

### ASX Announcement Metals of Africa Ltd

### 11 August 2015

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#### **MTA Capital Structure**

Shares on Issue: 129,663,742

Listed Options: 57,854,396 (\$0.15, 07/01/2017)

Unlisted Options 12,171,833 (various price, expiry)

Market Cap. @ \$0.054; A\$7.00m

#### **MTA Board**

#### Gilbert George Non Executive Chairman

Tron Excoding Griannia

Cherie Leeden Managing Director

Brett Smith

Non Executive Director

Steven Wood Company Secretary

ASX Code: MTA

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# High grade graphite mineralisation confirmed at Balama Central Project

## Large VTEM conductor along strike from Syrah Resources' Balama Graphite Project

#### **Highlights**

- High grade graphite and vanadium mineralisation coincident with a VTEM conductor anomaly confirmed at Balama Central Project in Mozambique
- Rock chip samples from an extensive pitting and trenching program identify high grade graphite and vanadium mineralisation in multiple locations at surface under thin sand cover
- Flake size varies from fine to jumbo, averaging large
- The Balama Central Project is drill ready, with drilling proposed to commence in Q4 2015
- The Company also advises that its resource definition drilling program at Montepuez Central is ongoing

Metals of Africa Limited (ASX: MTA) (the Company) is pleased to announce that it has identified significant high grade graphite mineralisation at its Balama Central Graphite Project, in the Cabo Delgado province of Mozambique.

The results come from rock chip samples taken from an extensive pitting and trenching program at the Balama Central Project (license 4118L), which is located immediately adjacent and along strike of Syrah Resources Limited's (ASX: SYR) world class Balama Graphite deposit.

High grade graphite and vanadium mineralisation has been observed from multiple locations, at surface and under a thin sand veneer within the Balama Central Graphite Project area.

Importantly, the identification of high grade graphite from Metals of Africa's pitting and trenching work has confirmed that a significant VTEM conductor previously discovered at the Balama Central Graphite Project is coincident with the presence of the high grade graphite mineralisation.

This now represents a high priority drill target which will be drilled as part of the maiden drill program at the Balama Central Project, which is scheduled for Q4, 2015, on completion of the current drill program at the Montepuez Graphite Project in the same region of Cabo Delgado.

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Metals of Africa's Managing Director Cherie Leeden said:

"Our recent trenching work has proven that the cause of the significant VTEM conductor within our Balama Central Project is due to the presence of high grade graphitic material. This mineralisation represents a compelling drill target, located immediately adjacent and along strike of the world's premier graphite deposit. Our Montepuez drill program continues to deliver positive results therefore the plan is to complete our Montepuez Resource Definition drill program and then send the drill rig to our Balama Central Project."

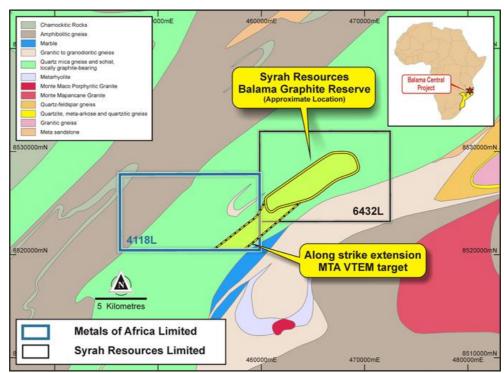


Figure 1. Balama Central Project over regional geology

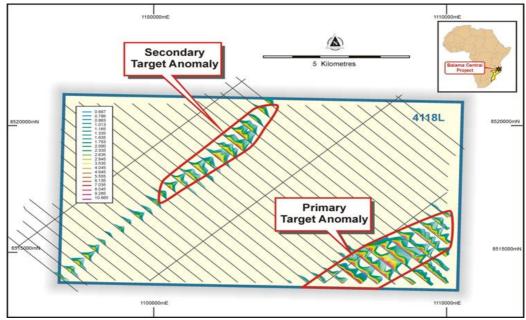


Figure 2. VTEM data. High grade graphite mineralisation has been confirmed as the cause of the Primary Target Anomaly. The Secondary Target Anomaly has not been investigated.

#### **Geology Background**

During the due diligence assessment of the Balama Central License (4118L) it was observed that much of the prospective area hosting the strike continuity of the Syrah Resources Balama deposit was under thin sand cover (on average 2m deep). The decision to screen the area by flying a VTEM survey identified two strong conductors, one observed defining the contact between two rock types and a second much larger conductor on the south-eastern end of the licence.

Based on the initial observations a pitting program was proposed to confirm the geology and identify the reason for the large VTEM conductor. The first phase of the exploration pitting program identified highly encouraging graphite and vanadium samples initially from the pits and more recently from subcropping graphite and sericite schists with the creek system.

The host rocks are granitic gneiss quartzite and a series of sericite and graphite quartz schists with graphite and vanadium mineralisation associated with the latter. Limited structural measurements indicate that the bedding is striking 230° and dipping at -55° which is consistent with the trend of the VTEM conductor and aspects of the regional geology.

The mineralised samples collected to date have ranged from 5-20% visual graphite estimates (VGE) within the sericite graphite schists and to a lesser extent the granitic gneiss. The presence of the quartz within the schists would indicate that the protolith was sediment possibly a carbonate and the mineralisation is a replacement style. No mineralisation has been observed in the quartzite.

Within the Cabo Delgado province several graphite projects have reported the presence of vanadium within resources. Laboratory results from the Balama Central prospect are likely to carry elevated vanadium within the sericite graphite schist. Rock chip samples will be dispatched for laboratory analysis however initial portable XRF analysis has confirmed the presence of vanadium.

The first phase of the pitting program entailed 12 exploration pits across a 400m x 200m grid covering the main conductor to confirm the regolith and basement rock type. Based on the presence of high grade mineralisation in float samples, highly encouraging coarse flake material within a saprolite derived from a felsic rock, the program was expanded to cover the VTEM conductor on a 200m x 200m grid at which point the outcropping mineralisation was identified at (457,838E and 8,521,272N).

The initial work confirmed the presence of graphitic material in soils and residual regolith profiles in association with the VTEM conductor on the eastern side of the anomaly; Pit  $19_G$  and  $19_H$  (Figure 2-3).

In the central portion of the anomaly graphite was observed as graphite schist in three pits and one in a felsic saprock with most samples expected to return more than 10% graphite.

The most significant graphite mineralisation observed was returned from pit  $13_C$  which comprised a weathered graphite sericite schist from 0.3m - 2.2m and included high grade graphite sericite schist (Figures 7 and 8). Several rockchip samples were collected from the centre of the anomaly which comprised moderate to intense graphite alteration ranging from 5 - 15% VGE with variable sericite. Typical samples are displayed as Figures 4-6.

#### **Next stage of exploration**

The next phase of work at the Balama Central Project will include completing the sampling of 11 infill pits, and mapping and recording any structural data prior to planning the drill program which is proposed to commence in Q4, after the completion of the Resource Definition drill program that is currently underway at the Montepuez Central Graphite Project.





Figure 3. Typical trench dug over primary VTEM anomaly – notice the graphitic soil and bedrock



Figure 4. Graphitic Schist outcrop: grade estimate 10% graphite with weak sericite alteration



Figure 5. Assessment on friable weather material hand crushed between fingers – note a mix of gangue minerals present however several pieces of jumbo flake are present – black nib on scribe is 3.5mm



Figure 6. High grade rock chip sample – Graphite – Sericite - Quartz Schist 15 – 20% VGE with coarse flake material up to 3mm observed in hand-sample



Figure 7. 13\_C Sample 1.2m from surface, high grade graphite sericite schist 10 -15% VGE

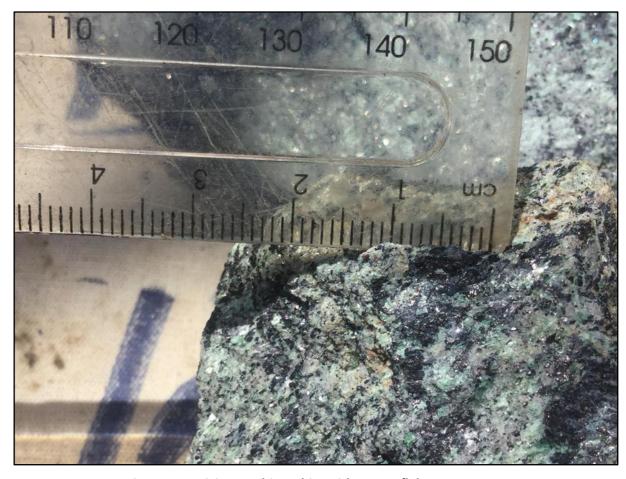


Figure 8. Sericite graphite schist with coarse flake up to 0.5cm

#### On behalf of Board of Directors Metals of Africa Ltd

For further information please contact

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#### **About Metals of Africa Limited**

Metals of Africa (ASX: MTA) is a diversified minerals exploration company dedicated to exploring for world class deposits in Africa. The Company's core commodity targets are: zinc and graphite. During 2015 the Company will maintain a dual focus: on its graphite assets (Montepuez and Balama) located in Mozambique and on its zinc asset (Kroussou) located in Gabon. The Company prides itself on environmental best practice and positive community relations.

Metals of Africa is conducting a series of research and development activities and trials in both Australia and Africa in establishing the best process methodology in mineral exploration, mining and processing. This activity is for the benefit of the company's holdings and in the licensing of intellectual property as a means of bringing these ideas to the market.

#### **Competent Persons Statement**

The information in this report that relates to exploration results is based on information compiled by Ms Cherie Leeden. Ms Leeden is the Managing Director of Metals of Africa Limited and full time employee and shareholder of Metals of Africa Limited. Ms Leeden is a member of Australian Institute of Geoscientists 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'. Ms Leeden consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

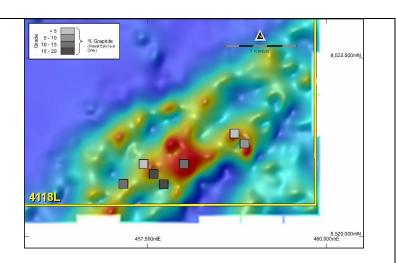
## JORC Code, 2012 Edition – Table 1 Appendix to Announcement: Balama Central Project Update

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	MTA Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The project is prospective for graphite and vanadium.</li> <li>An exploration pitting, mapping and rockchip sampling program has commenced. This has entailed the collection of random rock chip sampling where outcrop is observed.</li> <li>Within the exploration pits channel sampling has been undertaken on residual regolith profiles.</li> <li>Geochemical samples to be submitted to ALS Johannesburg for preparation and analysis in Brisbane; for Total Graphite Carbon Total Sulphur analysis, LOI and ICP-AES.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	· No drilling has been undertaken
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure</li> </ul>	<ul> <li>No drilling has been undertaken.</li> <li>The only sampling has entailed a program of of rockchip and channel sampling of exploration pits dug by the Company's</li> </ul>

Logging	<ul> <li>representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	exploration team.  No drilling has been undertaken
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples have been collected as part of the exploration pitting program with prospective pits chosen for grab and channel sampling through the regolith profile.</li> <li>QAQC protocols include the use of;         <ul> <li>a coarse blank to monitor contamination during the preparation process</li> <li>Certified Reference Material (CRM).</li> </ul> </li> <li>Four CRM (GGC001, GGC004, GGC005 and GGC010) were obtained to monitor analysis of laboratory for graphitic carbon, carbon and sulphur.</li> <li>One CRM has been utilised for monitoring vanadium</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks,</li> </ul>	<ul> <li>All samples have been submitted to ALS, for Total Carbon analysis, LOI and ICP-AES.</li> <li>Samples were sorted, oven dried at 105°C, crushed to -2mm and a 300g subsample taken for pulverising in an LM5 to 85% passing -75um.</li> <li>No geophysical tools were used to determine any element</li> <li>Loss on Ignition (LOI) has been determined between 105° and 1050° C. Results are reported on a dry sample basis.</li> </ul>

	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>The detection limits and precision for the TGC analysis are considered adequate for the phase of the exploration program.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No independent geologist has verified significant intersections.</li> <li>No adjustments have been made to assay data.</li> <li>No drilling has been conducted nor assays completed.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All spatial data for the project was collected in WGS84 UTM Zone 37 South.</li> <li>Garmin 62s GPS devices were used to site exploration pits and record the location of rockchip samples. The Garmin devices typically have a ±5m error.</li> <li>DEM was obtained from the VTEM survey has been used for the current stage of the exploration work program. The topography of the area is flat with no significant relief.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Pits were dug on approximately a 200m x 200m grid.</li> <li>No sample compositing has been applied, only visible estimates are provided.</li> <li>Seven high grade graphite occurrences were noted and are depicted in the image of the licence 4118L below:</li> </ul>



The pitting coordinate details are tabulated below:

			Summary
Exploration_Pit	Easting	Northing	Code
12_B	457582	8520594	
12_C	457441	8520735	
13_B	457865	8520594	
13_C	457724	8520735	GSS
13_D	457582	8520876	GSS
13_E	457441	8521018	GG
14_D	457865	8520876	
14_E	457724	8521018	
15_C	458290	8520735	TC
15_D	458148	8520876	TC
15_E	458007	8521018	SAP
15_F	457865	8521159	Quartzite
15_G	457724	8521301	TC
15_I	457441	8521583	
15_J	457300	8521725	

		17_F     458431     8521159       17_G     458290     8521301       17_H     458148     8521442       17_I     458007     8521583     GSS       19_F     458997     8521159     TC       19_G     458855     8521301     GSS
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>19_H</li> <li>Nothing reported to date in respect of the geological structure. Shallow sampling and pitting was conducted on a square grid across the VTEM target.</li> <li>No drilling has been completed to date.</li> </ul>
Sample security	· The measures taken to ensure sample security.	<ul> <li>The samples are stored in the company's field base until laboratory dispatch. At which point the samples are shipped by courier to ALS - South Africa.</li> <li>Any visible signs of tampering are reported by the laboratory.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews of sampling techniques have been undertaken to date.</li> </ul>

## **Section 2 Reporting of Exploration Results**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Balama Central Project (4118L) comprises an area covering approximately 9600ha. The license is being transferred from Dombeya Mineração Lda to Metals of Africa Limited via a locally owned subsidiary; Suni Resources Lda. The Honourable Minister of Mineral Resources has approved this transfer and has provided consent to Metals of Africa to commence work and public reporting on the license.</li> <li>The Balama Central Project (Licence 4118L) is located in Northern Mozambique, within the Cabo Delgado province. The licence is located in the Balama district. The town of Balama is located within the license, about 6km to the North-West from the main target.</li> <li>All statutory approvals have been acquired to conduct non ground disturbing exploration activity and the Company has established a good working relationship with the government departments of Mozambique.</li> <li>The company is not aware of any impediments relating to the licenses or area.</li> </ul>
Exploration done by other parties	· Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Project area has been mapped at 1:250,000 scale as part of nation-wide geological study prepared by a consortium funded by the Nordic Development Fund.</li> <li>The project area has also been flown with regionally spaced airborne geophysics (magnetics and radiometrics) as part of a post war government investment initiative.</li> <li>Frontier Rear Earth Pty Ltd completed a magnetic and radiometric survey in 2011</li> </ul>
Geology	· Deposit type, geological setting and style of mineralisation.	The project is targeting graphite and vanadium

		mineralisation.  The licence is located within the Xixano Complex and traverse the tectonic contacts between the Nairoto, Xixano and Montepuez Complexes. The Xixano Complex includes a variety of metasupracrustal rocks enveloping predominantly mafic igneous rocks and granulites that form the core of a regional north-northeast to south-southwest-trending synform. The paragneisses include mica gneiss and schist quartzfeldspar gneiss, metasandstone, quartzite and marble.  The metamorphic grade in the paragneiss is dominantly amphibolite facies, although granulite facies rocks locally occur. The oldest dated rock in the Xixano Complex is a weakly deformed metarhyolite which is interlayed in the metasupracrustal rocks and which gives a reliable extrusion
		<ul> <li>age of 818 +/- 10 Ma.</li> <li>Graphite-bearing mica schist and gneiss are found ir different tectonic complexes in the Cabo Delgado Province.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar,</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar,</li> <li>dip and azimuth of the hole,</li> <li>down hole length and interception depth,</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drilling has been undertaken on the project
Data	· In reporting Exploration Results, weighting averaging techniques,	· No grades have been reported to date
aggregation	maximum and/or minimum grade truncations (eg cutting of high	

methods	<ul> <li>grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Nothing reported to date in respect to the mineralisation widths and intercept lengths.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations.</li> </ul>	<ul> <li>Refer to figures in the main body of the announcement.</li> <li>Neither drilling nor intercepts are reported, only surface observations.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to</li> </ul>	No results, grades nor widths have been reported to date
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Regional airborne geophysical (magnetics, radiometrics) and regional geological mapping was used to assist mapping interpretation.</li> <li>2011 magnetic and radiometric survey was completed by Frontier Rare Earth Pty Ltd</li> <li>2014 - A heliborne VTEM survey was completed by MTA</li> </ul>

Further work	· The nature and scale of planned further work (eg tests for lateral	· Complete further mapping and sampling of the exploration
	extensions or depth extensions or large-scale step-out drilling).	pits and submit the samples for analysis
		· Clear drill pads and access tracks
	· Diagrams clearly highlighting the areas of possible extensions,	Drill any targets generated based on VTEM data combined
	including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	with outcropping graphite and vanadium mineralisation.