania is leveraging its mineral wealth, targeting a 10% GDP contribution from mining by 2025. The sector's rapid growth, marked by 8 significant mining agreements, positions Tanzania as a prime mining investment hub.

Enhanced international relations and business climate

Following a visit by the US Vice President to Tanzania, an MOU was announced between Tanzania and the Export-Import Bank of the United States, paving the way for US\$500m in export financing. Furthermore, a B2 Positive credit rating from Moody's in 2023, prompted by political stability and reforms, signals an investor-friendly climate.

Potential near-term catalysts (2024)

- 1HCY24: Finalise construction strategy with Shenghe
- 1HCY24: Continue assessment of Northern and Breccia Zones fluor spar and phosphate opportunities
- 1HCY24: Obtain initial indications of Teesside land sale values
- 1HCY24: Finalise funding and outcomes from strategic partnering process
- June 2024: Final Investment Decision; finalise project funding
- 2HCY24: Commence project construction

Valuation: We See Big Upside

Our base-case risked NPV-based valuation for PEK is A\$1.32/share on a fully diluted basis (up from A\$1.29/share previously). However, we see significant additional upside in the valuation if PEK completes a sell down of the Ngualla Project (with our upside case raised to A\$3.59 from A\$3.54 previously), and further potential upside to our valuation with the development of potential phosphate and/or fluorspar projects.

Base-case valuation: risked NPV implies almost 5x potential upside

Our financial analysis of the flagship Ngualla Project (84% ownership) values PEK at A\$1.32 per share, fully diluted, while the un-risked valuation is A\$1.63/share. We summarise our base-case valuation in Figure 11. Our analysis uses a discount rate of 10% and a probability risk weighting of 80%.

Furthermore, we have attributed a net asset value (NAV) of A\$1,083m compared with the current market value of ~A\$55m. In our valuation, we assume that A\$236m in equity will be raised at A\$0.62 per share, leading to a 179% increase in the total number of shares.

The valuation excludes the potential of the development of phosphate, fluorspar or niobium at Ngualla due to the early stage of the projects, but we do see the potential for early cash generation from these commodities and the potential for a low-capex, rapid development project. Our valuation also does not consider any potential sell-down of the project to Shenghe. We believe NdPr is under-appreciated with strong structural tailwinds, and we see the potential for tight medium-term fundamentals in the NdPr market.

Figure 11: Base-case valuation summary

	PEK (MSTe)			Jun-24	
	Discount rate	US\$m	Risk weighting	AUD\$m	AUD\$/sh
Ngualla (84%)	10.0%	948	80.0%	1,083	1.31
Total operating assets				1,083	1.31
Corporate/SG&A				(30)	(0.04)
Land Value Teesside				28	0.03
Net cash/(debt) (\$AUD)				10	0.01
Net Asset Value				1,091	1.32
Current Share Price					0.205
Upside					544%

Source: MST estimates.

We have increased our valuation by A\$0.03 having taken into consideration the potential sale of the Teesside land. We had not previously included the land in our valuation. The Teesside land sale has the potential to generate a significant cash boost for PEK and alleviate the need for further capital raisings leading into the development of the Ngualla Project.

PEK has been sold down recently from around A\$0.40 to A\$0.20 as the market continues to be bearish on rare earth prices and, in a more macro sense, small- and micro-cap stocks. We continue to value PEK on the long-term thematic and believe that, as the company continues to deliver milestones on the Ngualla Project, the stock will continue to climb towards our valuation.

Figure 12: Base-case valuation assumptions (MST vs. PEK)

Financial Performance Summary	Unit	PEK	MSTe
Construction commencement year	Year	2024	2025
Construction period	Years	2	3
Avg. NdPr price (first 5 years)	US\$/kg	153	172
Avg. NdPr price (LOM)	US\$/kg	201	197
Upfront development capex	US\$m	287	330
AISC at US\$60/kg NdPr (inc. conc transport)	US\$/kg	21.0	23.9
Avg. annual operating cost	US\$m	77	80
Average annual EBITDA	US\$m	281	314
NPV10 (Post-tax, ungeared, and after 16% free carry)	US\$m	747	948
IRR (Post-tax, ungeared, and after 16% free carry)	%	34%	41%

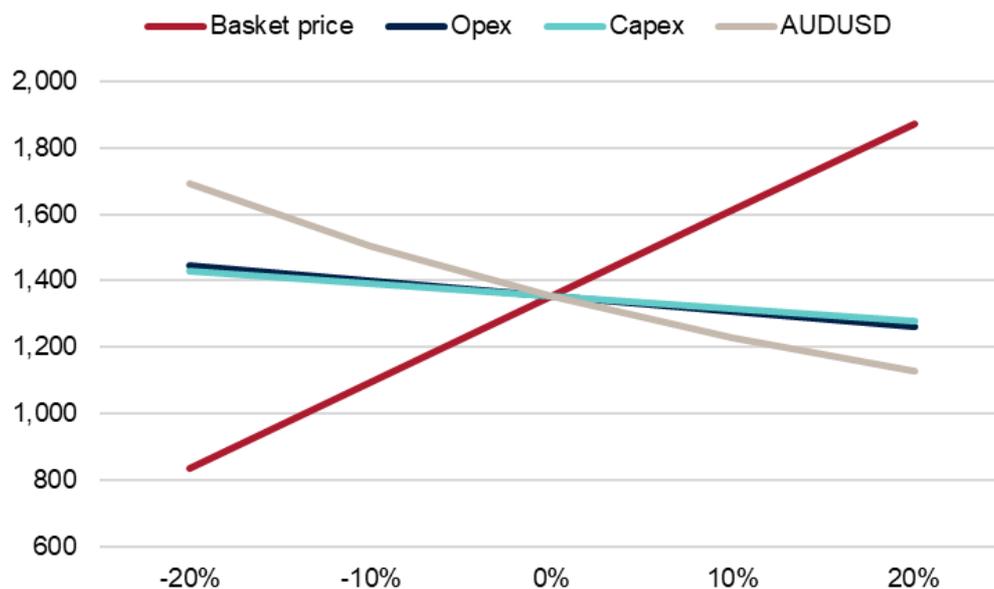
Source: PEK, MST estimates.

We have assumed a capital raising (50/50 debt to equity) of A\$236m to fund the pre-production capex of US\$330m for the project. We have assumed an issue price of several times greater than the current share price (as we expect share price appreciation as PEK confirm any debt funding options). The share count increases by 554.1m as a result.

Key sensitivities

As shown in Figure 13, our valuation is most sensitive to assumptions on the NdPr oxide price and to a lesser extent the AUD/USD exchange rate, opex and capex.

Figure 13: Key sensitivities (A\$m Ngualla valuation unrisks)



Source: MST estimates.

Scenario analysis: non-controlling equity interest – a significant uplift

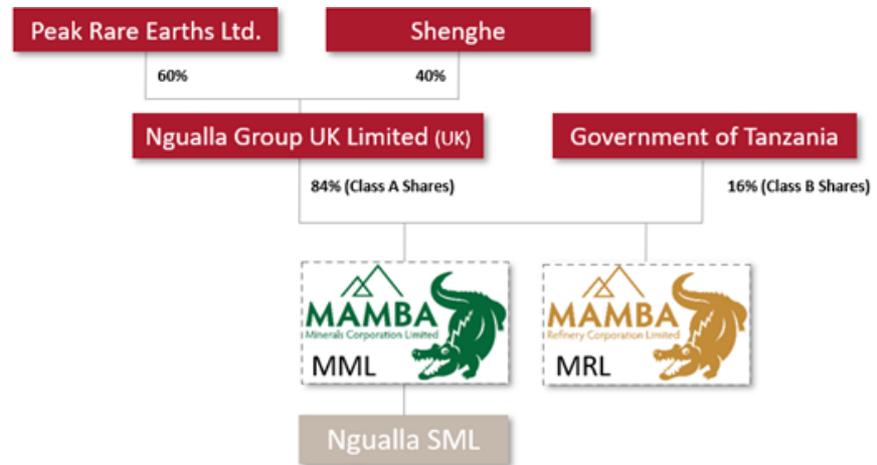
Valuation: A\$3.59

As announced on 9 August 2023, PEK has signed a funding MOU for Ngualla with Shenghe. This entails Shenghe acquiring a notable non-controlling stake in the Ngualla Project, significantly reducing PEK's funding needs. We have analysed a scenario where 40% of Ngualla UK is sold to Shenghe for a turnkey project funding and engineering, procurement, and construction (EPC) solution. This assumes PEK holds an effective 50.4% stake in the project (60% of 84%), while Shenghe secures 33.6% (40% of 84%) in exchange for the EPC solution, encompassing the project's construction.

In this analysis, we value PEK at A\$3.59 per share on a fully diluted basis (vs A\$3.54 previously for this upside-case scenario), as detailed in Figure 14. The additional valuation in this scenario is attributed to:

- no initial cash outlay by PEK at the project's inception
- no equity dilution (as there would be no issuance of shares)
- the absence of debt-related costs.

Figure 14: Corporate structure, Shenghe holding non-controlling equity interest in the project



Source: PEK.

Figure 15: Asset selldown valuation summary: significant value creation

	PEK (MSTe Sale of Asset)			Jun-24	
	Discount rate	US\$m	Risk weighting	AUD\$m	AUD\$/sh
Ngualla (50.4%)	10.0%	823	80.0%	941	3.56
Total operating assets				941	3.56
Corporate/SG&A				(30)	(0.11)
Land Value Teesside				28	0.11
Net cash/(debt) (\$AUD)				10	0.04
Net Asset Value				949	3.59
Current Share Price					0.205
Upside					1652%

Source: MST estimates.

Key assumptions

We have used a 10% discount rate (real) and assumed zero pre-development capex, on the basis that Shenghe funds the project. We assume that PEK receives 50.4% of the free cash flow, with all other assumptions consistent with the base-case scenario. Importantly, our scenario valuation assumes no dilution.

Positive catalysts for share price and valuation

Sale of Teesside Land

The sale of the Teesside (UK) industrial land will provide an immediate boost to cash and allow PEK to be funded through to FID/development of Ngualla.

Other critical minerals development

The discovery of critical minerals phosphate, fluorspar and niobium has greatly enhanced the chance to develop these minerals and generate early cash flow for the project, which would enhance the valuation.

Funding of project

Securing capex for major resource developments is a challenge for small companies; thus, a competitive funding package would significantly de-risk the project.

Asset selldown

Selling a stake in the project to finance its development would mitigate construction risks and minimise dilution. By partnering with an experienced company such as Shenghe, PEK can potentially lower costs and shorten the construction timeline.

Final Investment Decision

FID is the key to project commencement and represents a major milestone.

Metallurgical improvements

Advancements in metallurgical efficiencies, whether through enhanced recoveries or superior grades, could significantly boost the project's valuation. Given Shenghe's involvement, such advancements are not only plausible but anticipated, further solidifying the potential for a favourable impact on share price.

Other potential share price catalysts

Resource growth: Drilling at Ngualla is being undertaken. An increase in resource would be positive.

NdPr price increase: The valuation is highly sensitive to NdPr prices. Increases in the price of NdPr oxide would positively affect the valuation.

USD depreciation: The valuation is highly sensitive to the USD/AUD. USD depreciation would have a positive effect on the valuation.

Risks to share price and valuation

We outline the key risks to the share price and valuation below, noting that early-stage mining projects have various critical risks.

Company-and project-specific risks

Access to funding: The availability of funding for the project is not guaranteed. A lack of sufficient funding could have a negative impact on the stock.

Delays to development: Any delays in moving into construction, post-funding, would be a negative for the stock and would gradually make the information from the BFS less current and thus less reliable.

Key person dependence: Individuals, including the CEO, may have relationships and experience critical to advancing the project. The loss of such personnel may significantly compromise PEK's ability to advance the project.

Cost inflation: This is a global theme and is particularly concerning in the mining industry. If operational or capital costs increase without a corresponding increase in the commodity price, the project's margins would be reduced, which could impact the economics and viability.

Shenghe funding solution falls through: If Shenghe does not proceed with its potential subscription for a significant non-controlling equity interest in the Ngualla Project, PEK's funding requirements could substantially increase.

Supplying to China: Tensions between China and other countries could lead to trade embargoes or other restrictions, potentially impacting PEK's ability to sell its refined products internationally.

Macro risks

Rare earth oxide price – this is the key valuation sensitivity

Foreign exchange rates

Increasing interest rates and the potential impact on the cost of debt finance

Country-specific risks

The Ngualla Project, operating in Tanzania, may face several country-specific risks.

Political instability: Any changes to government policies or leadership could impact the project, as they could adversely change laws, taxes or other regulations, increasing costs or decreasing revenues.

Regulatory environment: Regulatory or legal changes could adversely impact the project's success.

Personal disclosures

Michael Bentley received assistance from the subject company or companies in preparing this research report. The company provided them with communication with senior management and information on the company and industry. As part of due diligence, they have independently and critically reviewed the assistance and information provided by the company to form the opinions expressed in this report. They have taken care to maintain honest and fair objectivity in writing this report and making the recommendation. Where MST Financial Services or its affiliates has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid has, or will, directly or indirectly impact the content provided in this report.

Company disclosures

The companies and securities mentioned in this report, include:

Peak Rare Earths (PEK.AX) | Price A\$0.20 | Target price A\$1.32 | Recommendation -;

Price, target price and rating as at 03 April 2024 (not covered)*

Additional disclosures

This report has been prepared and issued by the named analyst of MST Access in consideration of a fee payable by: Peak Rare Earths (PEK.AX)

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