



**METALS** *of* **AFRICA**  
LIMITED

February 2016

## **Taking Graphite to New Levels**

### **A Battery Technology focused Graphite Company**

**ASX: MTA**

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# Disclaimer & Competent Person Statement

Statements and material contained in this Presentation, particularly those regarding possible or assumed future performance, resources or potential growth of Metals of Africa Limited, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Such forecasts and information are not a guarantee of future performance and involve unknown risk and uncertainties, as well as other factors, many of which are beyond the control of Metals of Africa Limited. Information in this presentation has already been reported to the ASX.

## Cautionary Statement

The Company advises that a proportion of the production target referred to in this announcement is based on an inferred mineral resource. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

## Competent Persons Statement

The information in this report that relates to a Concept Study is based on information compiled by Ms. Cherie Leeden, who is Managing Director of the Company. Ms Leeden is a Member of the Australian Institute of Geoscientists and has the relevant experience in the Technical Assessment and Valuation of Mineral Assets of this level of Pre Development study referred Concept Study. Ms. Cherie Leeden also has sufficient relevant experience in the style of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person 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. Ms Leeden consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Maiden JORC Graphite Resource at Montepuez Central Project was announced by the Company 16 November 2015 and 8 December 2015 and should be referred with this report. The information pertaining to the Montepuez Central Mineral Resource is based on information compiled by Mr Robert Dennis who is a Member of Australian Institute of Geoscientists and a full time employee of RungePincockMincarco Limited. Mr Dennis 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. Mr Dennis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

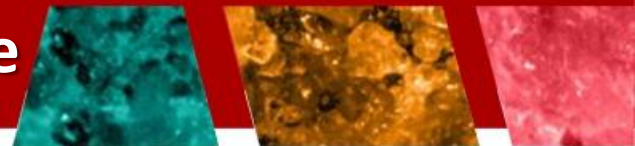
The Montepuez Central Concept Study is based on a preliminary technical and economic assessment to test the economic viability of the Montepuez Central Mineral Resource with  $\pm 40\%$  accuracy. It includes appropriate assessment of realistically assumed mine development, processing and transport operational factors estimated with presently defined graphite product pricing which supports realistically justified progress to a Pre-Feasibility Study. The Concept Study is not a Pre-Feasibility or Feasibility Study as further comprehensive studies are required to achieve this level of economic confidence including Resource to Ore Reserve conversion and further product testwork.

## Mineral Resources

The basis of the Study was the Mineral Resource estimate for the Montepuez Project (Buffalo, Lion and Elephant prospects), which contains 61.6Mt at 10.2% TGC for 6.3Mt of contained graphite at a cut-off of 6% TGC. RungePincockMincarco Limited ("RPM") was engaged to prepare the Mineral Resource estimate in 2015. The Mineral Resource underpinning the production target, classified as Indicated and Inferred, was prepared under the supervision of a Competent Person and reported in November and December 2015 in accordance with the requirements in Appendix 5A (the JORC Code 2012 edition). Classification of the Mineral Resource was carried out taking into account the geological understanding of the deposit, quality of the sampling and density data, and drill hole spacing. Metallurgical considerations of flake size distribution, purity of product and petrographic analyses were also given due consideration.

Vast portions of the VTEM anomalism at the Project remain undrilled. There are opportunities to delineate further Mineral Resources parallel to existing trends at Elephant and Buffalo. All prospects are open along strike and down-dip. Extensional drilling is likely to add tonnes to the Mineral Resource, specifically to the south of known mineralisation at Elephant and Buffalo.

# Positioning - MTA's Competitive Advantage



## Low Cost & High Grade Graphite

MTA's operating cost at its Montepuez Graphite Project is potentially very low. This should allow it to produce graphite to supply the rapidly expanding Li-ion battery market at a fraction of the cost that most natural and synthetic graphite is currently being produced for.

***Low OPEX combined with exceptionally large flake sizes will make MTA a supplier of choice.***

## Technology Driving Graphite Demand

The ability to store renewable energy via Lithium-ion batteries is revolutionising the energy industry. Graphite is a major component in Lithium-ion batteries; Lithium is used as the cathode (positive electrode) and Graphite is used as the anode (negative electrode).

MTA's superior quality Graphite lends itself to use in spherical graphite applications via anode ready material.

Graphite's natural abundance and unique geological setting in the Cabo Delgado province is a global anomaly. MTA's high grade and large resource presents mass-market opportunities which will ensure it delivers end-user clients with consistency of supply and quality.

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# Metals of Africa Corporate Snapshot

## Cherie Leeden - BSc Hons - Managing Director

- Geologist and Co-founder of Express Resources (vended into MTA)
- Proven track record of discovering mineral resources (base metals, bulks & graphite) and seeing them through to production
- Extensive experience working for majors/juniors
- Predominantly African based and focussed for past 5 years

## Gilbert George – Mec - Non Executive Chairman

- Experienced public company director
- >30 years international business experience
- Corporate funding experience in mining industry

## Brett Smith – BSc Hons - Non Executive Director

- Geologist
- 25 years experience in exploration and resource definition
- Experienced public company director

### ASX code:

**MTA**

### Share Price:

**\$0.042**

as of 4 February 2016

### 12 week Range:

**A\$0.040- \$0.083**

### Market Cap:

**\$9M**

### Cash in bank:

**\$1.5M\***

### Current Shares on Issue:

**211M**

### Current Options

**57.8M listed**

**8.5M unlisted**

### Listed options Terms

(\$0.15; 07/01/2017)

### Unlisted Options Terms

1.95M (\$0.15; 3/12/16), 2.45M (\$0.15; 31/12/17)

600k (\$0.168; 3/12/16), 2.5M (\$0.093; 31/3/17)

1M(\$0.26; 4/2/18)

### SHAREHOLDER STRUCTURE

**%**

Top 20

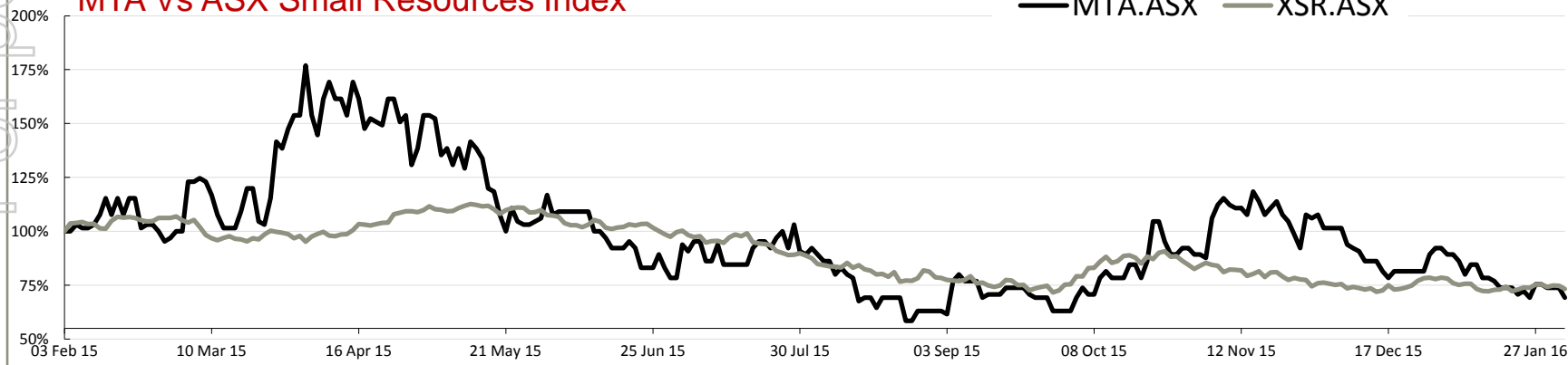
**46.87**

Retail Shareholders

**53.13**

\*as at 31 December 2015

## MTA Vs ASX Small Resources Index





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## Montepuez Graphite Project

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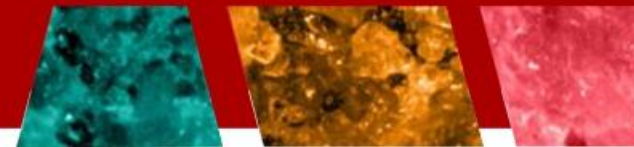
# Montepuez Project Location

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- Located in the world class graphite province of Cabo Delgado, Mozambique
- Province hosts more graphite than the rest of the world's graphite resources combined
- The Project is located about 260km west of the port city of Pemba
- 200km of the 260km is on a well maintained sealed bitumen highway
- There are no communities or agriculture located on the Montepuez Project license
- The Project boasts very low OPEX compared to the rest of the world – due to a combination of favourable logistics and high grade/quality



# Pemba Port



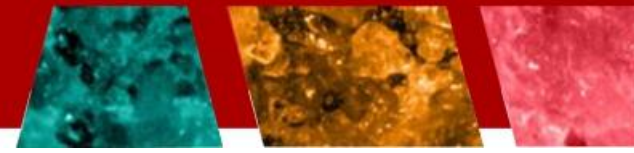
- Montepuez Project is located only 260km from port of Pemba
- Existing port facility can accommodate potential concentrate production of 100,000 tpa <sup>(1)</sup>
- Existing port accommodates Handymax container ships
- Stock pile facility near Port identified
- New, expanded multi-user port facility currently under construction, located a few kilometres from existing port
- Mozambique boasts the deepest water ports in East Africa

## 1. Cautionary Statement

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# Montepuez Concept Study Highlights



- ✓ **Conceptual mine plan & economic analysis completed to +/- 40% accuracy by RungePincockMinarco - to be further refined in a proposed Pre-Feasibility Study (PFS)**
- ✓ **Confirmation that Montepuez boasts the richest large & jumbo flake graphite deposit in Mozambique**

## **Concept Study highlights include:**

- Low 2.2:1 strip ratio
- Production schedule completed at plant feed rate of 1.2 Mtpa at average grade of 10% TGC for first 30 years
- Proposed production rate of 100,000 tonnes per annum of product over a proposed 60 year mine life
- Estimated capital cost of US\$166M + 20% contingency (including spherical graphite plant)<sup>(1)</sup>
- Very low OPEX implying significant margins achievable
- Simple, open pit mining operation
- Favourable deposit characteristics to fast track to mining
- Concept Study has confirmed support for the Project's potential development in order to proceed to a Pre-feasibility Study (PFS).

Note 1. The Company has provided key inputs to CAPEX



# Summary of Project Features

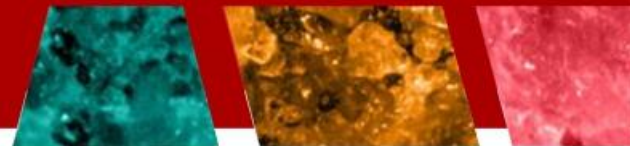


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<b>Resource</b>	JORC Resource: 62Mt at 10.3% TGC
<b>Mining Method</b>	Simple open pit operations with low strip ratio: operations will commence as free-dig mining using conventional truck and shovel mining
<b>Processing Method</b>	Conventional process including crushing, grinding, flotation, filtration, drying, screening and bagging in Mozambique. 50% of concentrate shipped to USA for spheroidization and coating (for use in Li-ion batteries as anode material)
<b>Processing Rate</b>	1.2 million tonnes per annum
<b>Products</b>	25,000 tpa Coated Spheroidal graphite 25,000 tpa Carburiser product 20,000 tpa Jumbo-Super Jumbo flake 30,000 tpa Large flake
<b>Production</b>	100,000 tonnes of graphite product per annum
<b>Operating costs (1)</b>	<b>FLAKE GRAPHITE ~US\$300 per product tonne (FOB from the Port of Pemba)</b> <b>COATED SPHERICAL GRAPHITE ~US\$3500 per product tonne</b>
<b>Life of mine (LOM)</b>	60 years

(1) Excludes royalties and taxes (circa 35%)

# Montepuez Concept Study – Upside



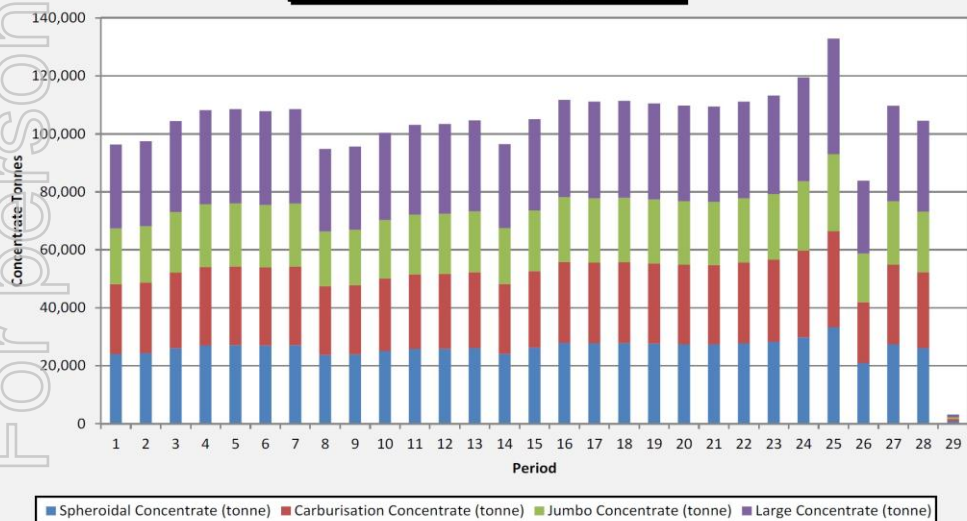
▪ Significant additional upside potential will be evaluated as part of the Feasibility Study and includes:

- Utilisation of 100% of mined flake graphite into spherical graphite market
- Upgrading of mineral resource via selective mining of very high grade zones
- Mining and development synergies taking into consideration MTA's Balama Central graphite project

Proposed 100,000 tpa product proportion is based on the proportion of flake size distribution in the Resource. The proportion of flake sizes have some basis (from flake size analyses conducted for the resource estimation) however need to be confirmed with testwork. Annual production based on the results of the Concept Study would result in the following output:

**25,000 tpa Spherical Graphite, 25,000 tpa Recarburiser, 20,000 tpa Jumbo-Super Jumbo flake, 30,000 tpa Large flake**

**Concentrate Output by Product**



## Concentrate Grades

Concentrate Grade	%	Value
Spheroidal Concentrate Grade	%	99.95%
Carburisation product	%	90.00%
Jumbo Concentrate Grade	%	96.00%
Large Concentrate Grade	%	96.00%

## Net Recovery to Product Assumptions

Product	%	Value
Spheroidal	%	21%
Carburiser	%	21%
Jumbo	%	17%
Large	%	26%

The above concentrate Grades and Net Recovery to Product Assumptions were used in the Concept model. These assumptions made by the Company are based on its understanding of the processes involved and the quality of the Project's graphite. The Company's current test work is underway and the Net Recovery to Product Assumptions in particular have used very conservative recovery percentages, due to the limited amount of test-work results currently available.

# Concept Study confirms attractive economics

## Capital expenditure (US\$M)

Processing plant	35
Site infrastructure (1)	25.7
Owner's costs	15.5
Power facility	10
Spherical Graphite Plant (USA)	80
<b>CAPEX Subtotal</b>	<b>166.2</b>
Contingency – 20%	33.24
<b>Total</b>	<b>199.4</b>

## Coated spherical operating costs (US\$/t)

Flake concentrate FOB (MOZ)	300
Spheroidization & coating (USA)	3200
<b>TOTAL: Coated Spherical Graphite OPEX</b>	<b>3500</b>

## Operational metrics (3)

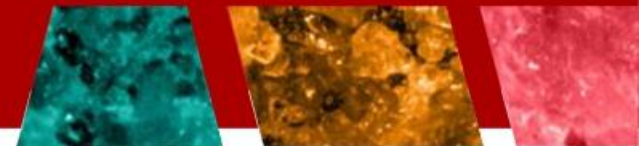
Operational period	Years	60
Plant feed rate	tpa	1.2 M
Average strip ratio (LOM)	Ratio	2.2:1
Average head grade (LOM)	%	8.5%TGC
Average recovery (LOM) (target)	%	95%
Average production (LOM)	tpa	100,000

## Flake concentrate operating costs (US\$/t)

Mining	59
Processing	90
Transport (2)	105
Administration and Sustaining Capital	46
<b>TOTAL: Flake Graphite OPEX</b>	<b>300</b>

- (1) Inclusive of haul roads, ROM pad, camp and tailings storage facility  
 (2) Inclusive of trucking costs to the Port of Pemba  
 (3) The Concept study includes Inferred Resources (55%) and Indicated Resources (45%.) Please refer Cautionary Statements on page 2.  
 (4) The Company has provided key inputs to CAPEX

# Montepuez Maiden Resource



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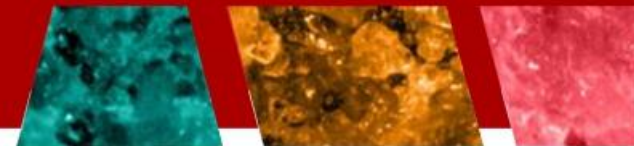
- MTA holds 100% interest in the Montepuez project
- **61.6 Mt @ 10.3% TGC and 0.26% V<sub>2</sub>O<sub>5</sub>** for 6.3 Mt of contained graphite at a cut-off of 6% TGC
- Resource is open along strike and at depth
- Only 5% of prospective geology tested – enormous additional resource potential
- Further details on the Resource Estimate contained in presentation appendix

Montepuez Graphite Project					
Maiden Mineral Resource Estimate (6% TGC Cut-off)					
Class	Tonnes	TGC	V <sub>2</sub> O <sub>5</sub>	Cont. Graphite	Cont. V <sub>2</sub> O <sub>5</sub>
	Mt	%	%	Mt	Kt
Indicated	27.6	10.4	0.23	2.9	62
Inferred	34.1	10.2	0.30	3.5	101
<b>Total</b>	<b>61.6</b>	<b>10.3</b>	<b>0.26</b>	<b>6.3</b>	<b>163</b>

**Note:**

1. Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
2. Flake sizes for the Mineral Resource are tabulated in Table 2 below.
3. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Robert Dennis who is a full-time employee of RPM and a Member of the AusIMM and AIG. Mr. Dennis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).
4. All Mineral Resources figures reported in the table above represent estimates at 12<sup>th</sup> November, 2015. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
5. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
6. TGC = total graphitic carbon.

# The Largest Flake In Mozambique

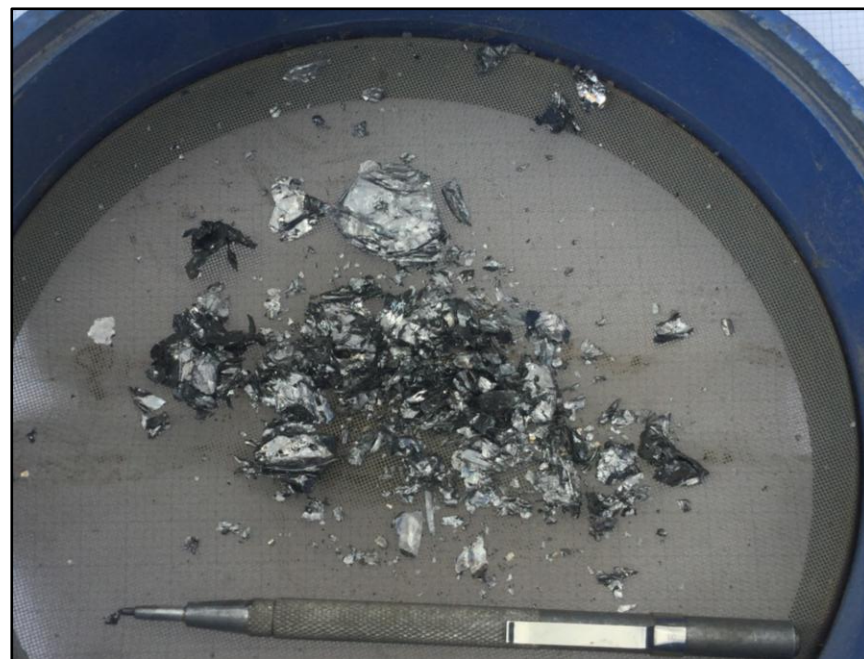


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Classification	Sieve Size ( $\mu\text{m}$ )	ASX:MTA	ASX:SYR	Sieve Size ( $\mu\text{m}$ )	ASX:TON
Jumbo	>300	<b>32.7%</b>	8.5%	>400	7.3%
Large	180-300	<b>23.5%</b>	12%	212-400	15.9%
Medium	150-180	<b>7.5%</b>	11.5%	106-212	36%
Fine	75-150	<b>20.7%</b>	22.5%	75-106	17.1%
Very Fine/Amorphous	<75	<b>15.5%</b>	45.5%	<75	23.7%

## Flake size does matter

- Natural Graphite is priced according to flake size
- Montepuez Project boasts the highest proportion of large-jumbo flake graphite in Mozambique
- More than half the Montepuez deposit is >large – jumbo
- Coarser flake generally equates to less impurities and is highly sort after by end-users
- Large-jumbo flake is highly sought-after by end users





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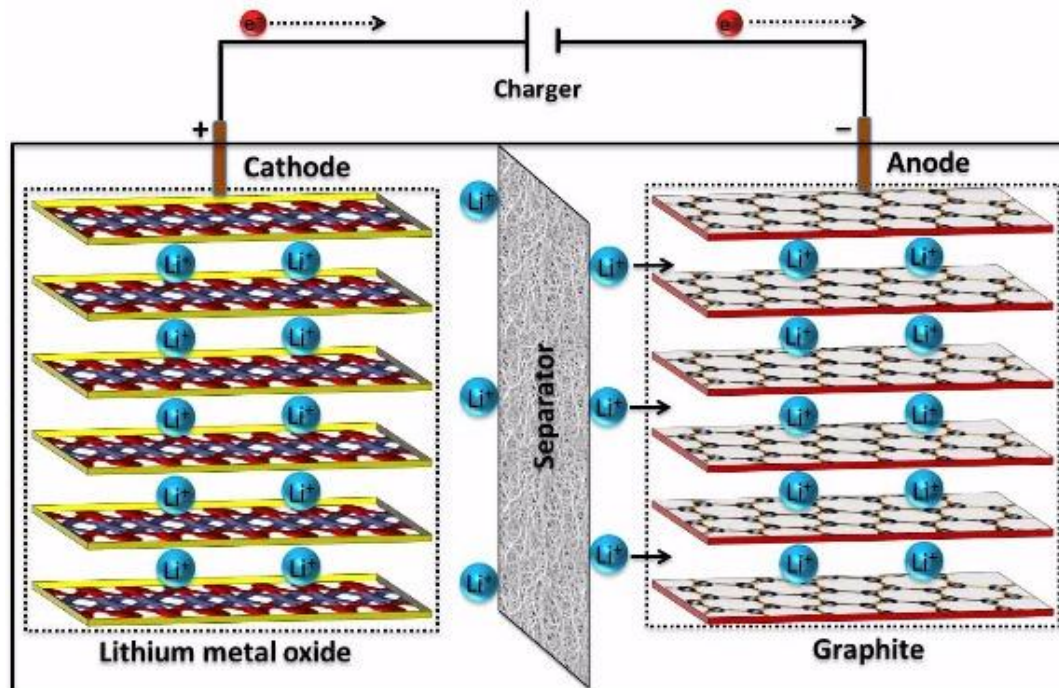
# Lithium Ion Battery Market

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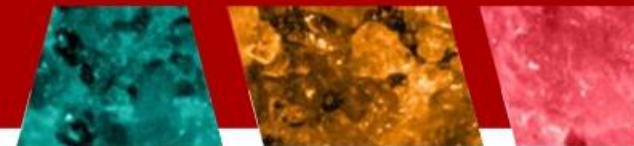


# Graphite - A critical component of Lithium Ion Batteries

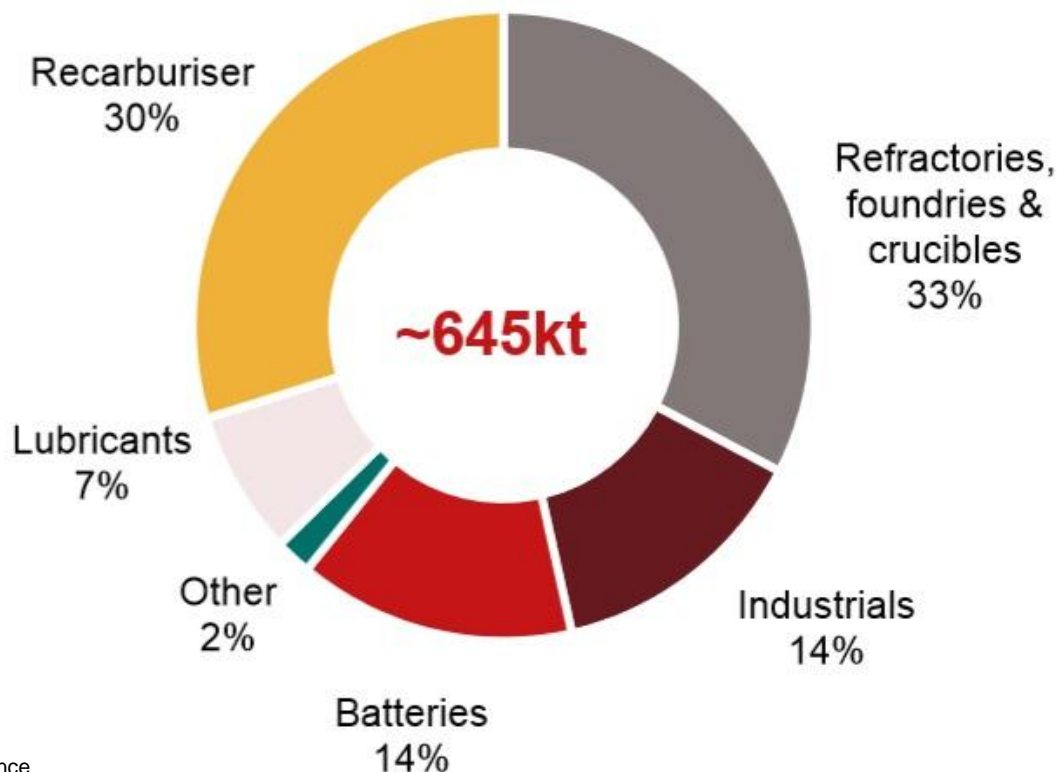
- The Li-ion battery positive terminal (cathode) is composed of Lithium and other metals. The Li-ion battery negative terminal (anode) is composed of **graphite** - a form of carbon
- MTA is focused on developing flake graphite to anode ready material (spherical graphite)
- There is about **4x more graphite than lithium used to make each Lithium Ion battery**
- Graphite is also a key component of vanadium redox battery technology
- High purity >large flake graphite supply is very limited
- Green technologies are driving graphite demand



# Focused on surging Li-ion Battery Market



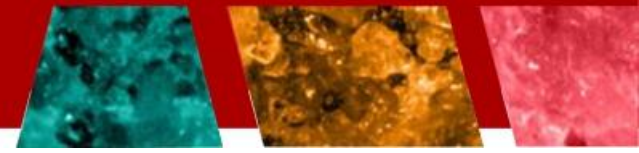
- The largest source of graphite demand growth is from Li-ion batteries - think Tesla, LG, Samsung, LG, Panasonic, Apple, Google, BMW, etc.
- **Storage batteries have begun to revolutionise the energy sector**
- China is implementing policies that promote the use of electric vehicles in major cities – policy change will significantly increase battery demand
- **Graphite demand for batteries is anticipated to increase by about 40% per annum**








Source: Benchmark Mineral Intelligence



# The Spherical Graphite Value Add



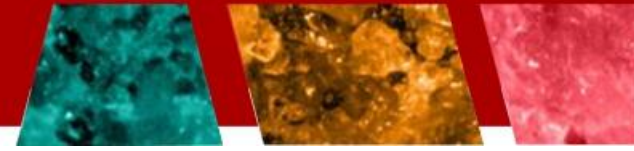
## Indicative Current Market Prices

	Amorphous <75um	Fine <75-150um	Medium <150-180um	Large <180-300um	Jumbo >300um	OPEX USD
<b>FLAKE SIZE</b>						
<b>USD PRICE GUIDE P/T (94-97% Concentrate)</b>	\$550	\$900	\$1,100	\$1,250	\$2,200	\$300
<b>RESOURCE DISTRIBUTION</b>	15.5%	20.7%	7.5%	23.5%	32.7%	
<b>99.95%C</b>	<b>Coated spherical graphite (for Li-ion application)</b>					<b>\$3200</b>
<b>USD PRICE GUIDE P/T</b>	<b>\$5,000 - \$10,000 (MTA is using USD\$7000 average)</b>					

General Current Market Pricing (independent pricing source: Industrial Minerals 2015)

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# The spherical graphite process



- Spherical graphite is a physically and chemically altered form of graphite that is optimal for use in anodes for Li-ion batteries. The rounded shape allows for more efficient packaging of particles which increases the energy capacity of the anode
- An opportunity exists to create a spherical graphite facility located outside China
- Spherical test work along with technical and regulatory due diligence is underway
- Spherical graphite derived from natural graphite is produced at approximately 1/3 the cost of synthetically produced spherical graphite
- **This cost saving is incentivising end-users to increase the natural Vs synthetic ratio in products in order to drive consumer prices down whilst maintaining profit margins**

## Flake to spherical graphite - the process

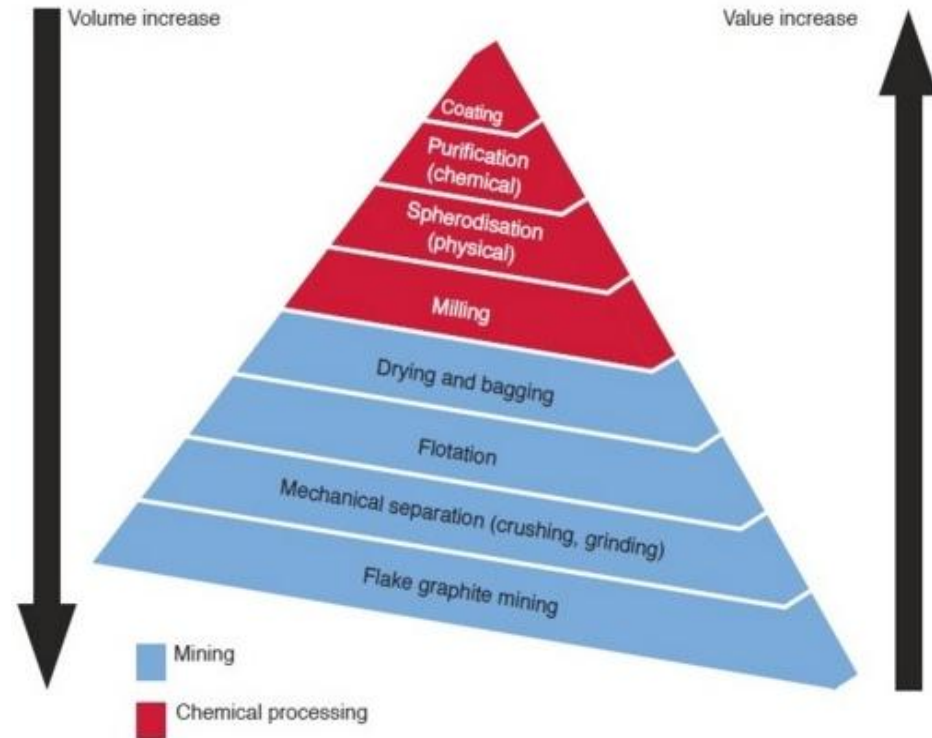
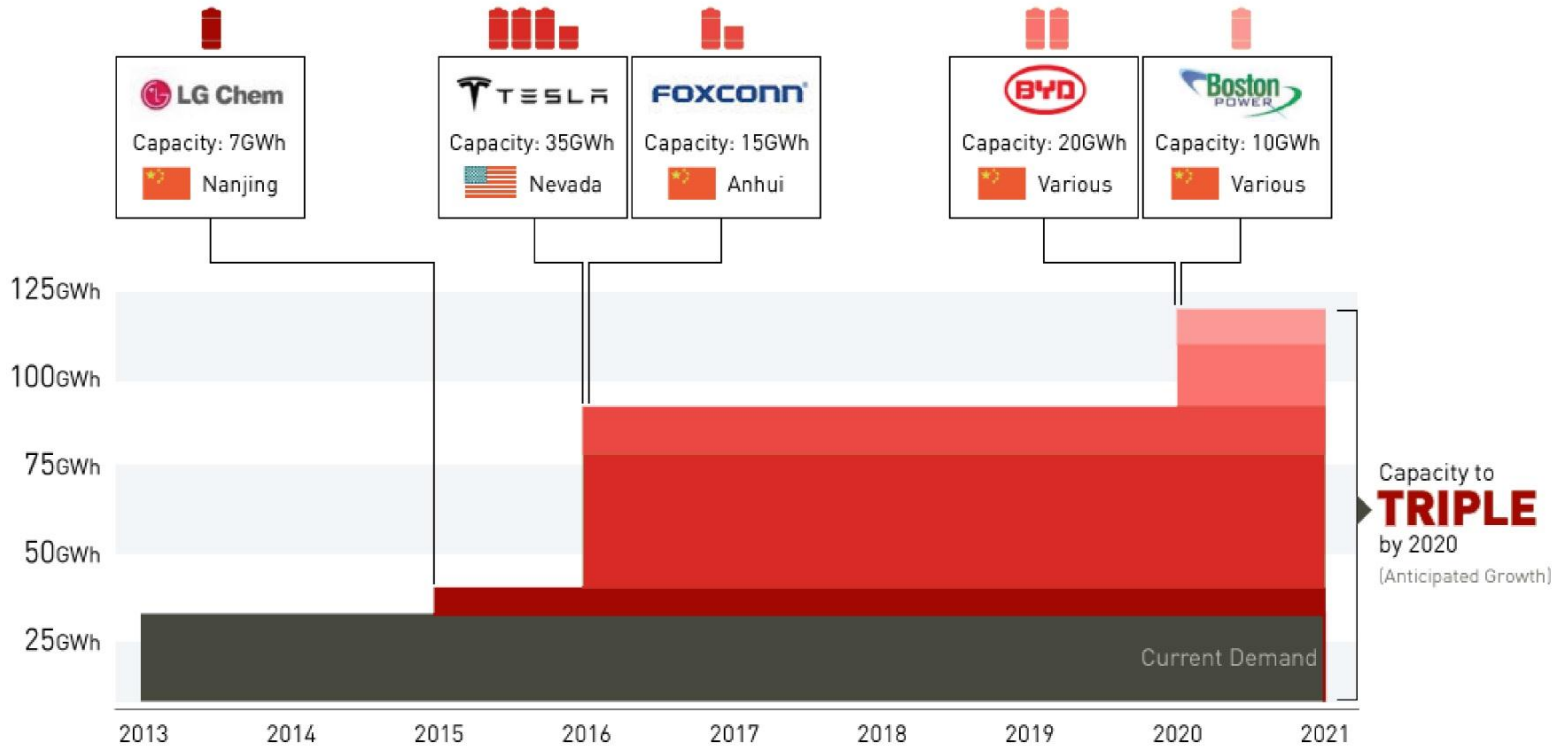


Image Source: Industrial Minerals

# Lithium-Ion battery megafactories are coming

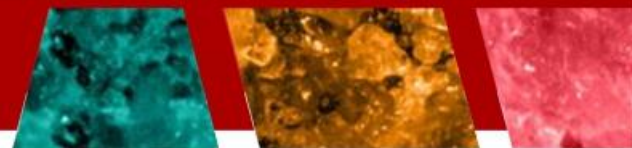
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\*Benchmark estimates, not all data disclosed by companies \*\*Instant planned capacity stated for graphical purposes, slower ramp up expected

Source: Benchmark Mineral Intelligence, 2015

# Enormous re-rating potential



Flagship Project	Balama (Mozambique)	Montepuez (Mozambique)
Drill assays	287.5m at 10.1% TGC	<b>169.1m at 10.8% TGC (open)</b>
Dominant Flake Size	Very Fine to Fine	<b>Large to Jumbo/ Super Jumbo</b>
Resource	1.15Bt at 10.2% TGC	<b>61.6Mt at 10.3% TGC</b>
Status	Development	Feasibility in progress
Off-take	Chalieco	In discussions
Current Share Price	\$3.76	\$0.048
Market Cap	\$869.6m	\$10.1m



- A resource in excess of 50 MT is unnecessary to support a world class graphite mine
- Low OPEX and a quality product is key – MTA's project boasts both
- MTA represents a cheap entry into a world class graphite province
- MTA's larger flake size equates to high purity & profit margins

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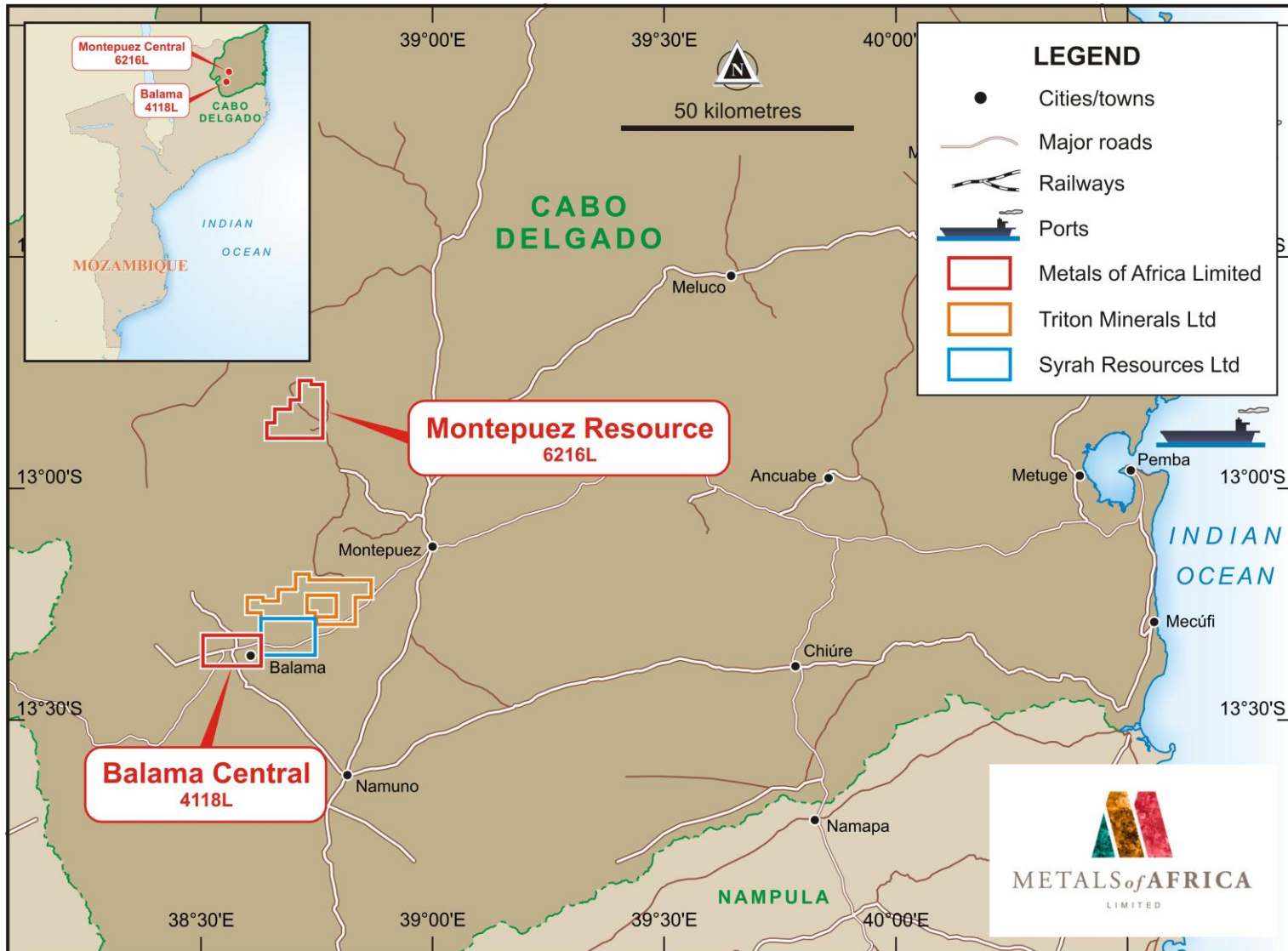
## Balama Central Graphite Project

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# Balama Central – Maiden Resource imminent

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# Balama Central – Lab results confirm significant discovery

- Strike continuation of the Syrah Resources Balama Project – adjacent license
- Maiden drill program of 20 diamond holes for 1605m was completed in late December 2015
- First batch of lab results have confirmed a very **high grade zone of 17-22% TGC** within an extensive zone of 5-9% TGC. Results include:

**85.55m at 9.33% TGC from 8m including a very high grade zone of 15.85m at 22.69% TGC from 39.2m**

- Mineralisation is present from or near the surface and remains open in every direction
- Huge exploration upside exists – maiden drill program has only scratched the surface
- Metallurgical test work is underway
- **Maiden JORC Resource Estimate will be announced upon receiving all outstanding laboratory assay results**



# Committed to making a positive difference

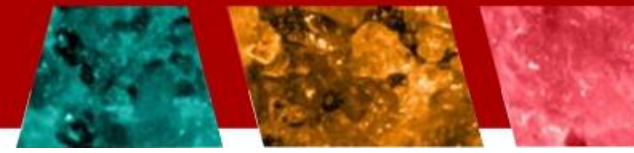
Examples of our ongoing local initiatives include:

- Opening and repair of water bores/wells
- Repair of roads and schools
- Commitment to training and development of local labour and staff
- Government geologists training program
- Proud sponsor of a local soccer team
- Hygiene education program





# Development schedule



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	2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Balama Resource Estimate	█									
Balama Concept Study		█								
Montepuez Pre Feasibility Study	█	█	█							
Environmental Impact Study	█	█	█							
Metallurgical Test work	█	█	█							
Spherical Graphite Test work	█	█	█							
End-user product test work	█									
Off-take Agreements		█	█							
Project Finance			█	█						
Detailed Design				█	█					
Engineering and Plant Construction					█	█	█	█	█	█
Mining Approval				█						



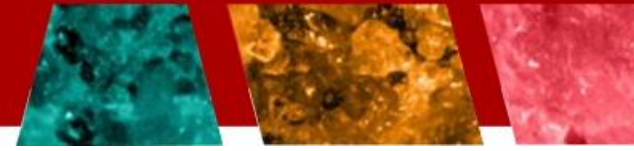
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## Appendices

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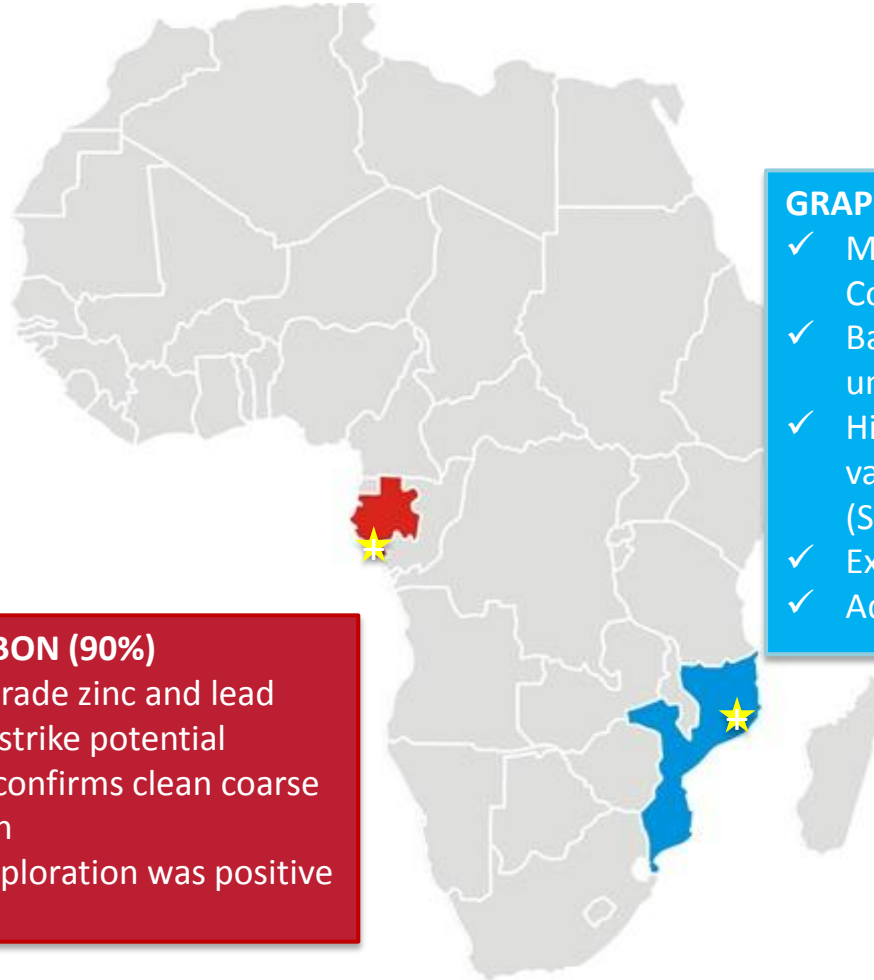


# Projects Overview



## Rapid development of our Graphite resources is MTA's immediate focus

- Geographically diversified in politically stable coastal jurisdictions: Gabon and Mozambique
- Exploring for *the right commodities*: **Graphite** and **Zinc**



### ZINC AND LEAD IN GABON (90%)

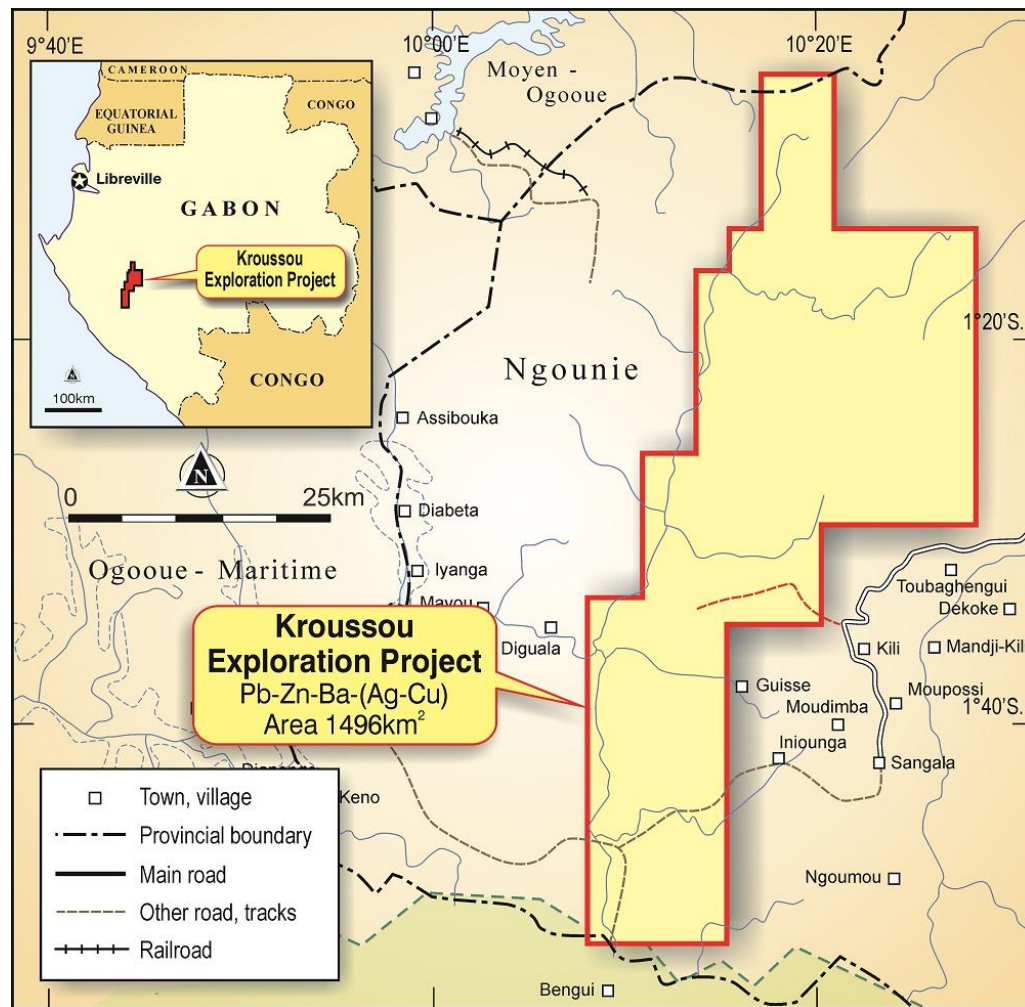
- ✓ Outcropping high grade zinc and lead
- ✓ 90km of identified strike potential
- ✓ Positive petrology confirms clean coarse grain mineralisation
- ✓ Historical BRGM exploration was positive
- ✓ Drill ready

### GRAPHITE IN MOZAMBIQUE (100%)

- ✓ Montepuez JORC Resource and Concept Study complete
- ✓ Balama Central JORC Resource underway
- ✓ Highly prospective graphite and vanadium Cabo Delgado Province (SYR&TON) with good logistics
- ✓ Excellent quality
- ✓ Advancing rapidly – PFS underway

# Kroussou Zinc Project in Gabon

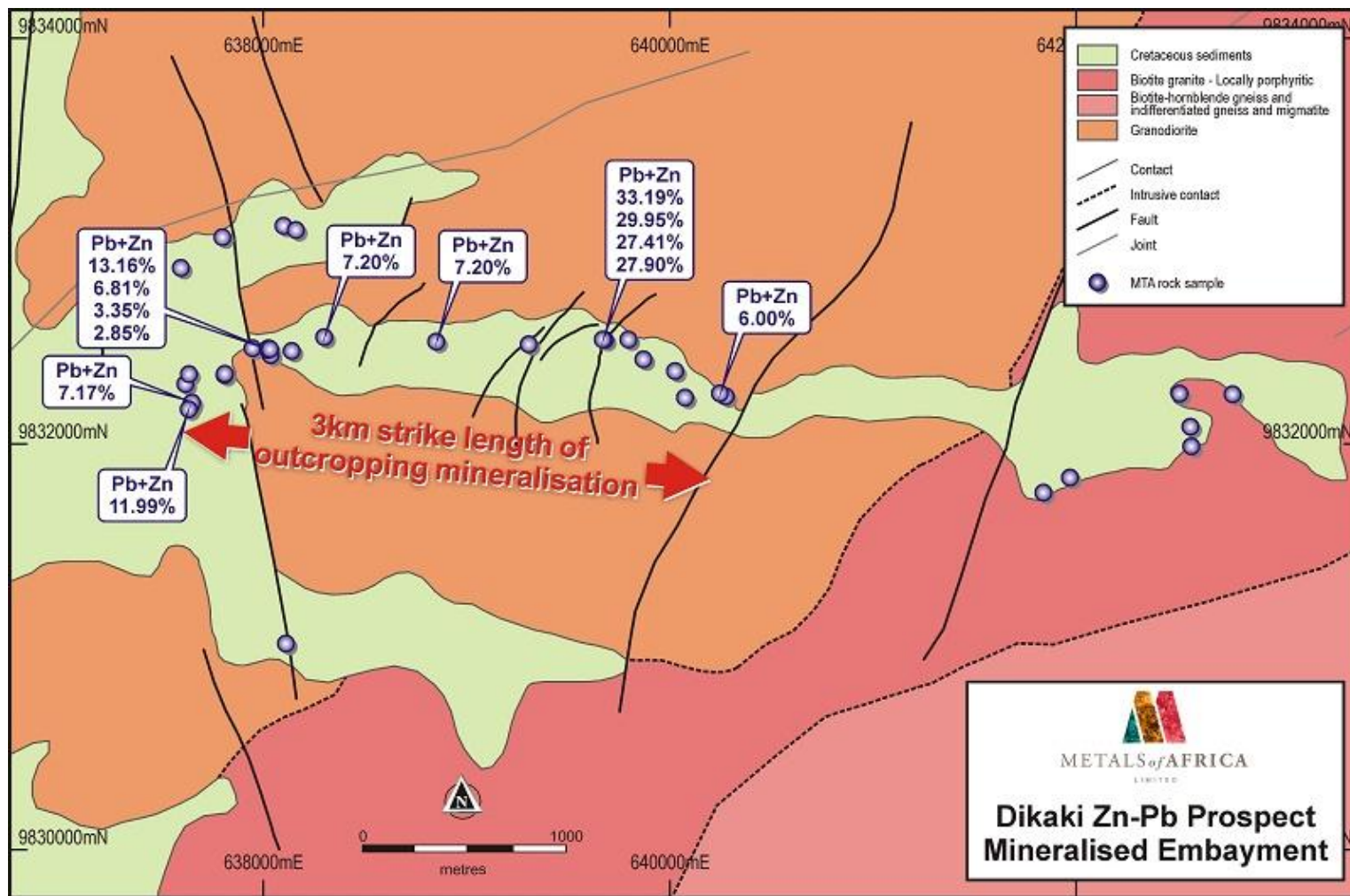
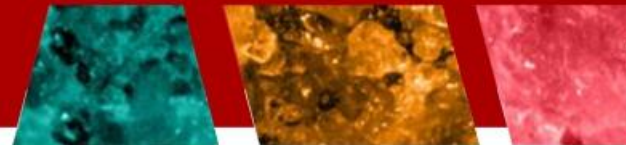
- Historical BRGM drilling intersected shallow zinc dominant Zn-Pb-Ag mineralised lenses
- Historical explorers were focussed on lead (not zinc) and drilled very shallow holes (predominantly less than 15m deep)
- Historical grades for the Dikaki prospect averaged just over 9% combined Zn+Pb (5.7% Zn + 3.3% Pb) and ranged 6.08%-12.81% combined.
- MTA confirms grades up to 9.69% zinc and 33.10% lead
- Over 100 outcropping zinc and lead surface occurrences
- >390 shallow historical BRGM drill holes
- MTA has 90% equity (remaining 10% held by Havilah Consolidated Resources is free carried by MTA for 9 months then must contribute or dilute to a 0.75% NSR)



**MTA has recently received multiple expressions of interest to partner with this project – the board is currently evaluating the offers**

# Dikaki drill target at Kroussou Project

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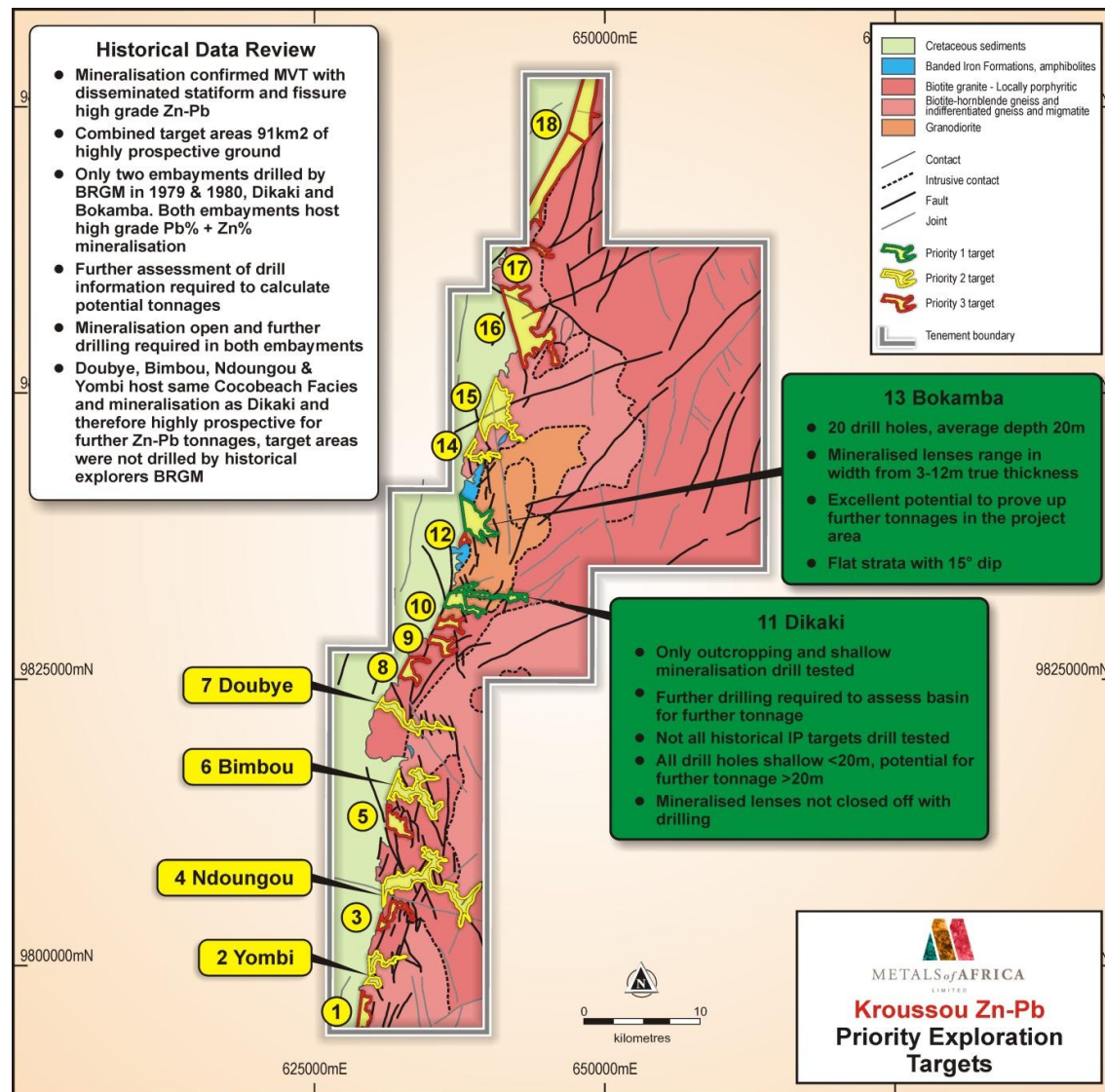


**>3km strike length, 5m thick (vertical) with shallow dip (0-15 degrees).**

# Kroussou Zinc Project – Upside

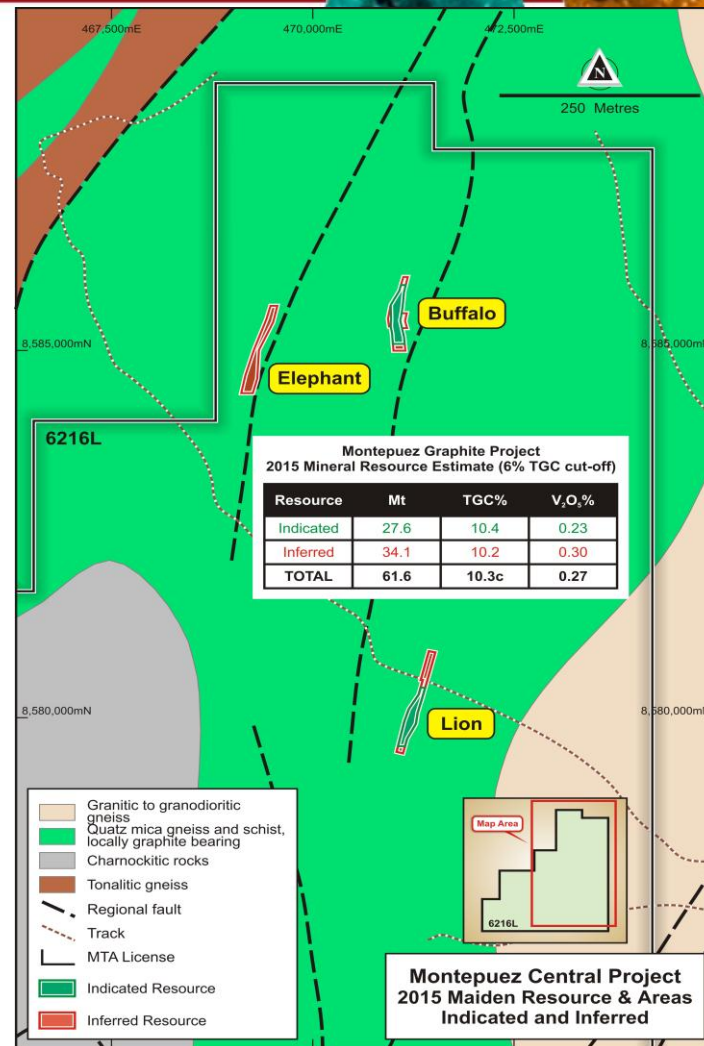
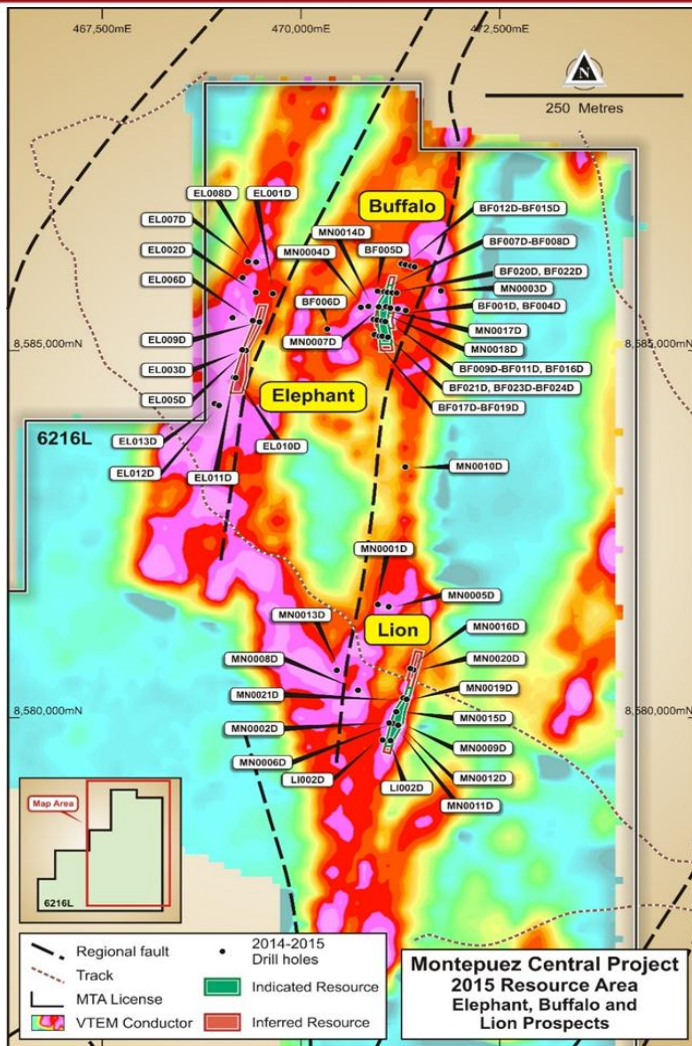
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- ✓ High grade zinc & lead
- ✓ Proximity to port
- ✓ Shallow mineralisation
- ✓ No communities
- ✓ Supportive government
- ✓ Huge project
- ✓ 18 targets
- ✓ Historical work assists with geological understanding and MVT model
- ✓ Drill ready
- ✓ EL granted



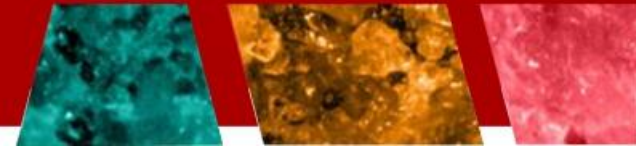
# Montepuez: Drilling tested only 5% of prospective geology

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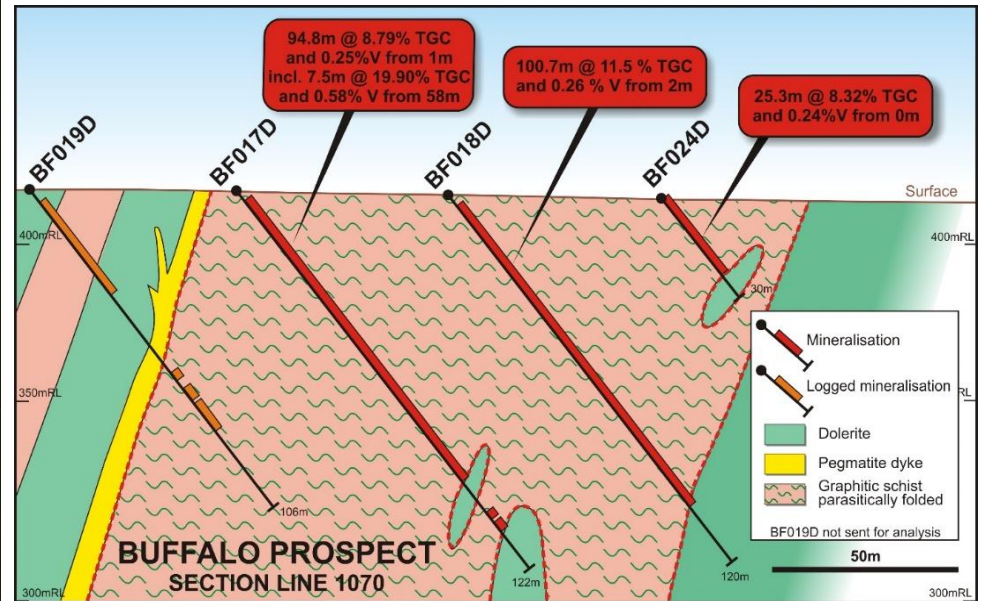
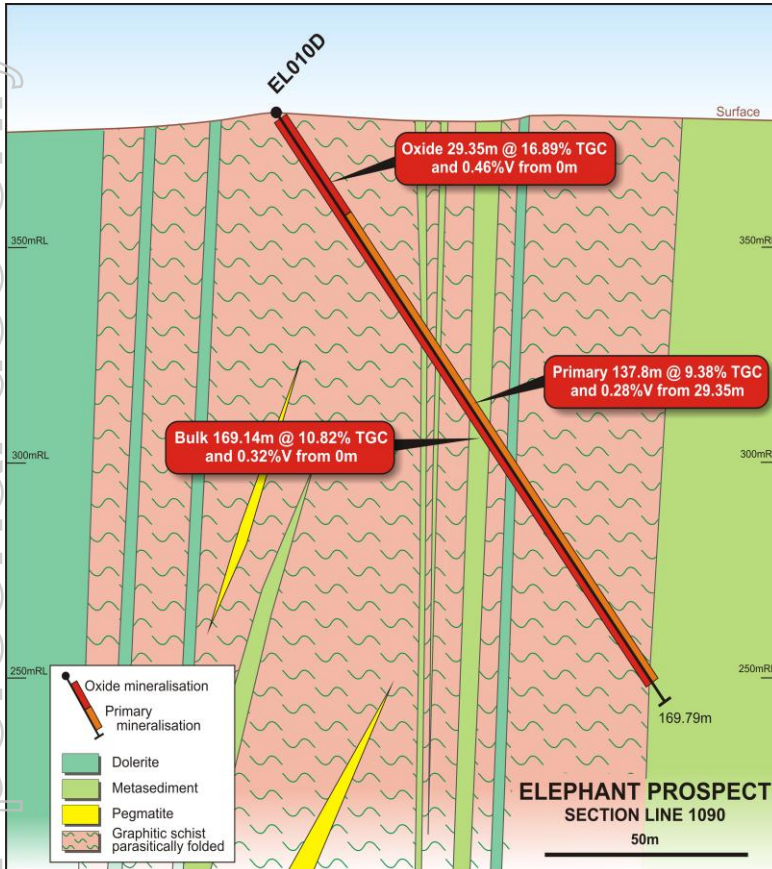
**60 diamond holes for 6,450 metres**

# Montepuez: Elephant and Buffalo Resources



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- Excellent grade (>10% TGC)
- At surface = cheap mining
- Mineralisation remains open in every direction



**100% owned tier 1 graphite resource in the world's richest graphite province**



# Montepuez JORC Resource Statement

## Montepuez Graphite Project November 2015 Mineral Resource Estimate (6% TGC Cut-off)

Deposit	Type	Indicated Mineral Resource				
		Tonnes Mt	TGC %	V <sub>2</sub> O <sub>5</sub> %	Cont. Graphite Mt	Cont. V <sub>2</sub> O <sub>5</sub> Kt
Buffalo	Weathered	2.9	9.8	0.23	0.3	7
	Primary	21.0	10.3	0.21	2.2	45
Lion	Weathered	0.6	11.4	0.26	0.1	1
	Primary	3.1	11.3	0.32	0.3	10
<b>Total</b>		<b>27.6</b>	<b>10.4</b>	<b>0.23</b>	<b>2.9</b>	<b>62</b>

Deposit	Type	Inferred Mineral Resource				
		Tonnes Mt	TGC %	V <sub>2</sub> O <sub>5</sub> %	Cont. Graphite Mt	Cont. V <sub>2</sub> O <sub>5</sub> Kt
Buffalo	Weathered	1.1	8.2	0.19	0.1	2
	Primary	3.4	8.8	0.20	0.3	7
Lion	Weathered	0.1	12.6	0.34	0.0	0
	Primary	0.4	12.1	0.34	0.1	1
Elephant	Weathered	2.7	10.5	0.32	0.3	9
	Primary	26.4	10.3	0.31	2.7	81
<b>Total</b>		<b>34.1</b>	<b>10.2</b>	<b>0.30</b>	<b>3.5</b>	<b>101</b>

Deposit	Type	Total Mineral Resource				
		Tonnes Mt	TGC %	V <sub>2</sub> O <sub>5</sub> %	Cont. Graphite Mt	Cont. V <sub>2</sub> O <sub>5</sub> Kt
Buffalo	Weathered	4.0	9.4	0.22	0.4	9
	Primary	24.4	10.1	0.21	2.5	52
Lion	Weathered	0.6	11.5	0.27	0.1	2
	Primary	3.5	11.4	0.32	0.4	11
Elephant	Weathered	2.7	10.5	0.32	0.3	9
	Primary	26.4	10.3	0.31	2.7	81
<b>Total</b>		<b>61.6</b>	<b>10.3</b>	<b>0.27</b>	<b>6.3</b>	<b>163</b>

Table 2 Buffalo Weathered Material Type Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	16.0	100.0
Fine	75-150	21.6	84.0
Medium	150-180	8.1	62.4
Large	180-300	25.2	54.3
Jumbo	>300	29.0	29.0

Table 3 Buffalo Primary Material Type Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	11.3	100.0
Fine	75-150	18.8	88.7
Medium	150-180	7.8	69.9
Large	180-300	24.6	62.1
Jumbo	>300	37.5	37.5

Table 4 Lion Weathered Material Type Flake Size Classification

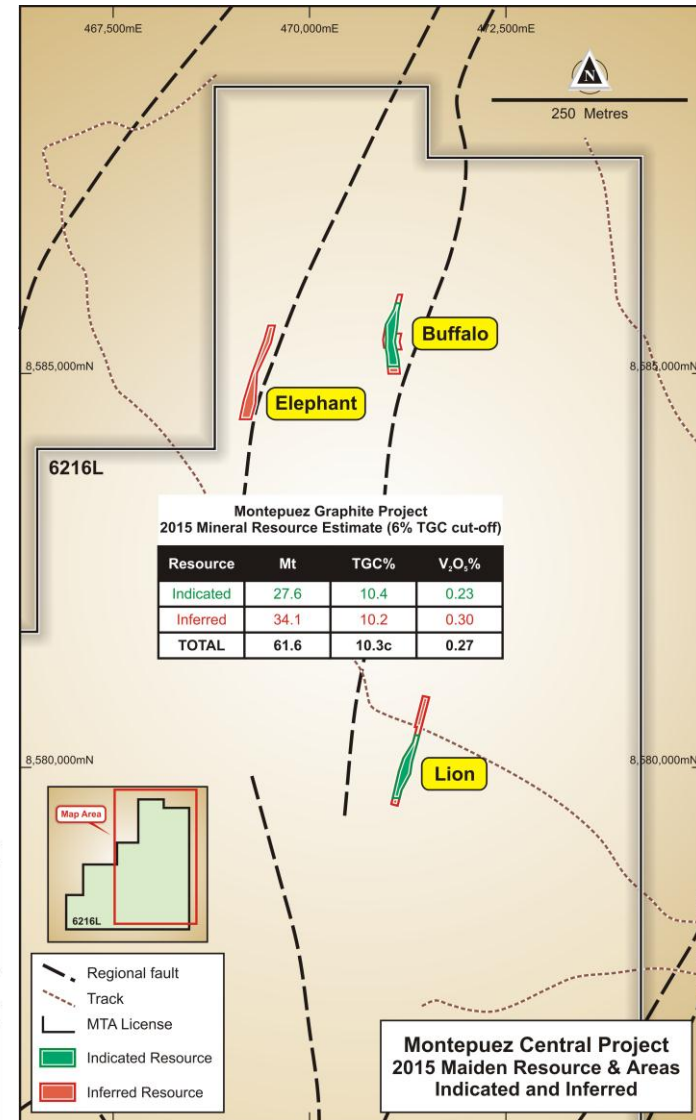
Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	20.6	100.0
Fine	75-150	22.8	79.4
Medium	150-180	7.9	56.6
Large	180-300	23.2	48.7
Jumbo	>300	25.5	25.5

Table 5 Lion Primary Material Type Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	16.0	100.0
Fine	75-150	20.6	84.0
Medium	150-180	6.6	63.3
Large	180-300	21.7	56.8
Jumbo	>300	35.1	35.1

Table 6 Combined Montepuez Project Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	15.5	100.0
Fine	75-150	20.7	84.5
Medium	150-180	7.5	63.8
Large	180-300	23.5	56.3
Jumbo	>300	32.7	32.7



# Montepuez JORC Resource – Cut-off grade chart

## Montepuez Graphite Project November 2015 Mineral Resource Estimate

Grade Range TGC%	Incremental Resource					Cut-off Grade TGC%	Cumulative Resource				
	Tonnes t	TGC %	V <sub>2</sub> O <sub>5</sub> %	Contained Graphite (t)	Contained Vanadium (t)		Tonnes t	TGC %	V <sub>2</sub> O <sub>5</sub> %	Contained Graphite (t)	Contained Vanadium (t)
1.0 - 2.0	80,302	1.97	0.05	1,582	44	1	83,527,774	8.81	0.23	7,357,009	190,620
2.0 - 3.0	1,396,495	2.55	0.06	35,639	887	2	83,447,472	8.81	0.23	7,355,427	190,576
3.0 - 4.0	2,653,909	3.69	0.09	97,805	2,466	3	82,050,977	8.92	0.23	7,319,788	189,689
4.0 - 5.0	7,529,132	4.53	0.12	340,970	9,296	4	79,397,068	9.10	0.24	7,221,983	187,223
5.0 - 6.0	10,245,400	5.50	0.14	563,119	14,849	5	71,867,936	9.57	0.25	6,881,012	177,927
6.0 - 7.0	7,146,042	6.51	0.17	465,033	12,497	6	61,622,536	10.25	0.26	6,317,894	163,079
7.0 - 8.0	7,505,020	7.54	0.20	566,217	14,861	7	54,476,494	10.74	0.28	5,852,861	150,582
8.0 - 9.0	8,431,197	8.52	0.22	718,663	18,307	8	46,971,474	11.26	0.29	5,286,644	135,721
9.0 - 10.0	10,464,986	9.53	0.23	997,611	24,367	9	38,540,277	11.85	0.30	4,567,981	117,415
10.0 - 11.0	9,586,488	10.47	0.26	1,003,564	25,024	10	28,075,291	12.72	0.33	3,570,370	93,048
11.0 - 12.0	5,790,582	11.51	0.29	666,225	16,595	11	18,488,803	13.88	0.37	2,566,806	68,024
12.0 - 13.0	3,523,078	12.38	0.31	436,144	10,973	12	12,698,221	14.97	0.41	1,900,581	51,428
13.0 - 14.0	2,104,757	13.44	0.36	282,811	7,583	13	9,175,143	15.96	0.44	1,464,437	40,455
14.0 - 15.0	2,488,293	14.81	0.46	368,471	11,403	14	7,070,386	16.71	0.46	1,181,626	32,872
15.0 - 20.0	4,101,168	17.47	0.47	716,360	19,148	15	4,582,093	17.75	0.47	813,155	21,469
> 20.0	480,925	20.13	0.48	96,796	2,321	20	480,925	20.13	0.48	96,796	2,321
<b>Total</b>	<b>83,527,774</b>	<b>8.81</b>	<b>0.23</b>	<b>7,357,009</b>	<b>190,620</b>						

### Note:

1. Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
2. Flake sizes for the Mineral Resource are tabulated in Tables 2 to 6 below.
3. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Robert Dennis who is a full-time employee of RPM and a Member of the AusIMM and AIG. Mr. Dennis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).
4. All Mineral Resources figures reported in the table above represent estimates at 12<sup>th</sup> November, 2015. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
5. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
6. Reporting cut-off grade selected based on other known economically viable deposits in the region. For further details, refer to grade tonnage information contained within Table 7 above.
7. TGC = total graphitic carbon.



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