



FAST-TRACKING PREMIUM QUALITY GRAPHITE TO DEVELOPMENT



Epanko Bankable Feasibility Study
Corporate Update - August 2015

ASX: KNL

premium quality graphite uniquely tanzanian



DISCLAIMER

Securities Disclaimer

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Forward looking Statements

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Competent Person

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Andrew Spinks, who is a Member of The Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. Andrew Spinks is a director of Kibaran Resources Limited and 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 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Andrew Spinks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr David Williams, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. David Williams is employed by CSA Global Pty Ltd, an independent consulting company. Mr Williams 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 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. David Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Ore Reserve has been compiled by Mr Steve O'Grady. Mr O'Grady, who is a Member of the Australasian Institute of Mining and Metallurgy, is a full time employee of Intermine Engineering and produced the Mining Reserve estimate based on data and geological information supplied by Mr Williams. Mr O'Grady has sufficient experience that is relevant to the estimation, assessment, evaluation and economic extraction of Ore Reserve that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr O'Grady consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.



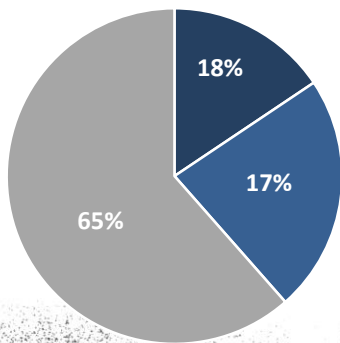
COMPANY OVERVIEW

Capital Structure

KNL:ASX

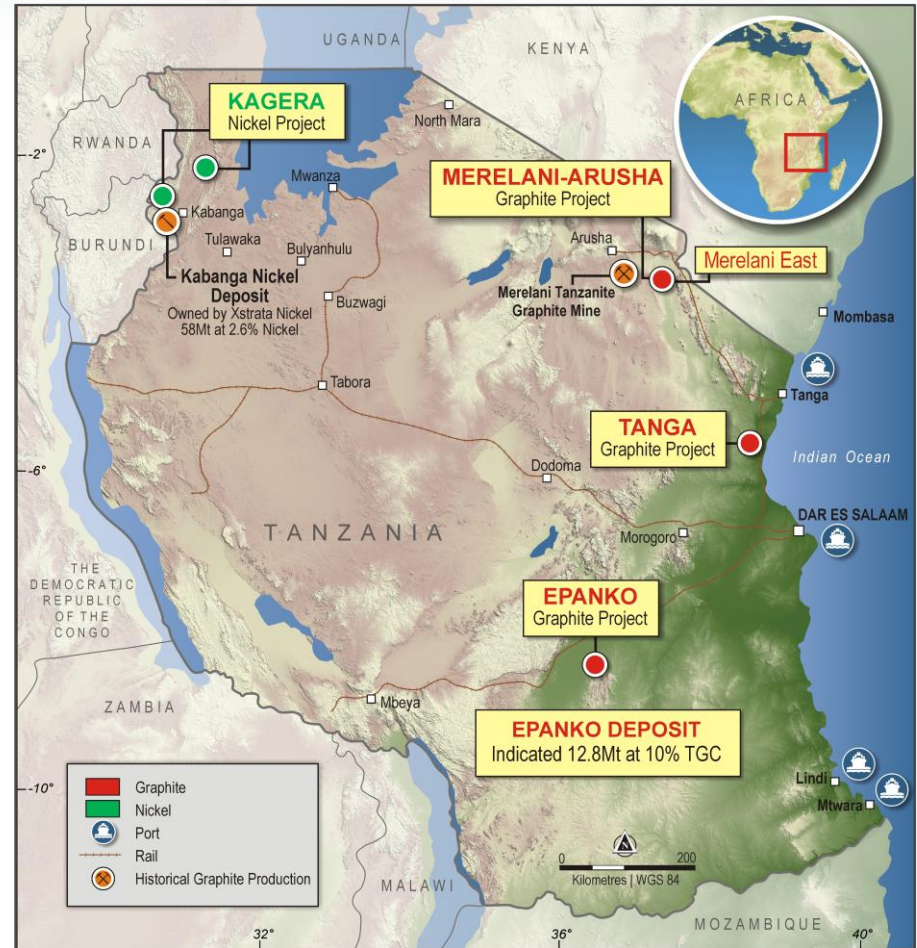
Shares on Issue	167.5m
Share Price (4 August 2015)	\$0.19
Market Capitalisation	\$31.8m
Net Cash (30 June 2015)	\$4.6m
Enterprise Value	\$27.2m
Options	
Listed Options	Exp 5 August 2015, Ex \$0.20
Unlisted Options	Various Exp, Various Ex Prices
TOTAL	16.5m

Shareholders



- Directors & Management
- Other Top 20 Shareholders
- Other Shareholders

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Focused strategy to become a major graphite producer



PROJECT HIGHLIGHTS

World-class Graphite Assets:

Epanko Graphite Project

- Bankable Feasibility Study completed with **Pre-tax NPV of US\$197.5m**
- Annual EBITDA of US\$33.6m for 15 years
- Annual production of 40,000tpa
- Mining licence granted with environmental approvals in place
- Staged increase to 75,000tpa, then 100,000tpa increase with global demand
- Initial production supported by existing offtake and sales agreements
- Mine life of 25 years is based on Ore Reserve – Significant mineralisation remains undrilled
- Debt financing discussions commenced

Merelani-Arusha Graphite Project

- Merelani East Graphite Project: Mineral Resource with outstanding metallurgy
- Advance to Pre-feasibility and position as second production province

Value Add Growth Strategies Underway

Battery Grade Graphite Manufacturing Study

- Scoping Study completed with **Pre-tax NPV of US\$115m**

3D Printing using Graphite & Graphene

- 3D Graphtech partnership with CSIRO

Graphite Offtake & Sales Agreement

- LOI with ThyssenKrupp for 20,000tpa
- Binding off-take agreement signed with major European trader for 10,000tpa

Market Opportunity

- Growing global graphite demand plus market shortage of large flake produce
- Strategic partnerships in Battery Market

“Positioning Kibaran to be one of the first listed graphite focussed companies to progress to Production”



BOARD & MANAGEMENT TEAM

Andrew Spinks - *Managing Director*

- Geologist with over 25 years experience
- Expertise in exploration, mining and management across a number of commodities
- Association with operations in Africa for the past 13 years
- Worked for Resolute Ltd, Plutonic Resources, Dominion Mining & Whim Creek Resources in diverse roles from exploration, project development & mining

Grant Pierce OAM - *Executive Director Projects*

- Mining engineer with over 25 years experience
- Extensive management experience & knowledge of Tanzanian mining sector
- Senior operational management roles in mining and exploration projects in Africa
- Worked for Perseus Mining and in Tanzania Resolute Mining and Barrick Gold
- Awarded the Order of Australia Medal in 2003 for his personal contribution to social development in rural Tanzania. Her Majesty Queen Elizabeth II is the Sovereign Head of the Order. In 2006 he was also awarded Tanzania's Zeze Award, the highest accolade for outstanding contribution to Tanzania's cultural development.

John Conidi - *Non-Executive Director*

- Bachelor of Commerce degree from Royal Melbourne Institute of Technology
- 14 years of experience in developing, acquiring and managing businesses in the healthcare industry with a focus on diagnostic imaging
- MD of ASX:CAJ increasing market capitalisation from \$20 million to more than \$500 million in 8 years
- Significant involvement in 3D Printing technologies



His Excellency Jakaya Kikwete (R), President of Tanzania with Grant Pierce (L) and Andrew Spinks (C) at Mahenge on the 20 August 2014 discussing the significance of Kibaran's Epanko and Merelani Graphite Projects to Tanzania.

20-plus years in-country
experience with proven track record
and technical expertise in graphite



MANAGEMENT & TECHNICAL TEAM

Robert Hodby - CFO/Company Secretary

- Bachelor of Commerce, Member of CPA Australia and Governance Institute of Australia
- Over 20 years industry experience in financing and administration of public and listed companies gathered at both operational and corporate levels
- Held roles in numerous executive and project level management as well as CFO, Board & Company Secretarial roles with a number of companies involved in the resource and energy industries

Christoph Frey - Technical Graphite Specialist

- German based graphite industry professional
- Over 20 years graphite experience in Russia, Europe, Africa and China
- Involved with all facets of development and production of natural flake graphite
- Direct experience in production of battery grade graphite
- Use of graphite in high tech applications
- Production of nanoparticles and nanopowders
- From 2010 to 2013 he served as Technical Director at Graphit Kropfmuehl AG where he worked on the Ancuabe graphite mine in Mozambique



Consultants Under Exclusivity Arrangements

GR Engineering Services ~ Study Manager & Engineering Design
CSA Global ~ Mineral Resource & Geology
Knight Piésold ~ Hydrology & Infrastructure
ECG Engineering ~ Power & Electrical Engineering
Independent Metallurgical Operations ~ Metallurgy
Intermine Engineers ~ Mining & Ore Reserves
George Orr & Associates ~ Geotechnical Mine Design
MTL Consulting ~ Environment
Trinity Promotions ~ Social & Community

“GR Engineering and all study consultants are considered leading experts with a proven history of developing projects in Tanzania”



Key BFS Results

Conventional open cut mine and conventional flotation processing plant.

- Annual EBITDA of US\$33.6m for 15 years with 40,000tpa
- Pre-tax (NPV) of US\$197.4m
- Payback 2.7 years with 25 year mine life
- Strip Ratio (W:O) 1:1 LOM
- Revenue Price US\$1,466/t of concentrate
- Opex FOB Dar es Salaam \$570/t
- Nameplate throughput of 480,000 tpa
- Ability to increase production as market demand increases via a 2 stage growth strategy to 100ktpa

Items		Parameters (LOM)
Plant Throughput	(tpa)	434,000
Plant Recovery	(%)	93.3
Feed Grade	(%)	8.6
Carbon Grade	(%)	96.3
Production Concentrate	(tpa)	36,400
Base Price Assumption	(US\$/t)	1,446
Cost per Tonne of Concentrate	(US\$/t)	570
Mine Life	(Yrs)	25
Pre-Production Capital	(US\$m)	77.5
Strip Ratio	(W:O)	1:1
Discount Rate	(%)	10
Payback	(Yrs)	2.7
EBITDA/Annum (Avg)	(US\$m)	30.3
Pre-tax IRR	(%)	41.2
Pre-tax NPV	(US\$m)	197.4

Notes:

- ~ FOB Dar es Salaam
- ~ Excluding Royalties (3%) and Taxes (30%)



Key BFS Results

Capital Cost Estimate

CAPITAL ITEM	(US\$m)
Mining	2.4
Process Plant	45.1
Infrastructure	10.9
EPC	11.0
Contingency (10%)	6.2
Owners Cost	1.9
Total	77.5

Operating Cost Estimate (excluding royalties and taxes)

ITEM	ESTIMATE (FOB US\$/t)
Mining	117
Processing ¹	277
Transport and Freight to Port (FOB)	102
General & Administration	74
Total Cost per tonne of concentrate	570

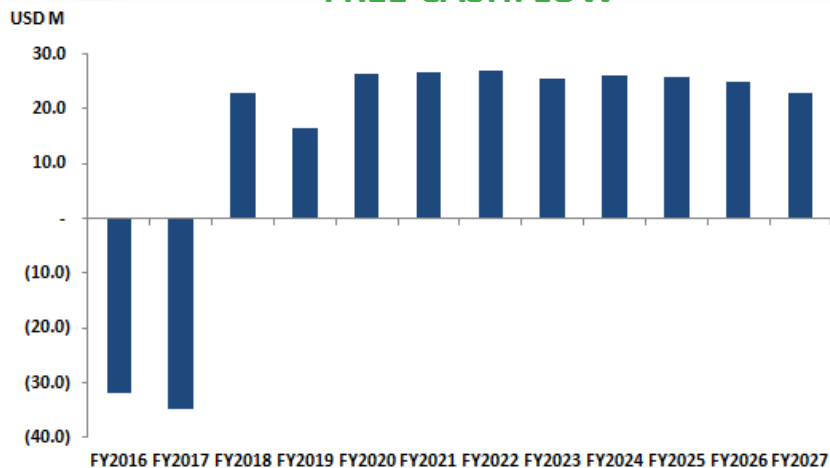
Note 1: Power generation is by diesel generators for the first 2 years of production and then by grid power from the Ifakara substation..



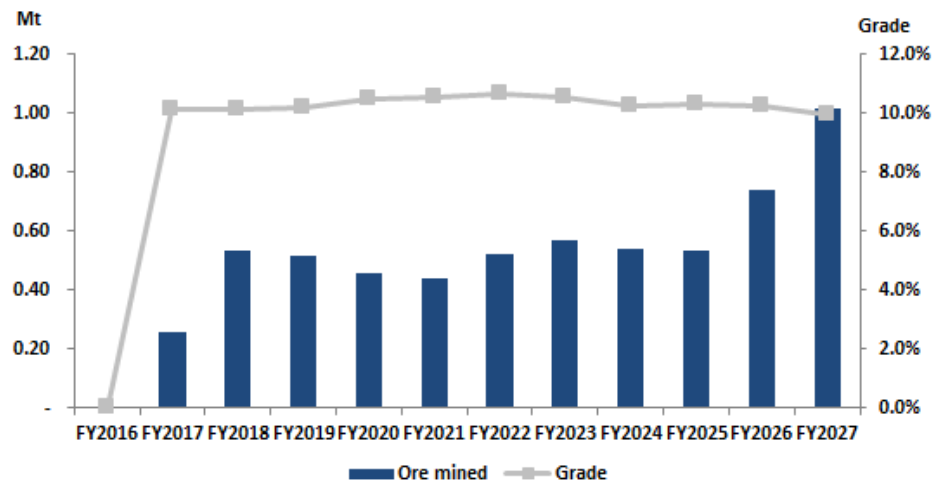
FINANCIAL CASHFLOWS

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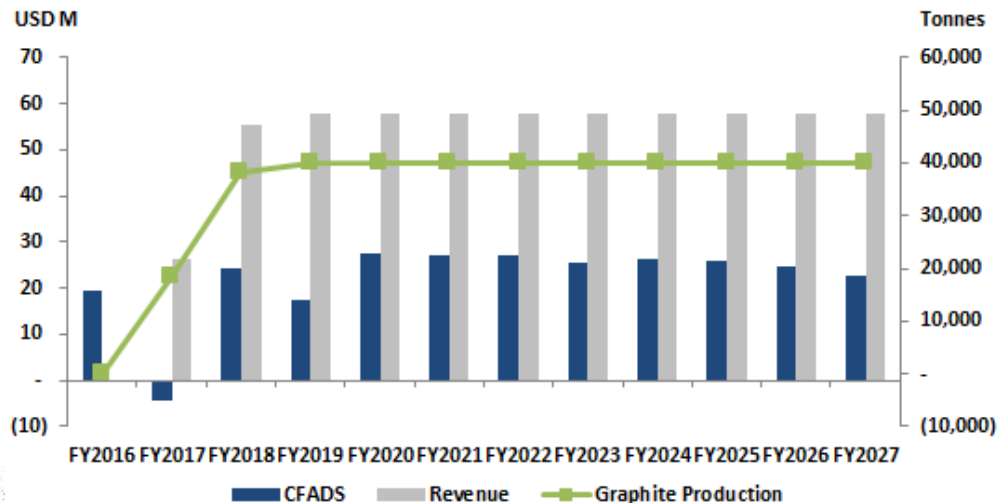
FREE CASHFLOW



ORE MINED TONNES & GRADE



CASHFLOWS



CFADS ~ Cashflow available for Debt Servicing



Epanko Deposit

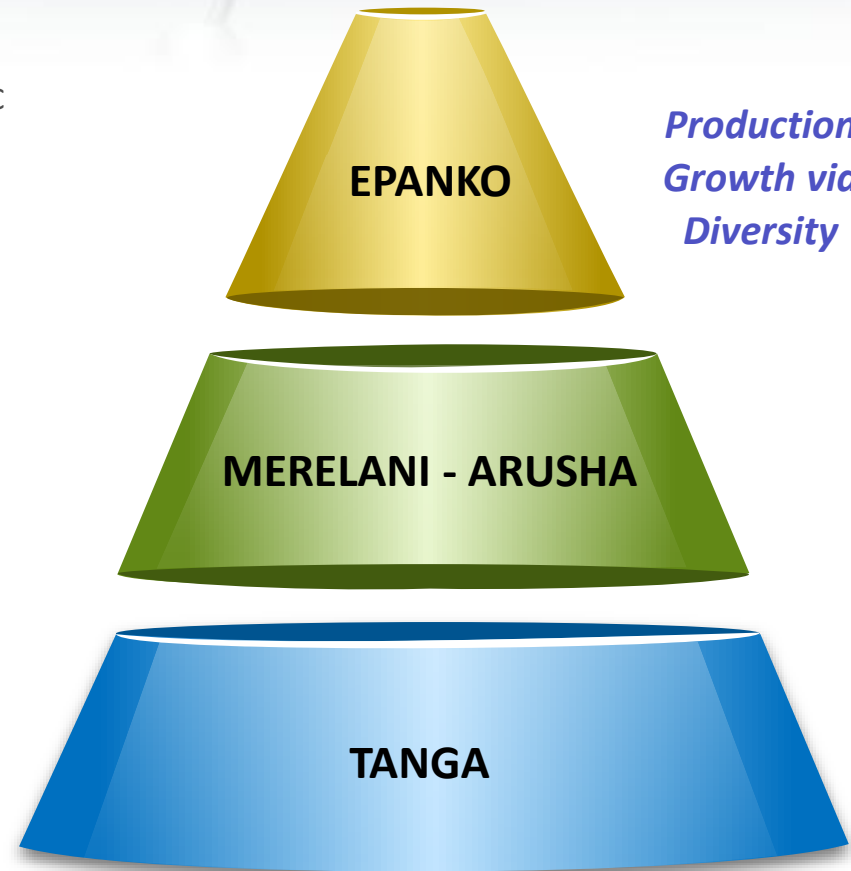
- Proved and Probable Ore reserves of 10.9 Mt at 8.6% TGC
- Feasibility Study Completed
- Significant upside to increase resource
- Staged Growth upgrade from 40ktpa to 100ktpa

World Class Graphite Project

- Advance to Pre-feasibility Study
- Province has proven sales history
- Mineral Resource 17.2Mt at 6.5% TGC for 1.12 Mt contained graphite

Early Stage Exploration

- Significant exploration potential and infrastructure benefits



Kibaran is leading Tanzania to become the world's second largest graphite producer



BATTERY MANUFACTURING FACILITY STUDY

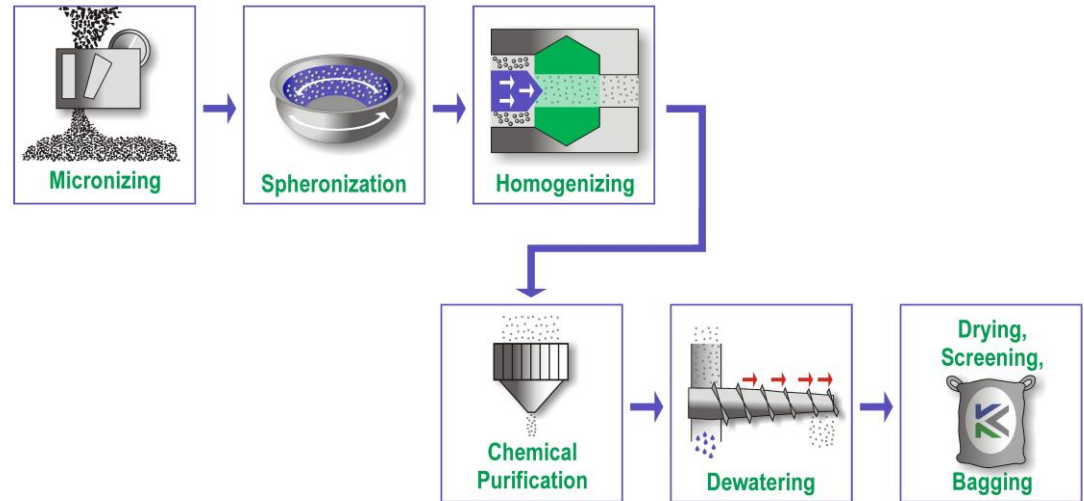
Key Results

Production of Spherical, Expanded Graphite and other purified graphite products

Key Study Results

- Pre-tax NPV10 of US\$115m
- Pre-IRR of 51%
- Capital Expenditure of US\$35m
- Annual pre-tax cashflow of US\$18mpa based on Stage 1
- Payback 1.9 years
- Manufacturing of first battery grade Spherical Graphite is scheduled to commence 12 to 18 months into Stage 1 Epanko Graphite Project expanded production

“Exponential growth in graphite demand forecasted over the next 5 years from Electric Vehicle (EV) and Battery Storage industries”



Initial production to commence at 15,000tpa, increasing to 50,000tpa



“Global search for a better quality product with higher energy efficiency, longer charge life or shorter recharge times continues to justify graphite as the most effective and efficient anode material”

Manufacturing Facility Staged Growth

Stage	Spherical Graphite (t)	Expandable Graphite (t)	Purification (t)	Total (t)
1	6,000	5,000	4,000	15,000
2	15,000	10,000	5,000	30,000
3	24,000	18,000	8,000	50,000

“Superior properties of Epanko graphite will provide competitive advantages within the emerging Spherical Graphite market”



BINDING OFF-TAKE AND LOI AGREEMENTS

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- Kibaran is the only listed company globally with a binding offtake agreement with a partner outside of China
- Kibaran was the first ASX company to sign a binding off-take agreement and partnership for graphite sales
- Agreements in place for 30,000 tpa¹ for 10 years:
 - 20,000 tpa LOI with ThyssenKrupp
 - 10,000 tpa Binding off-take with sophisticated European graphite market trader
- Discussions commenced with traders and end-users for further graphite off-take agreements – Japan and USA
- Europeans have been investigating new sources of large flake graphite for the past two years and identified the Epanko Deposit as its preferred new source

1. This is not a production target as production may not occur. Production may only occur on upgrade of resources and a positive feasibility study which is uncertain at this stage .



High Grade Concentrate - Final cleaner concentrate from an initial rougher cleaner test



Example of Primary Mill

Off-takes and LOI's with
Blue chip multi-national partners



WHY TANZANIA

Mining-friendly Country

Stable democratic Government committed to mining sector growth and development

- English speaking
- Common law system
- Friendly tax regime (30%) and low royalties (3%)
- Existing and developed mining activity in place
- Access to skilled and educated local workforce
- Established mining support services

Commercial Advantages

- Access to grid power
- Emerging power source with major gas discoveries
- Extensive infrastructure network (road, rail and ports)
- Major infrastructure initiatives – Power doubling and Tanga Rail



New Road and Bridge Constructions on route to Epanko

“Tanzania understands the benefits of mineral wealth through the development of minerals”

Significant in-country knowledge, expertise and relationships established



ABOUT GRAPHITE

An industrial mineral with unique physical properties:

- Superior thermal/electrical conductivity
- Stable wide temperature range
- High melting point
- Excellent lubrication
- Malleable
- Resistant to chemical attack



- **Battery** - essential component in lithium ion batteries (Electric Vehicle and Energy Storage Systems)
- **3D printing** – Revolutionise production of products
- **New Technologies**
- **Industrial** - nuclear, motor, aircraft, aerospace and metals processing industries applications including use in heavy machinery, refractories, construction materials, commercial printing and more
- **Graphene** - a derivative of graphite lauded as “the world’s next super material”

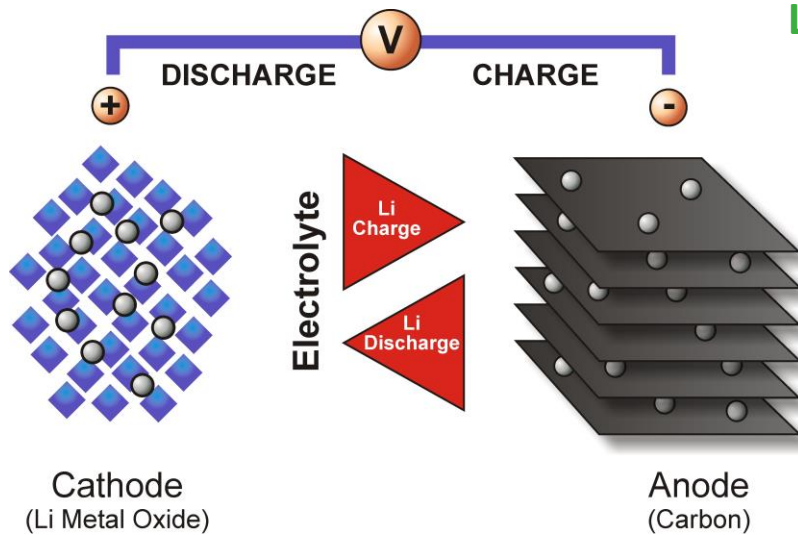


Supplying the raw material
for the next industrial revolution



BATTERY GRADE GRAPHITE

- High growth and demand expected
- Hybrid Vehicle (HV), Electric Vehicle (EV) and Fuel Cell (FCV) will all use Lithium Ion Battery (LiB)
- Energy Storage Systems - Powerwall
- LiB Anode a mixture of Synthetic and Natural Flake Graphite
- Natural large flake graphite is required for the power in EV and FCV vehicles



Lithium Ion Battery (LiB)

Synthetic Graphite
(Provides long cycle life)

+

Natural Graphite
(Provides higher energy density per volume = power)

LiB is expected to be a major growth driver and having one of the highest purity graphite is a market advantage



EXPANDABLE GRAPHITE

Ecophit® - SGL Carbon



Ecophit® Expanded graphite can be manufactured into thermally conductive panels for energy efficient buildings. (Source: www.sglcarbon.com)

Neopor® - BaSF



Neopor® is produced by BASF and composed of small black beads of polystyrene (EPS) containing particles of graphite (Source: www.Basf.com)

- Demand for graphite for the thermally efficient building market potentially higher growth than LiB market
- Expanded graphite is a high value premium priced product
- Increased use as fire retardant - non-burnable insulating layer
- European building codes leading the world in design and evolution of new products

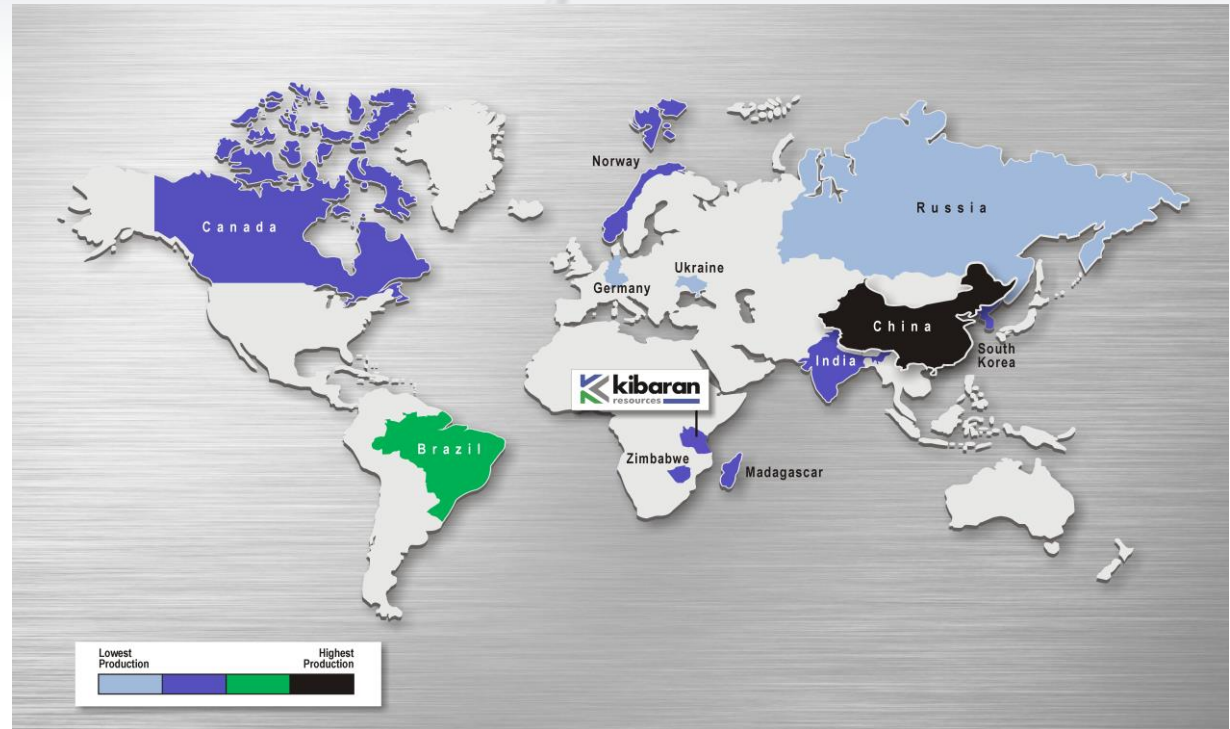
Climate change expected to demand new building codes requiring the increased use of thermally efficient building products



WORLD – DEMAND / SUPPLY

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- Total market is 1.2Mtpa with China the largest producer and consumer
- Natural flake demand outside of China is 320ktpa and largely sourced from China
- Traders and end users seeking diversity away from Chinese supply
- China seeking to import Large Flake Graphite
- China has 20% Export duty and 17% Vat on natural flake graphite
- China costs are rising



US, Japan, Korea, Taiwan and Europe are seeking alternative sources to China

China currently produces 73% of the world natural flake graphite supply

Opportunity to develop new mines that are cost competitive and have technical advantages to existing supply



Graphite Endowment

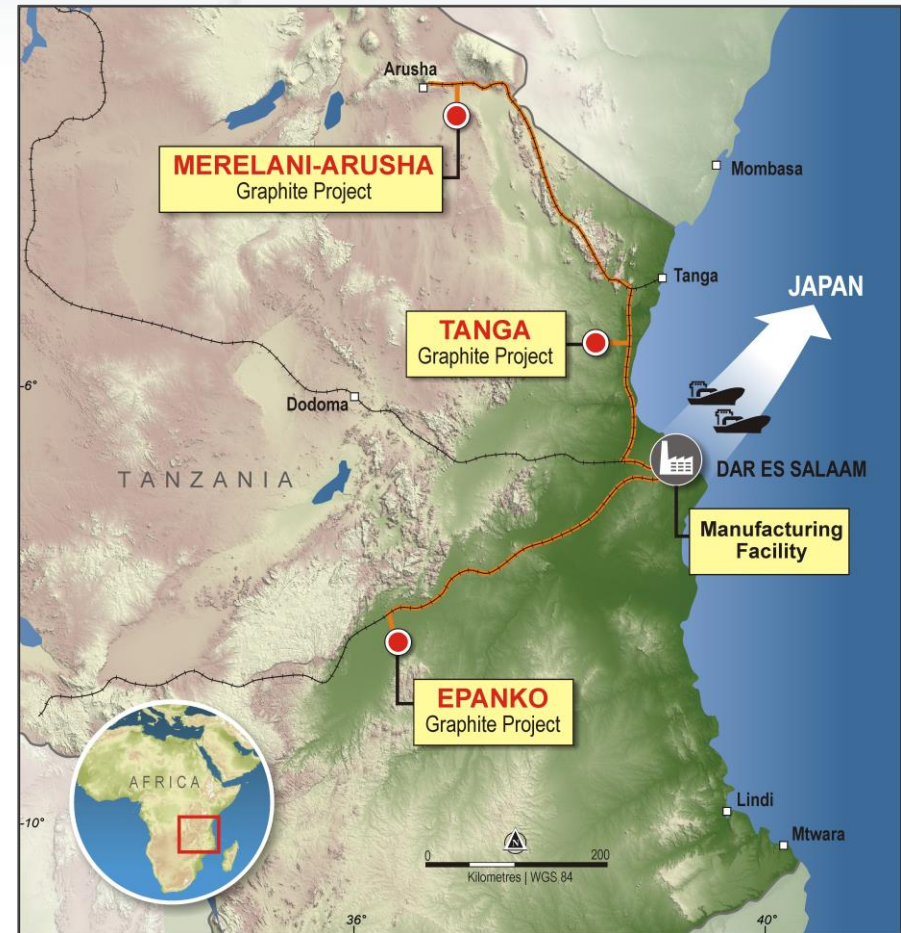
- Largest flake sizes in East Africa
- Africa's largest historical production centre
- Cost competitive with existing (Chinese) supply
- Considerable technical advantages compared with current supply

Geological Reason

- High metamorphic gradient is the key factor to graphite crystallinity - large flake size distribution and high purity

Significant Commercial Opportunity

- Long term stable supply of graphite to the existing and emerging markets
- Potential to become a manufacturing hub with direct shipment of value add products to end markets

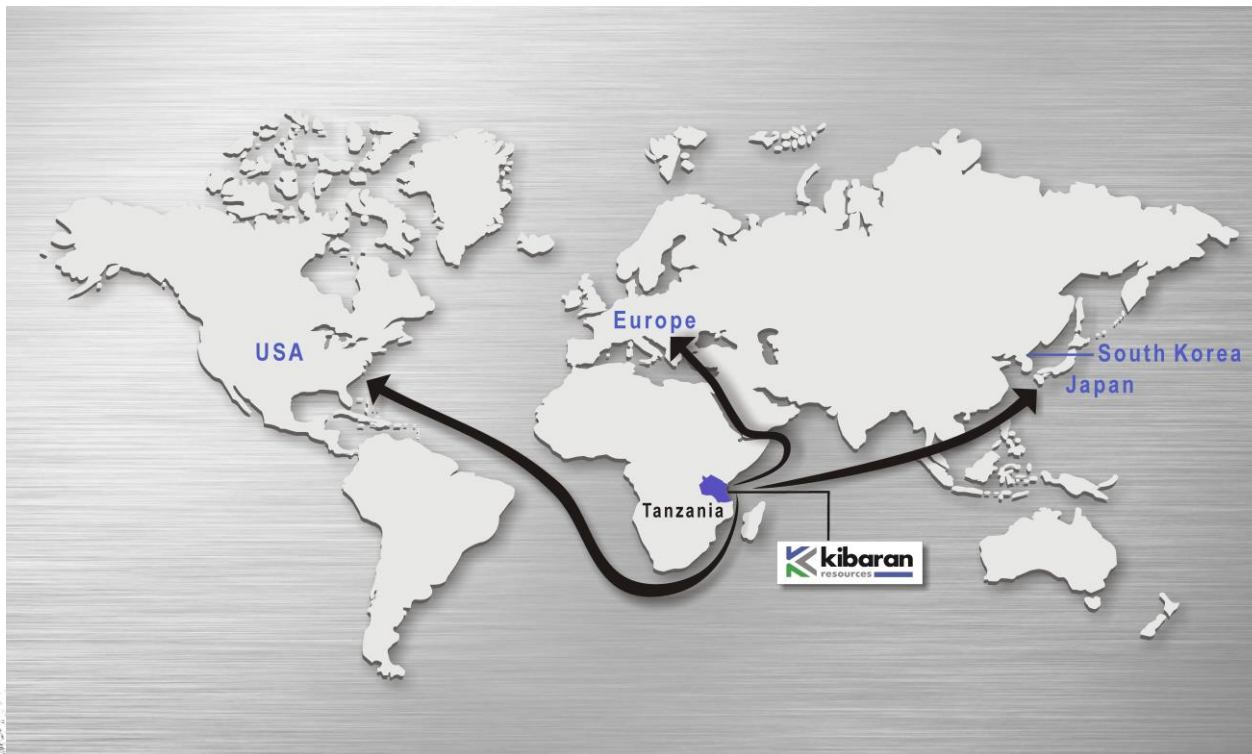


A pipeline of outstanding quality projects and value add strategies



Commercial Advantage over Existing Supply

- Expansion Rates for Jumbo (+50 mesh) flake is 490 ml/g which is up to 30% higher than Chinese supply
- Ultra High purity of 99.98 % Carbon
- Very low percentage of fine flake (< 75micron)
- Testwork confirmed no limitation on industrial uses
- Extremely High percentage of large flake provides higher basket prices and increased saleability
- High Crystallinity expected to generate higher conductivity and densities which is important for LiB market



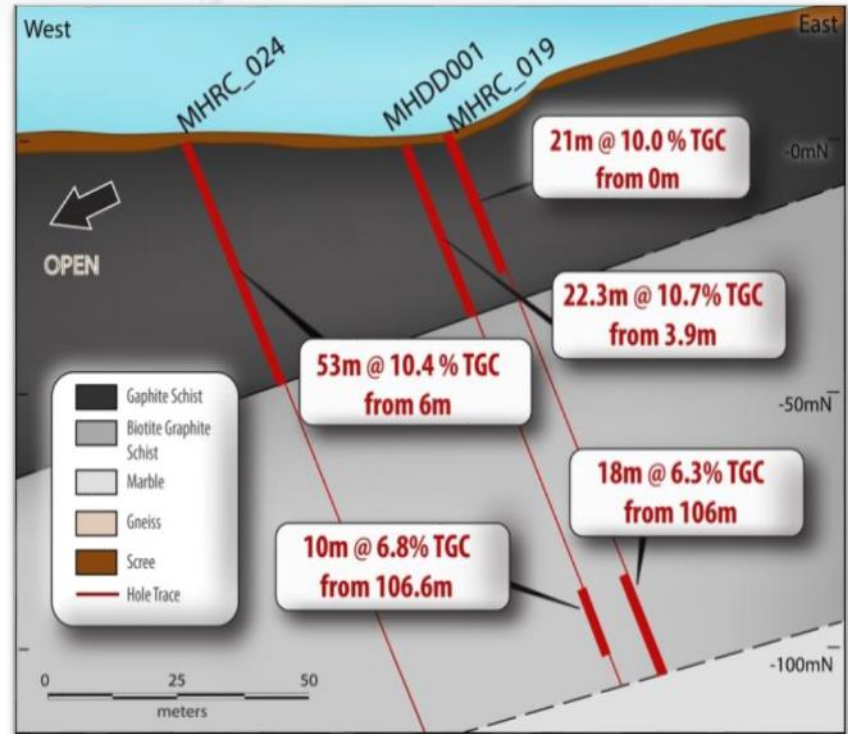
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EPANKO DEPOSIT

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- Proved and Probable Ore reserves of **10.9 Mt at 8.6% TGC**
- Total JORC Mineral Resource Estimate: **23.3Mt at 9.4% TGC**
- Resource supports producing 100,000tpa of concentrate
- Ability to increase mine-life as significant mineralisation remains undrilled
- Highest grade graphite Mineral Resource to be delineated in Tanzania
- Grade compares favourably to past graphite producing operation in Tanzania: *Merelani Mine: 8.3% TGC produced large flake, high grade commercial product*



Cross Section of Epanko Deposit

Graphite mineralisation –
thick robust zones that provide
a competitive and low operating cost



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Metallurgical Results

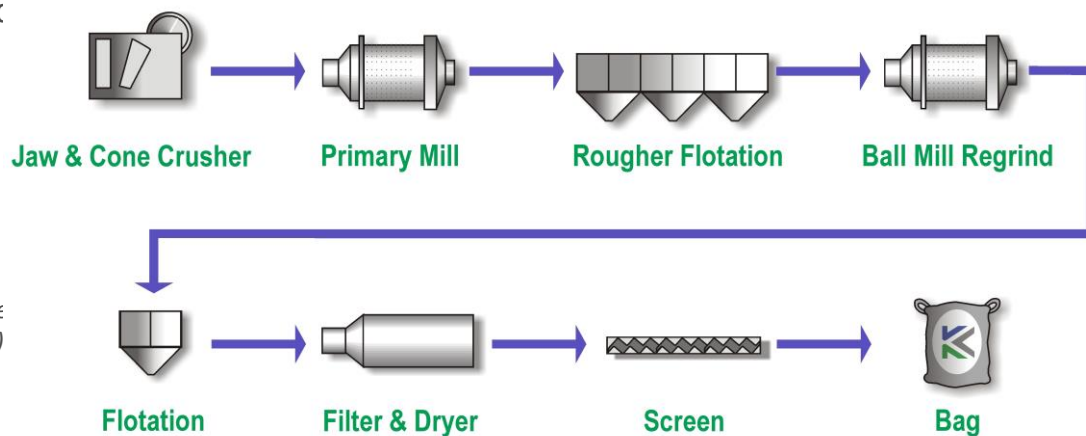
- 85.7% of distribution > than 106 micron
- Final carbon conc. of 96.3% TGC

Flowsheet

- Simple flowsheet design
- Flotation circuit - rougher, scavenger, primary cleaner and secondary cleaner flotation stages
- Graphite concentrate will be filtered and dried
- Dry graphite concentrate will be screened into various product sizes and bagged for shipping

* Micron (μm) and Millimetre (mm). $1\text{mm} = 1000\mu\text{m}$ and fixed carbon content determined by loss on ignition method (LOI)

FLAKE SIZE DISTRIBUTION				
Name	Microns (μm)	Mesh Size	Portion Retained (%)	Carbon Grade (%)
Jumbo	>300	>48	20.0	97.1
Large	>180	>80	35.4	96.7
Medium	>106	>150	30.3	96.2
Small	>75	>200	7.4	95.3
Fine	<75	<200	6.9	92.6
			100%	96.3%



Competitive advantage
in highest large flake distribution
and lowest fines fraction



EPANKO BASKET PRICE

Pricing for premium quality large flake graphite is forecast to substantially increase due to a shortage of supply and an increase in demand

- Very large size flake and high carbon grades attracts higher prices
- BFS used US\$1,446/t of concentrate refer table for basis of calculation
- Pricing model is based on FOB Dar es Salaam
- Demand for spherical graphite is expected to increase significantly

Name	FLAKE SIZE		PRICE (US\$/t)	RETAINED (%)	GRADE	BASKET PRICE
	Microns	Mesh				
Super Jumbo	>500	>35	2,800	20.0	97.1	560
Jumbo	>300	>48	1,400	35.4	96.7	
Larger	>180	>80	950	30.3	96.2	
Medium	>150	>100	840	7.4	95.3	
	>106	>150	580	6.9	92.6	
Small	>75	>200				
Fine	< 75	<200				
						US\$1,446

“Kibaran has taken a conservative approach to pricing by not factoring in excessive potential future demand driven increases. A 50% increase in basket price value over the current graphite prices is achieved using projected future graphite prices.”

Reference <http://investorintel.com/graphite-graphene-intel/shiny-gray-turns-green-torture-testing-graphite-prices/>

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Power Supply

- Grid power project underway

Water Supply

- Ground water readily available

Road

- Direct road access to site

Rail

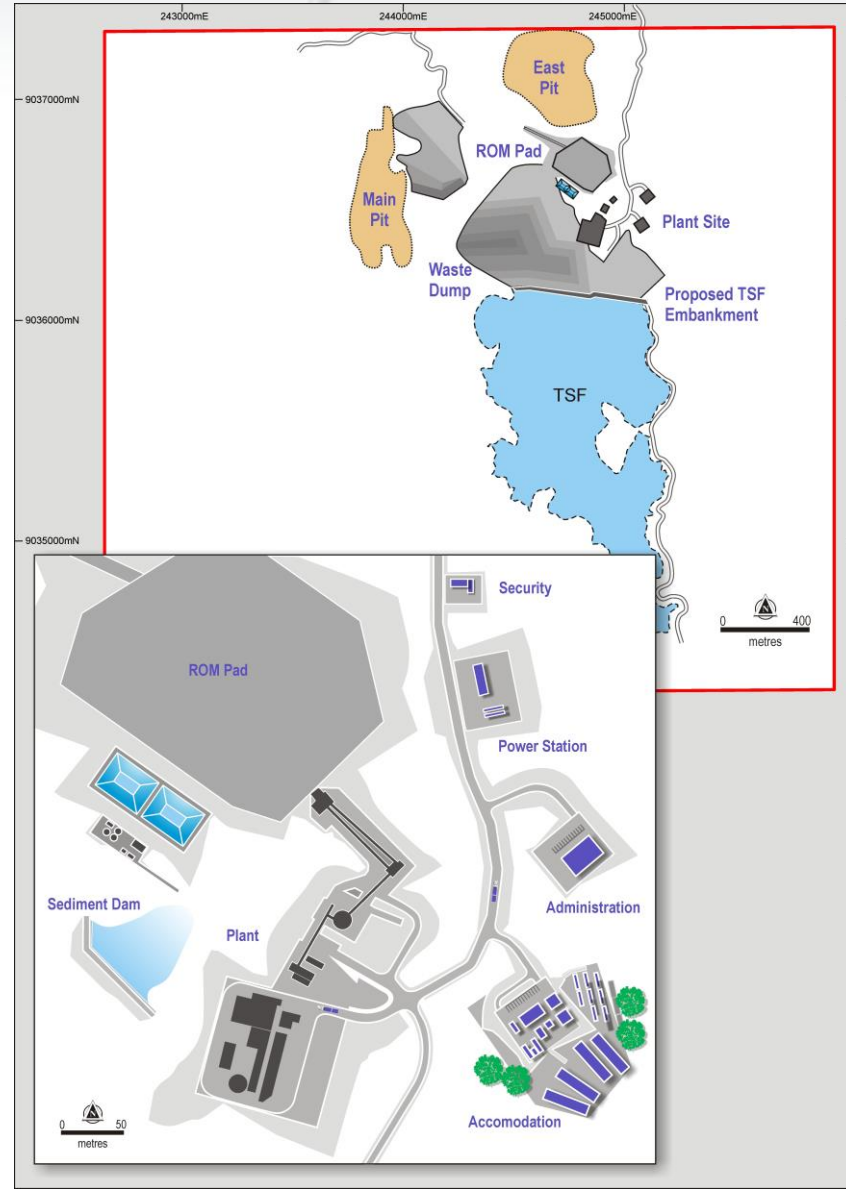
- 120km to Ifakara rail siding

Port

- 450 km to Dar Es Salaam port

Labour/Materials

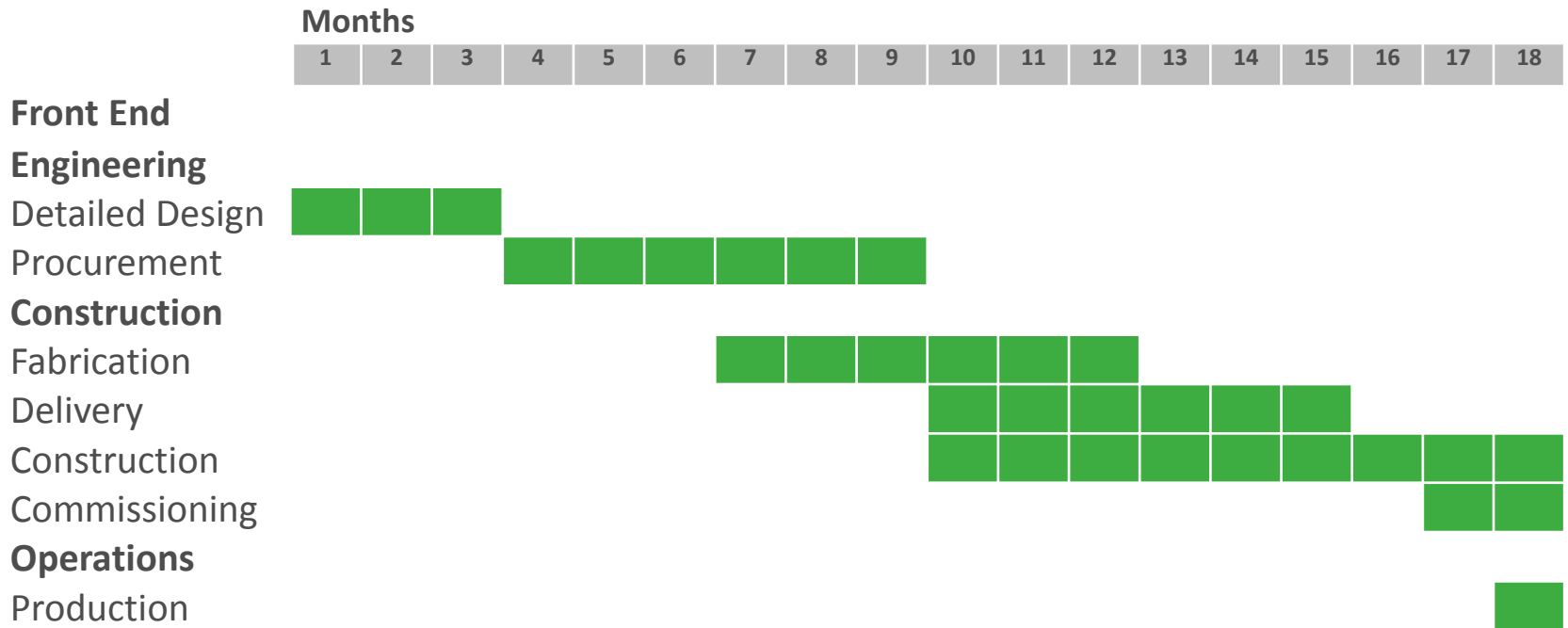
- 5km to Mahenge township





Timeline to Production

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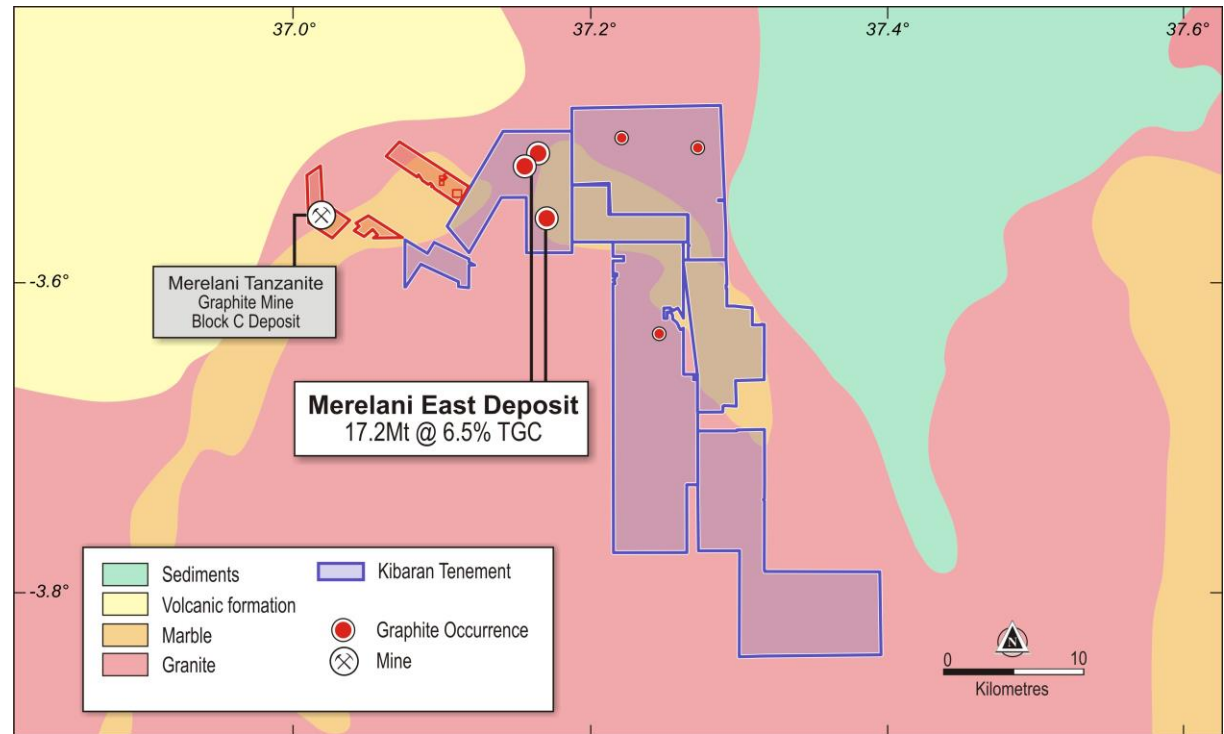
Strategic advantages of being one of the first into production



Merelani East Deposit

- Mineral Resource estimate of 17.2Mt at 6.5% TGC for 1,120,000 tonnes of contained graphite
- Located within the Merelani – Arusha Graphite Project with a recognised production and sales history
- Merelani East to advance to Pre-Feasibility Study
- LOI for 10,000tpa in place

“Results highlight stand-alone project potential and support Kibaran’s strategy of establishing a second production centre”



Consolidating world class
graphite provinces

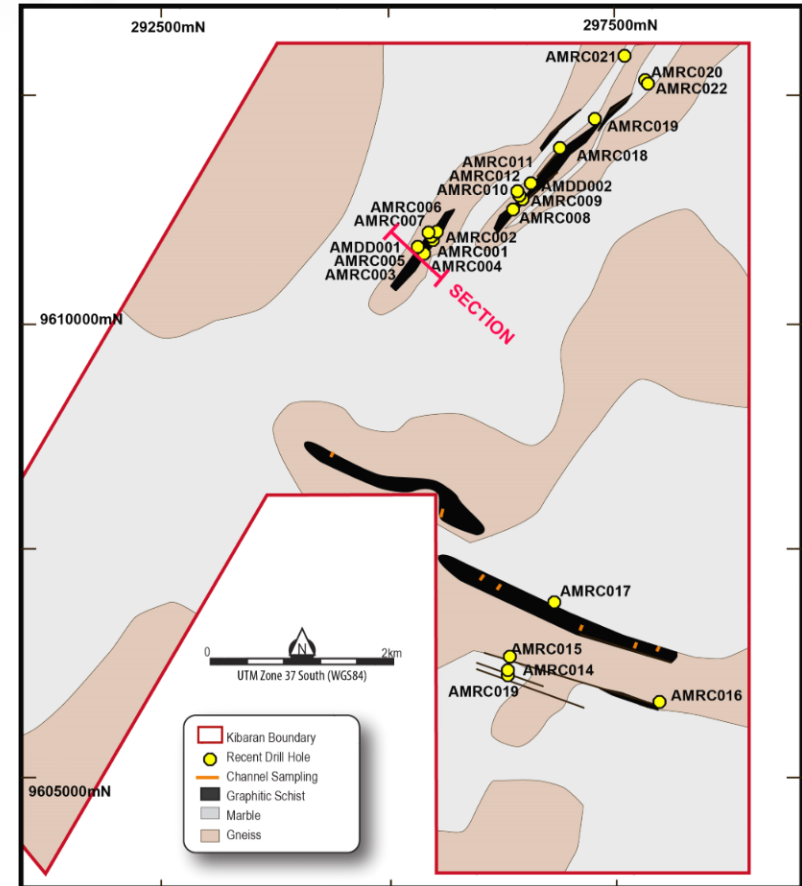
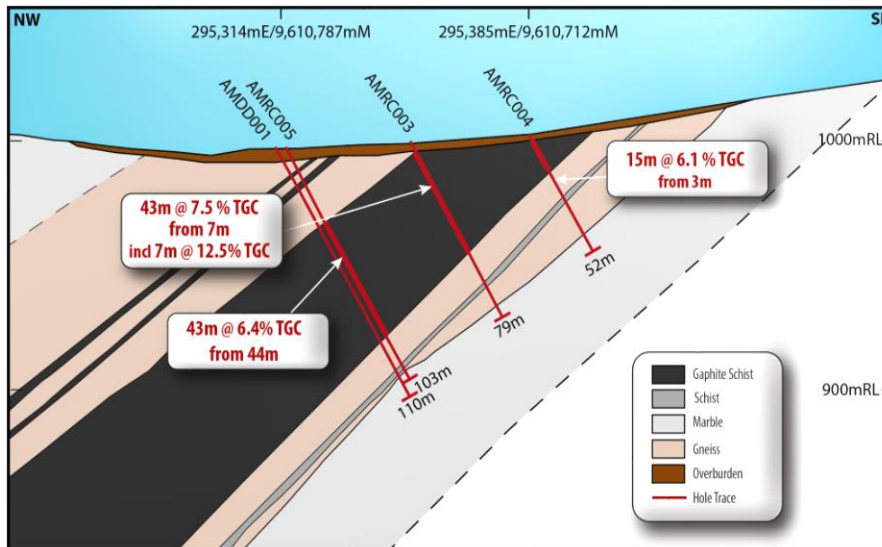


MERELANI EAST – STAND ALONE PROJECT

Significant Upside:

- Mineral Resource estimate covers only 15% of Kibaran's 100% owned tenement position and mineralisation remains open in all directions
- Exceptional metallurgical results which are directly comparable to neighbouring Block C deposit

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Further Exploration and Metallurgical test work underway



MERELANI EAST – METALLURGICAL RESULTS

One of the highest distributions and purity known in Africa

- 32.7% of distribution Jumbo Flake (>300 micron)
- Shortage of Large and Jumbo flake in China with higher prices for Super Jumbo of US\$6,000
- Extremely high carbon grades attract higher pricing
- No fine grinding or acid treatments

FLAKE SIZE			PORTION (%) FRACTION RETAINED	CARBON (% TGC)
Name	Microns	Mesh		
Super Jumbo	>500	>35	18.2	98.3
Jumbo	>300	>48	14.5	97.9
Larger	>180	>180	26.9	97.2
Medium	>106	>150	19.7	96.5
Small	>75	>200	7.1	95.3
Fine	< 75	<200	13.6	89.1



Results support the development of Merelani and the longer term benefit is broadening the Company's product range

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School Desk Donation to Local Community

In August 2014 Kibaran donated 148 school desks to Epanko Primary School.

His Excellency President Jakaya Kikwete was present to receive the donation on behalf of the school.

Wheelchairs for Special Needs Children

Wheelchairs for Special Needs Children
In October 2014 Kibaran donated 30 wheelchairs to vulnerable children within the Ulanga District. The wheelchairs were made in Australia by volunteer organisation Wheelchairs for Kids.

The District Community Development Officer and the Association for the Disabled identified the special needs children who ranged in age from 5 to 14 years. All wheelchairs were adjusted by a trained technician to fit each child's individual needs.



“Development of Kibaran’s graphite project will be to the benefit of all key stakeholders including the local community”

Genuine and lasting benefits for the local community



KIBARAN'S KEY DRIVERS TO SUCCESS

- Epanko striving to be the first graphite project into production in Africa
- Positioning Merelani to be the second graphite mine into production
- Maximise our significant cost competitive advantage due to our superior quality graphite
- Construct the first battery grade downstream processing plant in Africa for the EV battery market
- Develop 3D Graphtech Industries as a stand alone supplier of 3D printed products exclusively using TanzGraphite® as the raw material for graphite inks
- TanzGraphite® to become an industry standard and household name in the global graphite sector

Registered Trademark –
TanzGraphite® to value add +
growth strategies



WHY INVEST IN KIBARAN

- Experienced team with proven results and strategic partnerships in place
- Epanko confirmed as containing a premium, ultra high purity, large flake graphite product, with highly attractive economics based on low capex and high margins
- Epanko is being fast-tracked into development with debt funding LOI received from German bank
- Well placed to become a premium, large flake graphite producer in the near term – combined 30,000tpa with LOI with ThyssenKrupp and binding off-take with European Trader
- Graphite is a 21st century growth commodity driven in large part by technology – but significant supply opportunities expected to be limited to producers of premium, large flake graphite
- Value add growth strategies underway – 3D Printing and Battery Grade Graphite
- True value in Kibaran is yet to be realised

Focused Strategy = Kibaran
is the leading near-term producer of
premium, large flake graphite



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