Black Rock Mining
Mahenge Graphite Mine

Naturally Better Graphite: Investor Update

February 2022

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The information in this report that relates to Exploration Results and Mineral Resource Statements is based on information compiled by John de Vries, who is a member of the AusIMM. He is an employee of Black Rock. John de Vries has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr Aidan Patel (Consultant with Patel Consulting Pty Ltd). Mr Barnes and Mr Patel are members of the Australian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes, Mr Patel and Mr de Vries consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

The Ore Reserves have been compiled by Black Rock, under the direction of Mr John de Vries, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr de Vries is a full-time employee of Black Rock and holds performance rights in the company as part of his total remuneration package. Mr de Vries has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves".

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Black Rock and the Mahenge Graphite Mine

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Black Rock at a glance

Premium graphite player

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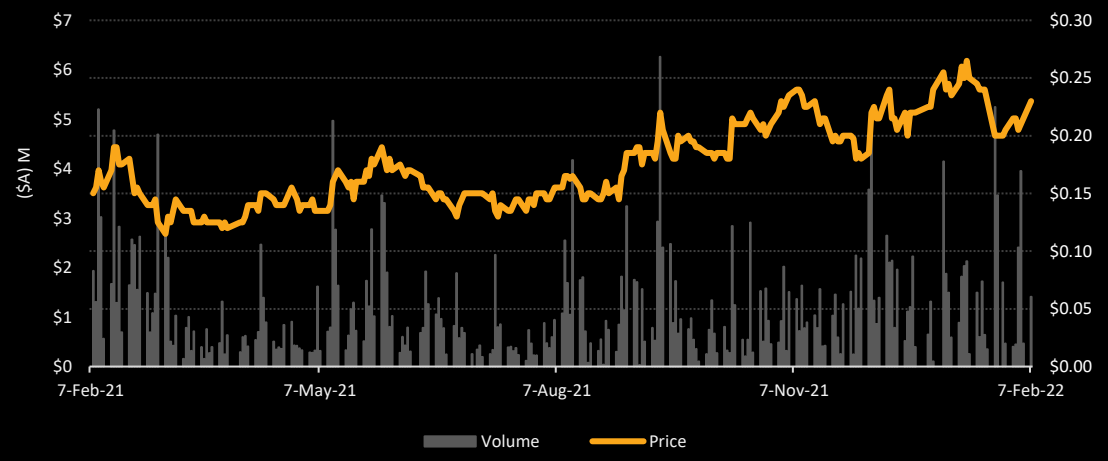
- Developing the Tier 1 scale Mahenge graphite project in Tanzania (2nd largest reserve globally)
- Strategic Alliance with POSCO as cornerstone offtake partner and major shareholder
- POSCO Term Sheet agreed for US$10m prepay and LOM fines offtake for Module 1 (Dec 2021)
- Mahenge $NPV_{10\ real}$ US$1.2bn (A$1.6bn)[1]
- Qualified path to market through established strategic partnerships
- All key Tanzania Govt agreements in place with FCI Agreement signed with Govt (Dec 2021)

[1]NPV post-tax, post deducting Govt 16% free carry based on the eDFS completed in July 2019

Capital structure	
ASX ticker	BKT
Share price (7 February 2022)	$0.23
Shares on issue	868.6 M
Options and performance rights	73.5 M
Market capitalisation (undiluted) (@$0.23c)	A$200 M
Cash (31 December 2021)	A$8.6 M
Debt (31 December 2021)	Nil

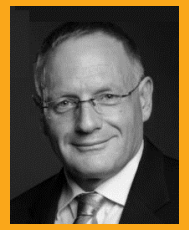
Major shareholders	
Copulos Group	19%
POSCO Group	15%



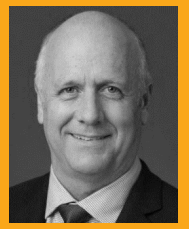
Black Rock team

Board of Directors

Richard Crookes, Non-exec Chairman: Geologist with over 30 years' executive experience in the resources and finance industries; raised capital and financed a number of projects globally, including across Africa. Previous roles include Investment Director at Mining PE Fund EMR Capital, Executive Director in Macquarie's Metals & Energy Capital and Chief Geologist / Mining Manager at Ernest Henry Mining.



John de Vries, MD & CEO: Mining Engineer with over 35 years' experience in mine development and operations; professional experience spans Africa, the Pacific, the Former Soviet Union, North and South America and Australia. Previously General Manager Technical Services with St Barbara, integral in the 2014 turnaround; earlier operational management roles at BHP Nickel West, Orica Mining Services and Western Mining Corp.



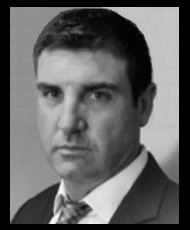
Ian Murray, Non-exec Director: Finance Executive with over 20 years' corporate experience in the publicly listed resources sector; led highly successful project developments, major acquisitions, company restructures and stock exchange listings. Previous roles include CEO of Gold Road Resources, CEO and CFO of DRDGold Ltd, Director of Rand Refinery Ltd and GoldMoney.com, and senior positions at KPMG, PwC and Bioclones.

Gabriel Chiappini, Non-exec Director & Company Secretary: Chartered Accountant with over 20 years' experience in the commercial sector; Experience in several ASX-listings and involved with total equity and debt raised of over A$400m. Over the last 15 years has held positions of Director, Company Secretary and Chief Financial Officer in both public and private companies with operations in Australia, the UK and the US.

Management

Steuart McIntyre, GM Corporate Development: Mining analyst with over 15 years experience. Previous roles include sell-side mining analyst for Royal Bank of Canada and Blue Ocean Equities and associate at Cutfield Freeman, a mining-focused corporate finance boutique in London. Steuart has degrees in Civil Engineering and Commerce from the University of Sydney and a diploma of corporate finance from the London Business School

Daniel Pantany, GM Engineering & Technical: Civil Engineer with over 22 years experience in mining project development in Africa and Australia across a broad range of broad range of project delivery roles including EPCM, EP, and lump sum EPC contracts. His most recent position was with CPC Engineering including secondment as Project Engineering Manager for Syrah's Balama project. BKT's Study Manager for Mahenge since 2018.



Dale Hanna, CFO: Dale is a qualified finance executive with 15 years of experience in CFO, Company Secretary, corporate advisory/governance roles for ASX-listed junior resource companies. An ex-Ernst & Young Chartered Accountant with memberships at the Institute of Chartered Accountants and Governance Institute of Australia. He has Commerce Degree majoring in Accounting and Finance from Curtin University, WA.

Raymond Hekima, VP, Corporate (Tanzania): Qualifications in Environmental Sciences and Management with over 13 years' experience in the government and corporate sectors, including significant specific permitting expertise. Responsible for overall business and operations in Tanzania and key relationships and interact ions with national government, local government, NGO's and community relations.

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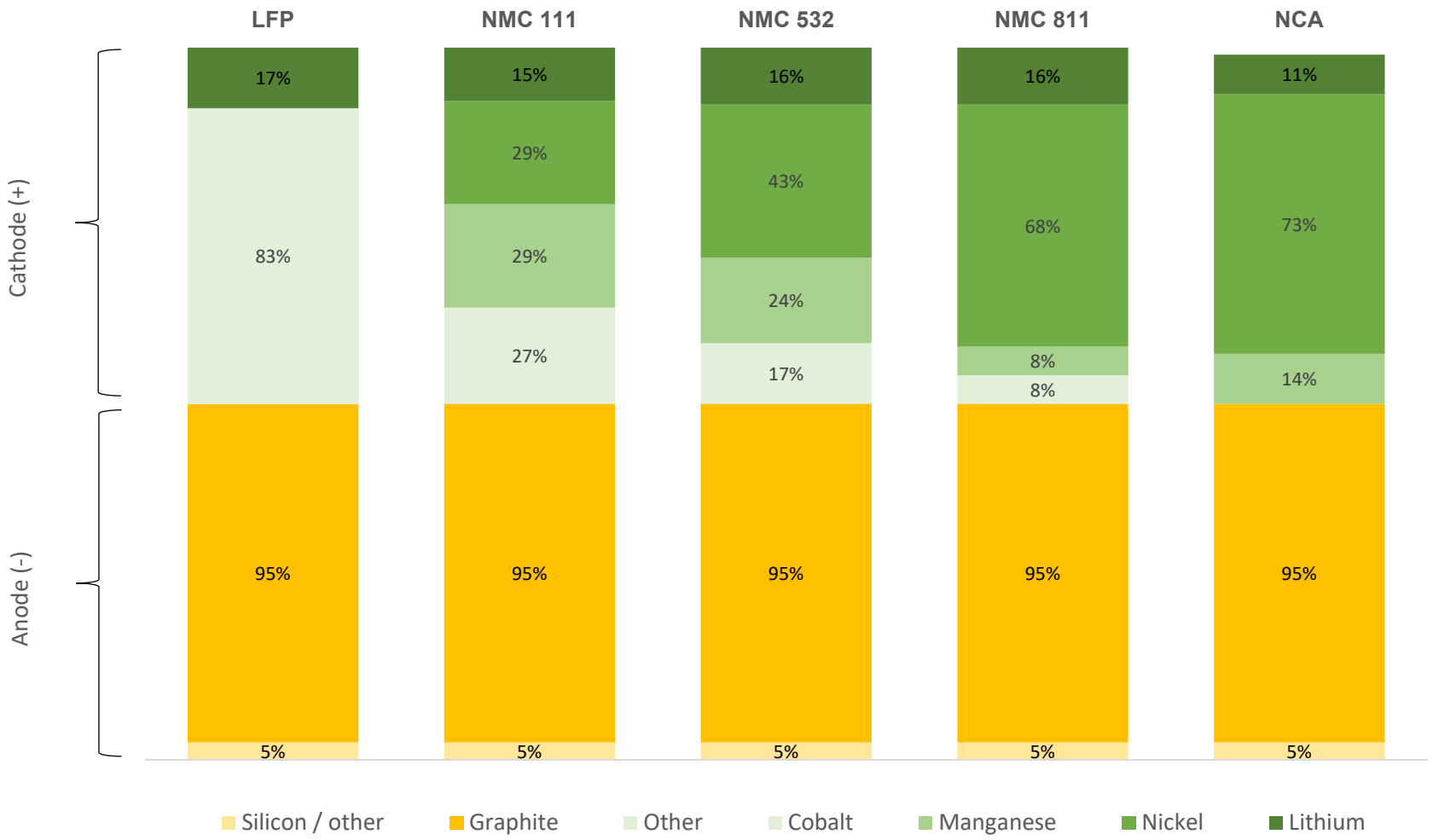
Graphite in batteries

There is more graphite in Li-ion batteries by volume than any other material, regardless of battery chemistry.

Graphite is the dominant anode material, regardless of battery chemistry



Source: Pallinghurst-Traxys battery analysis. %s represent the proportions of cathode and anode in each battery respectively. NCA batteries contain 2% aluminium (not shown)

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Natural graphite increasing in batteries

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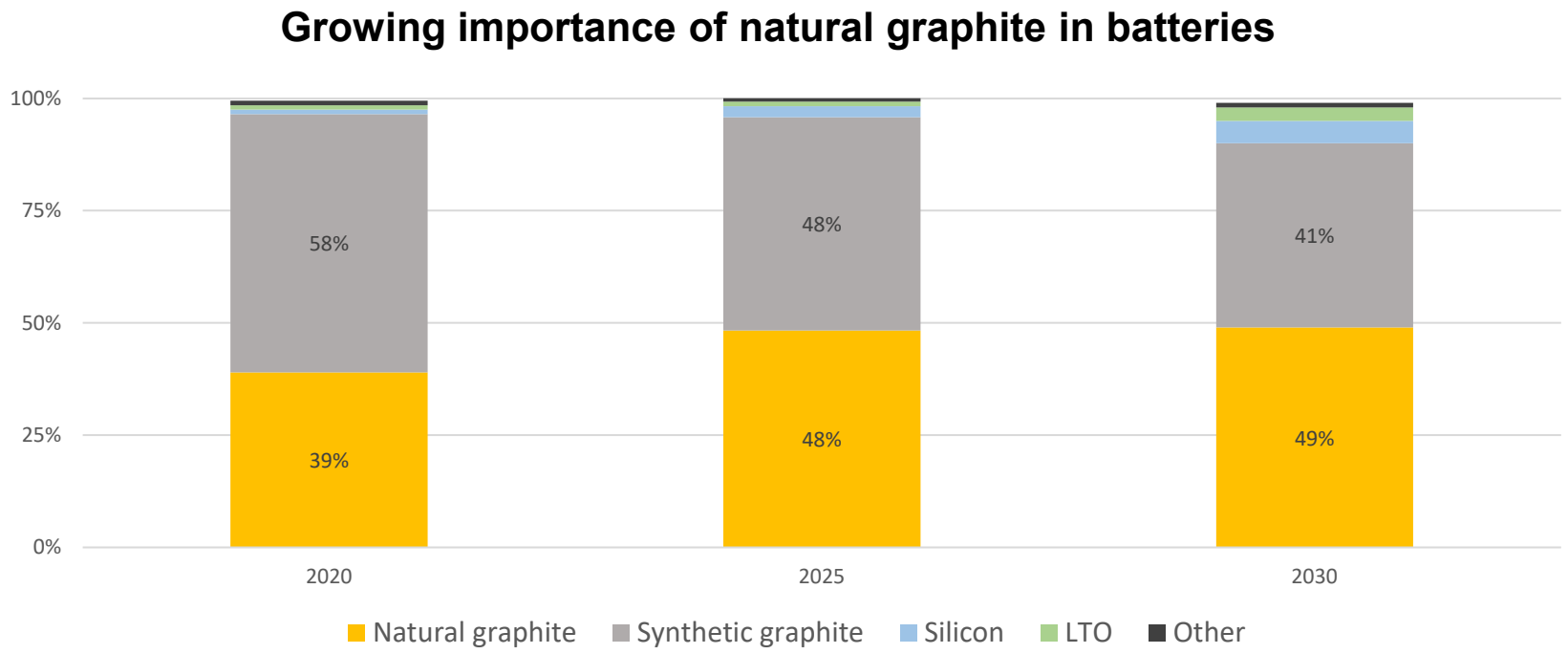
The use of natural graphite in batteries has been growing and is expected to surpass synthetic graphite in 2025.



Demand for LIBs	kt	kt	kt
Synthetic graphite:	179	625	1,438
Natural graphite	182	1,079	2,805

- Natural graphite is less energy intensive to produce, much less expensive and provides greater energy density than synthetic graphite
- Tesla/Panasonic already uses 50/50 natural graphite/synthetic graphite and the “in-development” 4680 battery is expected to comprise 55-60% natural graphite / 40-45% synthetic graphite

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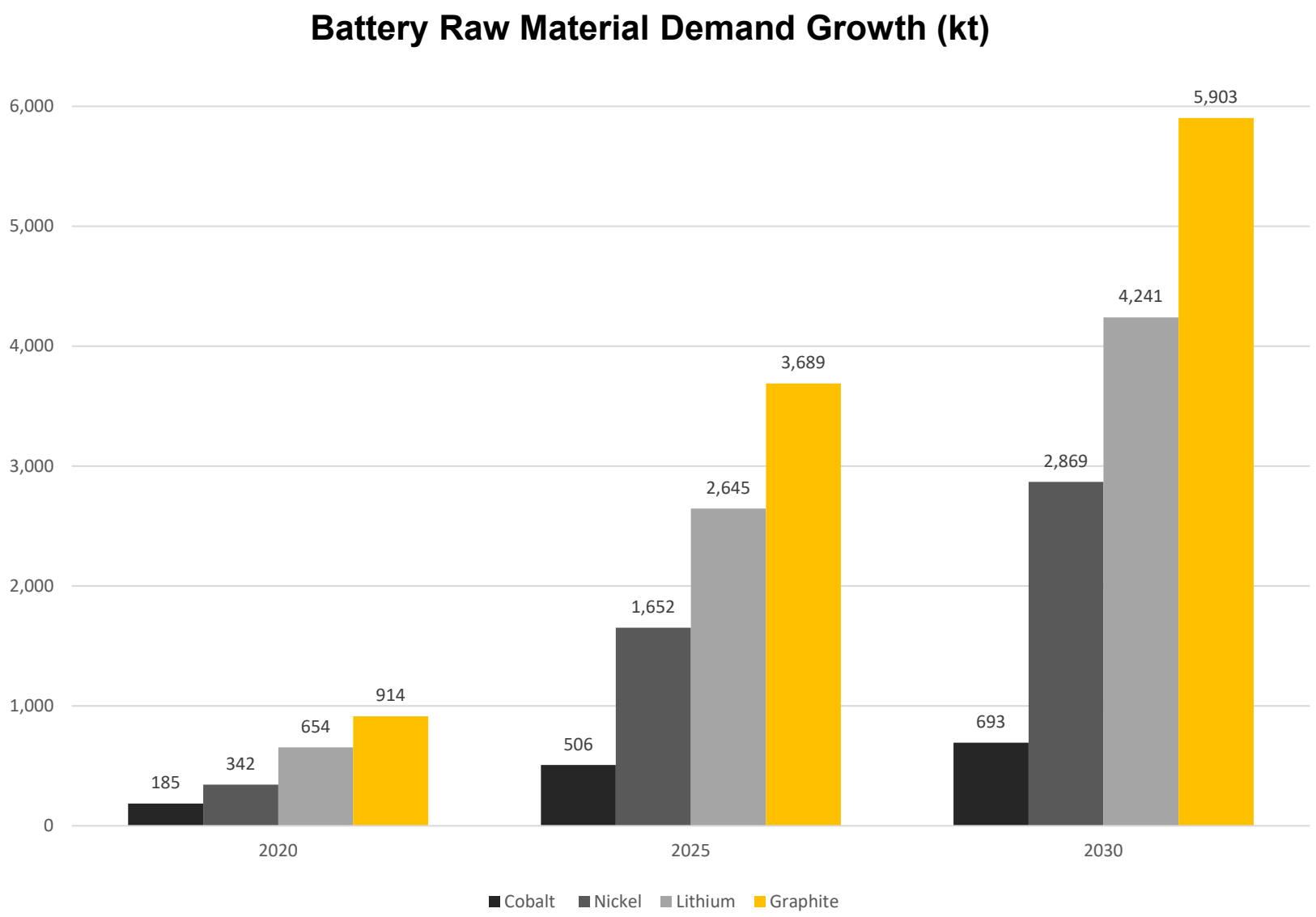
Sources: Public releases, Benchmark Mineral Intelligence, BMO, Tesla, Black Rock Mining

Battery demand growth

A synchronised global technology change is underway and is expected to drive strong demand for battery materials



Sources: Public releases, Benchmark Mineral Intelligence Jan 2022, Black Rock Mining

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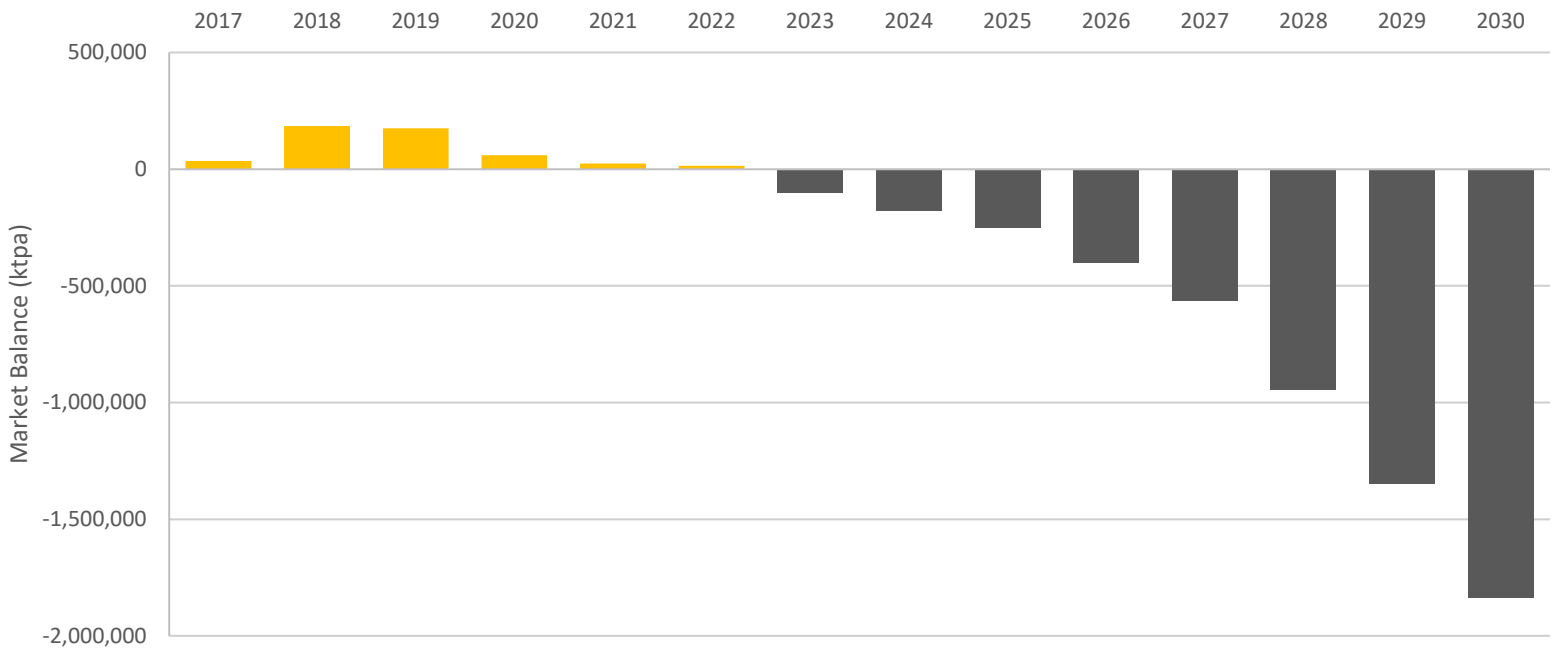
Strong outlook for natural graphite

Demand expected to exceed supply in 2023, with market forecast to grow to ~400ktpa by 2026

Structural deficits in natural graphite predicted from 2023



Strong demand driven by:

- Strong uptake of electric vehicles and for decarbonisation
- Natural graphite expected to exceed synthetic graphite in batteries by 2025 (vs. historic split of 60/40 SG/NG)
- Another strong demand segment is graphite foils (requires large flake graphite)

Constrained supply due to:

- Qualification requirement can add several years to development of mines
- Project debt tends to be more difficult for graphite developers due to inability to hedge graphite and dominance of China in downstream processing of graphite

Sources: Public releases, Benchmark Mineral Intelligence, Black Rock Mining

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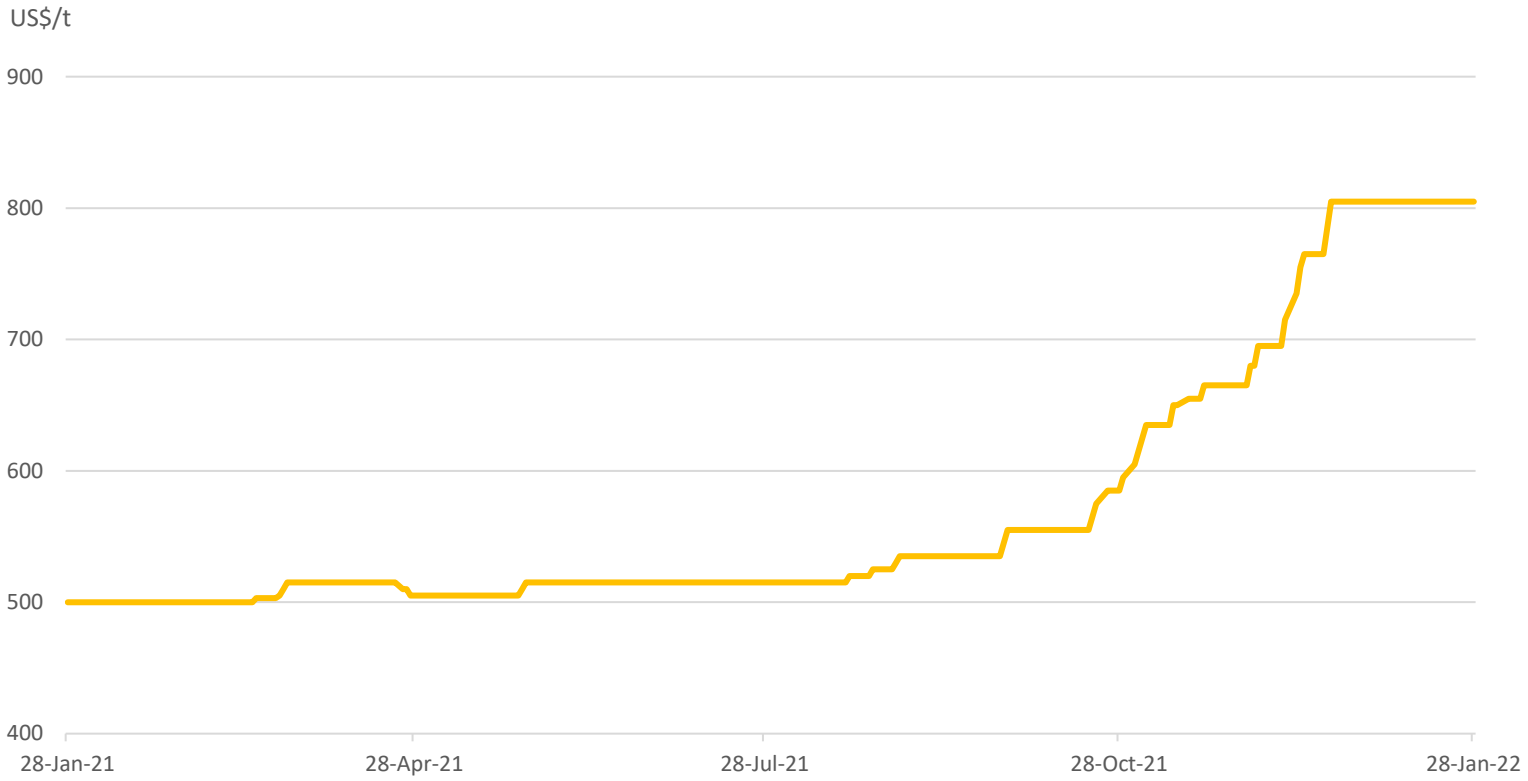
Graphite prices on the move

In the last 12 months, the price for -194 fines in China is up >60% to ~US$805/t, with most of the increase in the last 3-4 months

-194 graphite price FOB China up >60% over the last 12 months



- Mahenge's lowest value product is likely to be -195 (i.e. -100 mesh, 95% conc grade)
- For fines, higher grade concs typically attracts a premium of US$30-50/t per 1%
- i.e. The spot price today of Mahenge's lowest value product is ~US$835-855/t (excluding any potential uplift for value-in-use)
- **BKT sensitivity: 10% increase in basket price = 25-30% increase in NPV**

Sources: Asian Metals, Black Rock Mining

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A snapshot of the Mahenge Graphite Mine

Simple open pit mine development with outstanding forecast returns[1]

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US$1.2B
$NPV_{10\ real}$ post tax, post 16% FC

45%
Post-tax, ungeared, real IRR

83ktpa
Module 1 production (1Mtpa)

US$116M
Module 1 development capex

340ktpa
Full production (4 x 1Mtpa)

95 – 99%+ TGC purity
59% +80 mesh, 41% -80
Concentrate product

US$1,301/t
Basket graphite price (net FOB)

US$494/t
LOM All-In-Sustaining-Cost

26 years
Initial operating life

1 Following release of the Enhanced Definitive Feasibility Study (eDFS) on the Mahenge Graphite Project in July 2019 (see Black Rock ASX release dated 25 July 2019, *Mahenge Enhanced DFS with Executive Summary*), Black Rock confirms that it is not aware of any new data or information that materially affects the results of the eDFS. All financial forecasts, material assumptions and technical parameters, including in the estimation of Mineral Resources or Ore Reserves, underpinning the estimates in the eDFS continue to apply and have not materially changed. The estimated Ore Reserves and Mineral Resources underpinning the production and financial forecasts in the eDFS were prepared by Competent Persons in accordance with the requirements in Appendix 5A (JORC Code).

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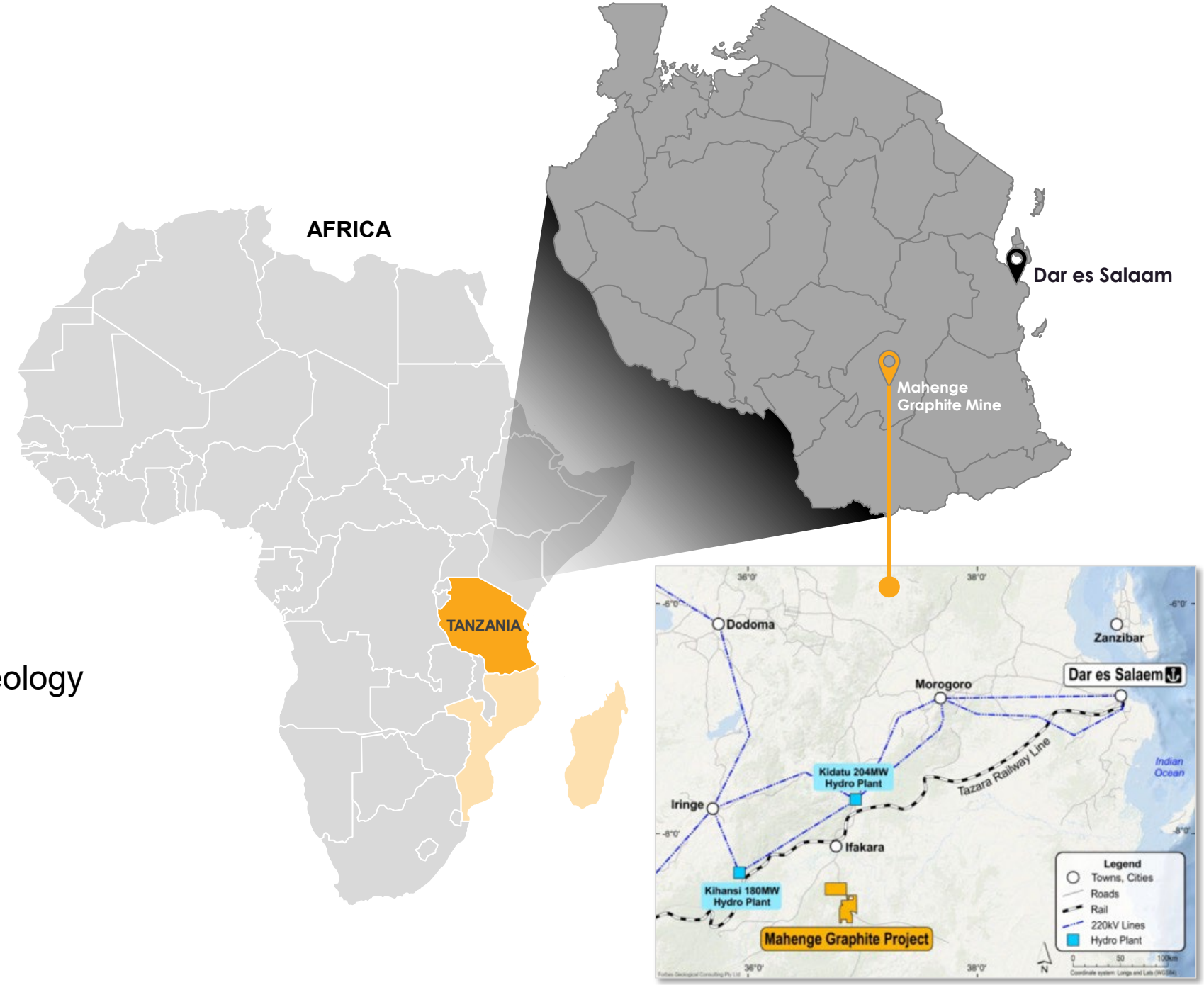
Premier location

Well positioned in East Africa's growing Graphite belt



Mahenge offers a unique combination of high quality geology and world class geography

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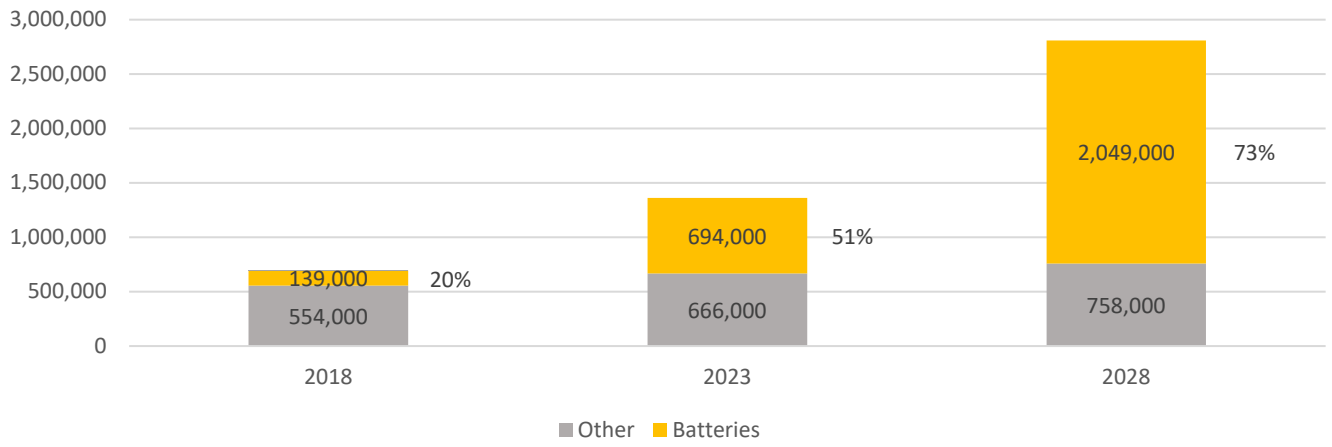
Graphite Uses

Black Rock has a diversified product mix with 60% exposure to the high margin large flake market

Price increases with flake size

SMALL FLAKE (FINES)	LARGE FLAKE	JUMBO FLAKE
Lithium-Ion Batteries	Flame Retardants	Flame Retardants
Paint & Coatings	Refractories	Gaskets & Seals
Lubricants	Aviation	Expandable Graphite
Pencils	Lithium-Ion Batteries	Fuel Cells

Natural graphite demand: Importance of batteries



Source: Public releases, Benchmark Mineral Intelligence, Roskill, Black Rock Mining

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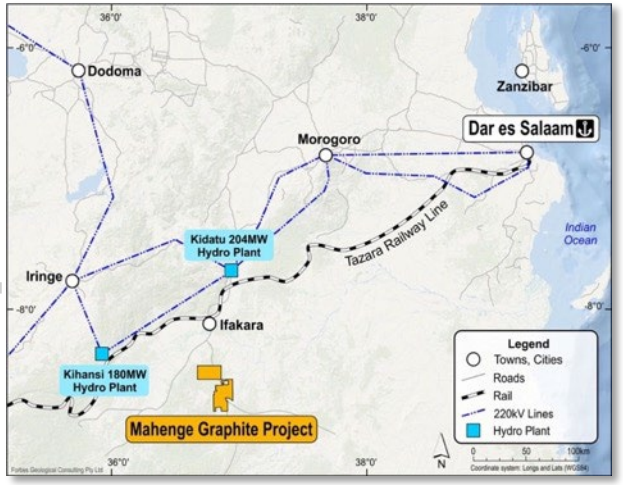
Why Black Rock ?

Unique competitive advantages driven by Geology and Geography



GEOLOGY

- ★ Mahenge's 212mt resource makes it the 4th largest graphite resource in the world
- ★ Low deleterious impurities and favourable metallurgy means that Mahenge is able to produce up to 99% TGC concentrate purity, solely with conventional flotation processing

GEOGRAPHY

- ★ Access to key infrastructure, Grid Power, Rail, Airstrip, Water and Tailings disposal (dry stack)
- ★ Logistics advantages with processing through Dar es Salaam high volume container port

Low Technical Risk

- ★ Substantial pilot plant operations of 110 tonnes
- ★ Direct access to rail, grid power, water allows for sustained lower cost operation
- ★ Production underwritten by strategic partnership with POSCO and off-take agreements

High Margin[1]

- ★ AISC margin of 63.1%
- ★ Mine can produce three grades of product which provides the capacity to switch to higher quality product to achieve pricing premiums
- ★ Mahenge has a very low life of mine strip of 0.8:1

Low Capex[1]

- ★ Lowest peak capital expenditure per annual tonne of production of any development stage global graphite project
- ★ Modular operating model

Superior Economics[1]

- ★ NPV_{10} of US$1.16Bn
- ★ IRR 44.8%
- ★ 63.1% Margin

[1] Refer to Black Rock's Mahenge Graphite Mine forecasted project economics and footer on Slide 15, as well as complete detail contained in the Company's ASX release of the Enhanced Definitive Feasibility Study (eDFS) dated 25 July 2019 (Mahenge Enhanced DFS with Executive Summary).

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ESG Focus

Digbee ESG engaged to ensure best practice

A new greener source of graphite

Hydro Electric Power

- Low carbon power supply, and transport footprint
- Reduced community vehicle interaction

Customer Markets

- Higher grade concentrate reduces manufacturing and energy consumption

Mahenge Graphite Deposit

- High-grade Graphite
- Low deleterious elements
- Low strip ratio

Simple Processing

- Three stage polishing
- No wet screen
- Low energy

Diversity

- Meaningful increase in supply chain diversity

Dry Tailings

- Dry stack tailing
- Do not compete with local communities for water

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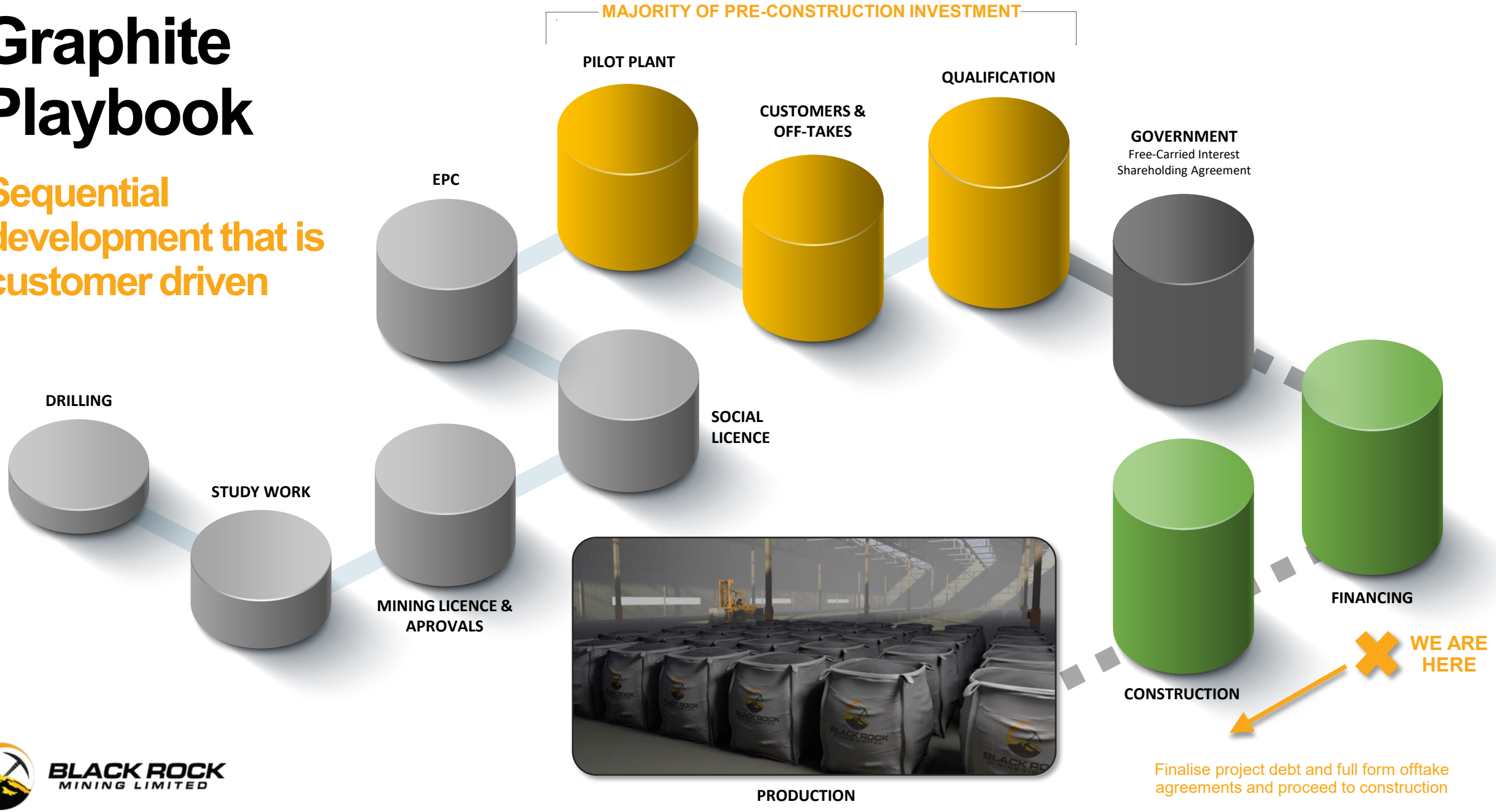
Graphite Playbook

Sequential development that is customer driven



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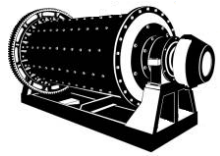
Development Timetable

Aiming to have debt finance in place for Module 1 by mid CY22.

Major construction activities expected to commence in Q3 CY22.

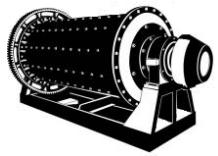
- The wet season in Tanzania typically runs until late May
- Formal debt process underway, aiming to have **debt in place by mid CY22**
- Black Rock is targeting 50-60% debt via traditional project finance
- Construction period 15 months
- First production from Module 1 expected in 2H CY23

Module 1
1mtpa



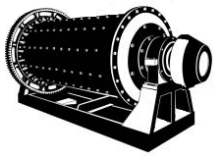
Capex US$116m[1]
Production 83ktpa+

Module 2
1mtpa



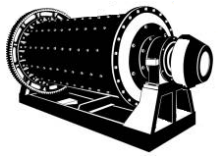
Funded from FCF
Production 83ktpa+

Module 3
1mtpa



Funded from FCF
Production 83ktpa+

Module 4
1mtpa



Funded from FCF
Production 83ktpa+

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[1]As outlined in the eDFS July 2019

Advancing Next Steps

Black Rock expects to complete a number of important de-risking milestones over the next ~6 months

- Project milestones:
  - Grant of SML to unify existing MLs (already agreed with Govt)
  - Complete early works and Resettlement Action Plan
  - Continue to recruit for key roles, particularly in Tanzania
- Offtake milestones:
  - Aiming to add additional offtake partners for Module 1
  - Complete full form agreements with offtake partners
  - Complete full form agreement for prepayments
- Project Debt milestones:
  - Indicative term sheets provided by lenders
  - Credit approved term sheets provided by lenders
  - Financial Close by mid CY22
- Targeting construction start in Q3 CY22
- In parallel, progress strategic discussions with Urbix (MOU signed July 2021)

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Black Rock: The premier graphite exposure

A world-class deposit with a superior development strategy

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01 Upstream focus with highly economic mine project

02 Deep evaluation work for Tier 1 scale project

03 Leading product purity and residual chemistry

04 Modular market entry and growth strategy

05 Realistic and transparent graphite price views

06 Premier location and logistics options

07 Fit-for-purpose project execution plan

08 Responsibly sourced, greener, sustainable graphite

09 Blended, risk-adjusted finance process

10 Superior stakeholder engagement

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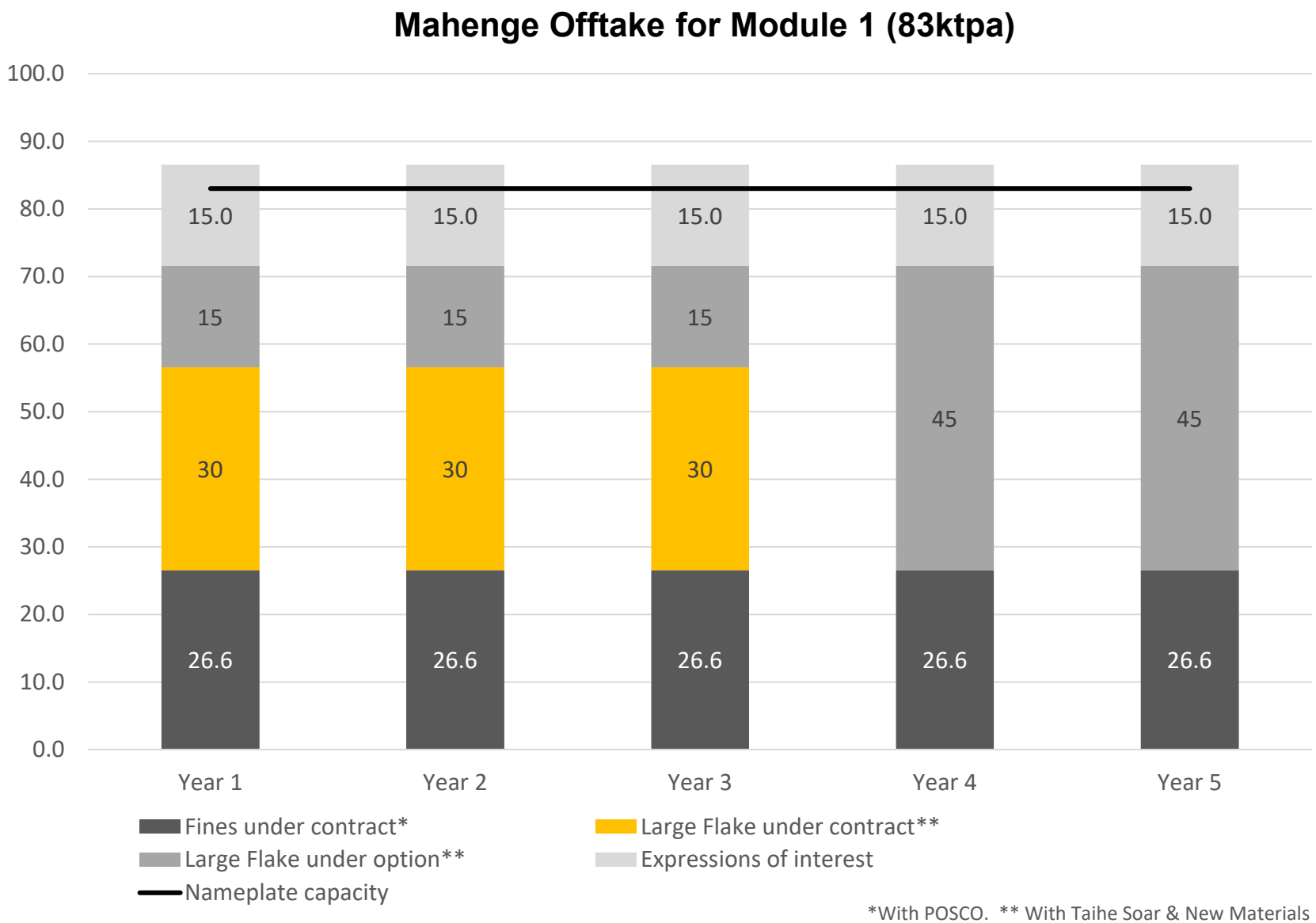
Offtake Agreements

Almost 90% of Mahenge's Module 1 production is under binding offtake or option



*With POSCO. ** With Taihe Soar & New Materials

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