ASX Announcement 7 December 2017

Montepuez and Balama Exploration Update

Air-core drilling at Montepuez & Diamond drilling at Balama

Highlights

Montepuez Project

- **273 holes for 5,602 metres of air-core drilling has been completed of the 8,000 metre grade control program – drilling ongoing**
- **Additional resource extension drilling proposed on high grade outcropping graphite target extending for additional circa 1.6km along strike of Elephant Resource**

Balama Project

- **~1,600m diamond drilling program underway at Balama Project to convert inferred resources to indicated status for inclusion in future Reserve classifications**
- **14 holes for 1,181 metres of diamond drilling completed**
- **4 holes remaining for 450 metres – drilling ongoing**
- **Assays due from January 2018 onwards**

Battery Minerals Limited (ASX:BAT or Battery) is pleased to advise that it is completing grade control in-fill and mine planning drilling at its Montepuez Graphite Project in Mozambique, with the objective of ensuring the project is on track for production late next year. In addition, Battery is completing diamond drilling at its Balama Central Graphite Project in Mozambique (Balama) with an aim of converting inferred resources to the indicated category component of the current resource, as part of its plans to complete a feasibility study and report additional reserves in 2018.

Montepuez In-fill Drilling Programme - Underway

Battery Minerals has completed 273 air-core drill holes for 5,602 metres of an 8,000 metre grade control infill drill program. The program has been planned on 50m spaced lines with holes located 12.5m apart along the lines. The program is ongoing and will continue until the onset of the wet season or Christmas. The Company is completing detailed grade control drilling to underpin daily mining plans ahead of final regulatory approvals starting with the grant of the Mining Licence, which is expected imminently.

As expected, visual results from the drilling to date indicate broad graphite mineralized zones with grade estimates ranging between 5 to 15% TGC. Geologically logged visual estimates of 35% of the meters drilled (1,983 metres of 5,602 metres drilled) have intersected grades of over 10%. This is within the expected average mine grade of 12% TGC for the first 10 years. Assay results from the Montepuez in-fill drill program are due from January 2018.

In addition to the infill drilling, Battery has identified high grade graphite mineralisation that is open and outside of the current mine plan. Battery is excited to commence extension drilling in the new

year targeting high grade (10-15%TGC) outcropping graphite ore located approximately 1.6km along strike of the Elephant ore body, towards the south.

Balama Diamond Drilling Resource Programme - Underway

Battery has completed 1,181 metres of a circa 1,600 metre diamond drilling programme at its Balama Central (Balama) graphite project, also located in the Cabo Delgado province of Mozambique. The objective of the diamond drill program is to convert a large portion of the inferred resource at Balama into indicated resource category as part of the Balama Feasibility Study. Assay results are anticipated from January 2018.

The Company is working to fast-track the completion of a Feasibility Study at Balama. A recent Concept Study completed on Balama highlighted its high-grade nature and strong fundamentals, which suggest its potential to, in time, become a world-leading graphite mine. Given the promise shown by Balama, the Company expects to complete the Balama Feasibility Study in Q2 CY2018.

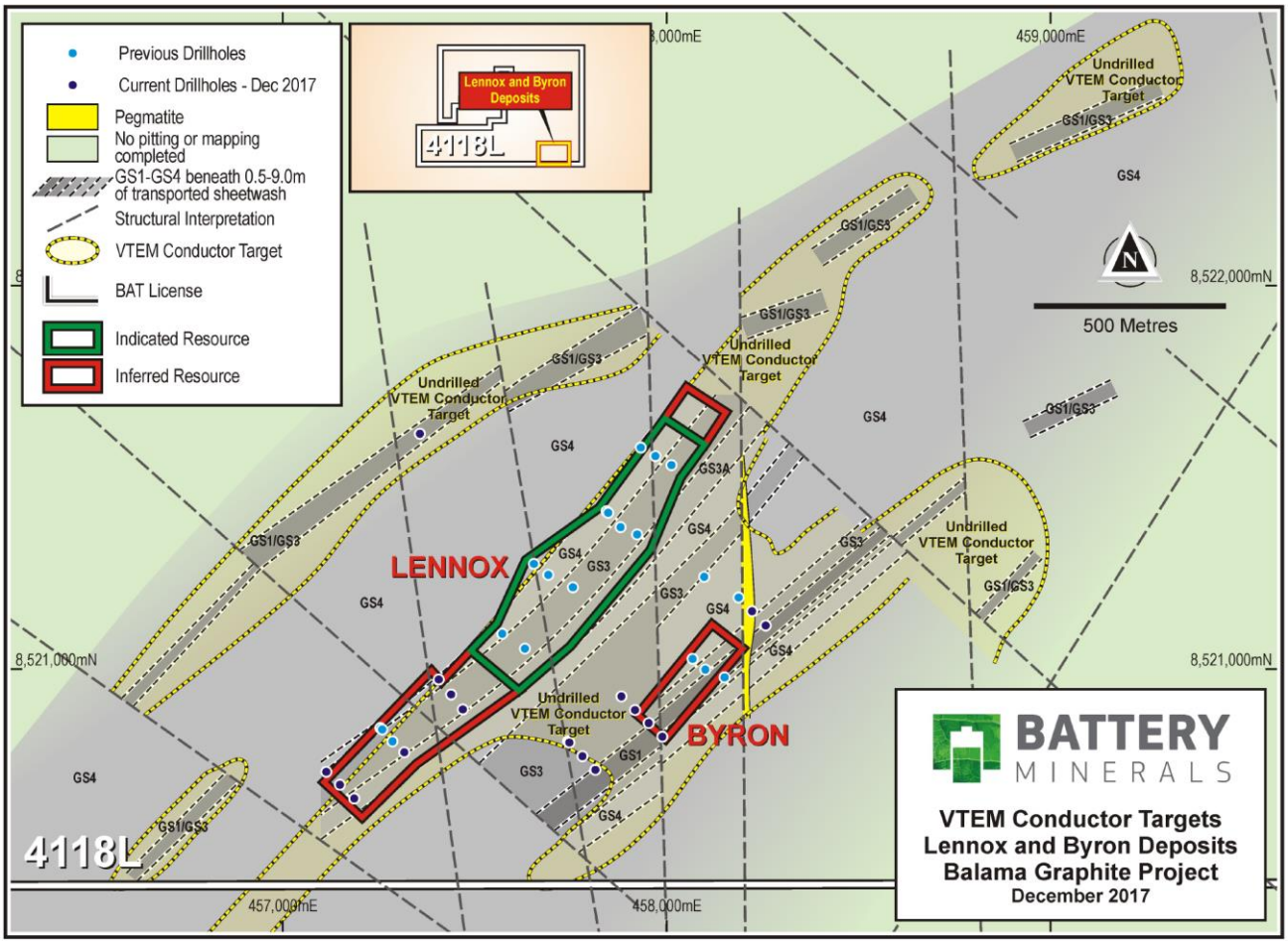

Figure 1: Balama Graphite Project: VTEM Conductor Targets

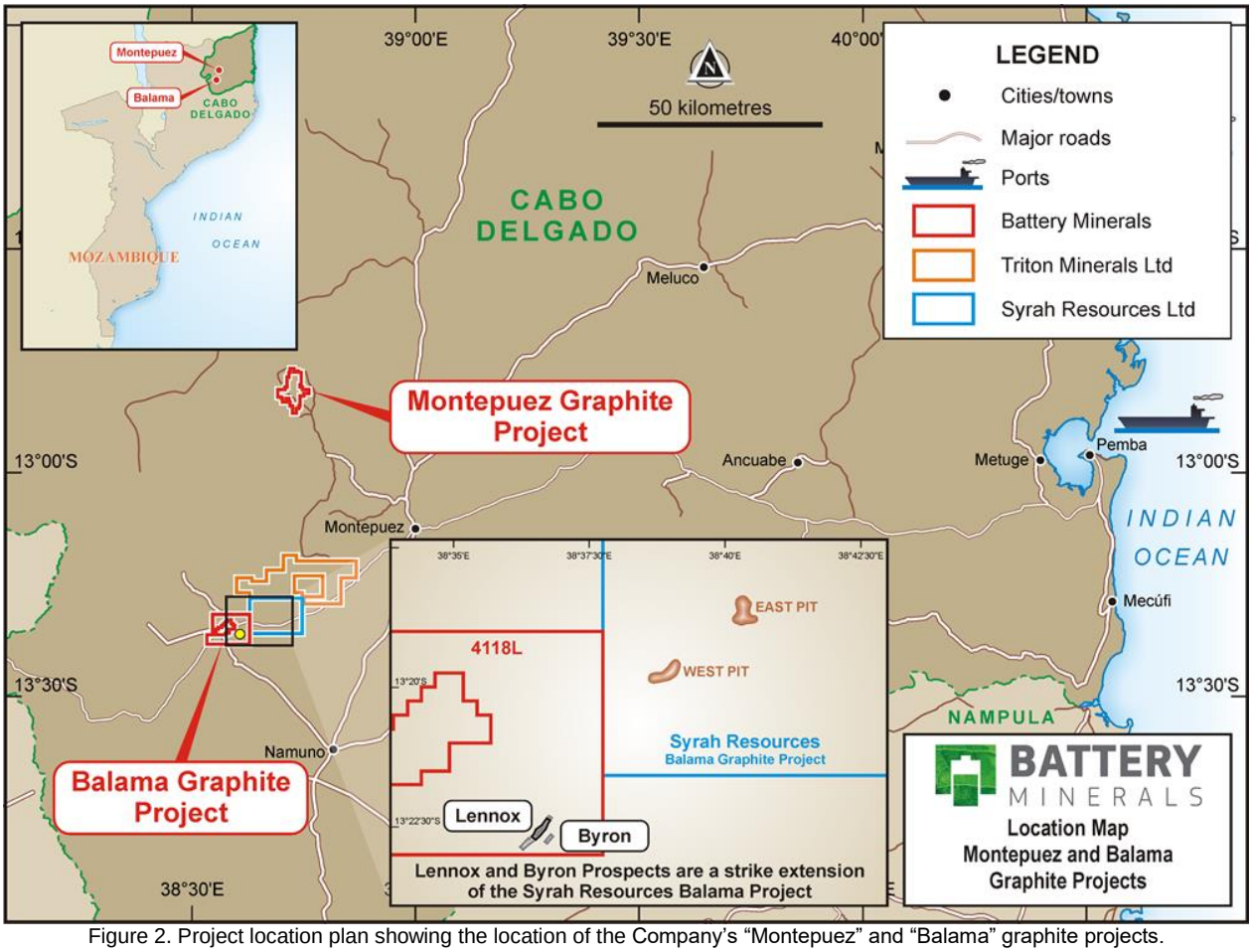

Figure 2. Project location plan showing the location of the Company's "Montepuez" and "Balama" graphite projects.

Montepuez development preparations announced on 1 December 2017

As announced on 1 December 2017, the Company has placed an ordered for a new primary crusher, which is currently being assembled and expected to arrive on site in March 2018. The primary crusher has a capacity of more than twice Montepuez' requirements, giving it ample ability to meet the Company's needs for the planned expansion in 2020. It will be delivered at a significant discount to quotes received as part of the Value Engineering Study completed in November 2017.

Battery Minerals has also appointed highly experienced lead design engineers DRA and Minnovo to complete the detailed design work on the process plant for Montepuez.

To help ensure the development of Montepuez can proceed as quickly as possible, Battery Minerals is also pleased to advise that it is has initiated an extensive recruitment campaign. This will be aimed at identifying key development and technical personnel for roles in Perth and Mozambique.

The Montepuez Graphite Project development preparations follow the completion of Battery Minerals' highly successful capital raising in November 2017, in which the Company raised $20 million in a heavily over-subscribed share placement.

Montepuez Value Engineering Study.

The low capital cost of just US$42.3m and the short lead time of just 13 months to production has seen the Company and the project win strong support from investors.

As the Value Engineering Study showed, Montepuez will generate outstanding returns, including low quartile operating costs of US$337/t and a payback period of less than 2 years.

Final approvals for Montepuez are due in the March Quarter 2018 to facilitate the scheduled start of construction in April 2018. The Company remains on track to commence mine commissioning in the December Quarter, 2018 with first graphite concentrate exports scheduled for the March Quarter, 2019.

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

Competent Persons Statement
The information in this announcement that relates to Exploration Results is based on information compiled by Ms. Cherie Leeden, who is an Executive Director and who holds shares and options in the Company. Ms. Leeden is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms. Leeden consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

All references to future production and production & shipping targets and port access made in relation to Battery Minerals are subject to the completion of all necessary feasibility studies, permit applications, construction, financing arrangements, port access and execution of infrastructure-related agreements. Where such a reference is made, it should be read subject to this paragraph and in conjunction with further information about the Mineral Resources and Ore Reserves, as well as the relevant competent persons' statements.

Any references to Ore Reserve and Mineral Resource estimates should be read in conjunction with the competent person statements included in the ASX announcements referenced in this report as well as Battery Minerals' other periodic and continuous disclosure announcements lodged with the ASX, which are available on the Battery Minerals' website.
The information in this report that relates to Battery Minerals' Mineral Resources or Ore Reserves is a compilation of previously published data for which Competent Persons consents were obtained. Their consents remain in place for subsequent releases by Battery Minerals of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.
The information in this announcement that relates to Montepuez Mineral Resources and Ore Reserves is extracted from the ASX Announcement titled 'Montepuez Graphite Project Mineral Resource and Ore Reserve Estimate' dated 15 February 2017 and DFS and PFS information is extracted from the ASX announcement entitled 'Lithium Ion Battery anode PFS and Montepuez Graphite DFS confirm robust economics' dated 15 February 2017, both of which are available at Battery Minerals website at http://www.batteryminerals.com.au in the ASX announcements page.
Any references to Mineral Resource estimates on the Balama Central Project should be read in conjunction with the competent person statements included in the ASX announcements referenced in this report (see 21 March 2016 ASX announcement entitled "Maiden JORC Graphite Resource at Balama Central Project - Mozambique") as well as Battery Minerals' other periodic and continuous disclosure announcements lodged with the ASX, which are available on the Battery Minerals' website.

Battery Minerals confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. Battery Minerals confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Appendix 1:
JORC Code, 2012 Edition – Table 1 to exploration update: Tenement 8770C

The Montepuez Central Project (MCP). This report pertains to the current aircore grade control drilling program undertaken to develop a mine plan

Ms. Cherie Leeden, Executive Director of BAT compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for the sections.

Section 1 Sampling Techniques and Data		
Criteria	**JORC Code explanation**	**BAT 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.* · *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* · *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.*	* Drill hole sampling undertaken as part of the aircore grade control program were collected through a cone splitter with duplicate sample collected for archive an further QAQC purposes. The sample was collected in plastic sample bags with a duplicate collected for archive and potential future duplicate analysis All samples were 1m split from Metzke rig mounted cone splitter.
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.).*	· The aircore drill holes were completed between November-December 2017 by drilling contractors.
Drill sample recovery	· *Method of recording and assessing core and chip sample recoveries and results assessed.* · *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	· Sieved chip samples were collected and geologically logged and grade estimates (Visual Graphite Estimates0 · the drill rig.

Section 1 Sampling Techniques and Data		
	· *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.*	
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.* · *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* · *The total length and percentage of the relevant intersections logged.* ·	· Drill holes were logged by trained and experienced geologists at the level of detail that supports the exploration report and any future inclusion in a resource estimation. · Geological logging of all drill chips included; weathering zone, lithology, colour, mineralogy, mineralisation and visual graphite estimates. · All data was initially captured on paper logging sheets, and transferred to locked excel format tables for validation and was then loaded into the parent access database. · All aircore samples have sieved and stored in chip trays for archive purposes a. · The logging and reporting of visual graphite percentages on preliminary logs is semi-quantitative and not absolute. Visual Graphite Estimates for preliminary logging and geological interpretation.
Sub-sampling techniques and sample preparation	· *If core, whether cut or sawn and whether quarter, half or all core taken.* · *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* · *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* · *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* · *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.* · *Whether sample sizes are appropriate to the grain size of the material being sampled.*	· · No subsampling has been undertaken post drilling. · Samples were drilled dry and split through the cone splitter. · The sampling undertaken to date is appropriate for grade control purposes and geological interpretation. · The sampling technique is not suitable for metallurgical or flake sizing analysis and on going metallurgical analysis is required
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.* · *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis*	· Samples were submitted to ALS Johannesburg (South Africa) for sample preparation and geochemical analysis was completed by ALS in Brisbane (Australia). · Samples were sorted, oven dried at 105°C, crushed to -2-3mm and a 300g subsample taken for pulverising in an LM5 with 85% passing -75um. · Loss on Ignition (LOI) has been determined between 105° and 1050° C. Results are reported on a dry sample basis.

Section 1 Sampling Techniques and Data		
	including instrument make and model, reading times, calibrations factors applied and their derivation, etc. · *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	· Analysis includes Total Carbon Total Sulphur analysis by LECO, LOI TGA and ICP-AES. · The detection limits and precision for the Total Graphitic Carbon (TGC) and Total Sulphur (TS) analysis are considered adequate for resource estimation. · QAQC protocols include the use of; a coarse blank to monitor contamination during the preparation process, Certified Reference Material (CRM) at an insertion ratio of 1:20. · All laboratory batch QC measures are checked for bias before final entry in the database, no bias has been identified in the results received. Duplicate samples returned good repeatability. · The CRM TGC values range between 4-24%. The blank samples comprised 1-2kg sample of dolomitic marble quarried from a location 50km east of the project. · Four CRM (GGC001, GGC004, GGC005 and GGC010) are used to monitor analysis of laboratory for graphitic carbon, carbon and sulphur. · One base metal CRM (AMIS 346) was utilised to monitor vanadium.
Verification of sampling and assaying	· *The verification of significant intersections by either independent or alternative company personnel.* · *The use of twinned holes.* · *Documentation of primary data, data entry procedures, data verification.* · *Discuss any adjustment to assay data.*	· Field work was managed on site by the project Exploration Manager. · No twinned drill holes studies have been undertake · Data entry procedures are described in the Logging section.
Location of data points	· *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.* · *Specification of the grid system used.* · *Quality and adequacy of topographic control.*	· All spatial data was collected in WGS84 UTM Zone 37 South datum. · Planned drill holes were surveyed using Garmin 62s GPS devices which typically have a ±5m error in the project area. · Final collar locations were picked up by GEOSURVEY utilising a differential GPS system with 0.02cm accuracy.
Data spacing and distribution	· *Data spacing for reporting of Exploration Results.* · *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*	· Historically all diamond drill holes were drilled at shallow angles (nominally 50°-60° towards 110-120° UTM grid east) in an attempt to drill across stratigraphy, however mineralised intercepts are not perpendicular to strike however are as close as could be obtained.

Section 1 Sampling Techniques and Data		
	estimation procedure(s) and classifications applied. · *Whether sample compositing has been applied.*	· The aircore grade control program, was drilled on 12.5m centers; on an east west grid 090° UTM grid will all drill holes completed at -60° · The drill hole details are tabulated in Appendix 2.
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.* · *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.*	· The drill holes were planned to test the continuity of the shallow oxide mineralisation at the Buffalo and Elephant deposits; and strike continuity of the interpreted >10% TGC zones.
Sample security	· *The measures taken to ensure sample security.*	· The samples are stored in the Company's field base until laboratory dispatch, at which point the samples were transport to Pemba and air and road freighted by courier to ALS – Johannesburg, South Africa for sample preparation and then pulp couriered to ALS Brisbane Australia for geochemical analysis. · Any visible signs of tampering are reported by the laboratory and none have been reported to date.
Audits or reviews	· *The results of any audits or reviews of sampling techniques and data.*	· Mr. Mark Burnett, Snowden Principal Consultant visited site in July 2016 and Shaun Searle of RungePincockMinarco (representative of Robert Dennis, CP) visited in June to July 2015 as part of their Competent Person field procedure assessment for the 15 February 2017 Mineral Resource. No issues with the field procedures or geological data gathering was identified by both Resource CP's during their respective visits.

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.* · *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.*	· The Montepuez Central Graphite Project 8770C Mine License Application comprises an area covering 3,667Ha and is held 100% by Battery Minerals Limited via a locally owned subsidiary Suni Resources SA. The license application has been applied for graphite and vanadium extraction. The prior Exploration License was 6216L. · The mine license application was submitted 9 May 2017 and Battery Minerals is anticipating a response from the Mozambique government in Q4 2017. · The Montepuez Central Project contains the Elephant, Buffalo and Lion deposits however resource and reserve estimations were limited to Elephant and Buffalo during the DFS released 15 February 2017. · Statutory approvals for mine development are progressing and on schedule and include the Environmental License submission, Resettlement Action Plan and DUAT (land access).

Section 2 Reporting of Exploration Results		
		· BAT has established a good working relationship with the government departments of Mozambique and continues to build its relationship with the local community. · The Company is not aware of any impediments relating to the licenses or area.
Exploration done by other parties	· *Acknowledgment and appraisal of exploration by other parties.*	· There is no record of past direct exploration activities on the license that BAT has knowledge of. · BAT has conducted all the exploration work on the Mine License Application 8770C including, VTEM airborne survey, mapping & rock chip sampling, trenching and resource-reserve drilling.
Geology	· *Deposit type, geological setting and style of mineralisation.*	· The deposits were discovered after drill testing a series of coincident VTEM conductors and prospective stratigraphy with mapped graphitic outcrop occurrences. · The 6216 license occurs on 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 occur locally in the region. The oldest dated rock in the Xixano Complex is a weakly deformed meta-rhyolite which is interlayed in the meta-supracrustal rocks and which gives a reliable extrusion age of 818 +/- 10 Ma. · Graphite-bearing mica schist and gneiss are found in different tectonic complexes in the Cabo Delgado Province of Mozambique. · Local geology comprises dolerite, meta-sediments, amphibolites, psammite with graphitic metasediments and graphitic schists. · At Buffalo the deformation strained zone of GSQF, psammite and amphibolite exhibits brittle and brittle-ductile structures that intersect each other, the deformation zone is where graphite mineralisation is located and is part of a regional metamorphic and deformation event. · At the nearby Elephant deposit, the metamorphic banding and foliation strike about 005° and the GSQF dips moderately steep west. · The Montepuez deposits are disseminated with graphite dispersed within gneiss. The graphite forms as a result of high grade metamorphism of organic carbonaceous matter, the protolith in which the graphite has formed may have been globular carbon, composite flakes, homogenous flakes or crystalline graphite. · Parasitic folds in the drill core indicate the mineralization is complexly folded and steeply dipping faults and sheers have been observed.

Section 2 Reporting of Exploration Results		

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 drillhole 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.*
	· *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.*
		· A summary table of drill hole details with drill plan are listed in Appendix 4.
		· All aircore drilling has been undertaken on a nominal 25m sections and drill holes spacing on 12.5m centers.
		· Graphite samples selected for laboratory analyses were determined from the field logging of Visual Graphite Estimates which include the analysis of non-mineralised (amphibolite) to better constrain the geological and grade models

Data aggregation methods	· *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.* · *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.* · *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	· Nothing to report at this stage · No chemical conversions or metal equivalent values have been applied.
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.*	· The drill holes were drilled to further improve the geological and grade models · The geology at the Buffalo deposit is relatively well constrained with Indicated and Inferred Mineral Resources and Probable Ore Reserve Classifications. · The dip of the orebody is steeply west and holes have been drilled eastward -50-60° to intersect the graphite mineralisation at the highest angle possible. A northerly

Section 2 Reporting of Exploration Results		
	· *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').*	plunge was observed during the resource evaluation process. · –The geology of the nearby Elephant deposit is less structurally complex than Buffalo and comprises a moderately steep westerly graphitic schist package bound by amphibolite and notable psammite in the southern portion of the orebody.
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.*	· A drill hole plan and cross-section is provided in Appendix 4.
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*	· The report is believed to include all representative and relevant information pertaining the planning and excitation of the aircore drilling program · exploration drill hole results for holes drilled west of Buffalo deposit.
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.*	
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.*	· Further work for this project will focus on mine infrastructure development including grade control drilling.

Appendix 2 – Drill results referred to in Appendix 1

Montepuez Central Q4 2017 Aircore - Drill Hole Program Summary Table – all holes completed unless otherwise stated

Hole ID	Target	Drill Type	UTM East	UTM North	Elevation	Plan Depth	Max Depth	AC	HQ	DIP	Mag Azimuth	Grid Azimuth
EL027A	Elephant	AC	469,227	8,584,593	401	18.00	37.00			-50	98	92
EL028A	Elephant	AC	469,214	8,584,594	401	18.00	37.00			-50	98	92
EL029A	Elephant	AC	469,200	8,584,595	400	18.00	25.00			-50	98	92
EL030A	Elephant	AC	469,190	8,584,595	399	18.00	12.00			-50	98	92
EL031A	Elephant	AC	469,181	8,584,596	399	18.00	15.00			-50	93	87
EL032A	Elephant	AC	469,168	8,584,595	398	18.00	20.00			-50	93	87
EL033A	Elephant	AC	469,245	8,584,692	399	18.00	14.00			-50	94	88
EL034A	Elephant	AC	469,231	8,584,694	398	18.00	12.00			-50	94	88
EL035A	Elephant	AC	469,218	8,584,696	398	18.00	15.00			-50	97	91
EL036A	Elephant	AC	469,205	8,584,688	397	18.00	18.00			-50	98	92
EL037A	Elephant	AC	469,187	8,584,690	397	18.00	10.00			-90	93	87
EL038A	Elephant	AC	469,182	8,584,689	397	18.00	18.00			-50	96	90
EL039A	Elephant	AC	469,171	8,584,691	396	18.00	14.00			-50	93	87
EL040A	Elephant	AC	469,155	8,584,690	396	18.00	18.00			-50	91	85
EL041A	Elephant	AC	469,227	8,584,542	395	18.00	14.00		18.00	-50	102	96
EL042A	Elephant	AC	469,212	8,584,544	395	18.00	15.00		14.00	-50	98	92
EL043A	Elephant	AC	469,200	8,584,542	394	18.00	24.00		15.00	-50	98	92
EL044A	Elephant	AC	469,190	8,584,548	394	18.00	15.00		24.00	-60	98	92
EL045A	Elephant	AC	469,178	8,584,548	393	18.00	21.00			-60	98	92
EL046A	Elephant	AC	469,165	8,584,553	393	18.00	8.00			-60	101	95
EL047A	Elephant	AC	469,152	8,584,552	392	18.00	18.00			-60	96	90
EL048A	Elephant	AC	469,244	8,584,491	397	18.00	14.00			-60	96	90
EL049A	Elephant	AC	469,228	8,584,492	396	18.00	22.00			-60	95	89
EL050A	Elephant	AC	469,216	8,584,493	395	18.00	18.00			-60	93	87
EL051A	Elephant	AC	469,205	8,584,489	395	18.00	15.00			-60	93	87
EL052A	Elephant	AC	469,190	8,584,494	395	18.00	30.00			-60	93	87
EL053A	Elephant	AC	469,175	8,584,493	394	18.00	24.00			-60	93	87
EL054A	Elephant	AC	469,164	8,584,493	394	18.00	20.00			-60	93	87

EL055A	Elephant	AC	469,155	8,584,489	393	18.00	23.00			-60	93	87
EL56A	Elephant	AC	469,143	8,584,486	393	18.00	19.00			-60	94	88
EL057A	Elephant	AC	469,280	8,584,399	399	18.00	12.00			-60	95	89
EL058A	Elephant	AC	469,263	8,584,402	398	18.00	22.00			-60	95	89
EL059A	Elephant	AC	469,255	8,584,402	398	18.00	21.00			-60	95	89
EL060A	Elephant	AC	469,246	8,584,398	398	18.00	16.00			-60	93	87
EL061A	Elephant	AC	469,234	8,584,401	397	18.00	18.00			-60	93	87
EL062A	Elephant	AC	469,221	8,584,402	397	18.00	9.00			-60	93	87
EL063A	Elephant	AC	469,205	8,584,399	397	18.00	18.00			-60	96	90
EL064A	Elephant	AC	469,193	8,584,398	396	18.00	26.00			-60	95	89
EL065A	Elephant	AC	469,185	8,584,395	396	18.00	24.00			-60	95	89
EL066A	Elephant	AC	469,172	8,584,397	395	18.00	30.00			-60	92	86
EL067A	Elephant	AC	469,160	8,584,396	395	18.00	16.00			-60	95	89
EL068A	Elephant	AC	469,144	8,584,395	395	18.00	18.00			-60	95	89
EL069A	Elephant	AC	469,130	8,584,397	394	18.00	12.00			-60	95	89
EL070A	Elephant	AC	469,294	8,584,345	394	18.00	18.00			-60	96	90
EL071A	Elephant	AC	469,282	8,584,344	394	18.00	36.00			-60	96	90
EL072A	Elephant	AC	469,269	8,584,343	393	18.00	30.00			-60	96	90
EL073A	Elephant	AC	469,256	8,584,347	393	18.00	34.00			-60	96	90
EL074A	Elephant	AC	469,242	8,584,345	392	18.00	30.00			-60	97	91
EL075A	Elephant	AC	469,231	8,584,345	392	18.00	11.00			-60	96	90
EL076A	Elephant	AC	469,219	8,584,345	392	18.00	18.00			-60	96	90
EL077A	Elephant	AC	469,205	8,584,345	391	18.00	24.00			-60	95	89
EL078A	Elephant	AC	469,194	8,584,345	390	18.00	24.00			-60	98	92
EL079A	Elephant	AC	469,181	8,584,344	390	18.00	24.00			-60	95	89
EL080A	Elephant	AC	469,165	8,584,343	390	18.00	21.00			-60	95	89
EL081A	Elephant	AC	469,152	8,584,343	389	18.00	20.00			-60	96	90
EL082A	Elephant	AC	469,148	8,584,338	392	18.00	23.00			-60	95	89
EL083A	Elephant	AC	469,129	8,584,349	395	18.00	6.00			-60	96	90
EL084A	Elephant	AC	469,257	8,584,452	391	18.00	27.00			-60	94	88
EL085A	Elephant	AC	469,246	8,584,452	401	18.00	10.00			-60	96	90
EL086A	Elephant	AC	469,231	8,584,449	402	18.00	16.00			-60	96	90
EL087A	Elephant	AC	469,223	8,584,444	396	18.00	24.00			-60	93	87

EL088A	Elephant	AC	469,209	8,584,441	408	18.00	24.00			-60	95	89
EL089A	Elephant	AC	469,194	8,584,443	400	18.00	26.00			-60	95	89
EL090A	Elephant	AC	469,184	8,584,440	396	18.00	29.00			-60	95	89
EL091A	Elephant	AC	469,170	8,584,444	393	18.00	26.00			-60	96	90
EL092A	Elephant	AC	469,155	8,584,448	395	18.00	16.00			-60	96	90
EL093A	Elephant	AC	469,144	8,584,442	394	18.00	15.00			-60	95	89
EL094A	Elephant	AC	469,131	8,584,445	394	18.00	23.00			-60	94	88
EL095A	Elephant	AC	469,291	8,584,296	412	18.00	17.00			-60	97	91
EL096A	Elephant	AC	469,271	8,584,290	413	18.00	24.00			-60	99	93
EL097A	Elephant	AC	469,261	8,584,292	407	18.00	16.00			-60	97	91
EL098A	Elephant	AC	469,247	8,584,292	405	18.00	11.00			-60	97	91
EL099A	Elephant	AC	469,242	8,584,290	405	18.00	23.00			-60	98	92
EL100A	Elephant	AC	469,228	8,584,297	408	18.00	10.00			-60	96	90
EL101A	Elephant	AC	469,214	8,584,292	408	18.00	23.00			-60	96	90
EL102A	Elephant	AC	469,201	8,584,293	408	18.00	21.00			-60	96	90
EL103A	Elephant	AC	469,187	8,584,293	401	18.00	17.00			-60	97	91
EL104	Elephant	AC	469,177	8,584,292	400	18.00	12.00			-60	97	91
EL105	Elephant	AC	469,165	8,584,294	395	18.00	11.00			-60	96	90
EL106	Elephant	AC	469,152	8,584,294	399	18.00	16.00			-60	98	92
EL107	Elephant	AC	469,138	8,584,292	403	18.00	18.00			-60	98	92
EL108	Elephant	AC	469,126	8,584,294	404	18.00	8.00			-60	98	92
EL109	Elephant	AC	469,285	8,584,239	401	18.00	30.00			-60	96	90
EL110	Elephant	AC	469,277	8,584,235	410	18.00	24.00			-60	94	88
EL111	Elephant	AC	469,267	8,584,240	401	18.00	22.00			-60	95	89
EL112	Elephant	AC	469,254	8,584,239	410	18.00	17.00			-60	96	90
EL113	Elephant	AC	469,245	8,584,238	405	18.00	17.00			-60	96	90
EL114	Elephant	AC	469,223	8,584,240	403	18.00	26.00			-60	96	90
EL115	Elephant	AC	469,214	8,584,240	405	18.00	26.00			-60	95	89
EL116	Elephant	AC	469,201	8,584,237	405	18.00	16.00			-60	94	88
EL117A	Elephant	AC	469,188	8,584,239	394	18.00	12.00			-60	96	90
EL118A	Elephant	AC	469,178	8,584,234	405	18.00	26.00			-60	96	90
EL119A	Elephant	AC	469,166	8,584,238	402	18.00	30.00			-60	98	92
EL120A	Elephant	AC	469,293	8,584,194	404	18.00	30.00			-60	98	92

EL121A	Elephant	AC	469,268	8,584,194	407	18.00	12.00			-60	95	89
EL122A	Elephant	AC	469,255	8,584,193	406	18.00	7.00			-60	95	89
EL123A	Elephant	AC	469,247	8,584,191	403	18.00	21.00			-60	98	92
EL124A	Elephant	AC	469,227	8,584,193	401	18.00	16.00			-60	98	92
EL125A	Elephant	AC	469,215	8,584,194	392	18.00	14.00			-60	98	92
EL126A	Elephant	AC	469,206	8,584,196	405	18.00	36.00			-60	95	89
EL127A	Elephant	AC	469,190	8,584,191	391	18.00	17.00			-60	96	90
EL128A	Elephant	AC	469,180	8,584,193	402	18.00	24.00			-60	96	90
EL129A	Elephant	AC	469,152	8,584,188	390	18.00	18.00			-60	96	90
EL130A	Elephant	AC	469,144	8,584,189	401	18.00	28.00			-60	96	90
EL131A	Elephant	AC	469,130	8,584,200	396	18.00	30.00			-60	97	91
EL132A	Elephant	AC	469,171	8,584,192	403	18.00	21.00			-60	96	90
EL133A	Elephant	AC	469,149	8,584,241	399	18.00	21.00			-60	96	90
EL134A	Elephant	AC	469,144	8,584,235	404	18.00	24.00			-60	97	91
EL135A	Elephant	AC	469,127	8,584,239	400	18.00	12.00			-60	96	90
EL136A	Elephant	AC	469,281	8,584,151	401	18.00	30.00			-60	96	90
EL137A	Elephant	AC	469,293	8,584,146	401	18.00	28.00			-60	96	90
EL138A	Elephant	AC	469,266	8,584,149	399	18.00	30.00			-60	96	90
EL139A	Elephant	AC	469,254	8,584,148	407	18.00	28.00			-60	96	90
EL140A	Elephant	AC	469,239	8,584,148	403	18.00	30.00			-60	96	90
EL141A	Elephant	AC	469,229	8,584,143	398	18.00	21.00			-60	96	90
EL142A	Elephant	AC	469,217	8,584,142	400	18.00	36.00			-60	98	92
EL143A	Elephant	AC	469,203	8,584,140	400	18.00	36.00			-60	98	92
EL144A	Elephant	AC	469,189	8,584,139	400	18.00	24.00			-60	97	91
EL146A	Elephant	AC	469,177	8,584,145	401	18.00	24.00			-60	96	90
EL145A	Elephant	AC	469,160	8,584,141	405	18.00	24.00			-60	98	92
EL147A	Elephant	AC	469,152	8,584,140	405	18.00	24.00			-60	96	90
EL148A	Elephant	AC	469,143	8,584,141	407	18.00	22.00			-60	96	90
EL149A	Elephant	AC	469,129	8,584,140	407	18.00	18.00			-60	96	90
EL150A	Elephant	AC	469,306	8,584,096	405	18.00	32.00			-60	96	90
EL151A	Elephant	AC	469,289	8,584,091	405	18.00	30.00			-60	96	90
EL152A	Elephant	AC	469,279	8,584,093	407	18.00	23.00			-60	94	88
EL153A	Elephant	AC	469,266	8,584,094	407	18.00	30.00			-60	95	89

EL154A	Elephant	AC	469,251	8,584,092	408	18.00	24.00			-60	96	90
EL155A	Elephant	AC	469,235	8,584,093	401	18.00	23.00			-60	96	90
EL156A	Elephant	AC	469,262	8,584,745	365	18.00	5.00			-60	98	92
EL157A	Elephant	AC	469,251	8,584,744	365	18.00	11.00			-60	98	92
EL158A	Elephant	AC	469,240	8,584,743	395	18.00	15.00			-60	98	92
EL159A	Elephant	AC	469,223	8,584,744	401	18.00	21.00			-60	98	92
EL160A	Elephant	AC	469,213	8,584,748	404	18.00	24.00			-60	97	91
EL161A	Elephant	AC	469,198	8,584,745	404	18.00	6.00			-60	97	91
EL162A	Elephant	AC	469,188	8,584,750	399	18.00	24.00			-60	99	93
EL163A	Elephant	AC	469,289	8,584,797	411	18.00	9.00			-60	98	92
EL164A	Elephant	AC	469,278	8,584,796	393	18.00	9.00			-60	97	91
EL165A	Elephant	AC	469,268	8,584,796	395	18.00	16.00			-60	96	90
EL166A	Elephant	AC	469,255	8,584,795	393	18.00	12.00			-60	95	89
EL167A	Elephant	AC	469,239	8,584,797	396	18.00	18.00			-60	95	89
EL168A	Elephant	AC	469,228	8,584,793	399	18.00	11.00			-60	95	89
EL169A	Elephant	AC	469,202	8,584,793	379	18.00	15.00			-60	97	91
EL170A	Elephant	AC	469,189	8,584,792	378	18.00	15.00			-60	97	91
EL171A	Elephant	AC	469,217	8,584,792	380	18.00	15.00			-60	96	90
EL172A	Elephant	AC	469,292	8,584,894	397	18.00	15.00			-60	96	90
EL173A	Elephant	AC	469,281	8,584,895	394	18.00	15.00			-60	95	89
EL174A	Elephant	AC	469,261	8,584,890	393	18.00	15.00			-60	97	91
EL175A	Elephant	AC	469,252	8,584,895	395	18.00	15.00			-60	97	91
EL176A	Elephant	AC	469,240	8,584,894	394	18.00	15.00			-60	98	92
EL177A	Elephant	AC	469,228	8,584,896	399	18.00	15.00			-60	97	91
EL178A	Elephant	AC	469,218	8,584,898	396	18.00	15.00			-60	97	91
EL179A	Elephant	AC	469,295	8,584,949	392	18.00	15.00			-60	93	87
EL180A	Elephant	AC	469,281	8,584,946	390	18.00	15.00			-60	93	87
EL181A	Elephant	AC	469,271	8,584,943	390	18.00	15.00			-60	93	87
EL182A	Elephant	AC	469,254	8,584,948	399	18.00	15.00			-60	96	90
EL183A	Elephant	AC	469,249	8,584,941	400	18.00	15.00			-60	92	86
EL184A	Elephant	AC	469,279	8,584,993	400	18.00	15.00			-60	98	92
EL185A	Elephant	AC	469,267	8,584,992	400	18.00	15.00			-60	97	91
EL186A	Elephant	AC	469,257	8,584,995	397	18.00	15.00			-60	97	91

EL187A	Elephant	AC	469,244	8,584,998	397	18.00	15.00			-60	97	91
EL188A	Elephant	AC	469,296	8,584,995	386	18.00	15.00			-60	98	92
BF035A	Buffalo	AC	471,140	8,585,397	398	18.00	24.00			-60	96	90
BF036A	Buffalo	AC	471,125	8,585,402	413	18.00	16.00			-60	96	90
BF037A	Buffalo	AC	471,116	8,585,396	415	18.00	20.00			-60	96	90
BF038A	Buffalo	AC	471,103	8,585,398	419	18.00	31.00			-60	96	90
BF039A	Buffalo	AC	471,091	8,585,395	421	18.00	33.00			-60	94	88
BF040A	Buffalo	AC	471,077	8,585,396	417	18.00	20.00			-60	94	88
BF041A	Buffalo	AC	471,069	8,585,396	421	18.00	36.00			-60	94	88
BF042A	Buffalo	AC	471,054	8,585,395	421	18.00	30.00			-60	94	88
BF043A	Buffalo	AC	471,044	8,585,394	417	18.00	10.00			-60	95	89
BF044A	Buffalo	AC	471,033	8,585,395	419	18.00	23.00			-60	96	90
BF045A	Buffalo	AC	471,014	8,585,397	417	18.00	15.00			-60	96	90
BF046A	Buffalo	AC	471,003	8,585,393	420	18.00	27.00			-60	96	90
BF047A	Buffalo	AC	470,991	8,585,392	419	18.00	17.00			-60	95	89
BF048A	Buffalo	AC	470,978	8,585,390	422	18.00	24.00			-60	96	90
BF049A	Buffalo	AC	470,964	8,585,392	421	18.00	10.00			-60	98	92
BF050A	Buffalo	AC	470,950	8,585,391	423	18.00	15.00			-60	96	90
BF051A	Buffalo	AC	470,942	8,585,392	429	18.00	30.00			-60	94	88
BF052A	Buffalo	AC	471,143	8,585,446	429	18.00	20.00			-60	97	91
BF053A	Buffalo	AC	471,127	8,585,446	425	18.00	12.00			-60	96	90
BF054A	Buffalo	AC	471,116	8,585,447	425	18.00	14.00			-60	96	90
BF055A	Buffalo	AC	471,103	8,585,448	423	18.00	13.00			-60	96	90
BF056A	Buffalo	AC	471,090	8,585,451	424	18.00	6.00			-60	95	89
BF057A	Buffalo	AC	471,078	8,585,450	424	18.00	18.00			-60	96	90
BF058A	Buffalo	AC	471,068	8,585,451	427	18.00	28.00			-60	96	90
BF059A	Buffalo	AC	471,052	8,585,450	402	18.00	14.00			-60	97	91
BF060A	Buffalo	AC	471,028	8,585,447	413	18.00	36.00			-60	96	90
BF061A	Buffalo	AC	471,014	8,585,449	414	18.00	6.00			-60	96	90
BF062A	Buffalo	AC	471,004	8,585,442	413	18.00	13.00			-60	97	91
BF063A	Buffalo	AC	470,986	8,585,453	422	18.00	21.00			-60	98	92
BF064A	Buffalo	AC	470,977	8,585,447	425	18.00	21.00			-60	98	92
BF065A	Buffalo	AC	470,964	8,585,448	424	18.00	18.00			-60	97	91

BF066A	Buffalo	AC	470,952	8,585,449	428	18.00	15.00			-60	96	90
BF067A	Buffalo	AC	470,939	8,585,449	415	18.00	23.00			-60	96	90
BF068A	Buffalo	AC	470,932	8,585,449	426	18.00	10.00			-60	96	90
BF069A	Buffalo	AC	470,917	8,585,446	426	18.00	12.00			-60	96	90
BF070A	Buffalo	AC	470,902	8,585,448	426	18.00	12.00			-60	97	91
BF071A	Buffalo	AC	470,885	8,585,444	428	18.00	30.00			-60	97	91
BF072A	Buffalo	AC	470,878	8,585,443	425	18.00	10.00			-60	97	91
BF073A	Buffalo	AC	470,865	8,585,446	421	18.00	5.00			-60	96	90
BF074A	Buffalo	AC	470,924	8,585,389	424	18.00	14.00			-60	95	89
BF075A	Buffalo	AC	470,917	8,585,390	424	18.00	15.00			-60	96	90
BF076A	Buffalo	AC	470,904	8,585,384	429	18.00	27.00			-60	96	90
BF077A	Buffalo	AC	470,897	8,585,381	423	18.00	21.00			-60	93	87
BF078A	Buffalo	AC	470,880	8,585,389	413	18.00	24.00			-60	95	89
BF079A	Buffalo	AC	470,868	8,585,391	415	18.00	26.00			-60	95	89
BF080A	Buffalo	AC	471,138	8,585,343	419	18.00	17.00			-60	97	91
BF081A	Buffalo	AC	471,125	8,585,342	422	18.00	11.00			-60	98	92
BF082A	Buffalo	AC	471,114	8,585,346	419	18.00	6.00			-60	96	90
BF083A	Buffalo	AC	471,102	8,585,343	421	18.00	12.00			-60	98	92
BF084A	Buffalo	AC	471,092	8,585,343	423	18.00	18.00			-60	97	91
BF085A	Buffalo	AC	471,076	8,585,346	425	18.00	18.00			-60	98	92
BF086A	Buffalo	AC	471,067	8,585,342	424	18.00	21.00			-60	98	92
BF087A	Buffalo	AC	471,053	8,585,344	420	18.00	24.00			-60	99	93
BF088A	Buffalo	AC	471,043	8,585,345	420	18.00	18.00			-60	98	92
BF089A	Buffalo	AC	471,029	8,585,343	408	18.00	26.00			-60	99	93
BF090A	Buffalo	AC	471,013	8,585,344	423	18.00	17.00			-60	98	92
BF091A	Buffalo	AC	470,998	8,585,345	421	18.00	28.00			-60	96	90
BF093A	Buffalo	AC	470,941	8,585,341	415	18.00	30.00			-60	96	90
BF092A	Buffalo	AC	470,985	8,585,342	414	18.00	31.00			-60	98	92
BF094A	Buffalo	AC	470,929	8,585,343	423	18.00	36.00			-60	97	91
BF095A	Buffalo	AC	470,917	8,585,351	432	18.00	36.00			-60	98	92
BF096A	Buffalo	AC	470,904	8,585,344	415	18.00	36.00			-60	96	90
BF097A	Buffalo	AC	470,877	8,585,346	415	18.00	18.00			-60	96	90
BF098A	Buffalo	AC	470,865	8,585,343	424	18.00	24.00			-60	96	90

BF099A	Buffalo	AC	470,854	8,585,350	423	18.00	8.00			-60	98	92
BF100A	Buffalo	AC	470,890	8,585,347	422	18.00	36.00			-60	98	92
BF102A	Buffalo	AC	470,976	8,585,338	379	18.00	30.00			-60	96	90
BF101A	Buffalo	AC	470,964	8,585,344	402	18.00	30.00			-60	98	92
BF104A	Buffalo	AC	471,135	8,585,296	421	18.00	26.00			-60	97	91
BF103A	Buffalo	AC	471,151	8,585,294	420	18.00	20.00			-60	97	91
BF105A	Buffalo	AC	471,127	8,585,297	422	18.00	16.00			-60	96	90
BF106A	Buffalo	AC	471,111	8,585,295	408	18.00	22.00			-60	96	90
BF107A	Buffalo	AC	471,100	8,585,301	416	18.00	24.00			-60	96	90
BF108A	Buffalo	AC	471,091	8,585,295	420	18.00	24.00			-60	96	90
BF109A	Buffalo	AC	471,076	8,585,300	420	18.00	18.00			-60	96	90
BF110A	Buffalo	AC	471,065	8,585,297	418	18.00	18.00			-60	95	89
BF111A	Buffalo	AC	471,050	8,585,298	419	18.00	30.00			-60	97	91
BF112A	Buffalo	AC	471,039	8,585,295	409	18.00	30.00			-60	96	90
BF113A	Buffalo	AC	471,027	8,585,295	420	18.00	36.00			-60	96	90
BF114A	Buffalo	AC	471,013	8,585,298	420	18.00	18.00			-60	98	92
BF115A	Buffalo	AC	470,990	8,585,296	419	18.00	36.00			-60	96	90
BF117A	Buffalo	AC	470,977	8,585,291	419	18.00	36.00			-60	96	90
BF118A	Buffalo	AC	470,966	8,585,294	424	18.00	36.00			-60	96	90
BF119A	Buffalo	AC	470,954	8,585,295	424	18.00	31.00			-60	96	90
BF120A	Buffalo	AC	470,939	8,585,296	424	18.00	36.00			-60	96	90
BF121A	Buffalo	AC	471,138	8,585,247	422	18.00	19.00			-60	97	91
BF122A	Buffalo	AC	471,124	8,585,249	422	18.00	19.00			-60	96	90
BF123A	Buffalo	AC	471,111	8,585,248	422	18.00	24.00			-60	97	91
BF124A	Buffalo	AC	471,103	8,585,245	423	18.00	12.00			-60	96	90
BF125A	Buffalo	AC	471,090	8,585,246	422	18.00	30.00			-60	97	91
BF126B	Buffalo	AC	471,081	8,585,246	423	18.00	36.00			-60	97	91
BF127A	Buffalo	AC	471,066	8,585,249	417	18.00	36.00			-60	97	91
BF128A	Buffalo	AC	471,045	8,585,247	417	18.00	10.00			-60	96	90
BF129A	Buffalo	AC	471,027	8,585,248	418	18.00	18.00			-60	96	90
BF130A	Buffalo	AC	471,015	8,585,248	417	18.00	18.00			-60	96	90
BF131A	Buffalo	AC	471,004	8,585,247	417	18.00	13.00			-60	97	91
BF132A	Buffalo	AC	470,989	8,585,247	420	18.00	23.00			-60	97	91

BF133A	Buffalo	AC	470,978	8,585,250	418	18.00	30.00			-60	94	88
BF134A	Buffalo	AC	470,970	8,585,248	418	18.00	24.00			-60	96	90
BF135A	Buffalo	AC	470,952	8,585,248	410	18.00	18.00			-60	96	90
BF136A	Buffalo	AC	470,939	8,585,246	410	18.00	9.00			-60	96	90
BF137A	Buffalo	AC	471,137	8,585,201	415	18.00	9.00			-60	96	90
BF138A	Buffalo	AC	471,116	8,585,196	413	18.00	29.00			-60	97	91
BF139A	Buffalo	AC	471,102	8,585,198	424	18.00	34.00			-60	98	92
BF140A	Buffalo	AC	471,090	8,585,199	422	18.00	36.00			-60	97	91
BF141A	Buffalo	AC	471,076	8,585,196	418	18.00	18.00			-60	96	90
BF142A	Buffalo	AC	471,067	8,585,200	418	18.00	16.00			-60	98	92
BF143A	Buffalo	AC	471,053	8,585,207	418	18.00	7.00			-60	96	90
BF144A	Buffalo	AC	471,044	8,585,199	411	18.00	18.00			-60	98	92
BF145A	Buffalo	AC	471,031	8,585,198	411	18.00	19.00			-60	97	91
BF116A	Buffalo	AC	471,000	8,585,296	411	18.00	40.00			-60	97	91

Note: Assay results are expected from January 2018

Appendix 3:
JORC Code, 2012 Edition – Table 1 to Balama exploration update: Tenement 4118L

The Balama Central Project (BCP). This report pertains to the current diamond drill hole exploration program to convert the inferred in indicated status within the existing resources area including of the Byron deposit and Lennox SW extention

Ms. Cherie Leeden, Executive Director of BAT compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for the sections.

Section 1 Sampling Techniques and Data		
Criteria	**JORC Code explanation**	**BAT 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.*	* Drill hole analysis included in this report were diamond core samples and each sample was nominally 2m or less of core. *.Standard industry electric core saw was used to cut the core.

Section 1 Sampling Techniques and Data		
	· *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* · *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.*	
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.).*	· Core holes were drilled between November-December 2017 by drilling contractors. · All drill holes ere collared with HQ3 (63.5mm) from surface · Triple drill tube was used for the core drilling to obtain the best recoverable core sample for geotechnical and analytical analysis.
Drill sample recovery	· *Method of recording and assessing core and chip sample recoveries and results assessed.* · *Measures taken to maximise sample recovery and ensure representative nature of the samples.* · *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.*	· Diamond core was reconstructed into continuous runs on an iron angle cradle for orientation marking by trained field-technicians, sample core recovery was measured for each core run at the drill rig. · Downhole depths were validated against core blocks and drillers run sheets. · Average core recovery returned was 96% and there was no significant relationship identified with core recovery and graphite grade and no sample bias observed.
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.* · *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* · *The total length and percentage of the relevant intersections logged.* ·	· Drill holes were logged by trained and experienced geologists at the level of detail that supports the exploration report and any future inclusion in a resource estimation. · Geological logging of all drill core included; weathering zone, lithology, colour, mineralogy, mineralisation and visual graphite estimates. · Core was oriented with alpha and beta measurements converted to strike and dip for planar features such as bedding and structural measurements and projected onto cross sections and stereonets. · Geotechnical logging was conducted on all drill core, verifying core % recovery and capture of RQD and fracture frequency on all core run intervals. · All data was initially captured on paper logging sheets, and transferred to locked excel format tables for

Section 1 Sampling Techniques and Data		
		validation and was then loaded into the parent access database. · All diamond drill core has been photographed and archived, firstly after mark-up and secondly after sampling and when necessary re-sampling. · The logging and reporting of visual graphite percentages on preliminary logs is semi-quantitative and not absolute. Visual graphite was used to select samples sent for laboratory analysis.
Sub-sampling techniques and sample preparation	· *If core, whether cut or sawn and whether quarter, half or all core taken.* · *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* · *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* · *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* · *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.* · *Whether sample sizes are appropriate to the grain size of the material being sampled.*	· Diamond core samples were cut using an industry standard core saw, with HQ3 core was cut to ½ cored size and ¼ core.
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.* · *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.* · *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	· Samples to be submitted to ALS Johannesburg (South Africa) for sample preparation and geochemical analysis was completed by ALS in Brisbane (Australia).
Verification of sampling and assaying	· *The verification of significant intersections by either independent or alternative company personnel.* · *The use of twinned holes.* · *Documentation of primary data, data entry procedures, data verification.*	· Field work was managed on site by the project Exploration Manager. · No twinned drill holes are believed necessary due to the singal drilling methods since 2015 · Data entry procedures are described in the Logging section.

Section 1 Sampling Techniques and Data		
	· *Discuss any adjustment to assay data.*	
Location of data points	· *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.* · *Specification of the grid system used.* · *Quality and adequacy of topographic control.*	· All spatial data was collected in WGS84 UTM Zone 37 South datum. · Planned drill holes were surveyed using Garmin 62s GPS devices which typically have a ±5m error in the project area. · Final collar locations were picked up by GEOSURVEY utilising a differential GPS system with 0.02cm accuracy. · Reflex ACTII orientation survey tools were used to orientate the drill core and Reflex Ezy shot tools were used to survey the diamond core holes.
Data spacing and distribution	· *Data spacing for reporting of Exploration Results.* · *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.* · *Whether sample compositing has been applied.*	· Diamond drill holes were drilled at shallow angles (nominally 50°-60° towards 110-130° UTM grid east) in an attempt to drill across stratigraphy, however mineralised intercepts are not perpendicular to strike however are as close as could be obtained. · The drill hole details are tabulated in Appendix 4.
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.* · *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.*	· The drill holes were planned to test VTEM conductors and test the deposits · The VTEM conductor is open along tike and at depth
Sample security	· *The measures taken to ensure sample security.*	· The samples are stored in the Company's field base until laboratory dispatch, at which point the samples were transport to Pemba and air freighted by courier to ALS – Johannesburg, South Africa for sample preparation and then pulp couriered to ALS Brisbane Australia for geochemical analysis. · Any visible signs of tampering are reported by the laboratory and none have been reported to date.
Audits or reviews	· *The results of any audits or reviews of sampling techniques and data.*	· Shaun Searle of Runge Pincock Minarco (representative of Robert Dennis, CP) visited in June to July 2015 as part of their Competent Person field procedure assessment for the 15 February 2017 Mineral Resource. No issues with the field procedures or geological data gathering was identified by both Resource CP's during their respective visits.

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.* · *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.*	· The Balama Project 4118L comprises an area covering 96km² and is held 100% by Battery Minerals via a locally owned subsidiary Suni Resources Lda. · The Balama Project contains the Lennox prospect. · All statutory approvals have been acquired to conduct exploration activity and the Company has established a good working relationship with the government departments of Mozambique. · The company is not aware of any impediments relating to the license or area
Exploration done by other parties	· *Acknowledgment and appraisal of exploration by other parties.*	· The project area has been mapped at 1:250,000 scale as part of a nation-wide geological study prepared by a consortium funded by the Nordic Development Fund. The project area has also been flown with regionally spaced airborne geophysics (magnetics and radiometrics) as part of a post war government investment initiative. · VTEM survey was acquired by BAT. · BAT has not been able to locate exploration information from prior exploration parties. · Tenure history includes; · 2011 June 29; held by Dombeya Mineracao covering an area 9,600Ha · 2013; held by Frontier Rare Earths 70% · 2013; BAT entered JV for license · 2014; BAT fully acquired license, waiting for conversion documents from the Ministry of Mines
Geology	· *Deposit type, geological setting and style of mineralisation.*	· The project is an exploration program in which the company is drill testing a series of VTEM conductors, reconnaissance mapping and pitting demonstrated limited surface outcrop and the drill program targeted the VTEM conductors for graphite mineralisation. · The graphite mineralisation is contained within graphitic schist horizons with very coarse grained graphite crystals. · In a regional setting, the Balama Central project is located on the Xixano Complex which is dated 735Ma. The complex consists of meta-supercrustal rocks surrounding mafic igneous and granolithic rocks at the core of a regional NNE-SSW trending synform. The complex comprises intermediate to mafic orthogneiss with intercalations of para-gneiss including mica gneiss, schist, quartz feldspar gneiss, metasandstone, quartzite and marble. The metamorphic grade amphibolite facies with preserved lenses of granulite facies rocks. · Within the license, the Balama geology includes granitic gneiss, schists, quartzite and graphitic schist ± sericite ± roscoelite. The rocks are typical of the graphitic psammopelite observed in Syrah Resources adjacent

Section 2 Reporting of Exploration Results		
		· Balama project of which Lennox is a strike extension. The rocks are dominated by coarse granoblastic quartz with 10-15% bright green vanadiferous sericite and roscoelite. · The deposit is disseminated with graphite schist dispersed within gneiss. The metamorphism challenges the protolith rocks and BAT requires further mineral petrological analysis to confirm protolith. · The graphite forms as a result of high grade (amphibolite) metamorphism of organic carbonaceous matter, the protolith in which the graphite has formed may have been globular carbon, composite flakes, homogenous flakes or crystalline graphite.

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 drillhole 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.*
	· *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.*
		· Exploration results can be found in this report and include a surface plan and cross-section. A summary table of drill hole details with drill plan are listed in Appendix 4.

Data aggregation methods	· *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.* · *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 results reported · No chemical conversions or metal equivalent values have been applied.

Section 2 Reporting of Exploration Results		
	· *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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').*	· The drill holes were drilled to test VTEM conductor targets west of the Buffalo pit and to test down-dip extensions beneath the DFS pit design. · The geology at the Buffalo deposit is relatively well constrained with Indicated and Inferred Mineral Resources and Probable Ore Reserve Classifications. · The dip of the orebody is steeply west and holes have been drilled eastward -50-60° to intersect the graphite mineralisation at the highest angle possible. A northerly plunge was observed during the resource evaluation process. · –The geology of the nearby Elephant deposit is less structurally complex than Buffalo and comprises a moderately steep westerly graphitic schist package bound by amphibolite and notable psammite in the southern portion of the orebody.
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.*	· A drill hole plan and cross-section is provided in Appendix 4.
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*	· The report is believed to include all representative and relevant information pertaining the Exploration drilling over the Lennox and Byron deposits
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.*	· Regional airborne geophysical (magnetics, radiometrics) and regional geological mapping was used to assist initial reconnaissance surface and pit mapping. · Subsequent to mapping, VTEM data was acquired by MTA. · 30x metallurgical samples are pending mineralogical analysis

Section 2 Reporting of Exploration Results		
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.*	· The Balama Graphite Project has FS and is the focus of on going internal studies · Further work for this project will focus on DFS studies in 2018

Appendix 4 – Drill results referred to in Appendix 3

Balama Q4 2017 Drill Hole Program Summary Table

Hole ID	Prospect	Drill Type	UTM East	UTM North	Elevation	Plan Depth	HQ	DIP	Mag Azimuth	Grid Azimuth
LX021D	Nortern Zone	DD	457361	8521617	540	50.00	20.17	-50	136	130
LX022D	Byron	DD	457953	8520858	531	100.00	86.55	-50	136	130
LX023D	Byron	DD	457991	8520821	531	50.00	40.45	-50	136	130
LX024D	Byron	DD	457884	8520932	534	150.00	134.40	-50	136	130
LX025D	Byron	DD	457919	8520894	532	50.00	45.45	-50	136	130
LX026D	Byron	DD	458260	8221116	540	100.00	68.45	-50	136	130
LX027D	Byron	DD	458227	8521151	539	150.00	58.25	-50	225	219
LX028D	Byron	DD	457781	8520771	540	50.00	93.45	-50	136	130
LX029D	Byron	DD	457816	8520735	540	100.00	74.50	-50	136	130
LX030D	Byron	DD	457749	8520811	537	150.00	122.50	-50	136	130
LX031D	Byron	DD	457881	8520939	535		155.65	-90	136	130
LX032D	Lenonx	DD	457316	8520782	553	50.00	65.45	-50	136	130
LX033D	Lenonx	DD	457151	8520699	553	150.00	146.60	-50	136	130
LX034D	Lenonx	DD	457187	8520663	553	70.00	68.55	-50	136	130
LX035D	Lenonx	DD	457114	8520731	560	150.00	-	-50	136	130
1 Planned	Lenonx	DD	457407	8520973		50.00	-	-50	136	130
2 Planned	Lenonx	DD	457438	8520934		100.00	-	-50	136	130
3 Planned	Lenonx	DD	457469	8520895		150.00	-	-50	136	130

Note: Assay results are expected from January 2018