ASX Media/Announcement

31 July 2014

GRAPHITE OUTCROPPING LOCATED AT BALAMA SOUTH

HIGHLIGHTS:

- **Premilinary positive exploration results from Balama South Project - Mozambique**
- **Graphitic surface mineralisation identified in numerous locations at Balama South**
- **Visable large flake and vanadium hosting roscoellite identified in outcropping**
- **Geotech Airborne Limited awarded contract to complete VTEM surveys at both Ancuabe and Balama South projects**

Triton Minerals Limited (ASX: TON, "Triton", "the Company") is pleased to advise that as a result of the initial limited reconnaissance exploration program the Company has located graphitic mineralisation outcropping in a number of locations over a distance of approximately 2kms in the central section of License 5304, namely the Balama South project.

Triton Managing Director Brad Boyle said *"The Company is excited with the discovery of the new graphitic outcropping in the Balama South project. This initial small exploration program was about a proof of concept that the Balama South project was a long strike potential from our key Balama North project.*

The outcropping has once again confirmed our original analysis and it appears that both projects are situated on the same north east trending substructure, with both project areas hosting large flake graphite and roscoellite. The outcropping zone now provides the Company with very clear exploration target areas in the Balama South project.

Airborne geophysical (VTEM) surveys are an effective exploration method when delineating graphite mineralisation. The Company has seen a very strong correlation at the Balama North project between the VTEM data anomaly and the positive drilling results confirming and delineating the very large graphite mineralisation zone. Triton will undertake an airborne geophysical survey over the very large Balama South and Ancuabe project areas with the objectives of confirming larger trends of graphitic mineralisation. Given the rough terrain and sometimes limited access in parts of the project areas, the Company feels this method will help Triton to quickly and cost-effectively refine current and identify new potential graphite mineralisation zones."

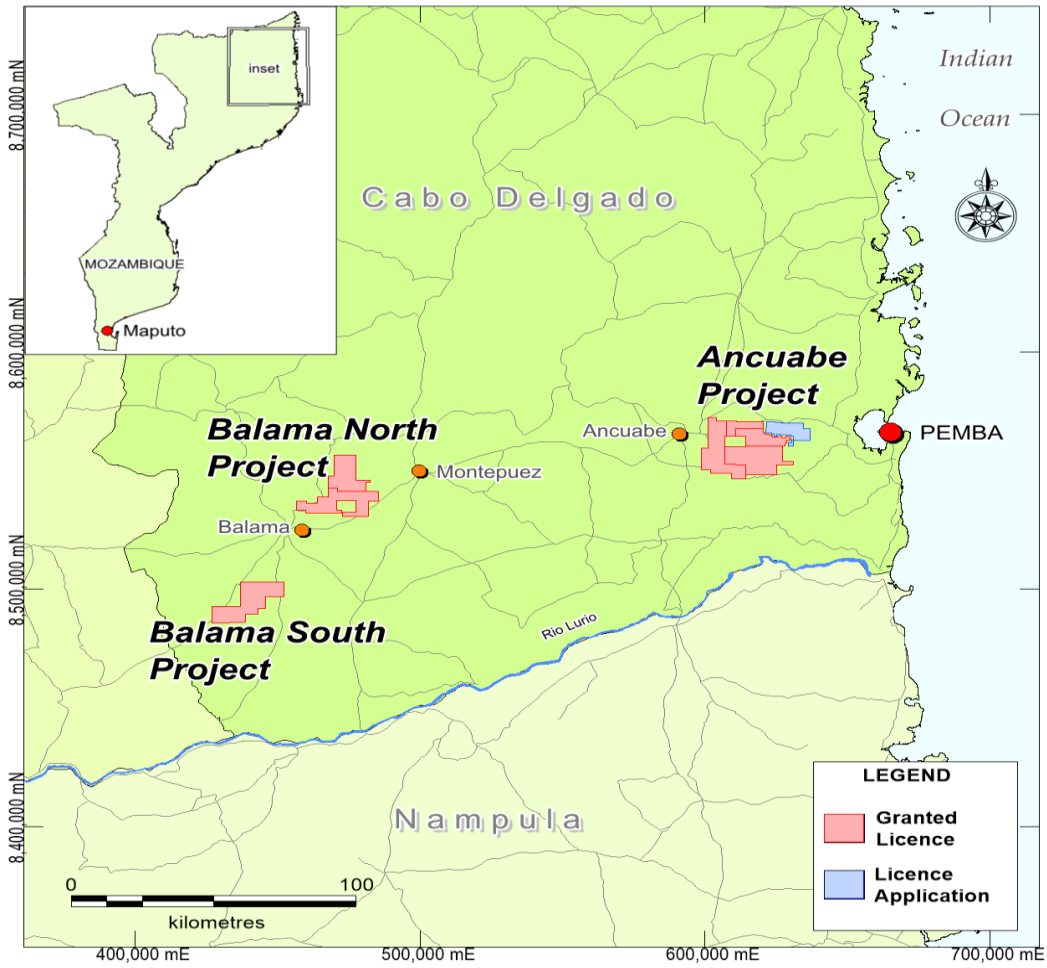

Figure 1: Overview of the Balama and Ancuabe exploration license areas

The initial limited reconnaissance mapping program conducted on Balama South, exploration license 5304, has located numerous occurrences of large flake graphite mineralisation and the presence of vanadium hosting roscoellite (Figure 2).

There are a number of physical similarities between the graphitic outcropping seen at both the Balama North and Balama South projects. This would suggest that there is a strong possibility that the graphite mineralisation seen at the Balama South project, may have developed along the same sub-structure which extends in a north-east direction to the Company's key Balama North graphite project some 30kms away.

Based on the very limited survey the graphite-rich rock appears to be outcropping on ridges and river beds in a north easterly direction for approximately 2 kilometres before descending beneath cover.

The initial visual review of the outcrops shows potential medium and large flake graphite mineralisation and numerous occurances of roscoellite (Figure 2).

Figure 2. Close up images of the graphite-bearing quartzose schist found on exploration license 5304.

Preliminary visual comparisons suggest that the graphite mineralisation located on exploration license 5304, show a number of similar characteristics to the graphitic outcropping found at the Company's key graphite Balama North project.

Further, exploration activities including additional geological transverses and mapping will be required to better delineate and refine the potential drill target areas in order to confirm the extent of the graphite mineralisation zones in the Balama South project.

VTEM Geophysical Surveys

The main focus for the Company is the rapid advancement of the Nicanda Hill prospect on the Balama North project, which hosts a very large graphite mineralisation zone, being 1km wide, over 400 deep and up to 5kms long.

Triton has found that the airborne VTEM survey to be a very effective exploration method when delineating graphite mineralisation. At the Nicanda Hill prospect there is a strong correlation between the boundaries of VTEM data anomaly and drilling results confirming the graphite mineralisation zone.

In April 2013, the Company announced the identification of large flake graphitic mineralisation outcropping in a number of locations over a distance of approximately 4kms in the northern section of exploration license 5380 in the Ancuabe project.

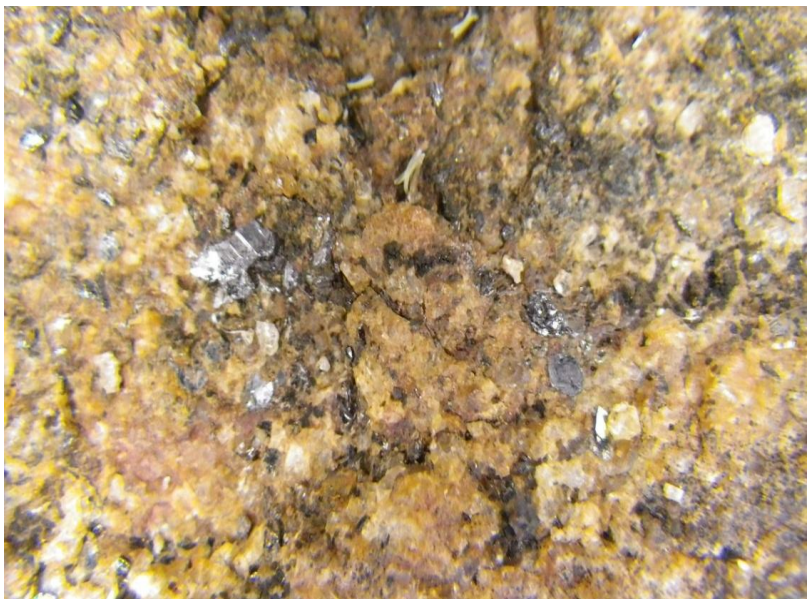

Figure 3. Close up view of graphite mineralisation in License 5380, Ancuabe project.

Now with the confirmation of the graphitic exposures at both the Balama South and Ancuabe projects, Triton believes conducting an airborne geophysical survey over these very large project areas is the most cost effective and accurate exploration method. The Company feels that this method will help Triton to quickly refine current and identify new potential graphite mineralisation zones.

Triton is pleased to confirm that Geotech Airborne Limited has been formally engaged to complete a helicopter-borne geophysical survey of VTEM Plus (Full-Waveform) and magnetic gradiometer over both the Ancuabe and Balama South projects area located in the Cabo Delgado Province of Mozambique.

The Company is aiming to complete both geophysical surveys on the Ancuabe and Balama South projects by late September 2014.

Figure 4. Example of the helicopter-borne geophysical VTEM Plus System with Magnetic Gradiometer

Triton looks forward to providing further exploration updates to the market as the information becomes available.

Regards

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Competent Person's Statement

The information in this report that relates to Exploration Results on Balama North project is based on, and fairly represents, information and supporting documentation prepared by Mr. Alfred Gillman, who is a Fellow of Australian Institute of Mining and Metallurgy (CP Geol). Mr. Gillman is a Non-Executive Director of the Company. Mr. Gillman 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 Mineral Resources and Ore Reserves (the JORC Code)'. Mr. Gillman consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.

The information in this announcement that relates to Exploration Results on Ancuabe project is extracted from the reports entitled ASX Release "Graphite Outcropping Located At Ancuabe" created 23 April 2013 and is available to view on www.tritonmineralsltd.com.au The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not necessarily limited to, statements concerning Triton Minerals Limited's planned exploration program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate" "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Triton Minerals Limited believes that its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.

Appendix 1

Balama South Project (License 5304) Operated under Agreement between Triton Minerals and Grafex Lda. Information pertaining to the project are presented below.

JORC Table 1 - Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. 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.*	Visable graphitic exposures were noted during mapping activites on Exploration License 5304. No sample results are presented in this report. Prior public releases contain details on the diamond and reverse circulation drilling, rock chip sampling and trench sampling that has been carried out on the Balama North Project.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	No drilling or surface sampling data are presented in this report.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	No drilling or surface sampling data are presented in this report.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	No drilling results are presented in this report.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	No drilling results are presented in this report.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	No drilling results are presented in this report.
	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.	No drilling or surface sampling results are presented in this report.
Logging	*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.*	No drilling results are presented in this report.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	No drilling results are presented in this report.
	The total length and percentage of the relevant intersections logged	No drilling results are presented in this report.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No drilling results are presented in this report.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No drilling results are presented in this report.

Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No drilling or surface sampling results are presented in this report.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No drilling or surface sampling results are presented in this report.
	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.	No drilling or surface sampling results are presented in this report.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No drilling or surface sampling results are presented in this report.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	No drilling or surface sampling results are presented in this report.
	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.	No Geophysical tools or equipment have bee used at the project. However, Triton are planning to complete helicopter-borne geophysical survey of VTEM Plus (Full-Waveform) and magnetic gradiometer over the Balama South project during the 3rd quarter 2014.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No drilling or surface sampling results are presented in this report.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No drilling or surface sampling results are presented in this report.
	The use of twinned holes.	No drilling results are presented in this report.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	No drilling or surface sampling results are presented in this report.
	Discuss any adjustment to assay data.	No drilling or surface sampling results are presented in this report.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	No drilling results are presented in this report.
	Specification of the grid system used.	The grid system for Balama South Project area is World Geodetic System (1984 Spheroid and Datum; Zone 37 South).
	Quality and adequacy of topographic control.	Topographic surface for Balama South Area was generated by Triton using GPS pick-ups. Topographic control is poor due to the inaccuracy of elevations provided by the hand-held GPS.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	No drilling or surface sampling results are presented in this report.
	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.	No drilling or surface sampling results are presented in this report.
	Whether sample compositing has been applied.	No drilling or surface sampling results are presented in this report.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	No drilling or surface sampling results are presented in this report.

Criteria	JORC Code explanation	Commentary
	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.	No drilling or surface sampling results are presented in this report.
Sample security	*The measures taken to ensure sample security.*	No drilling or surface sampling results are presented in this report.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No drilling or surface sampling results are presented in this report.

JORC Table 1 - Section 2 Reporting Of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	Exploration Licence 5304 is located within the Cabo Delgado Province of Mozambique. The licence is held by Grafex Limitada (Grafex), a Mozambican registered company. Triton Minerals entered into a Joint Venture (JV) agreement in December 2012 with Grafex to earn up to an 80% interest in Grafex's portfolio of graphite projects. In late 2013 Triton increased their holding in the projects to 60% by taking a direct equity interest in Grafex. License 5304 is valid until 13/02/2018.
	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.	All statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous systematic exploration has been undertaken at the Balama South Project.
Geology	Deposit type, geological setting and style of mineralisation.	The graphitic occurances appear to be hosted within Neoproterozoic rocks of the Xixano Complex in north-eastern Mozambique. The Xixano complex is composed dominantly of mafic to intermediate orthogneiss with intercalations of paragneiss, meta-arkose, quartzite, tremolite-rich marble and graphitic schist. Graphite mineralisation is hosted within fine grained graphitic schists underlain and overlain by felsic gneiss rock types. Graphite mineralisation outcrops at surfaces and potential vanadium occurances are noted as it is thought to be associated with the visable roscoelite schists.
Drill hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	No drilling or surface sampling results are presented in this report.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No drilling or surface sampling results are presented in this report.
	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.	No drilling or surface sampling results are presented in this report.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	No drilling or surface sampling results are presented in this report.

Criteria	JORC Code explanation	Commentary
Diagrams	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 and appropriate sectional views.	Refer to Figure 1 in the report.
Balanced reporting	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 avoid misleading reporting of Exploration Results.	No further exploration assays are currently outstanding.
Other substantive exploration data	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.	Limited reconnaissance mapping was completed. No rock chips samples have been obtained or surface trenching has been completed by Triton at the Balama South project area. Initial inspection of the graphitc exposures show flake graphite which is estimated to be around 5-8% of the schist and has a flake size range of 0.25 – 0.4mm. However, a petrographic study and further analysis is required to provide a more accurate description of the graphite flake size and grades. Limited regional scale mapping has been carried out in the area to identify outcrop of graphitic material. The results of the mapping will be used in conjunction with the future VTEM results to define the next stage of the exploration activities on the Balama South project.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Subject to the results of the geophysical survey, Triton will undertake survey exploration activies which may include further regional mapping and a limited drill testing program using reverse circulation and diamond drilling on any identified exploration target zone to delineate potential graphitic mineralization zones.