



METALS *of* AFRICA  
LIMITED

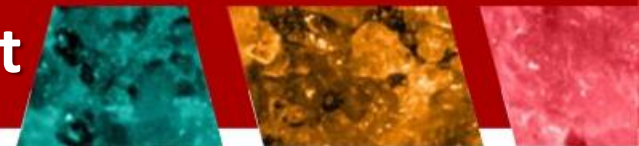
**15-17 September 2014**  
**Investor Update Presentation**

**ASX: MTA**

**Exploring for world class discoveries**

[www.metalsofafrica.com.au](http://www.metalsofafrica.com.au)

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# Corporate Snapshot



**Cherie Leeden - BSc Hons**

**Executive Director**

- Geologist
- Proven track record of discovering mineral resources (base metals, iron and coal)
- 12 years experience working for majors/juniors
- Relocated to Mozambique in 2011 to peg and develop MTA's exploration project portfolio



**Gilbert George - MEd**

**Non Executive Chairman**

- 30 years international business experience
- Corporate funding experience in mining industry
- Strong connections with Japan
- Formerly Chairman of Mindax Ltd (MDX)



**Brett Smith – BSc Hons**

**Non Executive Director**

- Geologist
- 25 years experience
- Experience in exploration and resource definition
- Managing Director of Corazon (CZN)

**ASX code:**

Share Price:  
as of 12 September 2014

**MTA**

\$0.155

**Market Cap:**

\$16.7M

**12 week Range:**

A\$0.057- \$0.29

**Cash in bank:**

\$2.22M\*

**Current Shares on Issue:**

107.8M\*

**Current Options**

57.08M listed  
19.58M unlisted

**Listed options**

(\$0.15; 07/01/2017)

**Unlisted Options**

5M (\$0.25; 30/6/15)

5M (\$0.40; 30/6/15)

4M (\$0.25; 31/12/15)

2.488M (\$0.15; 3/12/16)

600k (\$0.168; 3/12/16)

2.5M (\$0.093, 31/03/17)

**SHAREHOLDER STRUCTURE**

%

**Top 20**

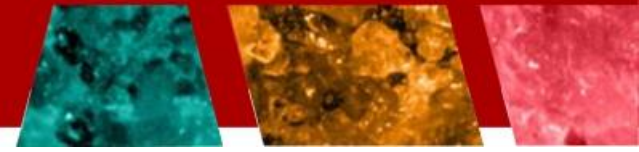
36.47

**Retail Shareholders**

63.53

\*Note: A fully underwritten 1 for 5 rights issue opens 23 September 2014 to raise an additional \$3.2M via issue of approx. 21.5m shares.

# A focused strategy



## Metals of Africa: a focused, diversified exploration company

- Geographically diversified in politically stable jurisdictions
- Exploring for ***the right commodities***
- Tier 1 exploration assets across the portfolio

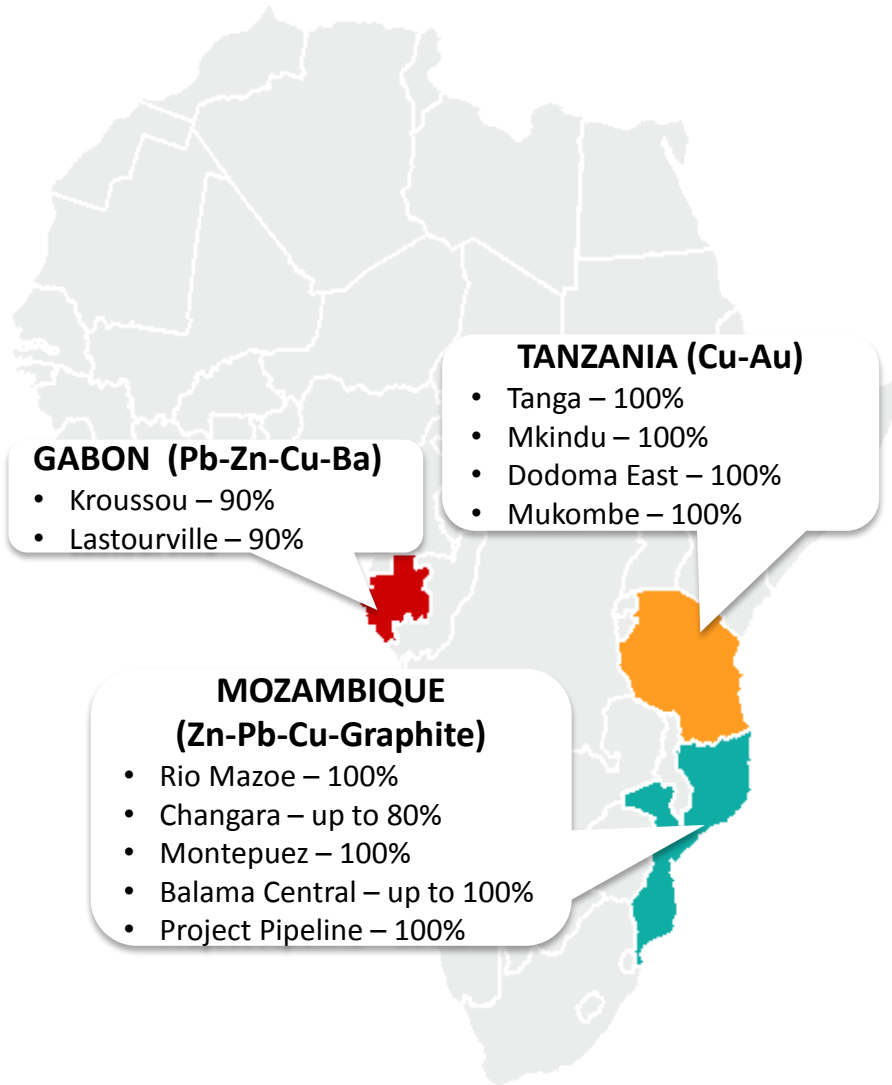
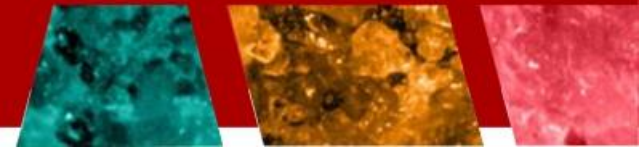
## The strategy: define world class resources to generate shareholder value

- Near drill ready targets located in **highly prospective**, underexplored geological settings
- Mozambique focus with resident management team
- High activity work programs

**The opportunity: surge in global graphite consumption and supply drop looming in lead & zinc planned to drive near term performance**

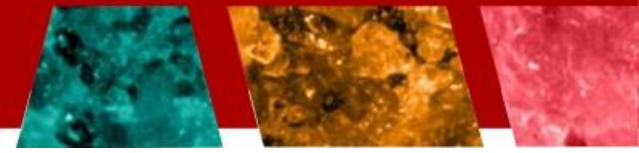
**Metals of Africa is focused on the right commodities: ZINC & LEAD, GRAPHITE, COPPER**

# MTA – uniquely well positioned



- Geography and politically diversified
- Mining friendly jurisdictions
- Existing rail, road and port infrastructure
- Geologically rich terrains boasting high level datasets
- Underexplored yet highly prospective geology
- Tier 1 project potential assets
- Coastal countries

# Immediate focus is on Mozambique

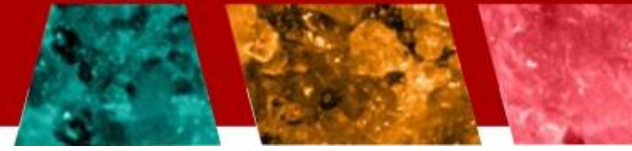


- Mozambique is the Company's primary focus and is home to most of MTA's staff
- MTA has a dual exploration focus in Mozambique:
  1. The first is dedicated to advancing the **Montepuez graphite project**
  2. The second is focused on simultaneously advancing the **Rio Mazoe base metal project**
- Both the Montepuez and Rio Mazoe projects boast outcropping mineralisation and highly prospective geology
- Both projects represent near term drill targets

| Project Name   | Ownership  | Target Commodity        |
|----------------|------------|-------------------------|
| Rio Mazoe      | 100%       | Lead-Zinc-Silver-Copper |
| Changara JV    | Up to 80%  | Zinc-Copper-Lead-Silver |
| Montepuez      | 100%       | Graphite                |
| Balama Central | Up to 100% | Graphite                |



# Rio Mazoe Pb-Zn-Ag-Cu Project Mozambique



High grade lead-zinc drill core  
from the Meque prospect  
>20% Combined Pb/Zn over a  
1m wide interval  
(9.32% Pb + 10.81% Zn)  
Hole: RMZMQDD009 @126m  
Announced ASX 4 June 2013

Africa's most prospective lead & zinc exploration project

# Rio Mazoe Project - Mozambique

- MTA is exploring for Broken Hill Type (BHT) lead-zinc-silver deposits
- Project located in world class BHT geological setting and boasts key ingredients to host a potential BHT deposit, including the right:
  - Age of rocks (1600-1700 Ma), type of rocks  
(Quartzo-felspathic and pelitic sequences within the stratigraphy)
  - Metamorphic and tectonic setting;
  - Widespread Mn occurrences;
  - Indicator minerals including Mn-rich gahnite, garnet and amazonite
  - High grade lead, zinc and silver mineralised occurrences at surface
- Straight forward geological work program with compelling surface targets
- BHT deposits constitute some of the world's largest ore deposits;

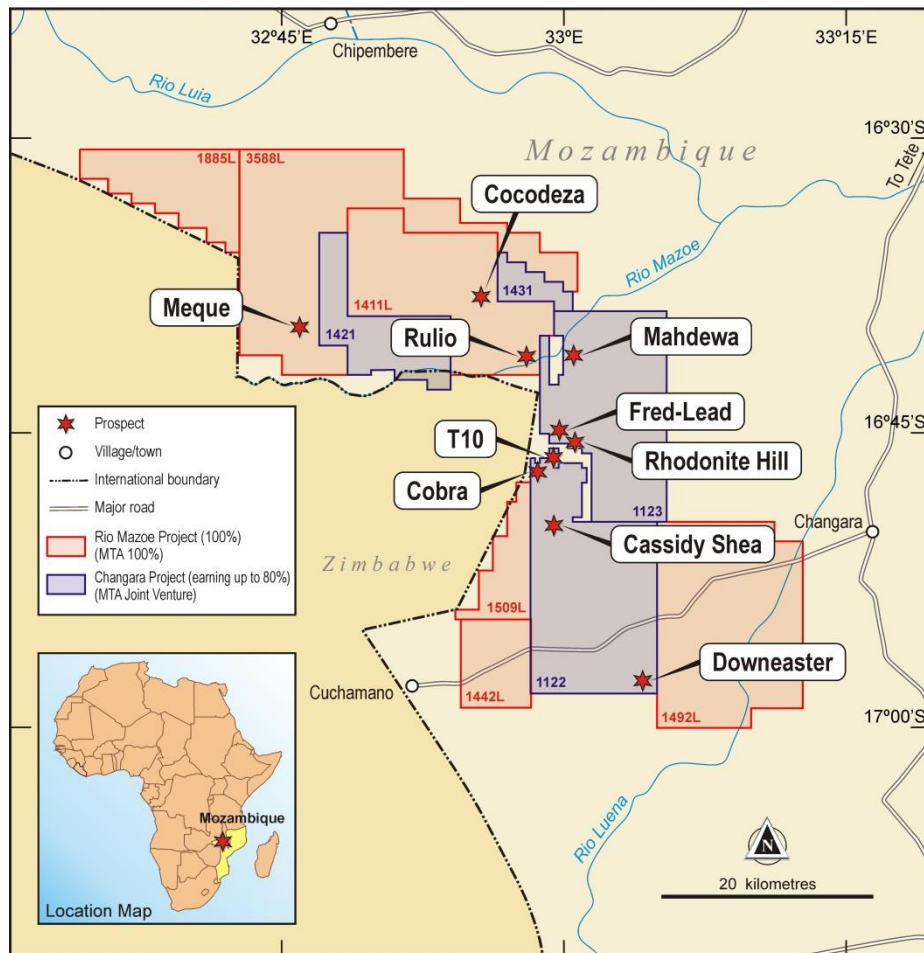


| Deposit (Name & Location)    | Tonnes (M) | Ag (g/t) | Pb (%) | Zn (%) | Pb+Zn (%) |
|------------------------------|------------|----------|--------|--------|-----------|
| Broken Hill (NSW, Australia) | 280        | 150      | 10.0   | 8.5    | 18.5      |
| Cannington (Qld, Australia)  | 44         | 540      | 10.9   | 4.4    | 15.3      |
| Zinkgruvan (Sweden)          | 40         | 100      | 5.5    | 10.0   | 15.5      |
| Broken Hill (South Africa)   | 38         | 82       | 6.4    | 2.9    | 9.3       |
| Gamsberg (South Africa)      | 150        | 6        | 0.6    | 7.1    | 7.7       |
| Big Syncline (South Africa)  | 101        | 13       | 1.0    | 2.5    | 3.5       |

**Drill Ready by October 2014 - Targets: Lead, Zinc and Silver**



# Rio Mazoe Project – Prospective geology has been secured



**Licenses in RED** 938 km<sup>2</sup> = 100% MTA

**Licenses in BLUE** 510 km<sup>2</sup> = JV up to 80% MTA  
with AIM listed Baobab Resources (BAO)

Changara JV Summary Table:

| Activity    | Completion Date | Expenditure (US\$) | MTA equity | BAO equity |
|-------------|-----------------|--------------------|------------|------------|
| 1st Program | Aug-13          | 150,000            | 25%        | 75%        |
| 2nd Program | Nov-14          | 200,000            | 40%        | 60%        |
| 3rd Program | Nov-15          | 250,000            | 51%        | 49%        |
|             |                 | \$660,000 -        |            |            |
| 4th Program | Jun-17          | \$1,200,000        | 80%        | 20%        |

## Key Terms of JV with BAO:

- MTA to be the Operator and run the exploration program
- MTA to fund 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Work Programs
- BAO has option to co-fund 4<sup>th</sup> Works program on a pro-rata basis to retain 49% interest
- MTA can walk away at any time
- If MTA fund total amount for 4<sup>th</sup> works program, MTA earns 80% interest
- Thereafter both companies contribute to expenditure proportionately

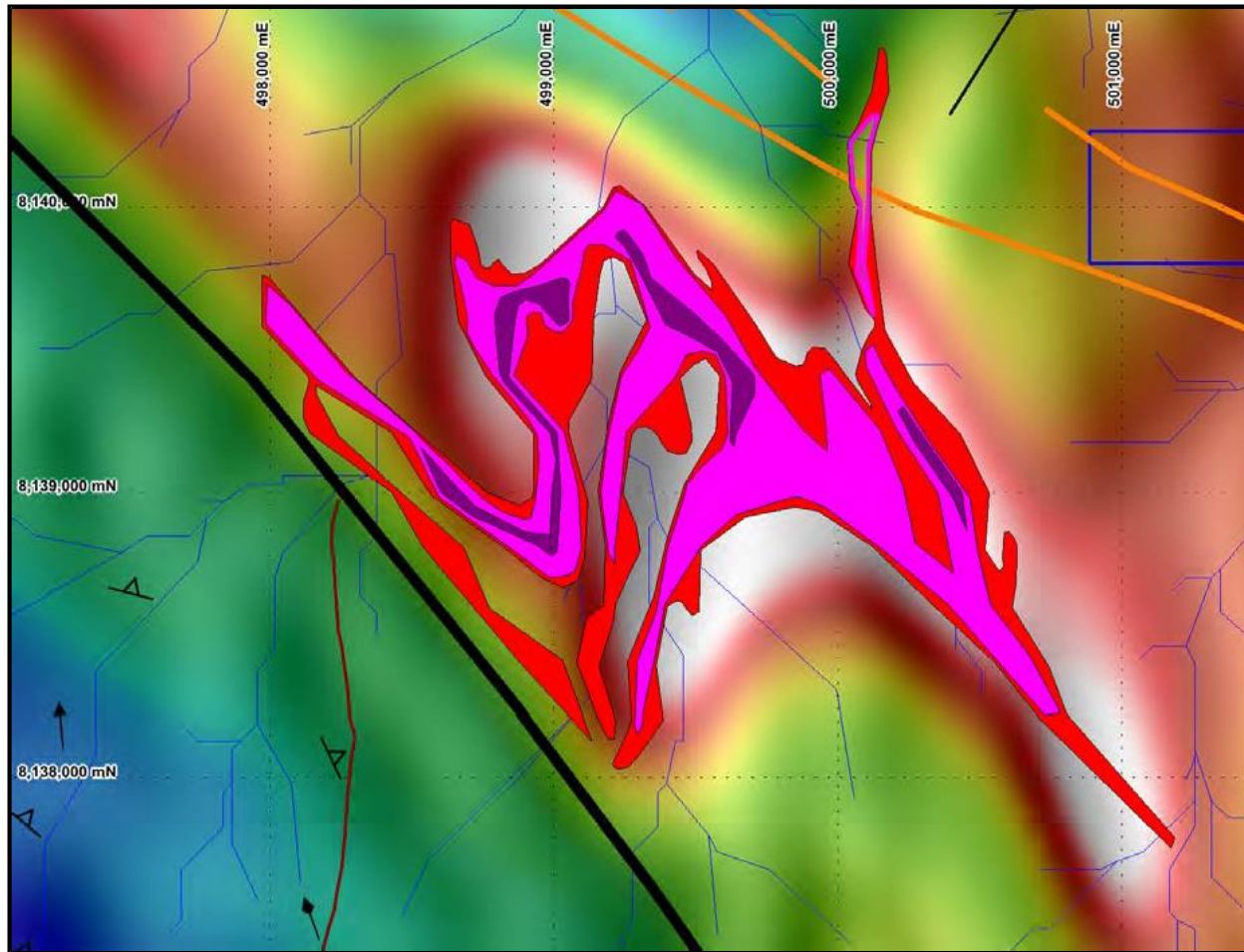
**Massive contiguous landholding – Total area of 1448km<sup>2</sup>**

# Cassidy Shea – an outcropping mineralised Zn-Cu system

- Very large (>3km x 3km) Zinc-Copper target with **spot high grades up to 11.9% Cu and 5.1% Zn** in rocks at surface
- Sulphide assemblages noted at Cassidy Shea include thick sequences with disseminated chalcopyrite and sphalerite (copper and zinc) in fine psammite to psammopelite garnet bearing rocks with associated gahnite and banded quartz garnet rocks with weakly layered sulphide
- These types of rocks are common at Broken Hill proximal to the basal part of the system (Zinc Lodes). At Cassidy Shea, the disseminated sulphide zones identified may represent a large Cu-Zn target in their own right
- Multiple zones of outcropping Zn and Cu mineralisation are present which demonstrates its strong mineralised potential - target is a Broken Hill type mineralised system
- Ground geophysics (IP, EM and magnetics) is occurring August-September with the aim of defining drill hole locations
- Earthworks and drilling to follow
- The Zn-Cu target is shallow **(it's outcropping!)**

**Very large Zinc-Copper target with spot high grades up to 11.9% Cu and 5.1% Zn in rocks at the surface**

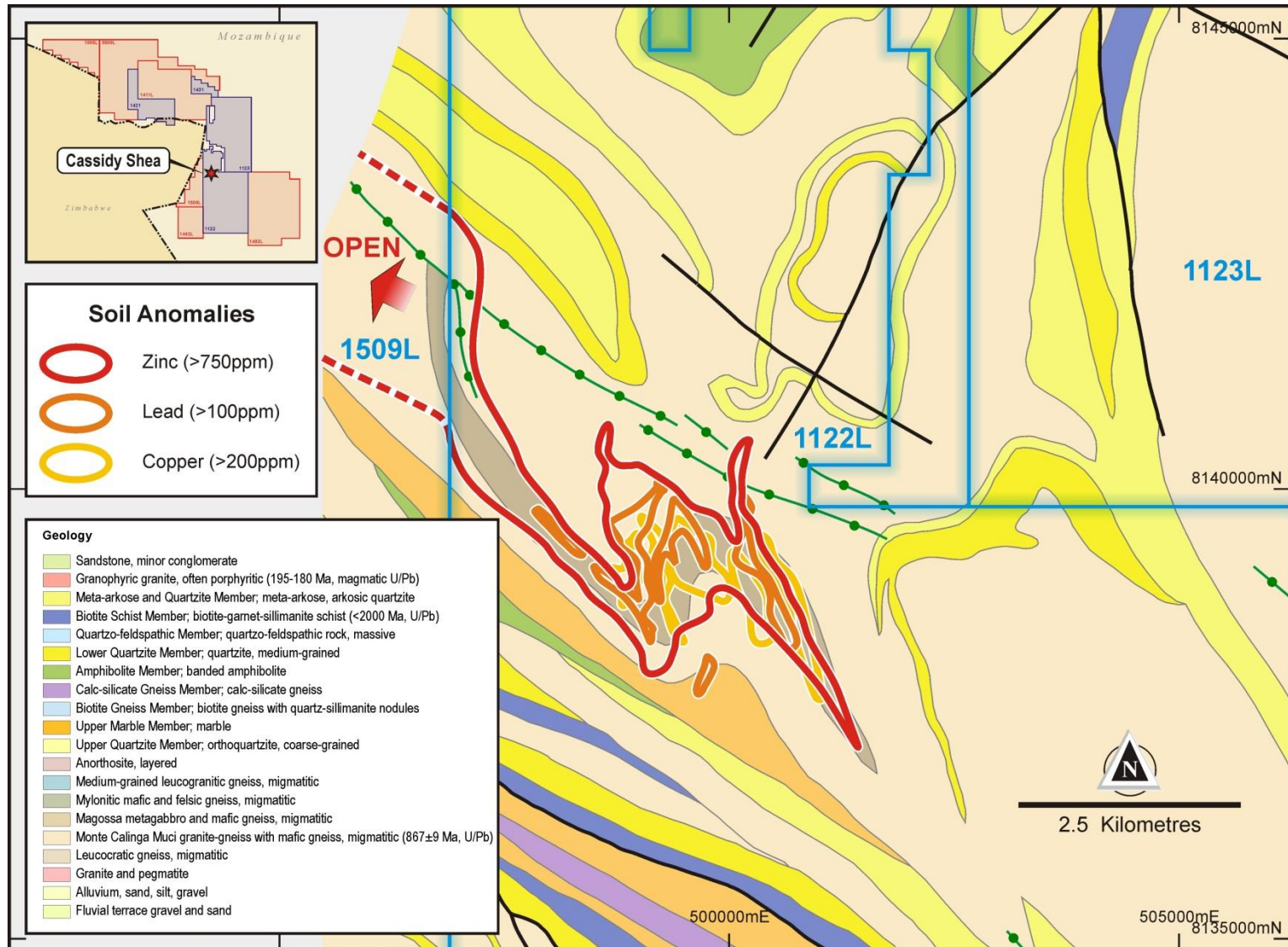
# Cassidy Shea – Coincident geochemistry (Zn) with magnetic anomaly



Highly anomalous zinc geochemistry (>750ppm) contoured over a magnetic RTP AS image for Cassidy Shea Prospect



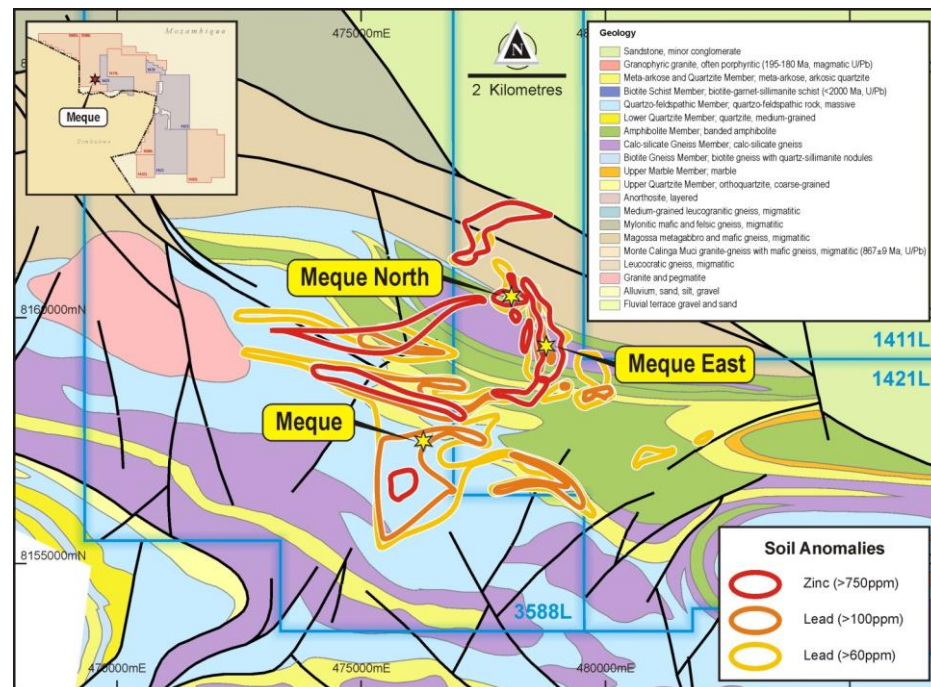
# Cassidy Shea – Geochem anomalies over regional geology





# Rio Mazoe: Meque Prospect

- Maiden drill program in 2013 intersected **high grade Pb & Zn** mineralisation at shallow depths (<130m) – refer to below summary table
- Abundant high grade lead, zinc, copper and silver surface mineralisation in rock chip grab samples  
(Silver up to 1251ppm Ag, Lead up to 21.56% Pb, Zinc up to 27.48% Zn)
- Geological mapping confirmed prospective BHT alteration at the Meque prospect
- Meque system is also prospective for skarn style mineralisation
- Very large and compelling surface geochemistry anomaly

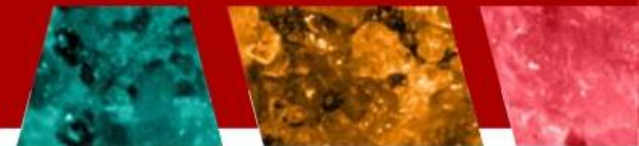


**5 x 5 km of Zinc and Lead Anomalism – and open to the West**

| Drill Hole No. | From   | To     | Width (m) | Ag (g/t) | Cu (%) | Pb (%) | Zn (%) | Combined Zn+Pb % |
|----------------|--------|--------|-----------|----------|--------|--------|--------|------------------|
| RMZMQDD001     | 70.85  | 71.6   | 0.75      | 29.18    | 0.27   | 3.22   | 18.68  | 21.9%            |
| RMZMQDD006     | 25.8   | 26.3   | 0.5       | 11.62    | 0.15   | 3.39   | 3.73   | 7.12%            |
| RMZMQDD007     | 27.75  | 28.75  | 1         | 8.66     | 0.01   | 3.05   | 4.70   | 7.75%            |
| RMZMQDD009     | 92.96  | 93.46  | 0.5       | 11.05    | 0.14   | 1.03   | 8.82   | 9.85%            |
| RMZMQDD009     | 96.95  | 98.7   | 1.75      | 68.84    | 0.43   | 1.55   | 5.21   | 6.76%            |
| RMZMQDD009     | 125.99 | 126.99 | 1         | 63.28    | 0.60   | 9.32   | 10.81  | 20.13%           |

Summary of Meque drill core laboratory results applying a combined Zn+Pb minimum cut-off grade of 7% and minimum width of 50 centimetres. For additional information please refer to Company Announcement dated 4<sup>th</sup> June 2013.

# Rio Mazoe – Work Program



| WORK PROGRAM                         | TIMING 2014           |
|--------------------------------------|-----------------------|
| Complete Ground EM, IP & MAG Surveys | September             |
| Earth Works for drilling             | Early October         |
| Drilling                             | Late October-November |

**Drill Ready by October 2014 - Targets: Zinc, Copper, Lead and Silver**



# Montepuez Graphite Project - Mozambique



**Cabo Delgado – the world's richest graphite province**



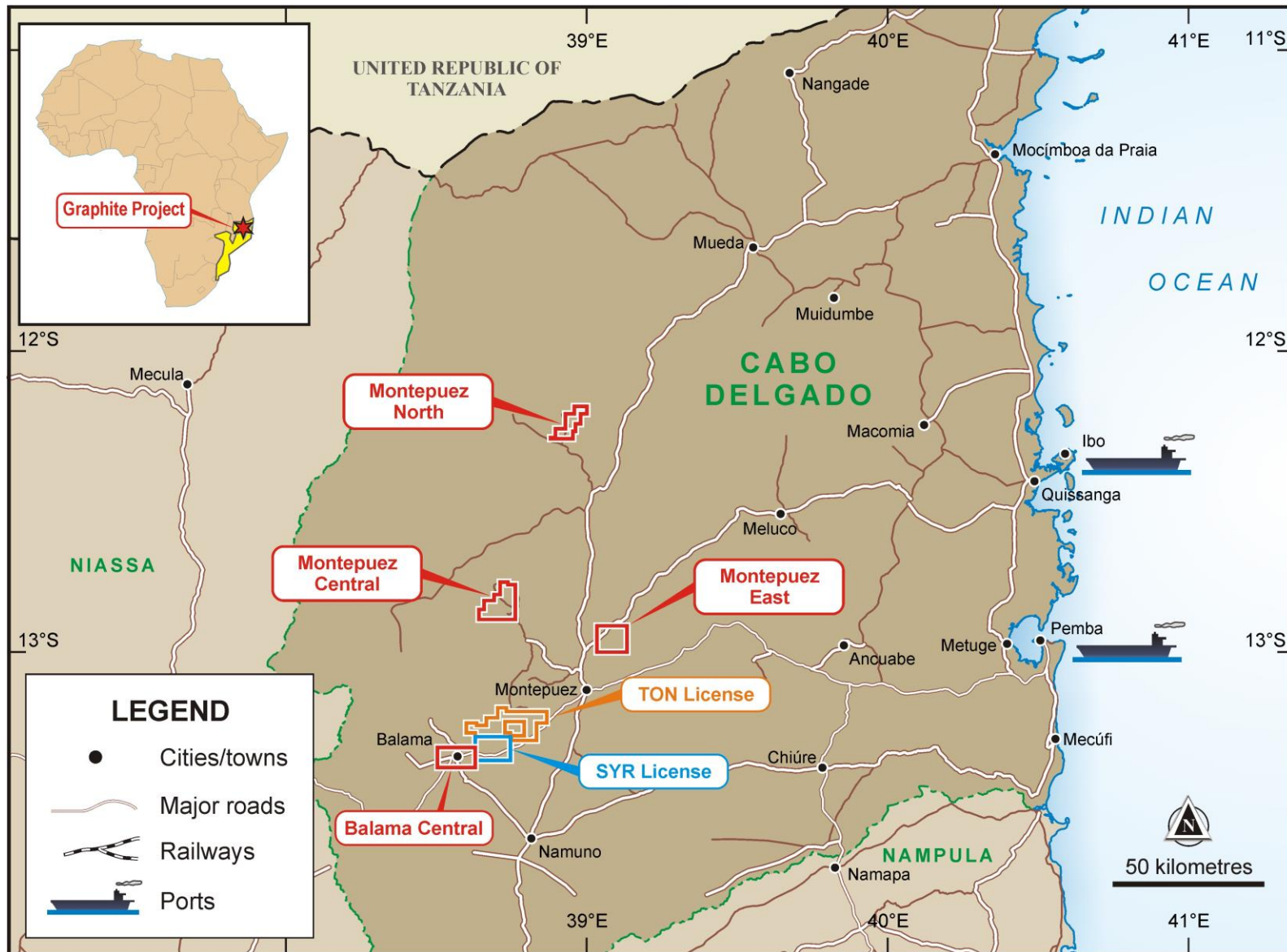
# Cabo Delgado – A world class graphite and vanadium province

- There is currently more graphite in the Cabo Delgado province of Mozambique than the rest of the world's graphite resources combined
- Cabo Delgado province hosts the worlds largest graphite deposit –
  - The Balama Graphite Resource (owned by ASX listed Syrah Resources Limited); 1.15Bt of graphite resource at 10.2% TGC and 0.23% V2O5 and
  - Cobra Plains Graphite Resource (owned by ASX listed Triton Resources Limited); 103Mt at 5.52% TGC
- Excellent logistics (sealed and well maintained road, located within close proximity of deep water port, existing water and power supply)
- Outcropping graphite mineralisation with coincident 10km long VTEM anomaly within 100% owned tenure
- DD period commenced to acquire Syrah Resources neighbouring license, named Balama Central





# Graphite Projects: general location map (MTA in red)



# Montepuez Graphite Project

- Outcropping graphite bearing schist and gneiss has been confirmed within MTA's Montepuez Central Project at numerous localities – **grades of up to 16.5% TGC and 0.3% Vanadium** from 16 rock chip samples
- **10 km long strong VTEM anomaly** is coincident with the outcrops of graphite = drill target
- A green mineral within the graphite bearing unit has been **confirmed as roscoelite** – a mineral containing vanadium. Large flake size has been correlated to the higher grade rock chip samples.
- Outcrop is limited within MTA's Montepuez Project (restricted to creek cuttings) due to a few meters of sand cover, therefore VTEM is required to propose drill hole locations
- Graphite is highly conductive - making EM an ideal exploration tool



18 Graphitic gneiss containing 16.5% TGC + 0.3% Vanadium

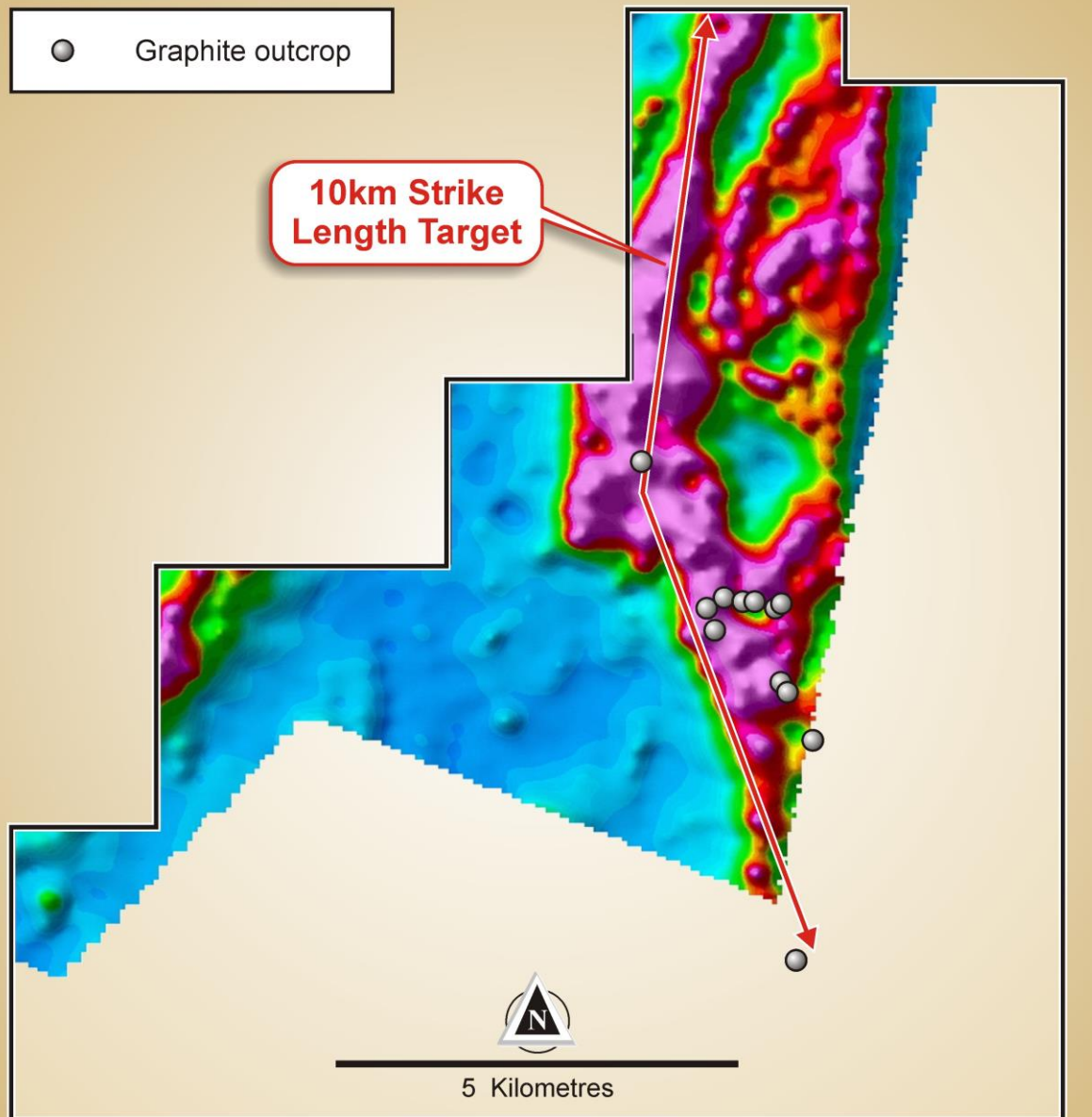
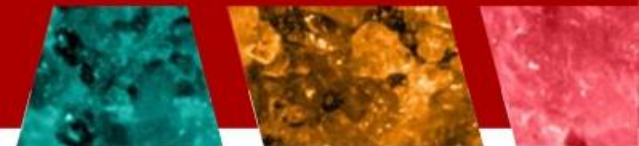


Graphitic schist unearthed via trenching containing 13.7% TGC



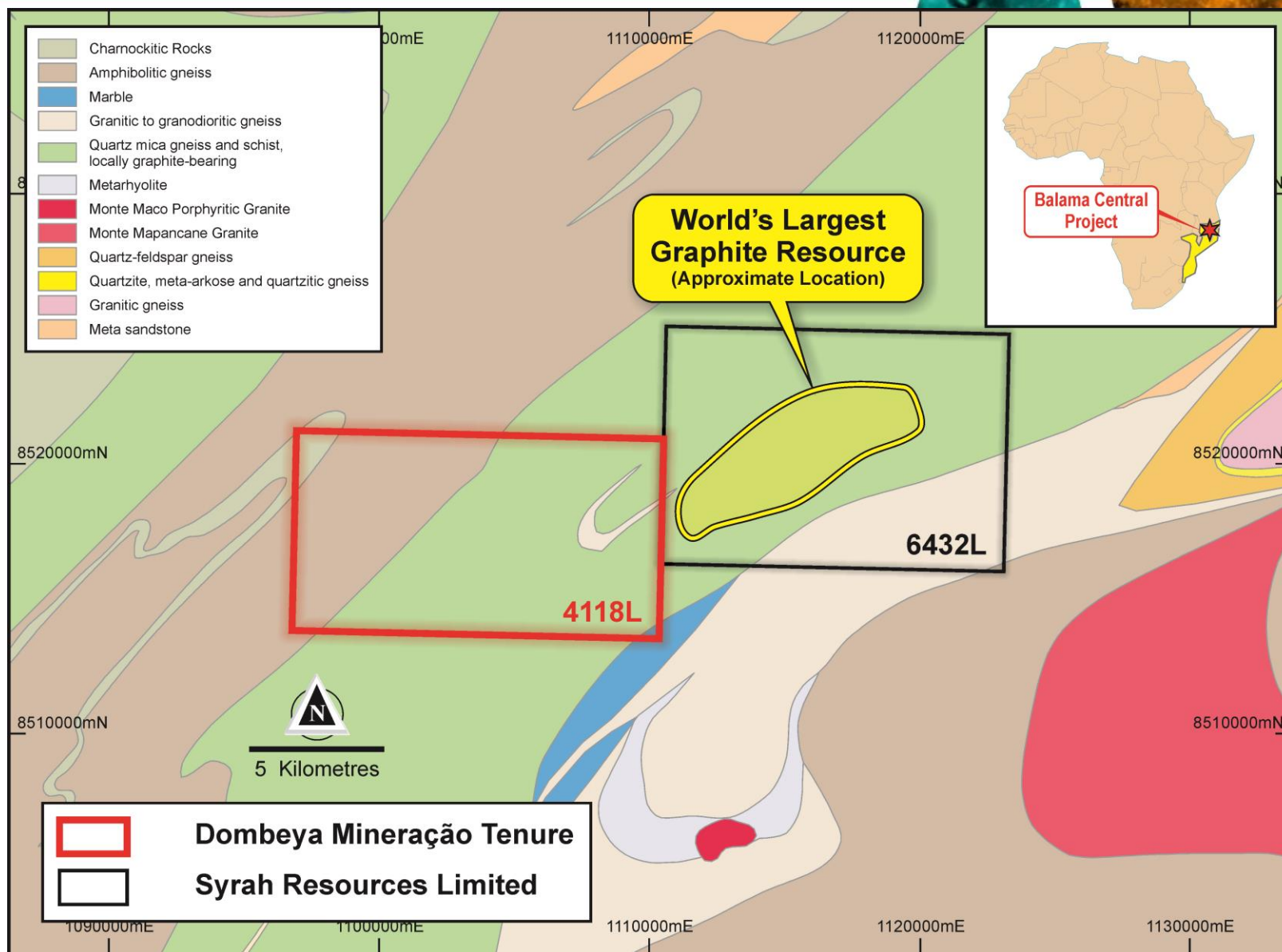


# Montepuez Central Project – VTEM target



- Very strong VTEM anomaly identified via acquiring existing data
- Anomaly is 10 km long and up to 2 km wide
- VTEM anomaly is interpreted to represent a graphitic unit – outcrop mapping and sampling has verified this
- The geological system has been enriched with both graphite and vanadium
- Drilling is required to ascertain depth and grade potential 'sweet spots'
- VTEM survey will be flown over the remainder of the prospective portion of Montepuez Central East & North in September

# Balama Central Project - Regional Geology





# Balama Central Project - Acquisition Terms & Timing

- Metals of Africa has entered into a binding acquisition agreement to acquire 100% of license 4118 subject to a 6 week due diligence period. A summary of the terms are:
  - On the Signature Date (21<sup>st</sup> August 2014) the Buyer will pay the Seller a payment of U.S.\$50,000 (First Cash Payment), being the first part payment for transfer of the Licence; and
  - On the Completion Date (on or before 2<sup>nd</sup> October 2014) the Buyer will issue to the Seller US\$200,000 worth of MTA shares; and
  - On the Completion Date the Buyer will pay the Seller U.S.\$200,000 (Second Cash Payment), being the third and final payment for transfer of the Licence.
- There are no residual royalties payable.
- Subject to MTA acquiring the license, the intent is to commence on-ground exploration rapidly

| <b>MONTEPUEZ GRAPHITE PROJECT<br/>WORK PROGRAM</b> | <b>TIMING 2014</b> |
|--|--------------------|
| Airborne geophysics (VTEM)                         | September          |
| Earth Works for drilling                           | Early October      |
| Drilling   | October-November   |

# Near term re-rating potential



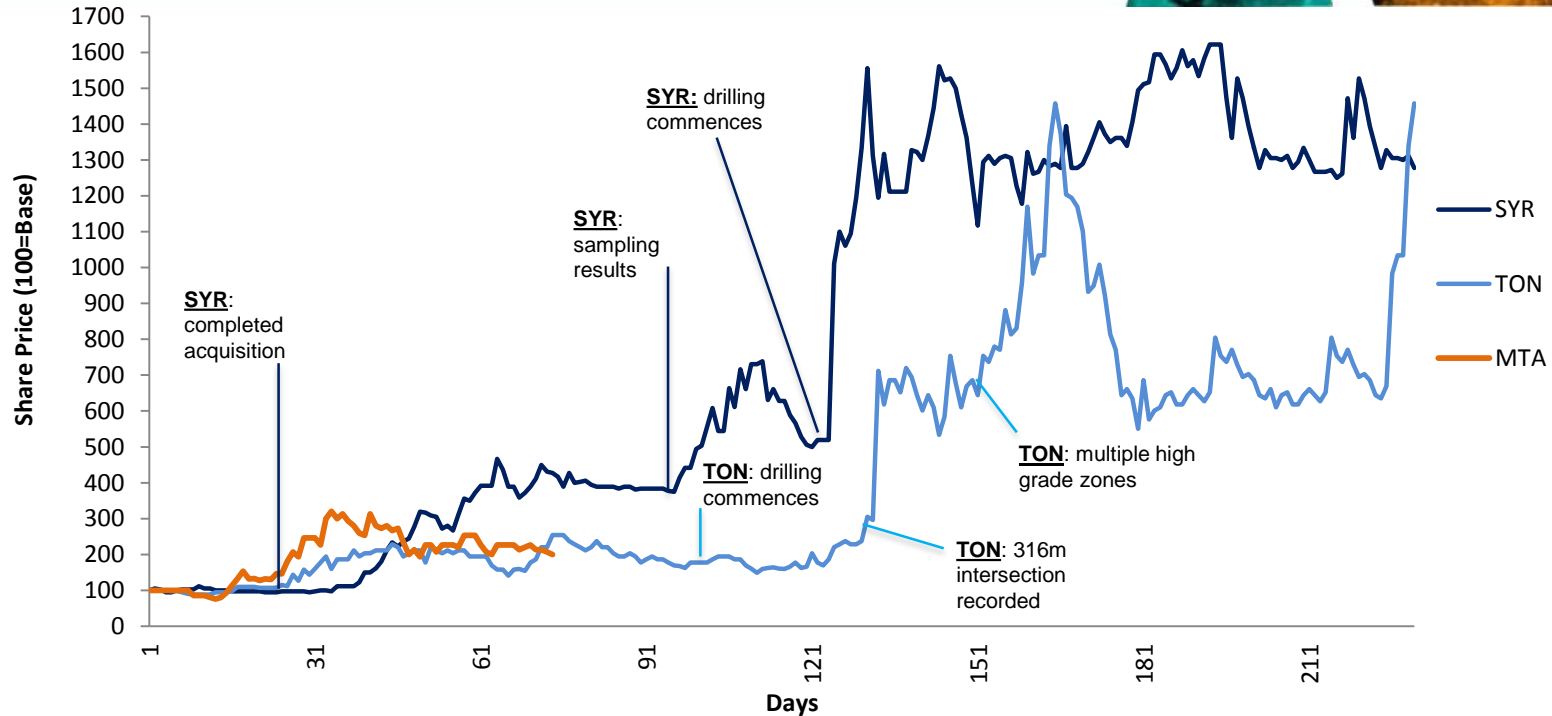
| Code                       | SYR   | TON   | MTA   |
|----------------------------|---|---|---|
| <b>Project(s)</b>          | Balama  | Balama North<br>Balama South<br>Ancuabe                       | Central Balama<br>Montepuez   |
| <b>Sampling results</b>    | Up to 23.3% TGC<br>(share price <b>\$0.79</b> , Apr 2012)   | Up to 17.6% TGC<br>(share price <b>\$0.06</b> , Nov 2013)     | Up to 16.5% and 0.31% V <sub>2</sub> O <sub>5</sub><br>(share price <b>\$0.17</b> , Aug 2014) |
| <b>Drill assays</b>        | 287.5m at 10.1% TGC and 0.12% V <sub>2</sub> O <sub>5</sub><br>(share price <b>\$2.65</b> , Aug 2012) | 14.7m at 18.7% TGC<br>(share price <b>\$0.125</b> , Jan 2014) | ?<br>(commence Q4 2014)   |
| <b>Resource</b>            | 1.15Bt at 10.2% TGC and 0.23% V <sub>2</sub> O <sub>5</sub>   | 103Mt at 5.52% TGC  | ?   |
| <b>Current Share Price</b> | \$4.86  | \$0.39  | \$0.15  |
| <b>Market Cap</b>          | \$794.5m  | \$120.8m  | <b>\$14.3m</b>  |

Source: IRESS

Note: Market Cap's as of mid-September 2014.

- Exploration to date shows potential for a discovery similar to that by Syrah Resources (SYR.ASX) and Triton Minerals (TON.ASX)
- Cheapest entry into an emerging world class graphite and vanadium province
- Drilling set to commence in about 5-6 weeks time
- Enormous re-rating potential on the back of exploration success

# Mozambique graphite



## Syrah Resources - Drilling began May 2012

- First hole – 287.5m of graphite mineralisation from surface open at depth
- Second hole – 251.5m of graphite mineralisation from surface open at depth
- Third hole – 287.5 m of graphite mineralisation from surface open at depth

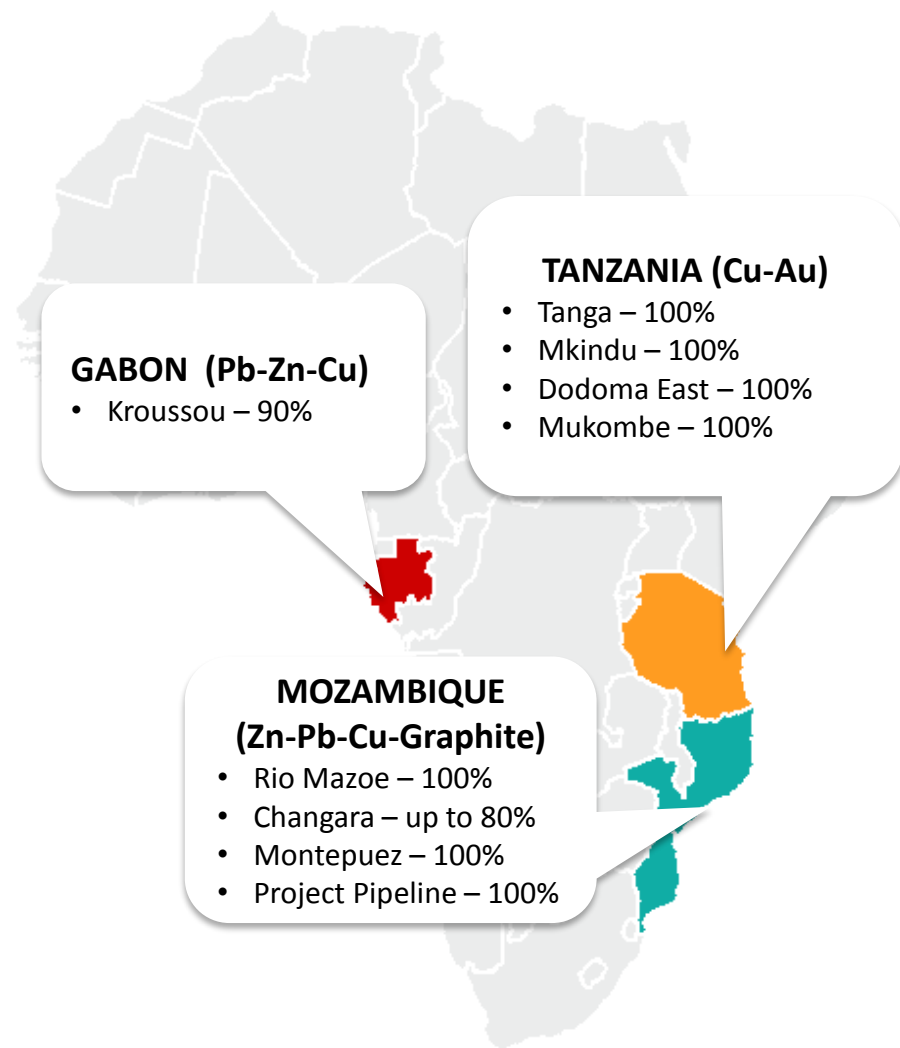
## Triton Minerals - Drilling June 2013

- Diamond hole (GBND0001) – 316m of graphite mineralisation from surface open at depth
- Diamond hole (GBND0005) – 313m of graphite mineralisation from surface open at depth



# A introduction to MTA's project pipeline

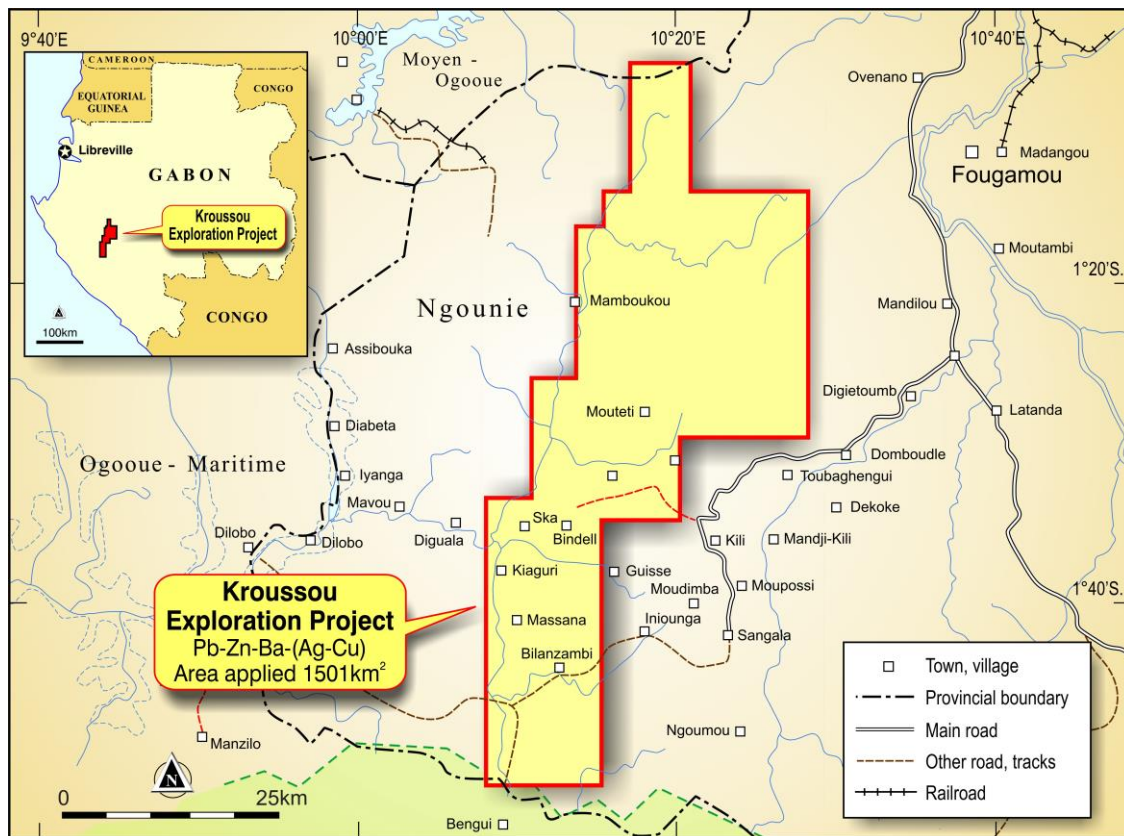
- Multiple commodities (zinc, lead and copper focus maintained)
- Outcropping mineralisation
- Outstanding geophysical anomalies
- Highly prospective geology yet poorly explored
- Spread across Mozambique, Gabon and Tanzania – de-risks MTA politically
- MTA is open to JV discussions regarding its non core assets
- MTA believes that low cost surface exploration is capable of defining world class projects and is committed to demonstrating technical excellence in this field



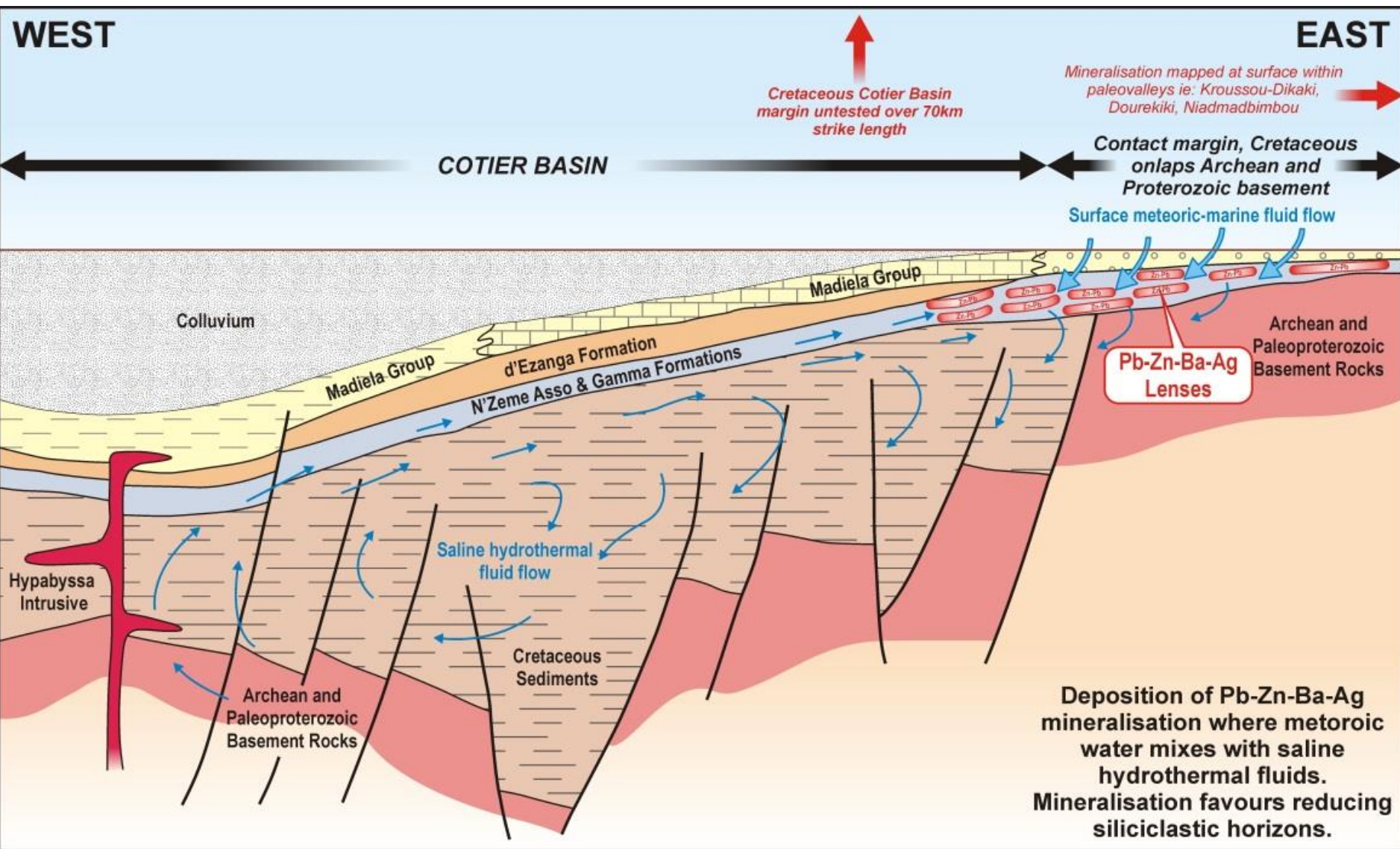
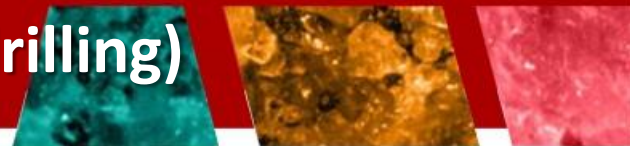
# Kroussou Project - Gabon



- Zinc – lead – silver – barite targets
- Mineralisation style said thought to be: Mississippi Valley Type or Lennard Shelf Type
- MTA has 90% equity
- Remaining 10% equity is with Havilah Consolidated Resources (HCR). HCR's 10% equity is free carried by MTA for 2 years at which point HCR must contribute proportionately or dilute to a 0.75% NSR
- Over 100 surface occurrences of zinc or lead mineralisation mapped
- 1960's BRGM drilling intersected shallow zinc dominant Zn-Pb-Ag mineralised lenses – this warrants follow-up work
- Geology team will be in the field during October
- Kroussou license contains a historical resource target, by French Geological Survey (BRGM) of; **'several hundred thousand tons of metal'** for one of the mapped mineralised lobes, the Dikaki lobe, and mineralisation appears open and poorly explored. This lobe area represents a 3km strike length out of a prospective strike length of >70km



# Kroussou Cross Section (based on BRGM drilling)

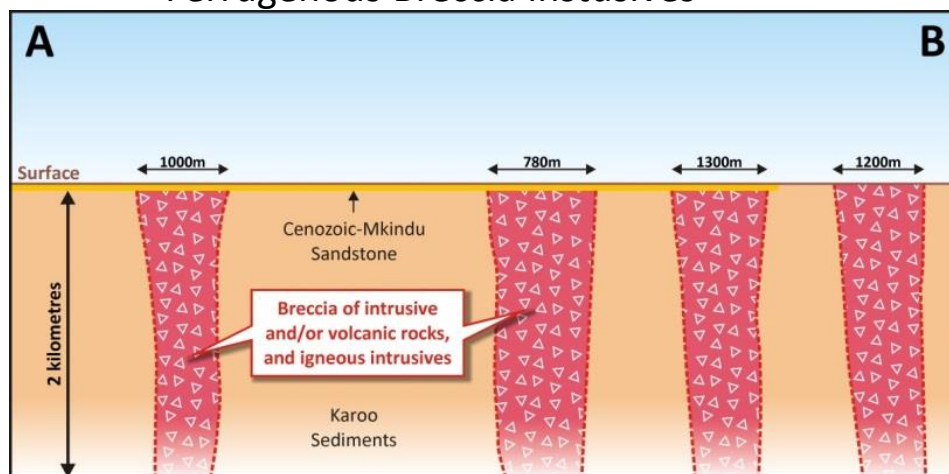




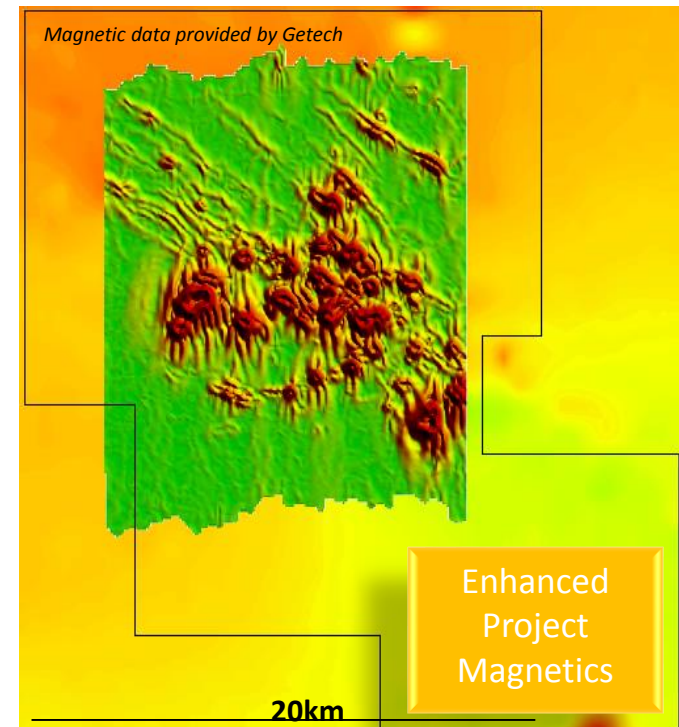
# Mkindu U-IOCG Project - Tanzania

- Multiple large scale U-IOCG targets identified via 3D geophysical modelling. 20 targets identified, of which 6 are very large
- Target is world class Olympic Dam style U-IOCG deposit associated with volcanic breccia vents and maars
- Olympic Dam is the world's largest uranium resource and 4th largest copper resource. The deposit also boasts gold, silver & REE's
- Historical report and geological mapping at Mkindu confirms:
  - The right geology to host an IOCG deposit
  - Sulphides at surface
  - Prospective alteration halos
  - Ferruginous Breccia intrusives

**Below:** Enhanced magnetic image of Mkindu anomaly 89m cell. Discrete circular features evident within a larger circular feature. Discrete features have been interpreted as volcanic maars.



**Above:** Simplified Mkindu cross section based on airborne magnetic data, geological mapping and historical petroleum bore holes.



# Mukombe Cu-Au Project - Tanzania

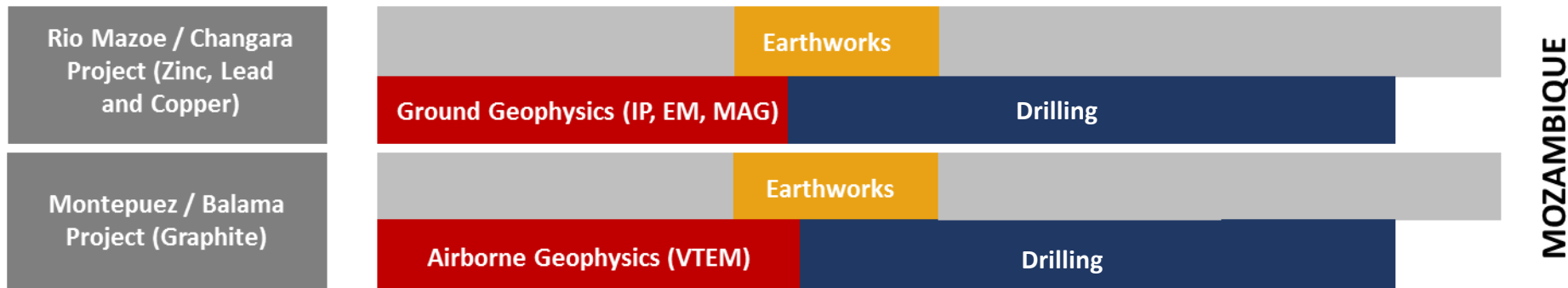
- Reconnaissance field investigation discovered outcropping Cu-Au mineralisation. Two rocks were sent to the laboratory, both returned elevated Cu-Au numbers, with a peak of: 2.34g/t Au, 37.5g/t Ag, and 5.39% Cu (as announced 21st May 2014)
- Extensive soil sampling program covering MTA's tenure has been underway for the past two months and is almost complete
- Soil sample assay results will dictate next phase of exploration (expected late September)
- Copper minerals at the surface include: malachite, azurite, chalcopryite, and bornite



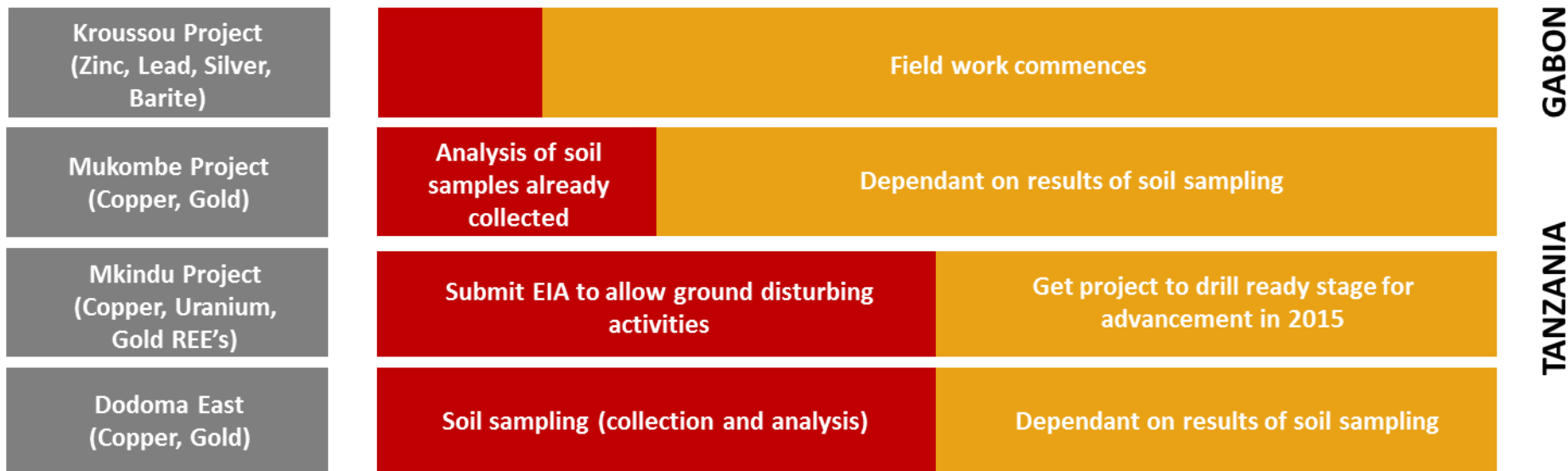
Subcrop material collected from MKUR009 with azurite, malachite, chalcopryite and possible bornite. Sample returned **2.34g/t Au, 37.5g/t Ag, and 5.39% Cu**

# Timeline

## CORE FOCUS



## PROJECT PIPELINE







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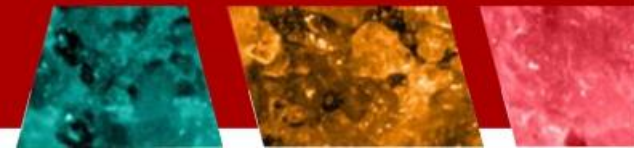
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# Why zinc and lead?

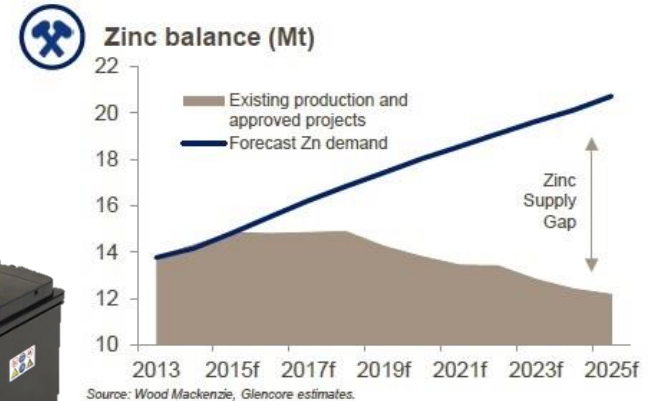


The anticipated tightening of zinc mine supply is starting to materialise:

- Metal deficit in 2013, with deficit forecast to grow dramatically beyond 2015
- Insufficient new mine supply to replace closures:
  - Brunswick/Perseverance in 2013
  - Lisheen now winding down
  - Century and Skorpion closing in 2015/2016
- Higher prices required to incentivize new mine supply
- The zinc mining sector has a very high average margin as a percentage of the metal price due to the large contribution of by-product credits like copper, lead, silver and gold, which offset operating costs.
- Zinc is key to preventing corrosion and is the 4th most widely consumed metal in the world. About 50% of the zinc produced is used
  - in zinc galvanizing (to prevent rusting)
  - Upsurge in use of battery dependent devices that rely on lead



Higher prices required to incentivise new supply



**NOW is the time to be exploring for new zinc and lead resources, yet very few companies are!**

# Why graphite?

- Declared a strategic mineral by the USA and European Union
- Graphite market expanding in Europe, Asia and Northern America
- Highly valuable commodity
- Increasing number of applications and uses (essential for modern batteries – lithium ion)
- Upsurge in use of battery dependent devices (electric cars, smart phones, tablets, etc)
- Use in aluminum (production of 1 tonne of aluminum consumes about 550kg of graphite anodes)
- Used to produce graphene – tightly packaged single layer of carbon atoms. Graphene is very light and strong and has been dubbed the worlds next ‘wonder material’
- Graphene is used in computer chips, optics, electronics, laser & sensing products
- Unique physical and chemical properties make it difficult to substitute

