Black Rock Mining
Mahenge Graphite Mine

Naturally Better Graphite : Investor Update

Noosa Mining conference presentation

12 November 2021

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MINING LIMITED

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Competent Person(s) Statement

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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Various statements in this presentation constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" and similar expressions are intended to identify forward-looking statements. Black Rock cautions shareholders and prospective shareholders not to place undue reliance on these forward looking statements, which reflect the view of Black Rock only as of the date of this presentation. The forward looking statements made in this presentation relate only to events as of the date on which the statements are made.

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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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- Australian-listed company (ASX: **BKT**)
- Mineral Resource of 212Mt at 7.8% TGC[1]
- Ore Reserve of 70Mt at 8.5% TGC[1]
- Long-life mine producing high-purity, coarse distribution graphite concentrate
- Qualified path to market through established Strategic partnerships
- Outstanding forecast economics

Board of Directors

John de Vries, Managing Director and CEO

Richard Crookes, Non-Executive Chairman

Ian Murray, Non-Executive Director

Gabriel Chiappini, Non-Executive Director /Co Secretary

Management

Raymond Hekima Vice President, Corporate (Tanzania)

Dale Hanna Chief Financial Officer

Daniel Pantany GM Engineering & Technical

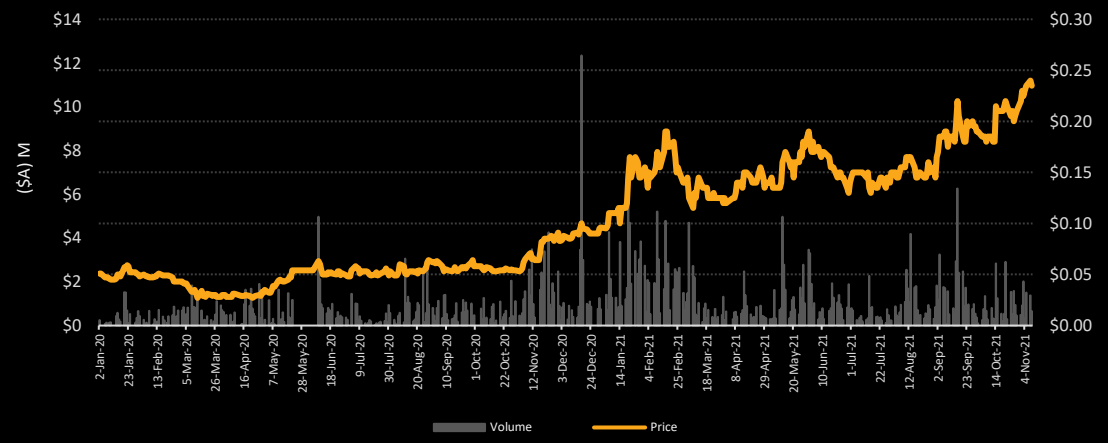
Steuart McIntyre GM Corporate Development

Capital structure

ASX ticker	**BKT**
Share price (9 November 2021)	$0.24
Shares on issue	865.3 M
Options and performance rights	71.7 M
Market capitalisation (undiluted) (@$0.24c)	A$207.6 M
Cash (30 September 2021)	A$9.3 M*
Debt (30 September 2021)	Nil

Major shareholders

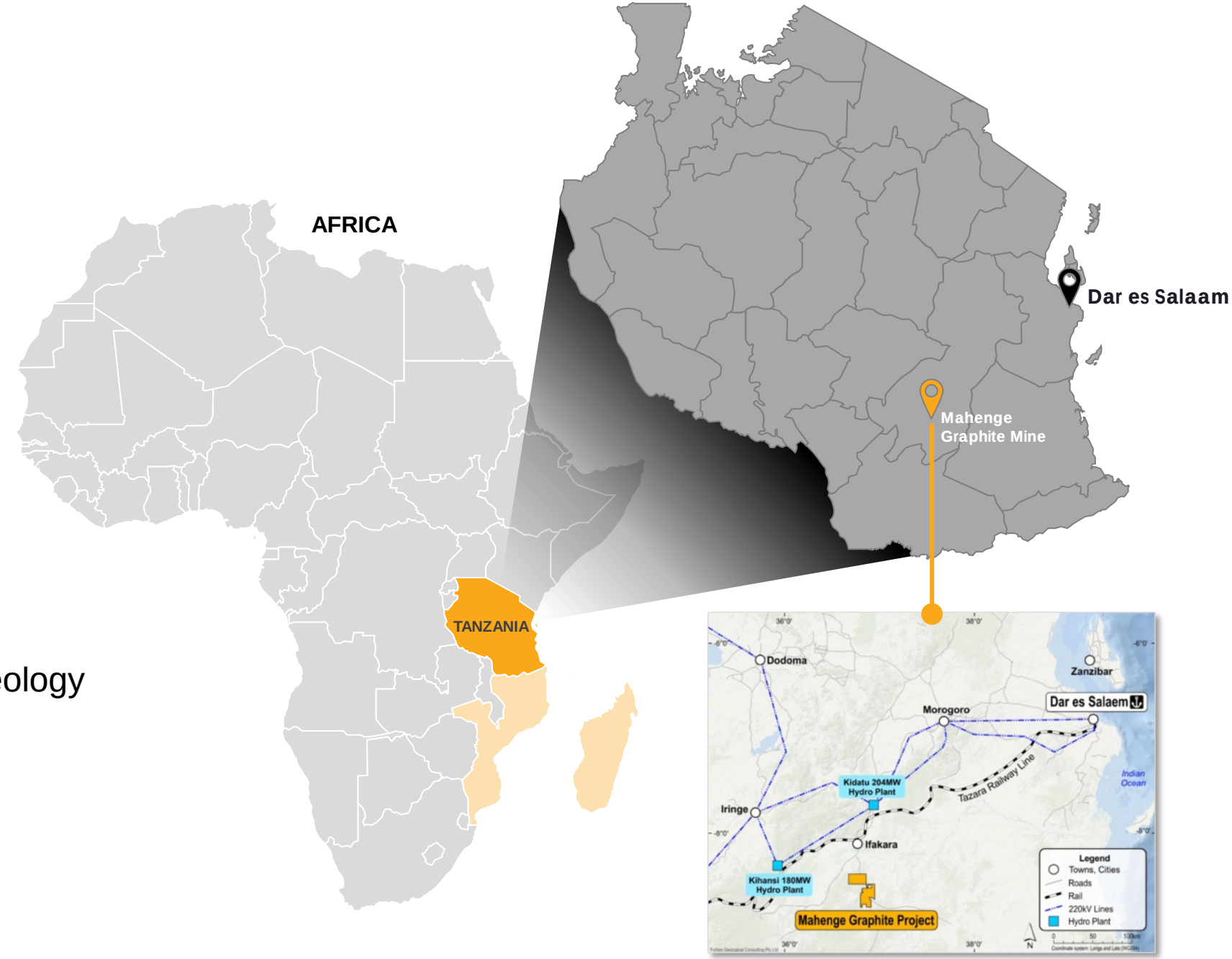
Copulos Group	19.0 %
POSCO Group	15.0 %



*An additional A$1.1m in cash received from Board & Management exercising options expiring 7 Nov 21

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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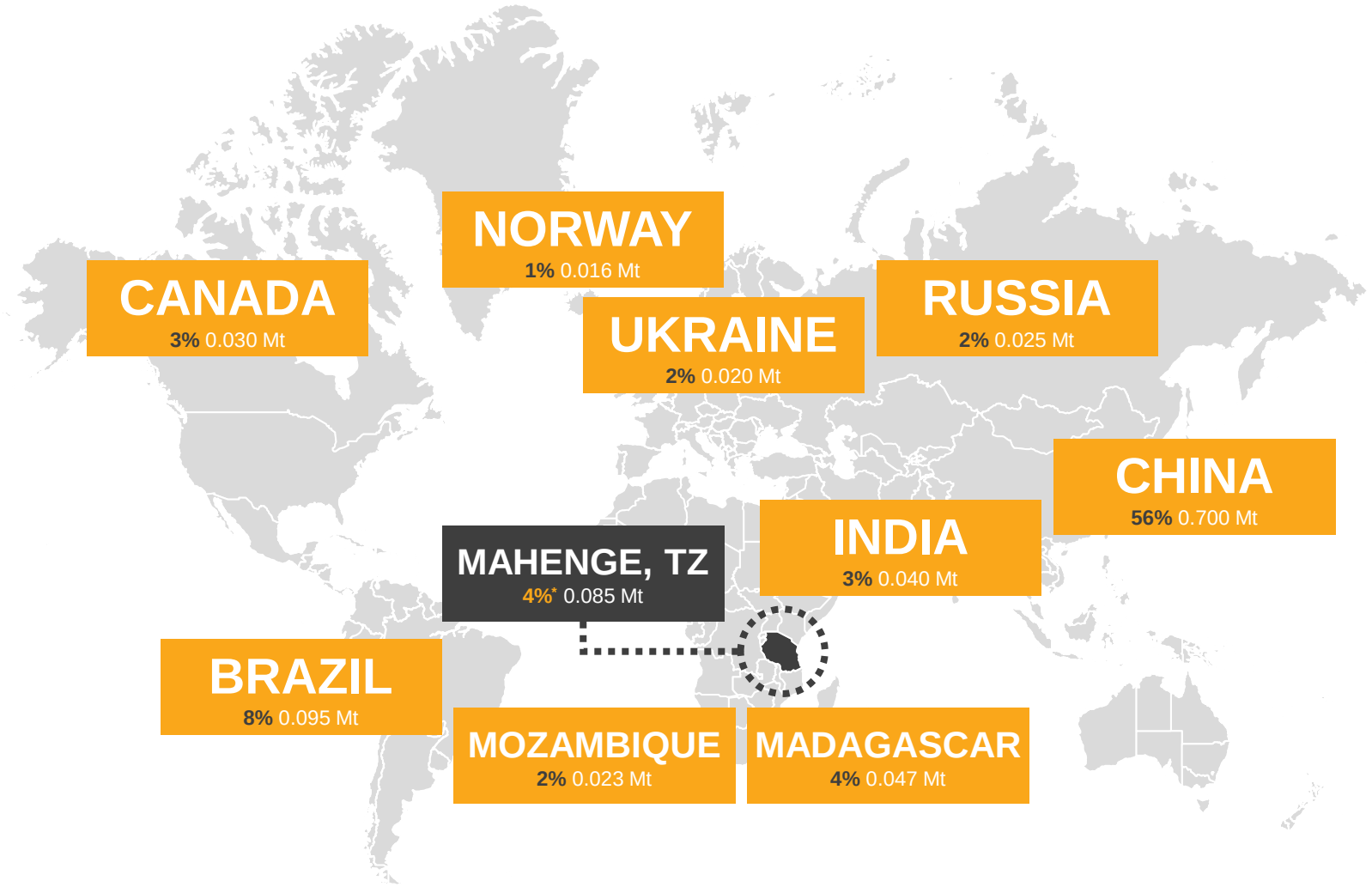
Global Graphite Production[1]

Tanzania set to become a meaninglful producer of graphite into the growing global market



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* Black Rock's Mahenge Graphite mine share is based on planned annual 85,000 tonne versus estimated global production output in 2024 of 2.325 Mt (Estimate from Benchmark Mineral Intelligence Q4 2018)
1 Global Production Supply 2019

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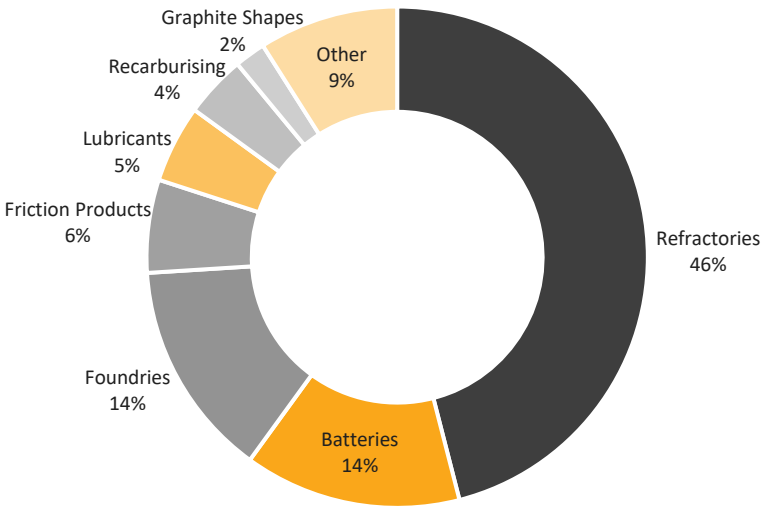
Graphite Uses[1]

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



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

[1] Global natural graphite consumption in 2018 by application (RoSkill 2019)

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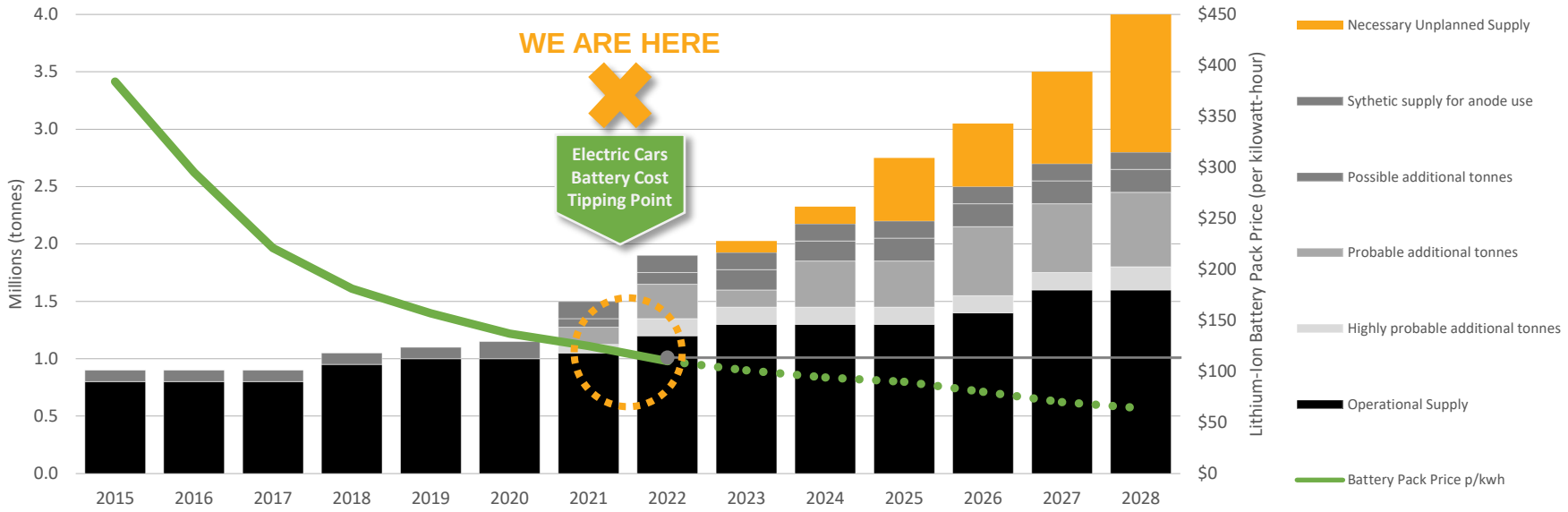
Graphite market dynamics

EV-driven intensification of graphite demand to have profound impact

- Electrification of transport to accelerate graphite demand
  - EV battery pack price per kwh has dropped from US$295 in 2016 to US$137 in 2020; projected to fall to US$94 by 2024 and US$62 by 2030[1]
  - Sub US$100 delivers electric vehicles at cost parity with gasoline cars
- Global graphite demand forecast to exceed supply by 2023

Graphite Supply and Demand Forecast[2]



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[1] Bloomberg NEF
[2] Benchmark Mineral Intelligence Q4 2018
[3] Bloomberg NEF Forecast to 2030

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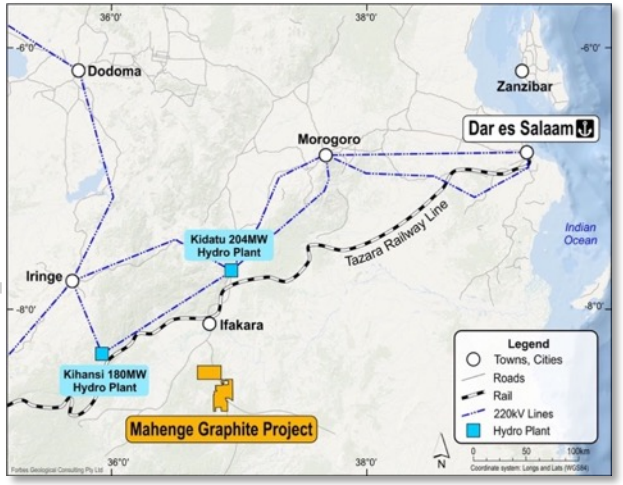
Why Black Rock ?

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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Why Black Rock ?

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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ESG Focus

Digbee

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Black Rock has engaged Digbee ESG to ensure we comply with industry best practice

Digbee will independently assess our ESG credentials against these frameworks

Digbee ESG™

IN PARTNERSHIP WITH

SATARLA

Digbee ESG is an ESG disclosure platform for the mining industry. It offers a future-looking, right-sized set of frameworks, aligned to the key global standards. It is accepted by leading stakeholders, hugely simplifies ESG disclosure and rewards management action.

It's **not** a new standard, and the Digbee ESG score does **not** reflect the score for any particular standard. Instead, Digbee's ESG framework currently maps to the following:

GRI
UNCTAD
WORLD ECONOMIC FORUM
SASB
Towards Sustainable Mining / Vers le développement minier durable
GlobalTailings Review.org
UNITED NATIONS HUMAN RIGHTS OFFICE OF THE HIGH COMMISSIONER
ICMM International Council on Mining & Metals
EQUATOR PRINCIPLES
IFC International Finance Corporation WORLD BANK GROUP
WORLD GOLD COUNCIL
VOLUNTARY PRINCIPLES ON SECURITY & HUMAN RIGHTS
International Labour Organization
Responsible Mining Foundation
IRMA Initiative for Responsible Mining Assurance
CIM ICM
TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

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Our Strategy is Simple

Build a right sized business and use internal cashflow to bootstrap to significant size

- **Upstream focused operating model**
  - Capital light model focused on core-strengths
- **TZ Government as a development partner aligns ESG strategy**
  - Joint ownership = Alignment of interests
  - Transparency leads to confidence and trust
  - ESG = strongly differentiated role in country and product markets
- **Offtake before construction is a pathway to finance**
  - POSCO - cornerstone Offtaker and investor
  - China risk – prepay to support project development
  - Additional Western Offtakers awaiting qualification samples
- **De risk through 600 tonnes of Pilot Plant runs**
  - Real product = qualification with quality customers
  - Only data – no opinions – we have proven our design works
  - Validate design BEFORE BEING BUILT = smooth start-up and confidence around delivery
- **Right sized modules**
  - Big enough to be investable – small enough to be fundable
  - Avoid destroying price points by adding capacity AS MARKET PERMITS
  - Common module design simplifies training parts and maintenance

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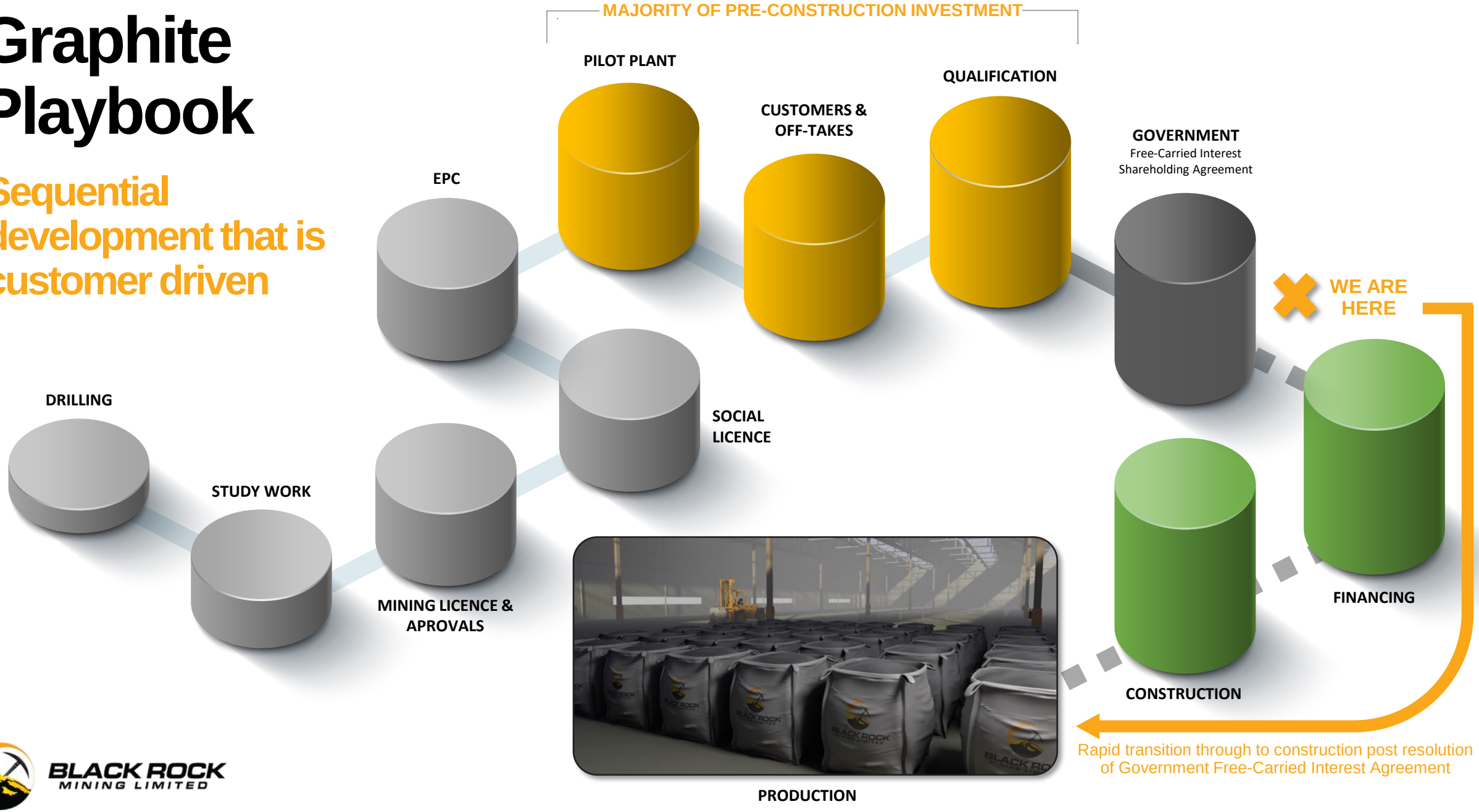
Graphite Playbook

Sequential development that is customer driven



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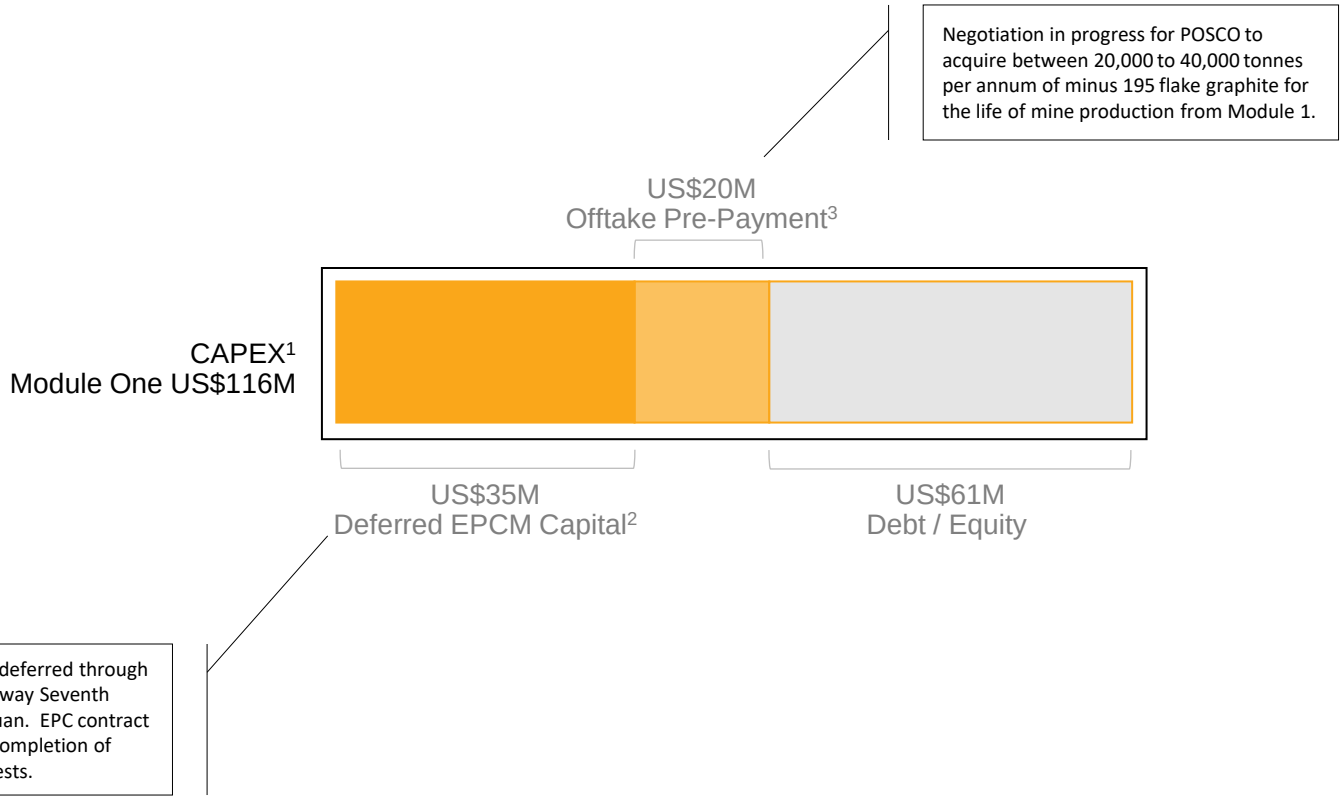
Financing Mahenge

Risk-adjusted finance process focused on securing the right funding mix

- Targeting a blended project financing model
- Matching risks to participants best placed to manage them
- Key potential finance stakeholders include EPC vendor, offtake counterparties and Tanzanian government
- POSCO/EPCM de-risks the funding package



[1] Enhanced Definitive Feasibility Study ASX release 25 July 2019
[2] refer to ASX release 22 January 2020
[3] refer to ASX release 17 December 2020

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Advancing Next steps

Following resolution of FCI, focused on runway to construction

ENGINEERING

- Complete 500t pilot plant run to send to potential offtake partners
- Assess production upside due to oxide in early years
- Estimate Gross Maximum Price (GMP) as front end loading to finance
- Early works program

BINDING OFFTAKES

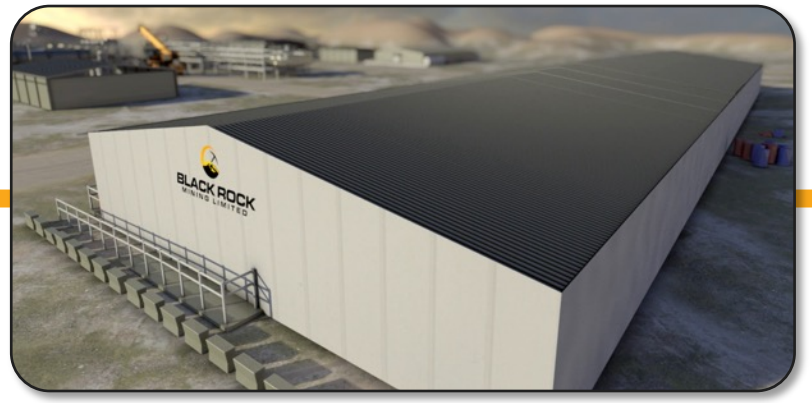
- Finalise POSCO term sheet for offtake and prepay
- Complete qualification with Western Offtakers
- Rebalance portfolio if required
- Transition to contracts

FINANCE

- Starting position is ~ 40% of required upfront capital is supported by combination of prepayments and deferred capital from EPCM syndicate
- Debt advisor appointed
- Interest in debt funding from commercial banks and multi lateral agencies
- Focus on aligning debt process to growing availability of finance in TZ

Build out org structure/recruit key roles | Complete RAP – clear site | Secure key contracts and qualify in-country vendors

PRODUCTION



CONSTRUCTION

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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
Post-tax, ungeared, real NPV_{10}

45%
Post-tax, ungeared, real IRR

83ktpa
Phase 1 output (1Mtpa ROM)

US$116M
Phase 1 development capex

350ktpa
Phase 4 output (4Mtpa ROM)

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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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 at real commercial scale

03 Leading product purity and residual chemistry

04 Sensible 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, sustainable graphite

09 Blended, risk-adjusted finance process

10 Superior stakeholder engagement

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