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**Projects:** Mozambique  
**Balama North** Graphite-Vanadium  
**Ancuabe** Graphite  
**Balama South** Graphite

**Project Locations**



**Holder of the world's largest known combined graphite-vanadium resource**

## EXTRAORDINARY METALLURGICAL RESULTS - ANCUABE PROJECT



- Additional metallurgical investigations confirm the substantial presence of large particle size (>590µm) up to 3350µm (in excess of 6 mesh) in the Ancuabe samples.
- Flotation tests confirm **92%** of the discrete mass particles in the samples were larger than 150µm (+100 mesh).
- Total graphitic carbon ("TGC") recovery of up to **96.1%** in the rougher flotation.
- Graphitic carbon grades of **96.4%** achieved in the primary cleaner at a yield of **15.1%** and recovery of **91.0%**.
- Graphite concentrate grade of **98.7%** TGC was achieved after single bead mill regrind and four cleaner stages.
- Highest head grade of **24%** TGC occurs in the -600+425µm size fraction.
- The graphite is readily liberated by crushing, grinding, rougher and cleaner flotation, with no additional regrind required.
- Further tests to optimize the graphite flake recovery process are continuing.

**Triton Minerals Limited (ASX: TON, Triton, Company)** is pleased to confirm receipt of further assays and particle size distribution results for the Ancuabe prospect.

Triton Minerals' Managing Director & CEO Brad Boyle said: *"Triton is extremely pleased to announce that an initial sighter test of Ancuabe bulk sample material that at the very least, has produced positive and encouraging metallurgical results."*

*However, these early results are, in my opinion, quite extraordinary and bode well for establishing a new benchmark for the highest quality graphite products available from Mozambique.*

*The tests confirm grades of up to 98.7% TGC after only 4 cleaner stages after a single bead mill regrind. Achieving such high grades and recoveries at very coarse particle sizes with a yield or mass pull of only 15% has very positive implications for potential downstream economics.*

*Due to the high graphite grades of around 98% TGC, which were obtained in just two minutes of flotation, we can safely assume that the particles comprises dominantly graphite flake. The concentrate flake size distribution data will be forthcoming shortly.*

*These results support the concurrent advancement of the Ancuabe project which is expected to provide Triton with the ability to provide greater flexibility in the range of TMG products, for a wide range of clients, this would place Triton in an extremely unique and advantageous position in comparison to its peers.”*

## **Metallurgical Results Recovers Jumbo Graphite Flakes**

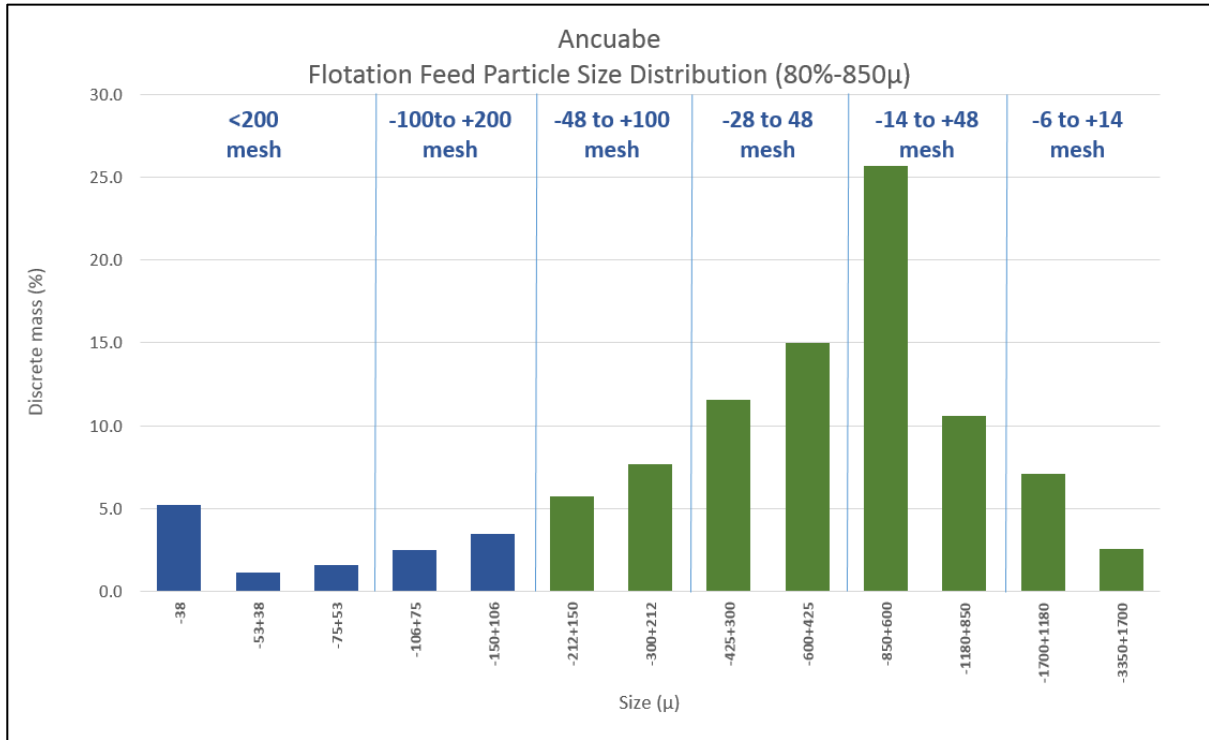
Initial mineralogical and metallurgical test work on the Ancuabe sample by Mintek (Johannesburg) confirms the strong presence and recovery of jumbo graphite flakes, including graphite flakes in excess of 3mm being identified during the flotation process.

Mintek flotation tests and feed particle size distribution results confirms **92%** of the graphitic particles in the samples were larger than 150µm including:

- 86% larger than 177µm (+80 mesh)
- 73% larger than 300µm (+50 mesh)
- 46% larger than 590µm (+32 mesh)
- 20% larger than 850 µm (+20 mesh)

<b>Micron</b>	<b>Mesh</b>	<b>Discrete Mass (%)</b>	<b>Grade (%TGC)</b>
>590	32	46.0	98.1
>300	50	26.6	97.0
>177	80	13.4	95.1
>150	100	6.0	94.0
>75	200	8.0	92.7

**Table 1.** Ancuabe - size by assay of flotation feed (target 80% - 850µ)



**Figure 1.** Graph of flotation feed particle size distribution

The confirmation of the very large size fractions of high graphite grade recovered from flotation is consistent with the mineralogical observations and is considered an extremely positive result for Triton, with potentially positive economic implications.

These outstanding results have been obtained from the rougher stages only, in a flotation testing program undertaken at the Mintek Laboratories on the 100kg sample.

Triton confirms the preliminary metallurgical results shows the total carbon (“TC”) recovery of **96.1%** in the rougher flotation of the Ancuabe samples. A primary cleaner grade of 96.4%TGC was achieved.

Prior to the flotation process the initial average measured graphite head grade for the Ancuabe samples was 14.4% TGC. Triton notes that with limited processing graphite head grades were upgraded to an average of **15.8%** TGC. Further, the results show the graphite grades in the partial size range of the 300µm -1180µm substantially exceed the overall average graphite head grade (Figure 2).

These results confirm the high value potential of the Ancuabe project, with high graphite grades of up to 24%TGC obtained and the majority of the partial sizes contained within the jumbo and super jumbo flake range, any graphite concentrate produced in this partial size range is likely to sell for in excess of US\$2,000 or more per tonne. The combination of high graphite grades and jumbo graphite flakes would provide very strong economics of any future graphite production at the Ancuabe project.

The very high graphite grades were obtained through the standard methods of crushing, grinding, rougher and cleaner flotation, without the need to complete a regrind of the graphite concentrate and demonstrates how readily the graphite flakes can be separated during the flotation process, which are strong indicators of the high quality nature of the Ancuabe project. The reduced processing requirements during the graphite flotation will likely have a positive impact for Triton reducing the time and energy needed to complete the process.

Ongoing optimization of the metallurgical process is expected to further enhance the quality of the final product concentrate. The Company is also reviewing options to see if the graphite concentrate can be further upgraded using supplementary treatments.

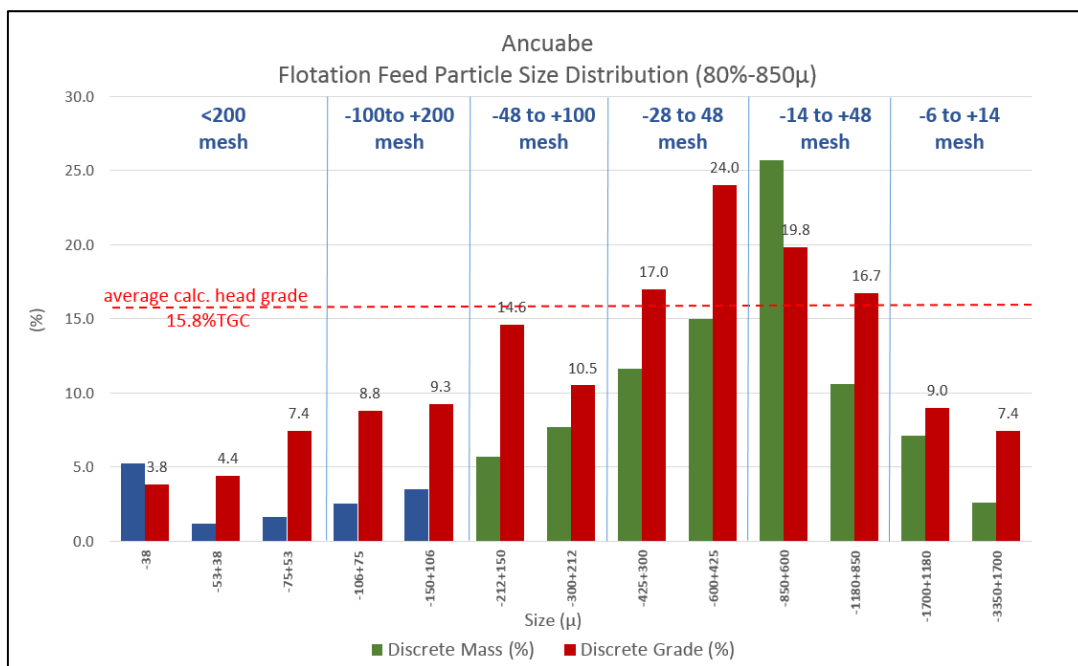
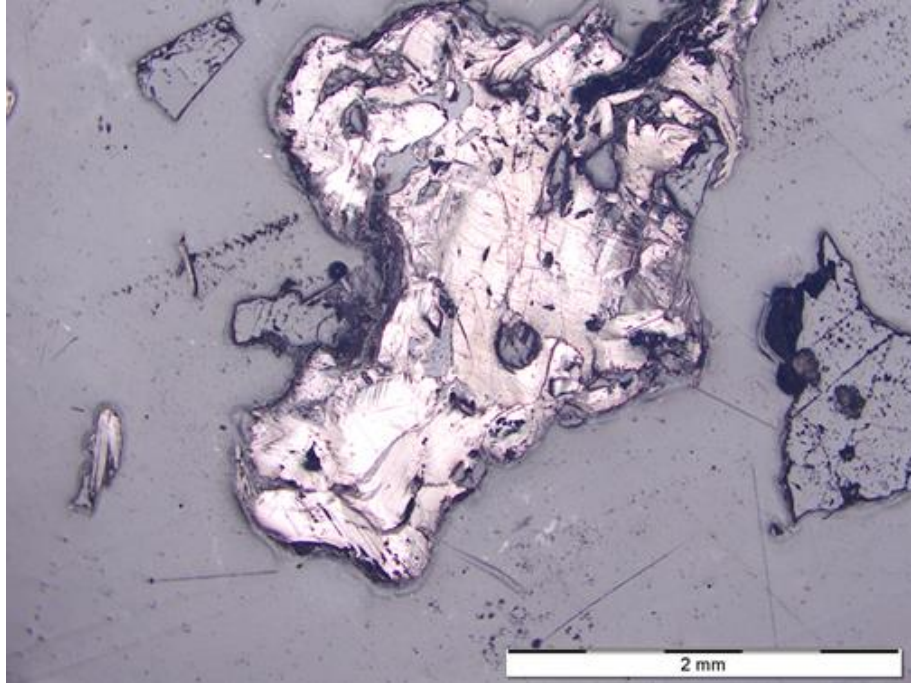


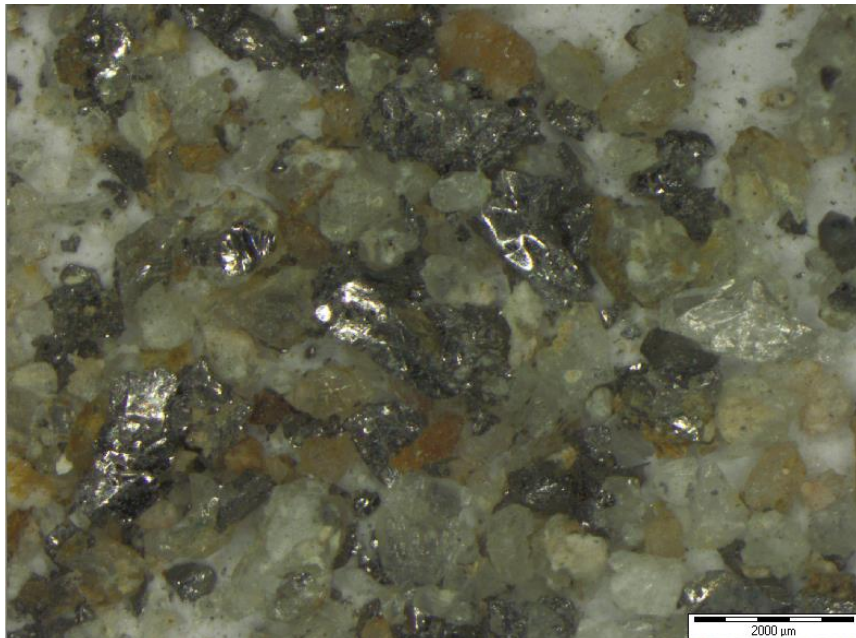
Figure 2. Graph of flotation feed particle size distribution and grade

Triton considers these initial results to be an encouraging outcome, and are consistent with results from the first crush as announced by the Company on 26 February 2015. These flotation tests confirm the majority of the graphite can be liberated cleanly from the surrounding gangue material during the initial crushing, without the need for additional processing.

Triton notes that the liberation of a large portion of the graphite flakes by crushing only, significantly reduces the time and cost of extraction whilst achieving the preservation of the larger flake size fractions. The Company is optimistic of further encouraging results with the completion of additional metallurgical test work.



**Figure 3.** Optical Microscope Photos of jumbo graphite flake identified from Ancuabe graphite sample.



**Figure 4.** Optical Microscope Photos from -3.35mm crusher discharge showing liberated jumbo graphite flakes from Ancuabe graphite sample.

## **CONCLUSIONS**

The latest metallurgical results from Ancuabe confirms the very high quality nature of the Ancuabe graphite project and signify positive implications for potential downstream economics.

Should Triton be able to demonstrate production of economic quantities of large and jumbo flake graphite at Ancuabe, it could complement the TMG products range and provide the Company with the potential to produce large volumes of high grade (high value) graphite in the full range of flake sizes, thereby accommodating a wider range of end-user requirements.

Regards



**Brad Boyle**  
**CEO & Managing Director**  
**Triton Minerals Ltd**

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**Competent Person's Statement**

The information in this report that relates to Exploration Results on the Ancuabe 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 the Ancuabe Project is extracted from the reports entitled ASX Release "Mozambique Projects Update", created 26 February 2015 and is available to view on [www.tritonmineralsltd.com.au](http://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

Ancuabe Project (includes License 5336) operated under Agreement between Triton Minerals and Grafex Lda. Information pertaining to field mapping and sample collection data.

### JORC Table 1

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>At the Ancuabe Project - samples were taken from in situ outcrop</li> <li>Outcrops approximately 50m in extent.</li> <li>Samples of approx. 100kg in weight.</li> <li>The Company has taken all care to ensure no material containing carbon is incorporated into the samples.</li> <li>All samples are individually labelled and accompanied by sample tickets, and documented in two separate catalogues.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No drilling was undertaken, thus not applicable.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure 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> </ul>	<ul style="list-style-type: none"> <li>No drilling was undertaken, thus not applicable.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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> <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>	<ul style="list-style-type: none"> <li>The geology of each surface sample is recorded by a geologist with the location recorded using a DGPS unit. This data is qualitative and contains some components of semi-quantitative estimates of mineral abundances.</li> <li>These data files are regularly submitted to the Perth office for compilation and validation.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• No preparation of the sample was undertaken except for the removal of soil and other organic material.</li> <li>• Quality control measures employed include the use of certified lab inserted graphite standards</li> <li>• Laboratory internal standards and repeat analyses will also be included in each analytical batch.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• The samples were analysed by SGS Laboratories, South Africa. Sample preparation included drying (105°C), crush, split (500g) and pulverizing such that 85% of the sample is 75 micron or less in size. A split of the sample was analysed using a LECO Analyser to determine Total carbon and sulphur content, and carbon in graphite content.</li> <li>• The detection limits and precision for the carbon and sulphur analyses are considered to be adequate for the purpose of resource estimations in the future. The results of the laboratory inserted standards, blanks and sample repeats demonstrate the accuracy and precision of total carbon, graphite carbon, and sulphur abundances is satisfactory.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• No field duplicates were included in this small sample batch.</li> <li>• Sample information is recorded at the time of sampling in electronic and hard copy form.</li> <li>• The assay data has been supplied in electronic form to be compiled into the Companies digital database. Secured electronic print files have been supplied for verification purposes.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• A DGPS was used to locate the surface samples (nominal error of 5 cm) and reported using the World Geodetic System (1984 Spheroid and Datum; Zone 37 South).</li> </ul>
<b>Data spacing</b>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>• The representatively of the grab samples can</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>not be assessed given the lack of continuous outcrop in these areas. These samples are only indicative results of the local geology and no claim to the volume or extent of this sample material is made.</li> <li>The dump sampling is considered to be representative</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable due to the minimal continuous outcrop.</li> <li>Not applicable to dump sampling</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The samples were stored in a secure yard (DHL Pemba) until shipment from Mozambique to South Africa.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits of the sampling techniques have been undertaken to date.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Licences 5966 and 5336 are held 100% by Grafex Lda, a company registered in Mozambique. Triton Minerals Ltd currently hold an 80% equity interest in Grafex and is moving to acquire the whole of Grafex by Feb 2016. Licence 5966 is valid until 19/06/2018, Licence 5336 is valid until 30/05/2018.</li> <li>All statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Apart from Triton reconnaissance mapping in 2013, there has been no prior work on the Ancuabe tenements.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The intended goal is to obtain coarse flake graphite disseminated in gneiss or schist of an</li> </ul>

Criteria	JORC Code explanation	Commentary
		unknown geometry or size.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• No drilling undertaken, thus not applicable</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high 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>	<ul style="list-style-type: none"> <li>• At Ancuabe - no data aggregation has been applied in the reported results. The results of all samples collected in this program on Licence 5336.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• The true width or geometry of the graphite bearing rocks that the surface samples were taken from could not be established. Additional exploration is required.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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 and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• See Figure 2.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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 avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>• The results of all samples collected in this Ancuabe program on Licence 5336.</li> </ul>
<b>Other substantive exploration</b>	<ul style="list-style-type: none"> <li>• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>data</b>	<i>survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further mapping and possibly drilling is anticipated to take place later in 2015 at Ancuabe.</li> </ul>