
RAINBOW RARE EARTHS



**UNLOCKING
SECONDARY
SOURCES OF
RARE EARTHS**

**Investor
Presentation**

**September
2023**



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RAINBOW RARE EARTHS

UNIQUE INVESTMENT OPPORTUNITY



PHALABORWA BASE CASE^{1,2}

NPV₁₀
US\$627m

IRR
40%

EBITDA
US\$192m

Margin³
75%

Payback
<2 years



CRITICAL MINERALS: Demand for rare earth elements (REEs) will rise significantly to meet decarbonisation; urgent need for non-China supply



STRATEGIC ASSETS: Responsible rare earth production from secondary sources: near-term production in South Africa and earlier stage project in Brazil – significant investment from TechMet, which is backed by the US DFC



ROBUST ECONOMICS: Phalaborwa PEA demonstrates strong returns in all pricing scenarios, low capital intensity (US\$295.5m) and expected to be one of the lowest cost producers of separated rare earth oxides globally



INNOVATIVE TECHNOLOGY: Proprietary RE oxide separation process is simpler, more environmentally friendly and cheaper than traditional processes



EXPERIENCED TEAM: Proven history of delivery

1. All figures based on base case using US\$110/kg Nd; US\$112.50/kg Pr; US\$340/kg Dy; US\$1,875/kg Tb
2. NPV and IRR calculations are both post tax
3. EBITDA operating margin

MULTI-ASSET RARE EARTH DEVELOPMENT COMPANY

UNIQUE POSITION IN PIPELINE – DEVELOPING A WESTERN RARE EARTH SUPPLY CHAIN FROM SECONDARY SOURCES



RARE EARTH ELEMENTS

ESSENTIAL FOR GLOBAL DECARBONISATION

CRITICAL BUILDING BLOCKS TO REACH NET ZERO

- Rare earths are a group of 17 elements
 - Neodymium and Praseodymium (together NdPr), Dysprosium (Dy) and Terbium (Tb) are economically important and account for 95% of global consumption by value¹
- Used for permanent magnets (c. 30% rare earth elements by mass), which are essential components for:
 - Wind turbines
 - Electric vehicles (EVs)
 - Consumer electronics
 - Defence industry
- Rare earth permanent magnets' competitive advantage is their very high strength to weight ratio
- Demand forecast to grow strongly accelerated by evolving global emissions legislation and government policy including commitments from COP27



IMPORTANCE OF THE 'HEAVY' RARE EARTHS

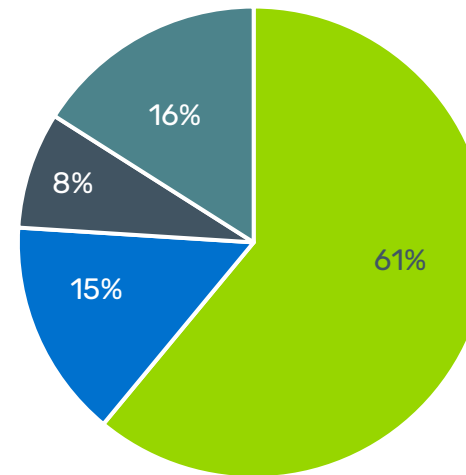
RAINBOW WILL BE A SIGNIFICANT PRODUCER OF SEPARATED DY AND TB OXIDES



DY AND TB: SMALL BUT VITAL COMPONENTS OF PERMANENT MAGNETS

- The importance of Dy and Tb:
 - enable performance under high temperatures
 - improve energy density, increasing the power and size efficiency of the magnet
 - by improving efficiency, Dy and Tb enables high performance whilst reducing energy consumption
 - essential components of the NdFeB magnets used in electric vehicles and wind turbines
- China accounts for +90% of heavy rare earth production
- There are currently no facilities producing separated heavy RE oxides and only 1 facility producing separated light rare earth oxides outside of Asia

PHALABORWA MAGNET RARE EARTH SUPPLY



■ Nd ■ Pr ■ Dy ■ Tb
Phalaborwa magnet rare earth basket by value¹

NdPr production²

ca. 1,750t

Dy annual production²

ca. 60t

Tb annual production²

ca. 20t

CRITICAL MINERALS DY AND TB ARE AMONGST HIGHEST RISK FOR SUPPLY SHORTAGES

Supply–demand balance, by main end use, %

■ Supply > demand (> 0)
 ■ Quasi balanced (0 to –10)
 ■ Imbalance (–11 to –20)
 ■ Moderate imbalance (–21 to –50)
 ■ Severe imbalance (> –50)

	Material ¹	Current trajectory		Further acceleration		Achieved commitments	
		Base case	High case	Base case	High case	Base case	High case
Battery	Lithium	Severe imbalance	Supply > demand	Severe imbalance	Quasi balanced	Severe imbalance	Quasi balanced
	Cobalt	Imbalance	Quasi balanced	Severe imbalance	Imbalance	Severe imbalance	Imbalance
	Nickel	Quasi balanced	Supply > demand	Imbalance	Supply > demand	Imbalance	Supply > demand
	Manganese	Supply > demand	Supply > demand	Quasi balanced	Quasi balanced	Supply > demand	Supply > demand
	Graphite	Imbalance	Supply > demand	Severe imbalance	Supply > demand	Imbalance	Supply > demand
Magnets	Dysprosium and terbium	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance
	Neodymium and praseodymium	Imbalance	Quasi balanced	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance
Transmission and distribution	Copper	Quasi balanced	Supply > demand	Imbalance	Quasi balanced	Severe imbalance	Imbalance
	Bauxite	Supply > demand	Supply > demand	Supply > demand	Supply > demand	Supply > demand	Supply > demand
Electrolyzers	Iridium	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance	Severe imbalance
Semiconductors	Tin	Imbalance	Imbalance	Severe imbalance	Imbalance	Severe imbalance	Imbalance
Process material	Sulfuric acid	Imbalance	Imbalance	Imbalance	Imbalance	Imbalance	Imbalance

“While some materials, such as nickel, may experience modest shortages (approximately 10 to 20 percent), others, such as dysprosium, which is a magnetic material used in most electric motors, could see shortages of up to 70 percent of demand. Unless mitigation actions are put in place, such shortages would likely hinder the global speed of decarbonization because customers would be unable to shift to lower-carbon alternatives”

McKinsey - The net-zero materials transition: Implications for global supply chains – July 2023

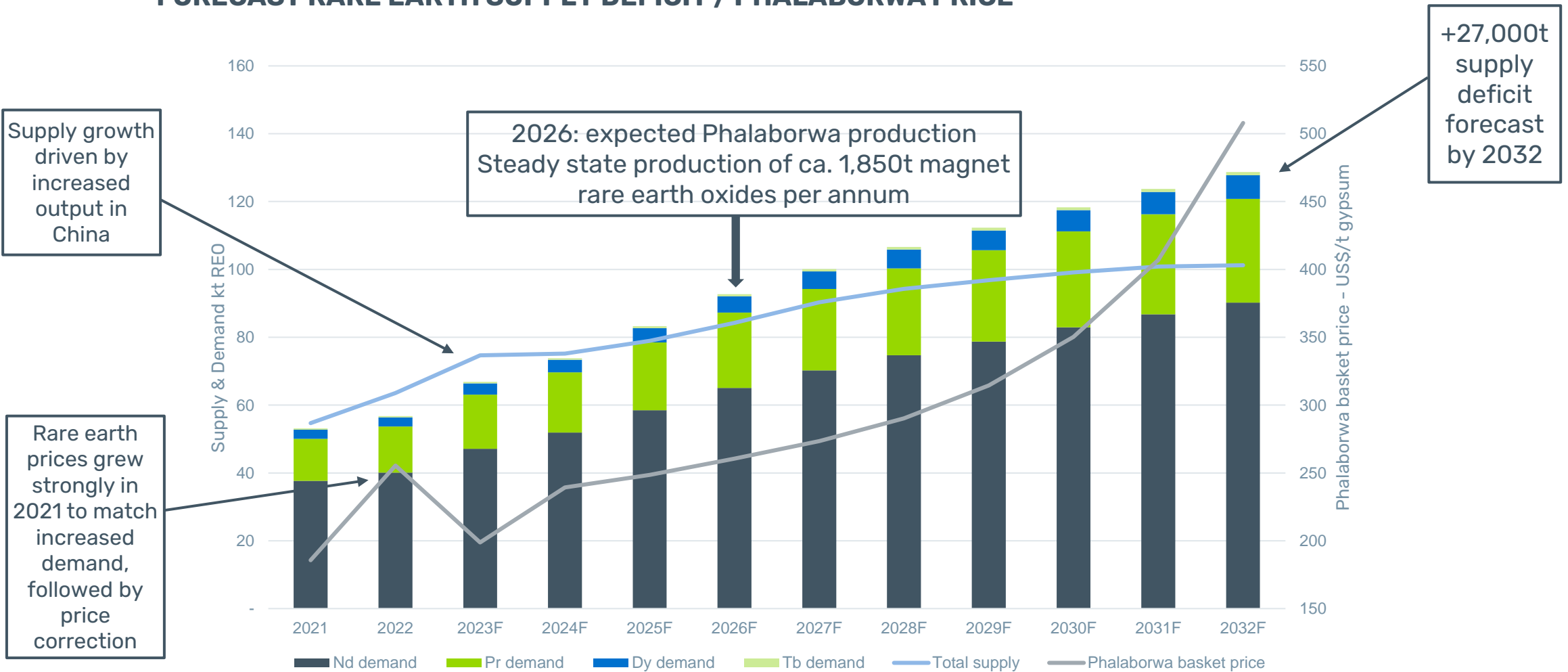
¹Including recycled materials.
Source: McKinsey Global Materials Insights; McKinsey MineSpans

LONG TERM SUPPLY DEFICIT EXPECTED FOR RARE EARTHS

MAGNET RE SUPPLY WILL NEED TO GROW BY 8% PER ANNUM TO MATCH DEMAND

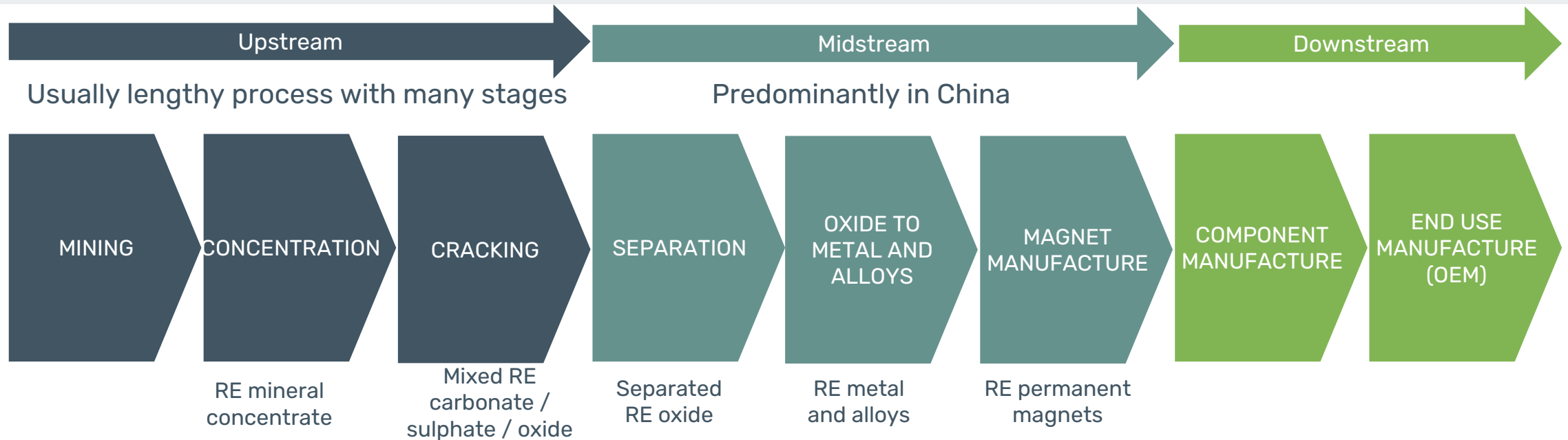


FORECAST RARE EARTH SUPPLY DEFICIT / PHALABORWA PRICE¹



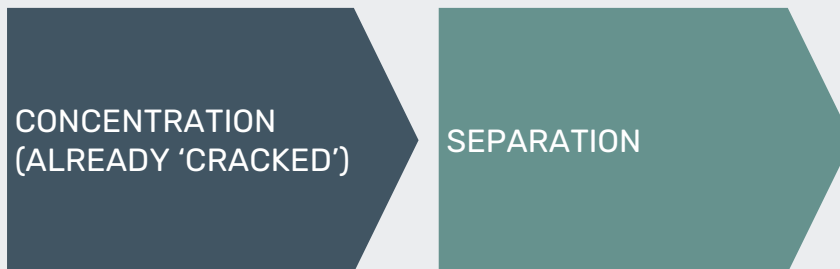
UNIQUE POSITION IN THE RARE EARTH MAGNET SUPPLY CHAIN

UNDERLINES ADVANTAGE OF RAINBOW'S UNIQUE FLOW SHEET



RAINBOW RARE EARTHS

Resource already sitting at surface



Phalaborwa will deliver separated rare earth oxides using a proprietary separation technique

Flexibility to establish back-end plant process in the US could establish Rainbow as one of the first producers of separated RE oxides in the country

PHALABORWA EXPECTED TO BE ONE OF THE LOWEST COST PRODUCERS OF SEPARATED MAGNET RARE EARTH OXIDES GLOBALLY

Total Resource¹ of 30.4 Mt at 0.44% TREO

Production of ca. 1,850t of NdPr, Dy, Tb annually

Mine life of 14 years



Rainbow has an 85% interest in Phalaborwa, with an option to reach 100%

The Mineral and Petroleum Resources Development Act, 2002 in South Africa does not apply to the Phalaborwa project, so a mining right is not required to extract the minerals from the gypsum stacks; accordingly, there are no black economic empowerment requirements

RECOVERY OF MAGNET RARE EARTH ELEMENTS FROM HISTORIC GYPSUM STACKS

- The resource sits at surface thereby eliminating traditional mining risk and cost
- Project is largely permitted and positioned in an established mining town – available skills and infrastructure
- Low capital intensity: capex of **US\$295.5 MILLION** significantly below that of a traditional hard rock rare earth mining project
- Low levels of radioactive elements: typical rare earth projects require complex processing to remove these

OpEx²

US\$/kg 33.86

Highest basket price of any project ex China³

US\$/kg 175.89⁴

1. Resource information provided on slide 27; 2. Operating cost per kg product; 3. Berenberg Metals and Mining Analyst – November 2022; 4. Numbers based on 2022 YTD average rare earth prices at time of publication of PEA in October 2022

PRODUCTION OF MIXED RARE EARTH SULPHATE AT FRONT-END PILOT PLANT

FIRST MAJOR DE-RISKING MILESTONE FOR RAINBOW



VALIDATES RAINBOW'S UNIQUE FLOW SHEET

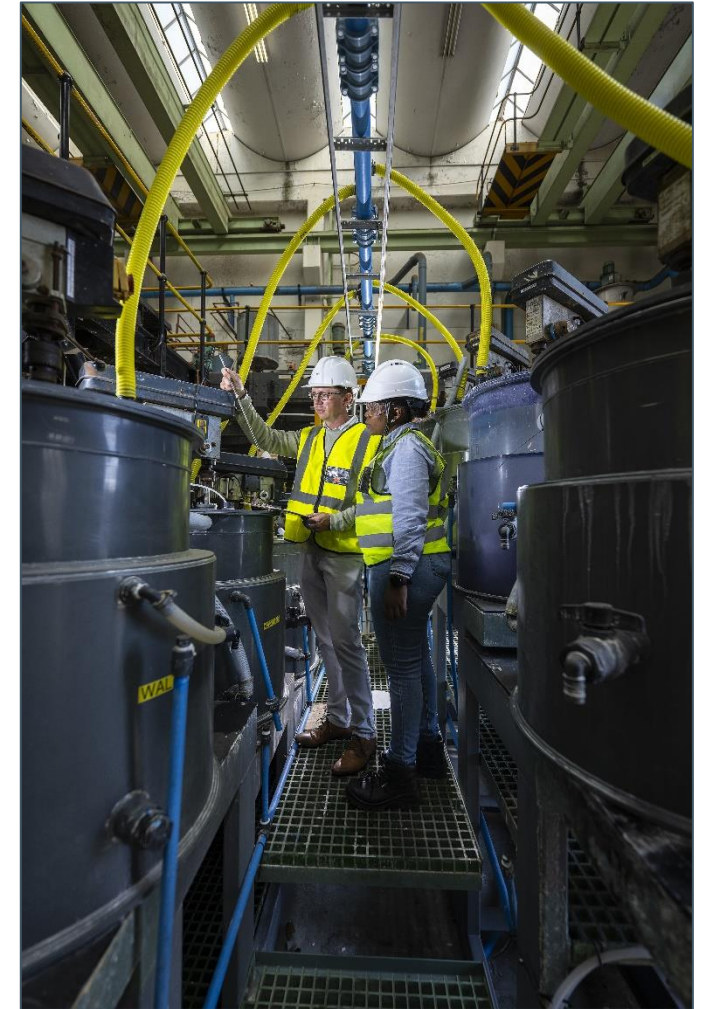
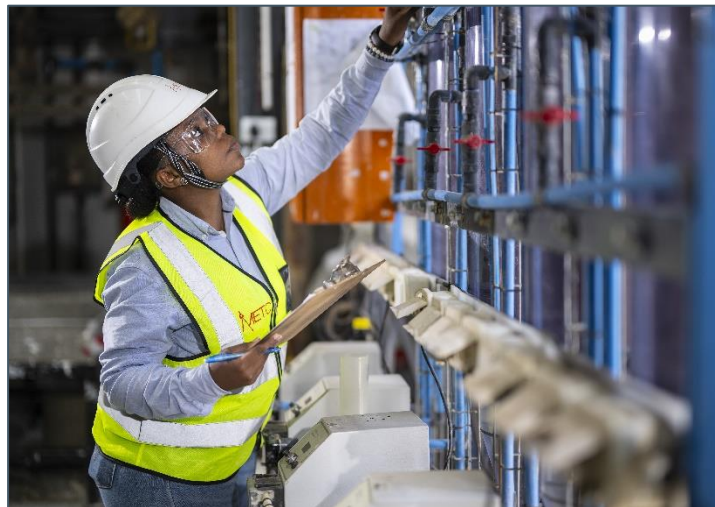
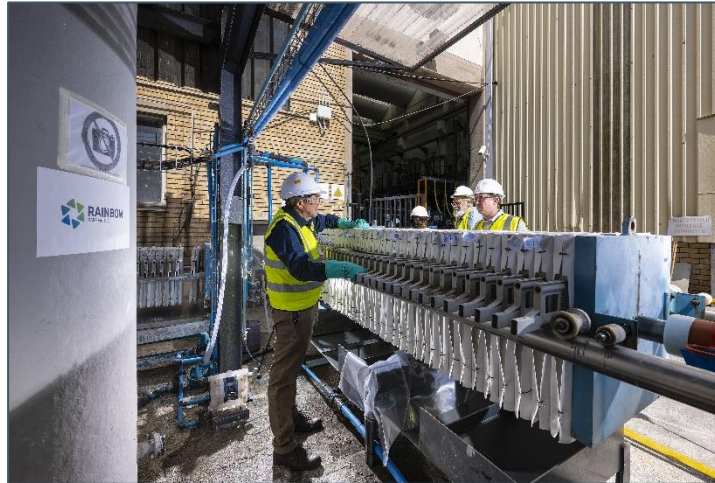
- Front-end pilot plant is located at Mintek in Johannesburg
- Mixed rare earth sulphate is of expected purity and grade and includes all four of the critical 'magnet' rare earths: NdPr, Dy and Tb
- A commercial product that could be a standalone revenue stream for Rainbow
- Front-end pilot plant reagent consumption and overall recoveries of ca. 65% are in line with the PEA
- Mixed rare earth sulphate will be used as feed for Rainbow's back-end pilot plant built at K-Tech's facilities in Florida for final processing into separated rare earth oxides
- Front-end pilot plant will run for an additional quarter to further optimise recoveries and reagent consumption



Production of first mixed rare earth sulphate at the front-end pilot plant in Q3 2023

FRONT-END PLANT PROGRESS

MANAGED BY MINTEK IN JOHANNESBURG



K-TECH PATENTED SEPARATION TECHNOLOGY

CONTINUOUS ION EXCHANGE (CIX) AND CONTINUOUS ION CHROMATOGRAPHY (CIC)



RAINBOW HAS ACCESS TO K-TECH'S PATENTED CIX AND CIC TECHNOLOGY FOR RECOVERY OF SEPARATED RARE EARTH OXIDES

- Replaces traditional solvent extraction (SX) technology, which uses toxic and flammable solvents and diluents
 - Safer and more environmentally responsible
 - Reduced capital and operating costs due to simplified flowsheet and plant process
- CIX and CIC are proven technologies used in other industries at capacities up to 700m³ per hour (larger than required at Phalaborwa) including food, biotech, mining and chemical industries globally
- Fast, efficient, and precise extraction of trace quantities of target materials from high volume streams
- Safe, simple to run, and can operate at a range of temperatures



An example of a commercial scale CIX unit built by K-Tech

BACK-END PILOT PLANT PROGRESS

MANAGED BY K-TECH IN LAKELAND, FLORIDA



Rainbow's CIX/CIC Units currently nearing completion



STRATEGIC SUPPLY AGREEMENT WITH LESS COMMON METALS (LCM)

BUILDING AN ETHICAL AND WESTERN SUPPLY CHAIN FOR RARE EARTH ELEMENTS



PARTNERS ALIGNED IN THEIR VALUES

- LCM is a world leader in the manufacture and supply of complex alloy systems and metals
- LCM is based in Ellesmere Port, Cheshire - currently the only metal and alloy manufacturing facility in the UK and one of the only facilities in the Western world
- It is currently in discussions to invest in expanded capacity in North America, the EU and Asia
- Separated rare earth oxides supplied by Rainbow will be used by LCM for manufacturing into metal in order to create an alloy before being sold directly to permanent magnet manufacturers
- A framework will be set out in due course for both parties to negotiate a binding offtake agreement
- Both Rainbow and LCM are aligned in their strategic positioning within a Western supply chain

"Given the concentration of the rare earth supply chain, a relationship with Rainbow offers the opportunity for LCM to secure ethical supply of all four of the magnet rare earth oxides vital for our business."

Albert Slot, Managing Director of LCM



LCM's state-of-the-art metal and alloy manufacturing facility in Ellesmere Port

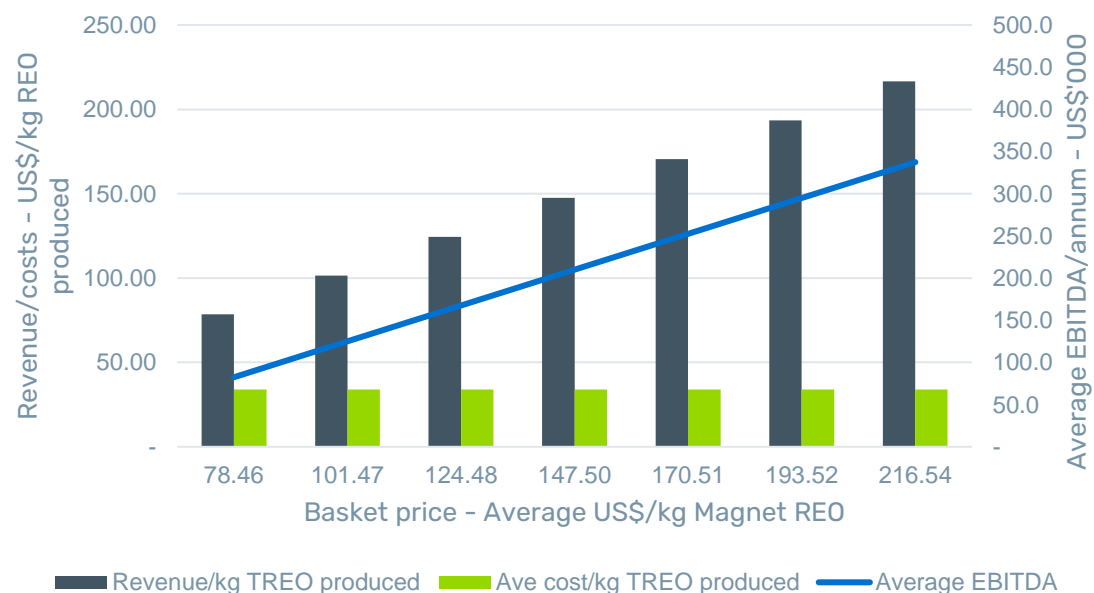
STRONG RETURNS IN ANY FORESEEABLE PRICING ENVIRONMENT

ROBUST ECONOMICS VS TRADITIONAL RARE EARTH MINING DEVELOPMENT PROJECTS

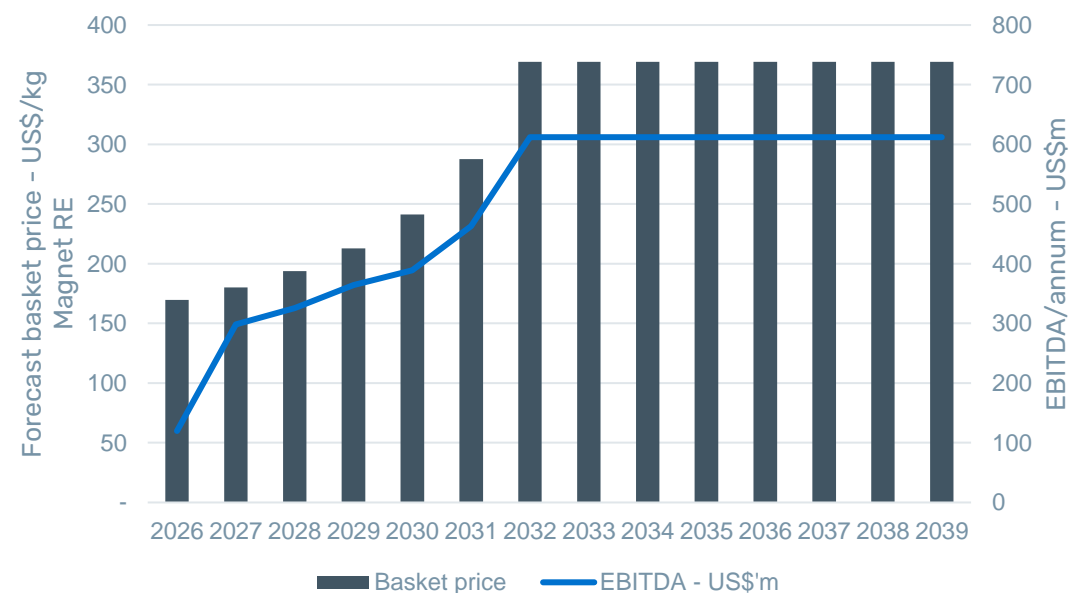
- Sensitivity analyses demonstrate robust EBITDA operating margins in all pricing sensitivity scenarios
- NPV insensitive to changes in operating costs; beneficial in inflationary environment

- Strong supply / demand fundamentals support expectations of long-term increase in magnet rare earths prices

EBITDA SENSITIVITY TO PRICING



SENSITIVITY TO MARKET FORECAST PRICING FROM WHEN PHALABORWA COMMENCES OPERATION¹



¹Source of forecast rare earth oxide pricing from 2026 to 2039: Argus Media Ltd

RESPONSIBLE PRODUCTION OF RARE EARTHS

INTEGRATING STRONG ENVIRONMENTAL AND SOCIAL PRACTICES IN PHALABORWA'S DEVELOPMENT

FOUNDED ON THE PRINCIPLES OF CIRCULARITY; RECOVERING RARE EARTHS FROM SECONDARY SOURCE


BROWNFIELD

- Phalaborwa is on an industrial site with legacy environmental issues
- Majority of environmental permits are in place and only require updating


REHABILITATION

- Rainbow will clean up legacy issues:
 - Neutralising acidic solution
 - Redepositing benign gypsum on lined stacks in accordance with IFC standards / Equator Principles
 - Intention to sell benign gypsum will deplete stacks


RECYCLING

- All process water needs will be met by neutralised water in ponds
- Certain key reagents¹ recovered from upfront leach process for use downstream
- Sulphuric acid from nearby plant waste stream


CLOSED-LOOP

- No water abstraction required for processing
- Any water discharged to the environment will be done so in line with regulations


REUSE

- Existing infrastructure can be repurposed and reused
- Potential for use of reclaimed, clean phosphogypsum in building and industrial sectors


RENEWABLE

- Exploring renewable energy options at Phalaborwa, including solar

CREATING SOCIAL VALUE


COMMUNITY

- Different social context from a greenfield project in a remote location
- Transparent payment of taxes
- Commitment to prioritise local supply chain


PEOPLE

- Focus on Zero harm
- Phalaborwa expected to provide c. 275-300 direct jobs
- Commitment to prioritise local employment

MOU SIGNED WITH MOSAIC IN BRAZIL MAJOR OPPORTUNITY TO REPLICATE PHALABORWA



UBERABA PHOSPHOGYPSUM STACK IN MINAS GERAIS

- Large phosphogypsum stack sitting at surface as a byproduct of phosphoric acid production
- Uberaba phosphate slurry feed is sourced from a hard rock carbonatite similar to the Foskor carbonatite mine that originally fed Sasol's phosphoric acid plant at Phalaborwa
- Ongoing phosphoric acid production is growing the stack annually
- MOU: Rainbow and Mosaic to collaborate on the development of a process flowsheet in order to extract the REEs from the stack, followed by a preliminary economic assessment
- Additional test work planned around the mineralogy to identify the rare earth phases and facilitate development of process test programme
- Initial test work programme and PEA costs to be shared 50:50

INITIAL ASSAY RESULTS

TREO grade @

0.58%

NdPr % of basket

ca. 25%

Results from SGS Laboratories in Toronto

STRONG PROGRESS TO DATE

DE-RISKS PHALABORWA PROJECT; UNLOCKS VALUE



Q4 2022

Q3 2023



PROJECT PROGRESS

- PEA publication – Phalaborwa expected to be one of the lowest cost global producers of separated magnet rare earth oxides
- Resource update announced March 2023
 - demonstrated increased confidence by upgrading the Inferred Resource to Measured and Indicated, a key requirement for the DFS

NEXT STEPS SUPPORTED BY POSITIVE PEA

- Workstreams underway to deliver DFS:
 - Front-end pilot plant with Mintek in Johannesburg: commenced operation in June 2023 and produced first mixed RE sulphate in Q3 2023
 - Back-end pilot plant with K-Tech in Lakeland, Florida; construction is complete and has commenced commissioning; first production of separated rare earth oxides due in early Q4 2023
 - METC Engineering has commenced work on the DFS and managing the inputs from the various specialist consultants
 - Paragon Tailings advising on reclamation of the existing gypsum stacks
 - Leading global gypsum experts Ardaman conducting test and design work for the new gypsum stacks
 - Drilling programme underway to update the Phalaborwa resource
 - Environmental work: full ESIA workstreams underway by WSP Golder for the DFS and permitting

WHY RAINBOW?

DRIVING VALUE FROM STRATEGIC SECONDARY SOURCES OF RARE EARTHS

PHALABORWA UPSIDE FORECAST¹

NPV₁₀

US\$1.0bn

IRR

44%

EBITDA

US\$310m

Margin²

83%

KEY TAKEAWAYS

- **Phalaborwa offers unique benefits** over traditional rare earth development projects:
 - Expected to be one of the lowest cost producers of rare earths globally
 - Contains all four permanent magnet rare earths, incl. ‘heavies’ Dy and Tb
 - Highly cash generative even at lower rare earth prices
 - Project de-risked by the production of a mixed rare earth sulphate in the front-end pilot plant in Johannesburg
- **Unique flow sheet and separation IP** – cheaper, safer and more environmentally friendly than traditional SX and can be applied to other phosphogypsum opportunities globally
- **Strategic advantage** – Rainbow expected to become one of the only producers of all four separated magnet rare earth oxides outside of Asia
- **Geographic diversification** – new project in Brazil further de-risks Rainbow and represents a major opportunity to replicate Phalaborwa; longer-term prospects via partnership with OCP in Morocco

1. Based on the long-term price forecasts received from Argus, with the first year of production assumed to occur in 2026 and prices assumed to remain constant from 2031 to the end of the project life
 2. EBITDA operating margin

RAINBOW RARE EARTHS



THANK YOU

Contact us:

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KEY SHAREHOLDER INFORMATION



BOARD SHAREHOLDINGS AND MAJOR SHAREHOLDERS (>3%)

Shareholder	Holding
Adonis Pouroulis	14.0%
TechMet	12.0%
George Bennett	6.1%
Caden Holdings Limited	4.8%
Shawn McCormick	1.5%
Alexander Lowrie	1.1%
Atul Bali	0.7%
J Peter Pham	0.1%
Total Board shareholding	23.5%

INFORMATION AS AT 5 SEPTEMBER 2023

Ticker	Market	Market cap	Share price	Shares in issue	Brokers
RBW.L	LSE	£96.6m	16.1p	598m	BERENBERG

SHARE PRICE (GBP) - ONE YEAR



STRONG LEADERSHIP TEAM

WITH TRACK RECORD THROUGH PROJECT DEVELOPMENT TO PRODUCTION



EXPERIENCED MANAGEMENT AND TECHNICAL TEAM

- CEO George Bennett established MDM Engineering which delivered multiple processing plants and feasibility studies under his tenure
- Technical Director Dave Dodd worked alongside George at MDM Engineering after a long career delivering multiple mine developments
 - At MDM, George and Dave delivered two RE studies, being Lofdal in Namibia and Ngualla in Tanzania
- Technical team strengthened to include Chris Le Roux and Roux Wildenboer; extensive experience in RE processing and project development
- Chairman Adonis Pouroulis, is a mining entrepreneur; extensive experience across Africa and a long-term strategic vision for growth
- CFO Pete Gardner is a Chartered Accountant with +15 years in the mining sector (development and producing assets)



EXPERIENCE BOARD AND EXECUTIVE MANAGEMENT

EXTENSIVE EXPERIENCE ACROSS MINING, AFRICA, CAPITAL MARKETS, INTERNATIONAL AFFAIRS



ADONIS POUROULIS
NON-EXECUTIVE CHAIRMAN

- Mining engineer: an entrepreneur whose expertise lies in the discovery, exploration and development of natural resources across Africa including diamonds, precious/base metals, coal and oil and gas.
- Founder of Rainbow and Petra Diamonds (LSE:PDL); Founder and Director of Chariot Oil & Gas (AIM:CHAR) and Founder of Pella Resources Limited



SHAWN MCCORMICK
INDEPENDENT NON-EXECUTIVE DIRECTOR

- International affairs specialist
- + 25 years of political and extractive industries sector experience having served in The White House as Director for African Affairs on the National Security Council (Washington)
- Previously Political Affairs Director of BP (London) and VP of TNK-BP (Moscow)



ALEXANDER LOWRIE
INDEPENDENT NON-EXECUTIVE DIRECTOR

- Investment banker with 13 years' experience and previous director roles at Deutsche Bank and RBS
- Co-founder of Telemark Capital LLP
- Significant market experience: IPOs and primary and secondary equity offerings



J PETER PHAM
INDEPENDENT NON-EXECUTIVE DIRECTOR

- Scholar and practitioner of International Affairs; >20 years of experience in Africa
- First-ever United States Special Envoy for the Sahel Region until 2021 with the personal rank of Ambassador; previously as US Special Envoy for Great Lakes Region
- Distinguished Fellow at the Atlantic Council
- Member of the Board of the Smithsonian National Museum of African Art in Washington, DC, as well as Non-Executive Director of Africell Global Holdings



ATUL BALI
INDEPENDENT NON-EXECUTIVE DIRECTOR

- Corporate CEO and board member with extensive experience in tech, government contracting and regulated industries; Chartered Accountant
- Currently advisor to several high-growth technology companies, Chairman of the Football Pools and non-executive director of Everi Holdings Inc (NYSE:EVRI)
- Previously held divisional CEO or President positions with IGT (NYSE), Aristocrat (ASX), and Real Networks (NASDAQ), as well as a venture capital firm



GEORGE BENNETT
CEO

- 25 years in finance and management, including as partner in stockbroking/advisory firms in SA
- Former CEO of Shanta Gold Ltd, successfully listed on LSE in 2005
- CEO and Founder of MDM Engineering, listed on LSE in 2008; responsible for delivering multiple process plants and feasibility studies. Sold after 8 years to Foster Wheeler for US\$120 million
- Seed-funded and raised initial capital for OreCorp Ltd as non-executive director, now ASX listed



DARRYLL CASTLE
NON-EXECUTIVE DIRECTOR

- COO for TechMet¹
- Civil engineer; +30 years experience across company leadership, project/operational delivery and transformation, technical planning and implementation, fund management, business development and governance roles.
- Extensive career as an exec in mining globally, incl. running operations across Africa



PETE GARDNER
CHIEF FINANCIAL OFFICER

- Qualified Chartered Accountant; +15 years' experience in mining industry leading finance teams across Africa/developing nations
- Former CFO of Amara Mining plc (up to acquisition by Perseus Mining Ltd), Chaarat Gold, Piran Resources and Alexander Mining



DAVE DODD
TECHNICAL DIRECTOR

- 45 years of extractive metallurgy experience
- Metallurgical Project Consultant
- BSc (Hons) Chemical Engineering (1974)
- Fellow of Southern Africa Institute of Mining & Metallurgy



ALBERTO BRUTTOMESSO
PROJECT DIRECTOR - PHALABORWA

- Mechanical Engineer
- +30 years' experience in project management delivering 80 multidisciplinary mining, water treatment and infrastructure projects to date across the African continent
- Management of projects in gold, diamonds, chrome, platinum and uranium, including extensive experience in the delivery of processing plants
- Proven track record of delivering total turn key projects within budget and on time

1. TechMet is a strategic shareholder in Rainbow with the right to nominate 1 director to the Rainbow Board for so long as it holds at least 10% of the issued shares in the Company

CREATING A RESPONSIBLE, WESTERN, INDEPENDENT SUPPLY CHAIN

URGENCY MOUNTING TO MEET GROWING DEMAND

**“THE MIDDLE EAST HAS OIL;
CHINA HAS RARE EARTHS.”**

**Deng Xiaoping, credited as
the father of modern-day China, 1992**

- Rare earths production, separation and refinery is dominated by China – 90% market share of refining market¹
- With projected demand escalation and supply chain concerns, REs have been designated as critical metals by many Western governments – promoting a drive toward raw materials security
- REs are critical in defence industry – American F-35 fighter jet contains ca. 420kg rare earths

SUPPLY DEFICIT IS LIKELY DUE TO TRADITIONAL RARE EARTHS MINING CHALLENGES:

- Many development projects have complex challenges to overcome including low grades, high levels of radioactivity and environmental complications
- High capex associated with complex processing
- Long lead time for mines to be brought into operation

How America plans to break
China’s grip on African minerals

A new contest between the US and China is under way



Opinion **Mining**

The rare earths race entails difficult choices

Securing supply will be a tricky business for the US and allies

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PHALABORWA PRELIMINARY ECONOMIC ASSESSMENT

EXPECTED TO BE ONE OF THE LOWEST COST PRODUCERS OF SEPARATED MAGNET RARE EARTH OXIDES

STRONG ECONOMIC RETURNS FROM PEA

- October 2022 PEA demonstrated the low-cost nature of the Phalaborwa development
- Base case model delivers robust economic returns with significant upside seen using YTD magnet rare earth prices
- US\$255m/annum revenue from sale of 1,848t/annum separated magnet rare earth during production for base case price assumptions – rises to US\$325m/annum using 2022 YTD average prices²
- Average operating costs of US\$33.86/kg separated magnet rare earth oxides expected to be one of the lowest of all Western rare earth projects
- US\$192m/annum EBITDA during steady state production for base case price assumptions – rises to US\$262m/annum using 2022 YTD average prices at time of PEA publication²
- Capex of US\$295.5 million below that of a traditional hard rock rare earth mining project

BASE CASE¹

NPV₁₀³
US\$627m

IRR
40%

Margin⁴
75%

Payback
2 years

YTD AVERAGE PRICES AT TIME OF PEA PUBLICATION²

NPV₁₀³
US\$934m

IRR
51%

Margin⁴
81%

Payback
1.7 years

1. The base case uses US\$110/kg Nd; US\$112.50/kg Pr; US\$340/kg Dy; US\$1,875/kg Tb.
2. Prices derived from weekly data collated by Rainbow from price reporting agencies up to 23 September 2022: US\$146.36/kg Nd; US\$140.25/kg Pr; US\$403.70/kg Dy; US\$2,117.56/kg Tb. Whilst prices have been updated, no other assumptions have been updated since 20 March 2023.
3. Net present value using a 10% forward discount rate.
4. EBITDA operating margin.

UPDATED JORC COMPLIANT MINERAL RESOURCE ESTIMATE (MRE) PHALABORWA, SOUTH AFRICA



	Tonnes Mt	TREO %	Contribution of TREO by oxide %					Grade ppm	
			Nd	Pr	Dy	Tb	Other	Th	U
			Stack A	20.2	0.43	23.4	5.6	1.0	0.3
Stack B	10.2	0.45	23.3	5.8	1.0	0.3	69.6	43	2
Total	30.4	0.44	23.4	5.6	1.0	0.3	69.7	48	2

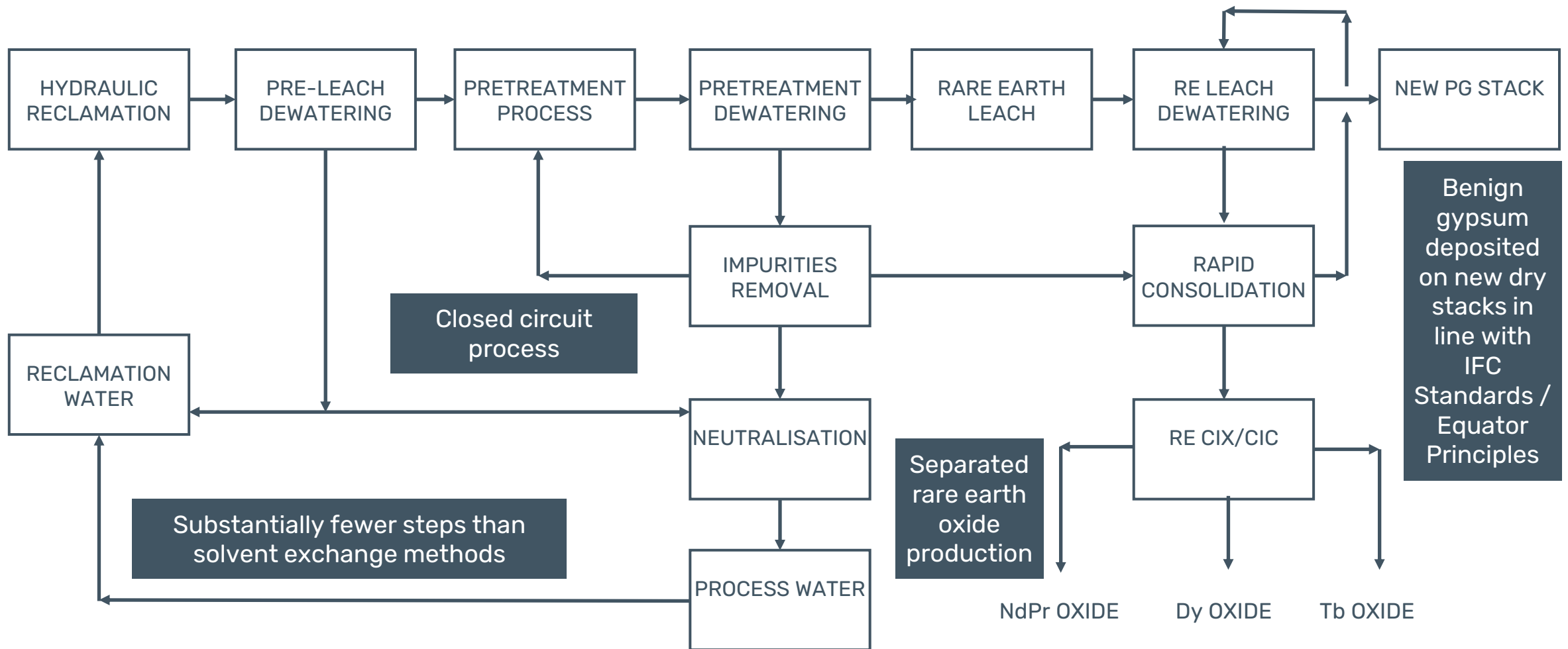
	Tonnes Mt	TREO %	Contribution of TREO by oxide %					Grade ppm	
			Nd	Pr	Dy	Tb	Other	Th	U
			Measured	7.3	0.47	23.5	5.9	1.0	0.3
Indicated	16.1	0.44	23.5	5.6	1.0	0.3	69.6	49	2
Inferred	7.0	0.42	23.1	5.5	1.0	0.3	70.1	45	2
Total	30.4	0.44	23.4	5.6	1.0	0.3	69.7	48	2
October 2022 PEA resource	30.7	0.43	23.4	5.7	1.0	0.3	69.6	48	2
Variance %	(0.3)	0.01	0.0	(0.1)	0.0	0.0	0.1	0	0

UPDATED 20 MARCH 2023

- Overall size of MRE confirmed at 30.4 Mt comprising 0.44% TREO
- High value magnet rare earths Nd and PR represent 29% of TREO, with economic quantities of Dy and Tb
- Company will undertake additional drilling to upgrade MRE further as part of the DFS
- Management expects that more accurate density measurements below the water table of the gypsum stacks will provide opportunity to increase total resource tonnage

PHALABORWA BLOCK FLOW DIAGRAM

UNIQUE PROCESS DEVELOPED BY RAINBOW AND K-TECH



GAKARA: HIGH-GRADE RARE EARTH MINERAL CONCENTRATE FROM LARGE MINERALISED SYSTEM IN BURUNDI

- 39km² mining permit hosting large scale mineralised system
- Exploration target provides opportunity for 262,000 -375,000t of high-grade vein hosted mineralisation grading 7.0% - 12.0% TREO plus 252,000 - 342,000t of breccia hosted mineralisation grading 1.0% - 1.5% TREO
- Trial mining and processing since 2017 has demonstrated amenability for simple, low-cost gravity separation from ore
- Trial mining has progressed from small-scale manual focused operations pre 2020 to bulk mechanical waste mining and selective mechanical ore mining to deliver an average mine feed grading 13.5% TREO between September 2020 and March 2021
- High value rare earth concentrate (52-58% TREO) with low levels of radioactive elements weighted towards magnet rare earths: NdPr represent ~90% of value (19.5% of mass)
- Expanded mining fleet and de-bottle necking of process plant in 2020-21 delivered growing production profile until operation placed on care and maintenance in June 2021 at request of Burundi Government
- We continue to engage with the Government to renegotiate terms of the Mining Convention and to restart operations

PRE-2020



LATEST OPERATIONS

