Caula Vanadium-Graphite Project Scoping Study Shows Exceptional Economics

22 October 2018

Highlights

- **The Study demonstrates the viability of an open pit vanadium and graphite mining operation with outstanding economics**
- **Mine life of 26 years based entirely on the JORC Measured Resources for both vanadium and graphite**
- **1,877 metres of diamond drilling over 16 drillholes and 99 metres of RC drilling (1 drillhole) were completed by the Company for the Scoping Study**
- **Approximately 4,000 metres of additional drilling, sampling, assaying and further testwork underway (drilling and sampling completed) to support Reserve definition and pre-feasibility studies**
- **New Energy Minerals is now focused on delivering pre-feasibility level studies by Q1-2019 as well as the fast-tracked implementation of Phase 1 of the project targeting 1st cashflows in H2-2018**

Cautionary Statements: Scoping Study Parameters

The Scoping Study referred to in this announcement has been undertaken to determine the potential viability of an open pit mine plus an integrated vanadium and graphite processing plant constructed onsite at the Caula Project and to reach a decision to proceed with more definitive pre-feasibility studies and the possible construction of a pilot plant. The Scoping Study has been prepared to an accuracy level of ±35%. The results should not be considered a profit forecast or production forecast. The Scoping Study is a preliminary technical and economic study of the potential viability of the Caula Project. In accordance with the ASX Listing Rules, the Company announces it is based on low-level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further appropriate studies are ongoing and they will contribute to the Company's ability to estimate any ore reserves or to provide any assurance of an economic development case. This study does not warrant that reserves will be reported. The total LOM production target is in the Measured Resource category. The Company has concluded that it has reasonable grounds for disclosing a production target. The Scoping Study is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While New Energy Minerals considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. To achieve the range of potential mine development outcomes indicated in the Scoping Study, additional funding will be required. Investors should note that there is no certainty that New Energy Minerals will be able to raise funding when needed. It is also possible that such funding may only be available on terms that dilute or otherwise affect the value of New Energy Minerals' existing shares. It is possible that New Energy Minerals could pursue other 'value realisation' strategies such as sale, partial sale, or joint venture of the Project. If it does, this could materially reduce New Energy Minerals' proportionate ownership of the Project. The Company has concluded it has a reasonable basis for providing the

New Energy Minerals

ABN 34 090 074 785
ASX Code: NXE

newenergyminerals.com.au

Level 1
9 Bowman Street
South Perth, WA 6151

Phone:
+61 (0)8 9217 2400

forward-looking statements included in this announcement and believes that it has a 'reasonable basis' to expect it will be able to fund the development of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

New Energy Minerals Limited **(ASX:NXE FRA:GGY)** is pleased to report the results of an independent Scoping Study completed by mining consultant group Bara International ("Bara") on the Company's 80% owned Caula Vanadium Graphite Project located in Mozambique.

1. Caula Vanadium and Graphite Project Scoping Study Outcomes

New Energy Minerals commissioned Bara International ("Bara") to coordinate and complete a scoping study report on the Caula Vanadium-Graphite Project, in Northern Mozambique. See page 32 for a full list of consultants used for the study.

The Scoping Study was undertaken to an overall ±35% level of accuracy and examined all facets of geology, mining, processing and supporting infrastructure and included a site visit by the consultants in June 2018. The Scoping Study was prepared on the project level and assumes 100% project ownership[1]. All amounts are in United States Dollars ("USD" or "US$") unless otherwise stated. Production targets are based 100% on JORC Measured Resources.

Summary of Key Study Outcomes (Approximate Figures)		
Phase 1 Graphite Concentrate Production (tonnes per annum)	10,000 – 15,000	
Phase 1 Vanadium Concentrate Production (tonnes per annum, 1.7% V_2O_5)	14,000 – 18,000	
Phase 1 Capex (pre-production)	US$7.368 million	AU$10.16 million
Phase 2 Graphite Production (tonnes per annum, 97.5% TGC)	120,000	
Phase 2 Vanadium Concentrate Production (tonnes per annum 1.7% V_2O_5)	204,200	
Phase 2 Capex (pre-production)	US$114.21 million	AU$157.61 million
Peak Funding Requirement	US$77.54 million	AU$107 million
Ongoing Capex	US$18.14 million	AU$25.03 million
Graphite Basket Price assumption	US$1,103.50	
Vanadium Price assumption (US$/tonne 98% V_2O_5 CIF China)	US$40,785	
V_2O_5 concentrate net revenue price assumption (US$/tonne 1.7% V_2O_5 concentrate at mine gate)	US$200	
Operating Cost (US$ per tonne processed)	US$50.87	

[1] New Energy Minerals Ltd ("the Company") has an 80% economic interest in the Caula Project through its 80% shareholding in Tchaumba Minerais S.A. the holder of exploration license 6678L (currently mining concession application number 9407C). The balance of shares in Tchaumba Minerais S.A. (20%) is held by the Company's local partner Mr. Tomas Mandlate ("local partner"). The Company has already started discussions and negotiations with the local partner who has indicated an interest to sell his 20% shareholding or part thereof to the Company. In terms of the binding shareholders agreement signed with the local partner he is free-carried for the duration of exploration but has to contribute his share of project equity finance at the conclusion of exploration and subject to a decision to mine being taken.

Revenue (US$ per tonne processed)	US$135.52	
NPV_{10} (Pre-tax)	US$673.41 million	AU$929.31 million
NPV_{10} (Post tax)	US$448.76 million	AU$619.29 million
IRR (Pre-tax)	78.3%	
IRR (Post-tax)	58.8%	

Dr. Bernard Olivier Managing Director of New Energy Minerals Ltd commented:
"The results of the Scoping Study by Bara International clearly show the potential financial benefits of the unique Caula Vanadium-Graphite project. With its low 1:1 strip ratio, large high-grade JORC Measured Resource and simple, fully integrated process flowsheet design using flotation and magnetic separation to extract graphite and vanadium concentrates, this project is truly remarkable. We are currently busy with metallurgical testwork with the aim of producing 98% V2O5 which we believe will improve the project's potential even further. We are currently in off-take and associated project finance discussions and the Board believes that given the current level of financing interest for our phased development approached with a peak funding requirement for both phases of US$77.5m for a pre-tax NPV_{10} and IRR of US$673m and 78% respectively, that the project finance for Phase 1 and Phase 2 can be secured. We remain committed to delivering further studies and results in the coming months as we build towards the low-cost Phase 1 pilot plant targeted for production by H2-2019."

The results of the Scoping Study indicate the potential to generate significant financial returns through a two-phase development schedule for an open pit vanadium and graphite mining operation with:

- The entire Life of Mine based on the JORC 2012 Measured Resources for both Vanadium and Graphite
- The Caula deposit being technically and financially viable with no immediate or obvious impediments to mining
- An outstanding Life of Mine strip ratio of 1:1

Phase 1 Key Study Outcomes[2]

- Pre-production capex of approximately US$7.36 million (AU$10.16 million[3])
- Mine production rate of approximately 120,000 tonnes per annum over two years
- Estimated annual production of approximately 10,000 to 15,000 tonnes of graphite concentrates and 14,000 to 18,000 tonnes of vanadium concentrates over two years
- Generating approximately US$16 million (AU$22 million) total EBITDA over first 2 years with Phase 2 commissioned in Year 3

[2] The estimated mineral resource underpinning the Caula Scoping Study has been prepared by a competent person in accordance with the JORC Code. Please see "Competent Person Disclosures" found at the end of this document.
[3] Note the exchange rate used is AU$1.00 = US$0.724.

Phase 2 Key Study Outcomes[4]

- Pre-production capex of approximately US$114 million (AU$157 million) with construction scheduled to commence in Year 2 of Phase 1
- Estimated mine production rate of 1.5 Mtpa
- Estimated annual production of approximately 120,000 tonnes of graphite concentrates and approximately 204,200 tonnes of vanadium concentrate (1.7% V2O5 flake) per year over 24 years
- Generation of approximately US$2.68 billion (AU$3.4 billion) total EBITDA over 24 years
- Total project Pre-Tax NPV_{10} estimated to be approximately US$673 million (AU$929 million)
- Total project Pre-Tax IRR estimate of 78%[5]
- Total project Post Tax NPV_{10} estimated to be approximately US$448 million (AU$619 million)
- Total project Post-Tax IRR estimate of 59%
- Total project post tax Payback less than 4 years from start of phase 1 production (see Appendix 2 for a detailed sensitivity analysis)

Key Study Assumptions

- Total Life of Mine of 26 years based on current JORC Measured Resources with JORC Resource inventory expected to be increased following the completion of a recent ~4,000m drilling program[6]
- Capital estimates have been subject to stringent independent verification and included appropriate contingencies of 15%
- Graphite concentrates of up to 98.7% TGC (97% used in study) with 85% metallurgical recoveries
- Up to 68% large, jumbo & super jumbo graphite concentrates (63% cumulative for oxide and fresh mineralised material)
- Vanadium recovery of 90% to a concentrate grade of 1.7% V_2O_5 assumed[7]
- Note: The Scoping Study assumes that only vanadium concentrates are produced over the life of mine and sold to vanadium treatment plants/roasters in either Mozambique ("over the fence"), South Africa or China at approximately net revenue of US$200/tonne, at the mine gate or a price of US$276/tonne FOB Pemba. The Company is undergoing further metallurgical testing on the optimal beneficiation process for the vanadium concentrates and results thereof will be announced to the market and incorporated into the PFS where Phase 2 will look at incorporating an appropriate vanadium (>98% V_2O_5) extraction process.

---

[4] The estimated mineral resource underpinning the Caula Scoping Study has been prepared by a competent person in accordance with the JORC Code. Please see "Competent Person Disclosures" found at the end of this document.

[5] Unleveraged project IRRs provided in the Scoping Study. The Company has already started the process of investigating project funding opportunities lead by export credit agency (ECA) senior debt of up to 70% of the Phase 2 funding requirement.

[6] Refer to ASX Announcements dated 8 August 2018 and 6 September 2018.

[7] Refer to ASX Announcement dated 3 October 2018. Following simple open circuit metallurgical testing the Company believes it has reasonable grounds to assume a commercial processing plant with multi-stage WHIMS recovery and recycle of intermediate streams will deliver 90% vanadium recovery to a concentrate grade of 1.7%. In the open circuit testwork, the rougher plus scavenger recovery was 90% to a concentrate grade of 1.42% V2O5, whilst the recovery to cleaner concentrate was 80.6% to a concentrate grade of 1.66% V2O5. Subsequent semi-quantitative XRD analyses of testwork products showed that the concentrate contained about 25% of the non-magnetic mineral quartz, and that the tailings contained low levels of minerals believed to be vanadium-bearing. These observations support the contention that grade and recovery performance improvements are possible.

- Conservative product pricing assumptions based on significant discounts to current flake graphite and vanadium prices. US$1,103.50/tonne graphite concentrate basket price and US$40,785/ tonne (US$18.49/lb) vanadium price (>98% V_2O_5) used in the study.
  - Current vanadium pentoxide price of US$65,900/tonne (US$29.90/lb) (98% V2O5 flake FOB China)[8]
  - Graphite pricing assumptions used in the study are at a significant discount to recent (September 2018) market prices and importantly are much more conservative than basket price assumptions used by certain East African industry peers with similar (>60%) Large to Super Jumbo flake size distribution

Key components of the Scoping Study and the material assumptions used in the study are included elsewhere in this announcement. Information includes preliminary mine designs and estimated mine production schedules, metallurgical recoveries from testwork, and costs based on comparison with similar operations and estimates provided by mining and engineering contractors. The basis of all material assumptions can be located in the section titled "Material Assumptions" in Appendix 1.

Next Steps

The Company considers the results of the Caula Scoping Study sufficient to warrant the continued fast-tracked development of the project with the aim of progressing with the implementation of Phase 1 production in H2-2019 (subject to financing, permitting and final investment decision) and the concurrent completion of definitive feasibility studies and development activities required for Phase 2.

Key items identified by Bara in the conclusions of the study include:

- Undertaking of additional metallurgical testwork including:
  - Optimisation of the graphite grinding and flotation
  - Further vanadium concentration testwork
  - Optimisation of vanadium concentrate grade
  - Vanadium extraction testwork to produce high purity (>98%) vanadium products
  - Geochemical, mechanical and rheological testwork on tailings materials to support designs for deposition methods and facility lining requirements.
  - Completion of the geotechnical study which will support the current pit design which was based on scoping level work. The site work including drill core logging and selection of samples for laboratory testing has subsequently been completed and this data will be used to complete a PFS level geotechnical characterisation report and pit slope designs to support future mine designs.

[8] see www.asianmetal.com and www.vanadiumprice.com for both current and historical vanadium pentoxide prices.

- Undertake a ground water study work to determine the quantity and quality of groundwater in the area, this will be an important input into future study work.
- Initiate ESIA process and additional permitting where required.

Bara expressed the opinion in the report that, given that the Caula mineral resource is already all in the JORC Measured category, the tasks listed above can be commenced on short notice and there is no reason why the project cannot advance to the next level of study in the short term.

2. Rationale behind a Two-Phase Project Development Strategy

The results of the Scoping Study are such that the Company has been able to consider alternative methods of de-risking the Caula Project as it considers the quantum of funding needed and various funding alternatives. In consultation with Bara and based upon the assumptions outlined elsewhere in this announcement, the Company has identified that the economics of a small-scale pilot plant (Phase 1) will act as the best method of both de-risking the construction of a full operation (Phase 2) to develop the Project as well as securing finance for Phase 2. The reasons for this decision can be summarised as follows:

- The costs of establishing a small-scale pilot plant to process saleable graphite concentrate and saleable vanadium concrete are relatively modest (approximately AUD$10m).
- The geological characteristics of the deposit enable the development of a low cost, low stripping ratio open pit operation supported by the relative simplicity and low costs associated with a graphite flotation plant and the WHIMS process for concentrating the vanadium.
- The economics of the operation of a small-scale pilot plant have been shown in the Scoping Study, using the assumptions outlined herein, to generate early cashflows for the Company of approximately A$22 million EBITDA over the first 2 years of the pilot plant's operation.
- The Company has held discussions with parties who have indicated that a successful pilot plant operation would have greater benefit to the Company in seeking funding for the development of a full-scale operation than a bankable feasibility study given its ultimate "proof of concept nature" and its capacity to create saleable graphite concentrate and saleable vanadium concentrate.
- The Company has already received support for the raising of the funds required to undertake the pilot plant at the Project (Phase 1) (refer to Section 5 below).

As such, and as set out herein, the Company has adopted a 2 phase strategy with the intention of undertaking the pilot plant as a means of de-risking the further development and funding risk for the full operational development and giving the Company the best chance of securing funding for the development of the Project. Given the metrics of the project, the Company and its consultants who undertook the Scoping Study have determined that it is prudent to stage the development as a means of increasing the Company's likelihood of securing the necessary funding to progress the project from pilot stage to a full operation. Due to the staged approach, the Company has received a specific (non-binding and confidential) expression of interest from a major global commodities trader, confirming their interest to participate in the funding and off-take for Phase

1 and subject to the successful implementation of Phase 1 and receiving the off-take rights for Phase 2, to participate in and assist with arranging the funding for Phase 2 of the Project. The proposals for the Company's funding of the Phase 1 and Phase 2 based on this strategy are set out in Section 5. A peak funding amount of US$77.54m, being the maximum external financing anticipated, is set out. Section 5 sets out Company's funding strategy, including using free cashflow from Phase 1 to assist in the funding of Stage 2. Where an increase in external funding is required (increasing the peak funding level) as a result of a decrease in free cashflow, the Company believes that other strategies, are sufficient to meet any difference.

3. Background

The Caula Graphite and Vanadium Project, consisting of 2 exploration licenses totalling more than 16,790ha, is located along strike from, amongst others, the Balama graphite project of Syrah Resources Ltd (SYR:ASX) - a company valued at ~A$800 million (see Figure 1 below).

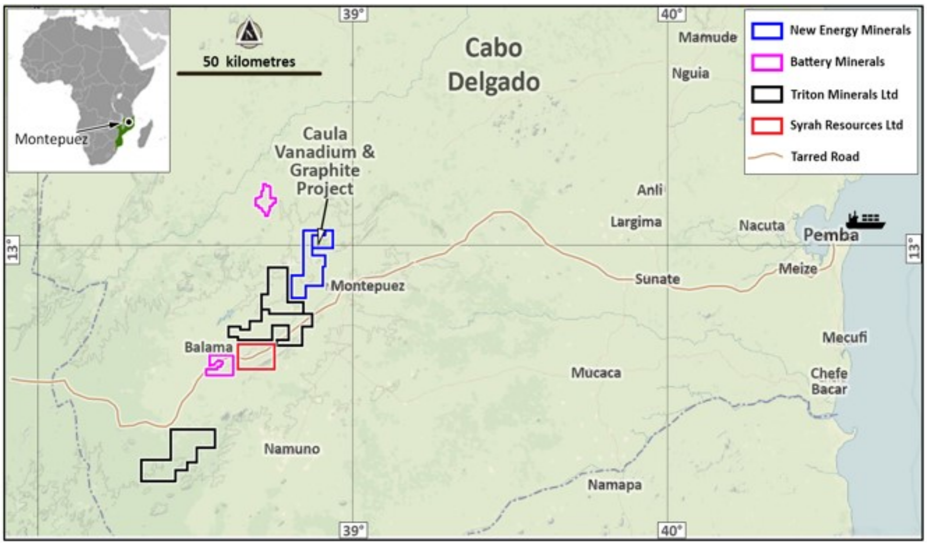

Figure 1. Caula Vanadium-Graphite Project Location and key transport infrastructure

Exploration results from the project area confirm wide (172m) high-grade intersections averaging 14.7% TGC and 0.47% V_2O_5 (MODD018) including zones of up to 29% Total Graphitic Carbon (TGC) as well as vanadium grades of up to 1.9% V_2O_5.[9] Metallurgical testwork has also returned excellent flake size distribution results with up to 68% of flake sizes falling into the Large, Jumbo and Super Jumbo flake size categories.

The Company has an 80% ownership of the Caula project with a right of first refusal to purchase the remaining 20%. Under the current terms, the minority shareholder will have to contribute proportionally to the project mine development costs to avoid ownership dilution. The Scoping Study is prepared on a 100% ownership basis.

[9] Refer to ASX Announcement dated 27 June 2018

In July 2018 the Company announced both its maiden Vanadium JORC Mineral Resource and upgraded Graphite JORC Mineral Resource[10]. The maiden Vanadium Resource, all in the Measured Category, is 22Mt at 0.37% vanadium pentoxide (V_2O_5) (0.2% cut-off) for a total of 81,600 tonnes of contained vanadium pentoxide. The upgraded Graphite Resource, all in the Measured Category is 21.9Mt at 13.4% TGC (8% cut-off) for a total of 2,933,100 tonnes of contained graphite. The Company believes this combined graphite and vanadium Resource provides the potential for a unique dual income stream for the project from two commodities in high demand.

4. Development Strategy and Timeline

As discussed in Section 2 above, New Energy Minerals proposes a 2 phase development strategy for the Caula project following discussions with various project level stakeholders including, financial and equity advisors, commodity traders and buyers, debt-financiers, off-take partners as well as independent technical advisors.

The Company therefore proposes to advance the project in the following manner:

- Develop and implement during H2-2019 a plan for a small-scale mining operation producing approximately 120,000 tonnes per annum of run of mine or, equivalent to approximately 10,000 to 15,000 tonnes per annum of saleable graphite concentrate and 14,000 to 18,000 tonnes per annum of saleable vanadium concentrate. This initial small-scale operation during Phase 1 will be used to demonstrate the product types and qualities that the deposit can produce and support initial marketing work, funding and off-take agreement negotiations that would naturally be assumed to be needed to underpin the larger Phase 2 development and could reasonably be expected to reduce the risk of a larger Phase 2 development. The Company believes that Phase 1 will have the additional benefit of generating early cashflows (estimated at approximately US$16.3 million total EBITDA over the first 2 years) which could be a valuable source of equity capital for Phase 2.

- The processing plant for the small-scale mining operation will be configured as a pilot plant. This will allow New Energy Minerals to easily investigate the effects of any flowsheet changes and to fully optimise the design of the Phase 2 Development. Additional benefits of this approach will include a relatively rapid ramp up to full capacity for the Phase 2 operation especially given the challenges and delays others in the industry have faced with ramp up to full production.

- In parallel with the small mine project New Energy Minerals commissioned an independent scoping level techno-economic study for the mining and processing of the graphite and vanadium-bearing mineralised material at a larger (1.5Mtpa) scale during a Phase 2

[10] Refer to ASX Announcements dated 20 July 2018 and 24 July 2018

expansion. Phase 2 has been designed to mine and process the world-class Caula vanadium-graphite deposit over a 24 year period to produce approximately 120,000tpa of graphite concentrates and 204,200tpa of vanadium concentrates (1.7% V2O5) (see Figure 2 below).

Note: The Scoping Study assumes that only vanadium concentrates are produced over the life of mine and sold to vanadium treatment plants/roasters in either Mozambique ("over the fence"), South Africa or China at approximately US$200/tonne. The Company is undergoing further metallurgical testing on the optimal beneficiation process for the vanadium concentrates and results thereof will be announced to the market and incorporated into the PFS where Phase 2 will investigate incorporating a roast-leach vanadium (>98% V_2O_5) extraction process.

A high-level project implementation schedule is illustrated below:

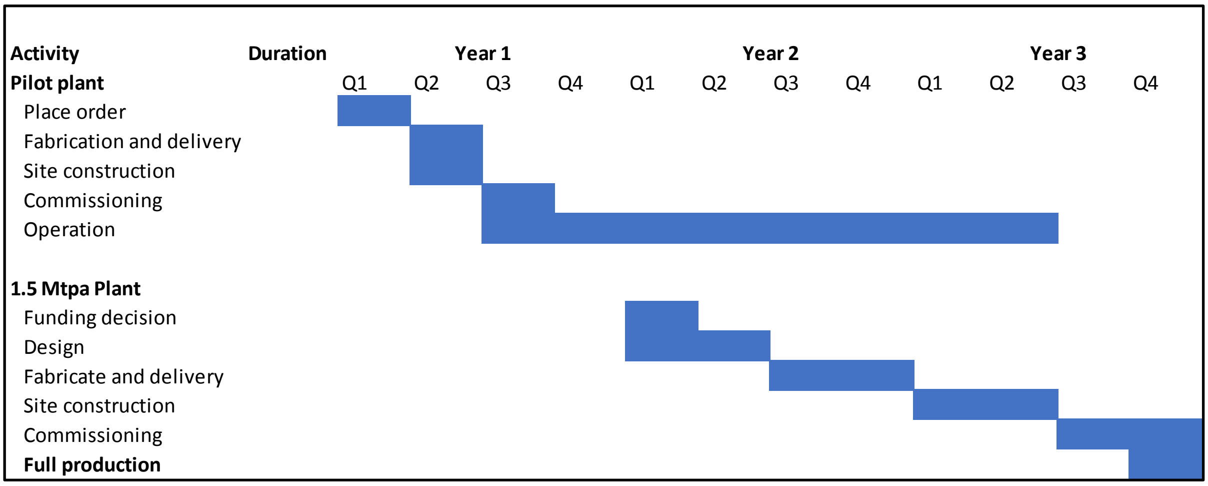

Figure 2. Project implementation schedule

5. Project Funding

The Board of New Energy Minerals believes there is a objectively reasonable basis based on objectively verifiable facts to assume the necessary funding for the Caula Vanadium-Graphite project will be obtained for the following reasons:

- A mix of debt, equity off-take financing and free cashflow (for Phase 2) is the Company's most likely funding model. New Energy Minerals has active ongoing discussions with potential financing, off-take and investment partners and has received strong expressions of interest with regard to the funding of the Caula Project given the commodities involved. These parties include mining private equity funds, a major global commodities trader as well as large State-owned Chinese EPC (Engineering, Procurement & Construction) and vanadium-producing companies.

- The initial pre-production capital expenditure for Phase 1 of approximately A$10 million is deemed by the Company and its advisors as modest given that phase 1 will be able to produce up to 15,000tpa of graphite and up to 18,000tpa of vanadium concentrates delivering an estimated EBITDA of approximately A$22 million over the first 2 years (based on the pricing assumptions outlined herein).

- The Company has a recent history of accessing funding in the range of the funds required for Phase 1 and has no reason to believe that such funding wouldn't be available to commence Phase 1 given the modelled outcomes of Phase 1.

- Acknowledging that no party would be expected to commit to funding or supporting a Phase 2 development without understanding the proven outcome of Phase 1, the Company has received a specific (non-binding and confidential) expression of interest from a major global commodities trader, confirming their interest to participate in the funding and off-take for Phase 1 and subject to the successful implementation of phase 1 and receiving the off-take rights for Phase 2, to participate in and assist with arranging the funding for Phase 2 of the Project.

- The positive financial metrics of the phased development of the Caula Vanadium-Graphite project and the favourable outlook for graphite and vanadium demand growth published by various sources.

- The Company has already engaged the services of DJ Carmichael (in Australia) and Jett Capital LLC (in the USA) as experienced corporate advisors with substantial track records in raising equity and debt capital for mining projects. DJ Carmichael has a history of successful capital raising for Australian mineral exploration and development companies, and Jett Capital LLC has acted as the advisor for the Company for a period of time and has assisted in the successful raising of funding for the Company's previous Montepuez ruby project. Both of these advisors have confirmed that they believe it will be possible for the Company to raise the Phase 1 capital requirement of A$10 million from the equity and debt capital markets through their networks of investors and that following the commissioning of Phase 1 that there is no reason to believe that the required capital cannot be obtained for a Project with a successful Phase 1 commissioning for the further development of Phase 2 on the back of that success.

- It is reasonable to assume that the successful commissioning of Phase 1 and the delivery of product in accordance within the parameters set out for Phase 1 will see a re-rating of the Company from its present day position as a non-producing, non-revenue generating exploration company.

- The staged development of the project which allows for the Company to become a producer (though Phase 1), and to potentially re-rate from its present position as such, prior to having to raise the funds required for Phase 2. From discussions with end users, potential off-takers and investors the Company has reasonable basis to believe that the delivery and sale of meaningful volumes of graphite and vanadium products from Phase 1 will open the door to more substantial equity, debt and/or off-take financing especially from end-users and strategic investors through which the Company will be able to fund Phase 2.

- Notwithstanding the current preference to fund the development using the methods outlined above, the Company acknowledges it is also possible to pursue other methods of value realisation to assist funding of Phase 2 of the project, such as a partial sale of the asset, long term off-take(s) and joint venture arrangements. Based on the size of the Caula Measured Resources, its high grade nature, low strip ratio, integrated flowsheet delivering two high-demand commodities and the shortage of especially vanadium in the market, the Company believes it has a reasobable basis to assume that these alternative value realisation methods of financing are possible.

- The vanadium price is currently trading at US$29.89/lb (US$65,900/tonne) which compares very favourably with the scoping study vanadium price assumption of US$18.49/lb (US$40,785/tonne). The current and future market outlook for vanadium is very favourable given the growth of demand as a result of policy changes in Chinese steel-making, growing demand from VRFBs and the contraction of supply as a result of the shutdown of polluting Chinese mines and the lack of new mines. This enhances the Company's view on the fundability of both Phase 1 and Phase 2 of the Project.

- The price for jumbo (+50mesh), high purity (96% to 97% C) flake graphite is currently trading at US$2,020/tonne (FOB China) which compares favourably with the Scoping Study graphite price assumptions of US$1,440/tonne for similar specification products to be produced from Caula (jumbo flake, >97% C). The current and future demand outlook for graphite is very favourable given the growth of demand for high purity graphite in amongst others the lithium battery and expandable graphite markets and the changes in supply as China shuts down polluting and low quality domestic graphite mines. This enhances the Company's view on the fundability of both Phase 1 and Phase 2 of the Project.

- The JORC Resources for the Caula Vanadium & Graphite Project on which the Scoping Study, the production targets and the funding assumptions are based is at a JORC Measured status, giving potential investors and project partners a high degree of geological confidence.

- Other companies at a similar stage of development to where New Energy Minerals is currently and where the Company will be post-commissioning of Phase 1 and the completion of a DFS, have been able to raise similar amounts of capital in recent financings. Core Exploration (ASX.CXO) raised US$20 million in pre-payment finance for its lithium project prior to completing its PFS; Magnis Resources Ltd (ASX.MNS) recently raised A$11 million from a strategic equity investor to (amongst others) advance its Nachu Graphite Project in Tanzania; Technology Metals Australia Ltd (ASX.TMT) raising A$6 million through an equity placement; and TNG Limited (ASX.TNG) secured a A$10 million strategic equity investment from an Indian mining group. Furthermore, Pilbara Minerals was able to raise up ~US$180 million in debt, pre-payment and equity finance from strategic investors/partners to pursue its Phase 2 expansion once it successfully and sufficiently advanced its Phase 1 development.

- The Board and Management have a strong track-record in raising capital for numerous ASX and AIM listed companies over the past 15 years with approximately A$50 million raised and secured by the Company's Managing Director Dr. Bernard Olivier alone. The Company and its Board have previously demonstrated their ability to raise development funding for its projects in Northern Mozambique having successfully raised in excess of A$25 million in equity and convertible debt over the past 2.5 years.

- The Company has the potential to increase its JORC Compliant Vanadium and Graphite Mineral Resources following the completion of its recent ~4,000m drilling campaign on the Caula Project. This will likely result in the current (Scoping Study) estimated mine life of 26 years being increased and the value of the Company's mineral resource assets increasing. This enhances the Company's view on the fundability of both Phase 1 and Phase 2 of the Project.

- Announcing the project financial metrics as detailed in this announcement can now allow New Energy Minerals to advance discussions with potential investors, customers and off-takers. The Company believes that these results will greatly aid it to conclude binding off-take and financing agreements as off-takers and investors the Company are currently in discussion with wish to assess the scoping level economics and development plan for the Caula project .

6. Caula Vanadium and Graphite Mineral Resources

The graphite and vanadium mineralisation is hosted in quartzitic schists of the Xixano Complex. The most common lithologies include Graphitic Schists, Gneisses and thin Pegmatoidal zones. Sulphides are occasionally logged but are usually absent. The surrounding country rock consists of Quarzitic and Micaceous Schists and Gneisses (see Figures 3 and 4 below).

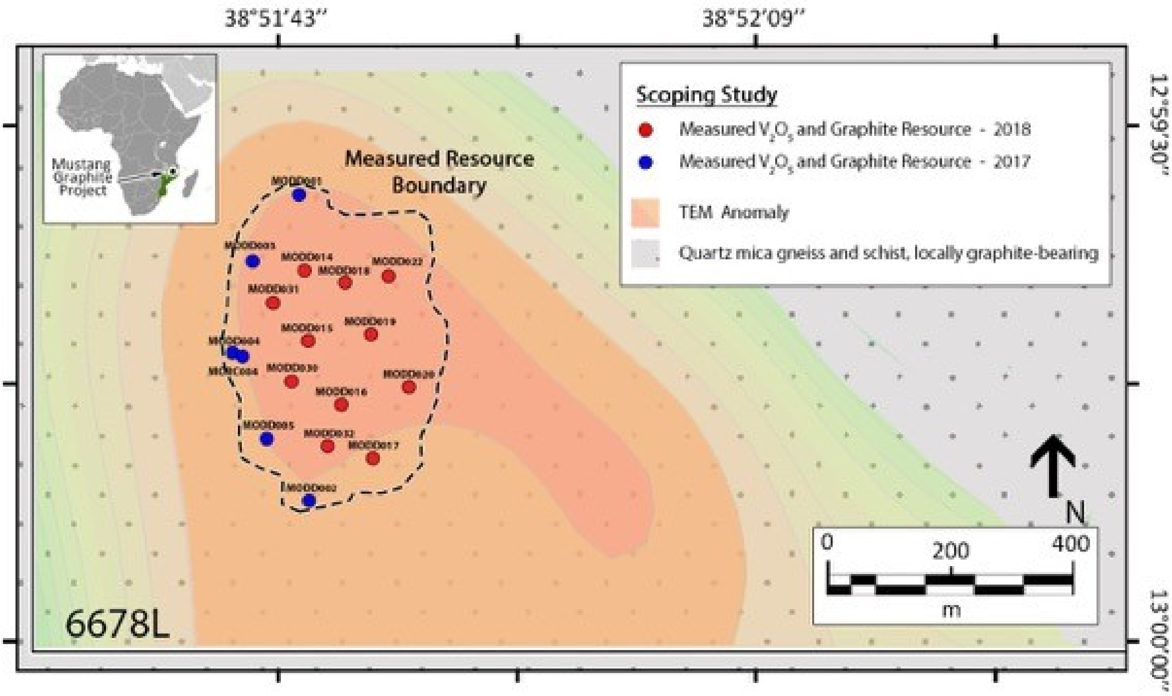

Figure 3. Locations of Drillholes and the plan view of mineralisation of 2018 Graphite and V_2O_5 Resource

The graphite & vanadium Resources for all cut-off grades are summarised in Tables 1 and 2 on the following page:

Caula Graphite Deposit – New Energy Minerals – as at July 2018						
Resource Block	Volume (M m^3)	Density (ton/m^3)	GTIS (Mt)	Average Grade (% TGC)	Contained Graphite (tonnes)	Resource Category
(0.1 % TGC Cut-off)						
Oxidised Zone	5.9	2.550	15.0	9.4	1,406,600	Measured
Fresh Zone	8.5	2.650	22.5	9.8	2,201,000	Measured
Total	14.4	2.609	37.5	9.6	3,607,600	Measured
(2.0 % TGC Cut-off)						
Oxidised Zone	5.3	2.550	13.4	10.4	1,390,900	Measured
Fresh Zone	7.7	2.650	20.5	10.6	2,180,600	Measured
Total	13.0	2.610	33.9	10.5	3,571,500	Measured
(4.0 % TGC Cut-off)						
Oxidised Zone	4.7	2.550	12.0	11.2	1,350,100	Measured
Fresh Zone	7.0	2.650	18.6	11.4	2,121,400	Measured
Total	11.7	2.610	30.6	11.3	3,471,500	Measured
(6.0 % TGC Cut-off)						
Oxidised Zone	4.1	2.550	10.4	12.2	1,268,200	Measured
Fresh Zone	6.2	2.650	16.3	12.3	2,008,000	Measured
Total	10.2	2.610	26.7	12.3	3,276,200	Measured
(8.0 % TGC Cut-off)						
Oxidised Zone	3.3	2.550	8.5	13.4	1,130,000	Measured
Fresh Zone	5.1	2.650	13.4	13.5	1,803,100	Measured

Total	8.4	2.610	21.9	13.4	2,933,100	Measured

Table 1. Caula Graphite JORC Resource at different cut-off grades

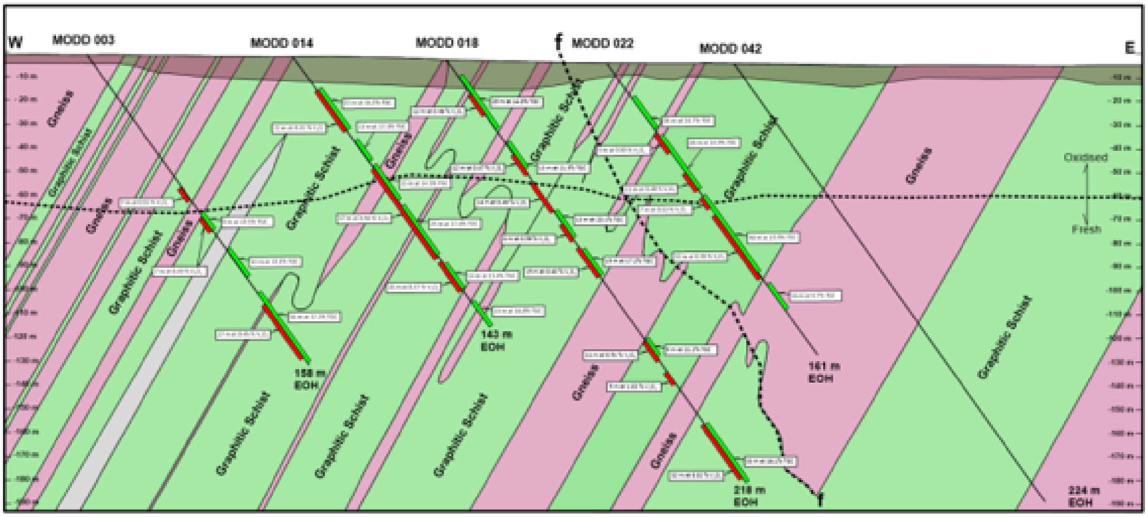

Figure 4. Cross-Section of Caula Deposit showing resource expansion potential graphite and roscoelite intersected with recent drilling

Caula V2O5 Deposit – New Energy Minerals – as at July 2018						
Resource Block	Volume (M m^3)	Density (ton/m^3)	GTIS (Mt)	Average Grade (%V_2O_5)	Contained V_2O_5 (tonnes)	Resource Category
(0.1 % V_2O_5 Cut-off)						
Oxidised Zone	5.0	2.550	12.6	0.26	33,000	Measured
Fresh Zone	6.4	2.650	17.1	0.35	60,200	Measured
Total	11.4	2.607	29.7	0.31	93,200	Measured
(0.2 % V_2O_5 Cut-off)						
Oxidised Zone	3.5	2.550	8.9	0.31	27,400	Measured
Fresh Zone	4.9	2.650	13.1	0.41	54,200	Measured
Total	8.4	2.609	22.0	0.37	81,600	Measured
(0.3 % V_2O_5 Cut-off)						
Oxidised Zone	1.5	2.550	3.9	0.38	14,800	Measured
Fresh Zone	3.5	2.650	9.3	0.48	44,900	Measured
Total	5.0	2.620	13.2	0.45	59,700	Measured

(0.4 % V_2O_5 Cut-off)						
Oxidised Zone	0.4	2.550	0.9	0.49	4,400	Measured
Fresh Zone	2.0	2.650	5.4	0.58	31,000	Measured
Total	2.4	2.635	6.3	0.57	35,400	Measured
(0.5 % V_2O_5 Cut-off)						
Oxidised Zone	0.1	2.550	0.3	0.56	1,800	Measured
Fresh Zone	0.9	2.650	2.5	0.72	18,200	Measured
Total	1.1	2.638	2.8	0.71	20,000	Measured

Table 2. Caula Vanadium JORC Resource at different cut-off grades

Figure 5. Halved core showing graphitic schist with distinct roscoelite (vanadium-hosting mineral) mineralization

An 8% cut-off (TGC) and a 0.2 % cut-off (V_2O_5) was used in the Vanadium and Graphite Resource Statements dated July 2018 (refer to ASX Announcements dated 20 and 24 July 2018 respectively). The Scoping Study indicated that the economics of the Caula project are sufficiently robust to allow for the mining of the entire deposit in its presently delineated state, and hence the expanded reporting over lower cut-off limits for the Graphite and Vanadium mineralised tonnages in the Tables above.

7. Mining Parameters

A desktop geotechnical study was completed to determine slope angles to be used in the pit design. This work was based on public domain data for the area and rock types found at Caula. The modified rock mass rating (MRMR) system was used to determine slope design. The MRMR values derived were used in the Haines-Terbrugge chart to determine overall slope angles for the various phases of mining. The overall slope angles specified varied from 39° to 41^0 and these slope angles were used in the pit optimisation.

The physical tonnage contained in the optimum pit shell as determined by the pit optimisation exercise are tabled below in Tables 3 and 4 and a section view of the pit is shown in Figure 6 below.

Total Tonnage	66 108 663 t
Processed Tonnage	30 836 663 t
Waste Tonnage	35 272 000 t
Mine Life	26 years
Strip Ratio	1:1
Pit Depth	175 m
Pit Length	725 m
Pit Width	560 m

Table 3. Optimum pit shell tonnages

A pit optimisation exercise was undertaken using the following input criteria:

Caula Graphite and Vanadium – Pit Optimisation Input Parameters		
Item	Amount	Units
Operating Costs		
Mining Cost (Soil)	2.70	$/t mined
Mining Cost (Weathered)	3.20	$/t mined
Mining Cost (Partially Weathered)	3.45	$/t mined
Mining Cost (Un-weathered)	3.70	$/t mined
Process cost	42.29	$/t milled
G&A Cost	10.00	$/t milled
Cost increase with depth	0.07	$/t mined

Table 4. Caula Pit Optimisation Input Parameters (Operating Costs)

Technical		
Slope angles (oxide)	37	degrees
Slope angles (fresh)	47	degrees
Mining Dilution	5	%
Mining Loss	5	%
Bench height	10	m
Plant recovery - Graphite	85%	%
Plant recovery - Vanadium	80%	%
Ore Production rate	125 000	tpm
Ore Production rate	1.5 million	tpa

Economic		
Royalties	3.00%	%
Graphite conc. -basket price – Oxide	858	$/t conc. (97% C)
Graphite conc. -basket price – Transitional	1 158	$/t conc. (97% C)
Graphite conc. -basket price – Fresh	1 138	$/t conc. (97% C)
V_2O_5 (98% Flake) price	40 785	$/t
Discount factor to use	10%	%

Table 4. (Continued) Caula Pit Optimisation Input Parameters (Ergonomic)

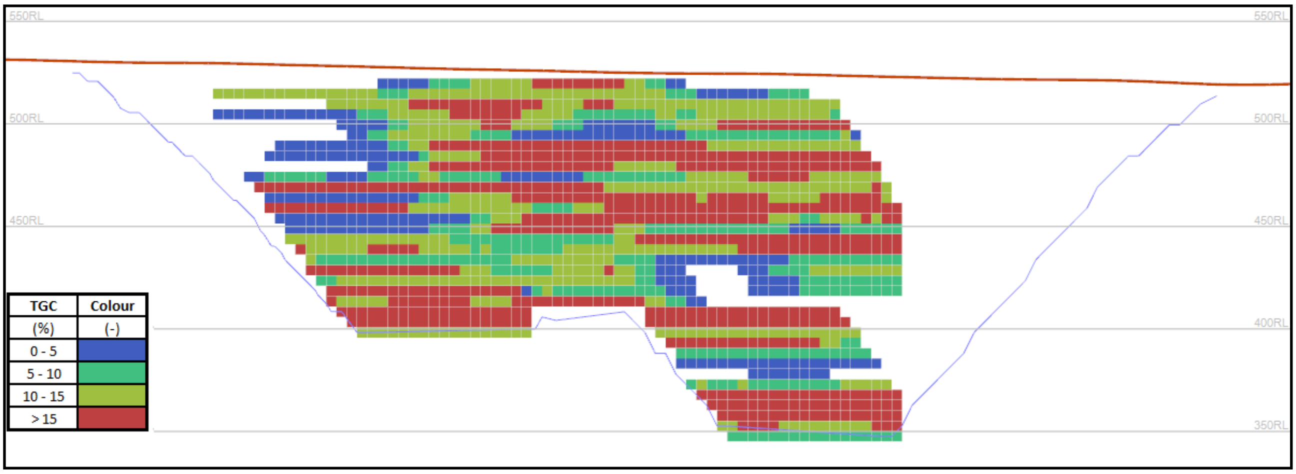

Figure 6. Optimum Pit Shell – Section View

A trade-off study was completed to determine the appropriate production rate for the project. This work showed that even at a throughput of 3 Mtpa the optimum NPV was not reached and that the larger tonnage throughput the higher the value, although at greater than 3 Mtpa the rate of increase was low. New Energy Minerals, after due consideration of non-technical factors such as marketing and fund raising, selected a production rate of 1.5 Mtpa.

A production schedule was developed for the mining operation and production rates for the initial two years will target a graphite concentrate production of 10,000 to 15,000 tonnes of per annum (approximately 120,000 tonnes processed per annum). Vanadium Concentrate (1.7% V_2O_5) will be produced and sold on a Free on Board (FOB) basis during this phase. Steady state production will then expand to approximately 1 500 000 tonnes processed per annum to produce graphite and vanadium concentrates (~97% TGC flake graphite and 1.7% vanadium concentrate). A summary of the schedule is graphed below.

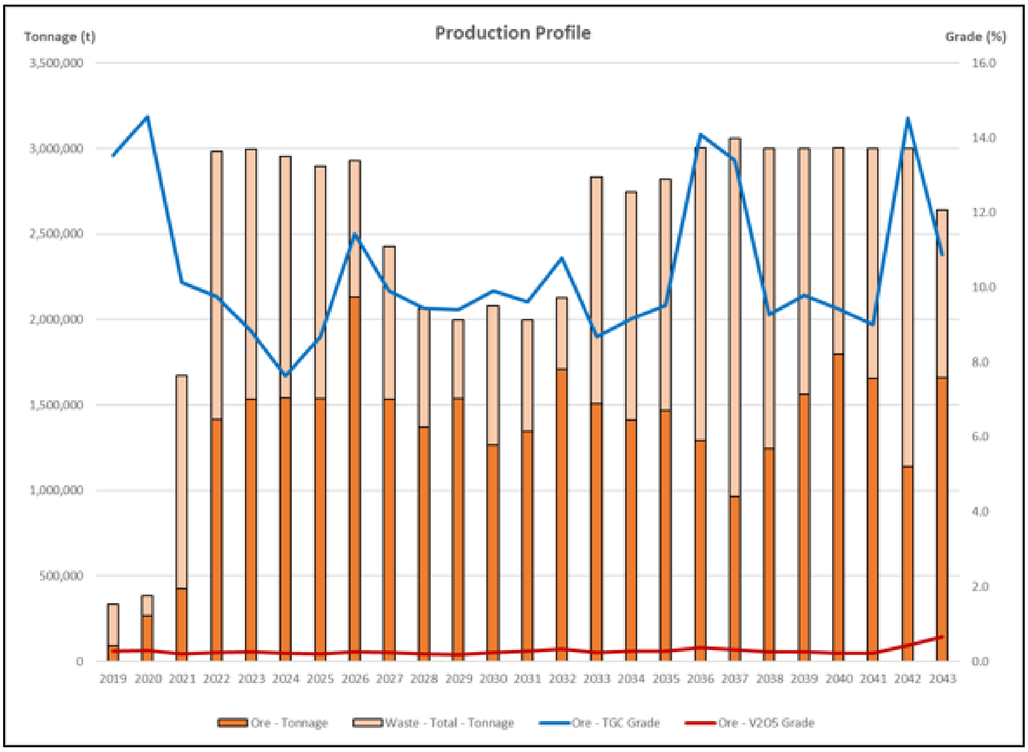

Figure 7. Production Profile

8. Metallurgy and Processing Plant

Graphite

Eight campaigns of mineral processing testwork have been completed on the mineralised material from Caula. These include:

- Preliminary graphite testwork
- Graphite flotation testwork (IMO Perth, Nagrom Perth and SGS)
- Sensor based mineralised material sorting testwork at Tomra, Castle Hill NSW
- WHIMS and flotation testwork for vanadium (IMO and Nagrom, Perth)

Graphite concentrate recovery testwork results have all been highly positive. All programs have delivered high-grade concentrates with greater than 95%, and concentrate grades of up to 98.7% TGC, with average concentrate grades of >97% for all mineralised material types (see Table 5 below). Furthermore, the concentrates produced have contained commercially significant proportions of larger flake sizes (flake sizes larger than 0.18 mm). Good recoveries to concentrates have been achieved at coarse grinds (i.e. 80% passing sizes greater than 0.5 mm).

Graphite Product	Size Fraction (μm)	Fresh Sample		Transitional Sample		Oxide Sample	
		Mass (%)	TGC (%)	Mass (%)	TGC (%)	Mass (%)	TGC (%)
Super Jumbo	>500	5.4	97.58	6.5	98.11	0.9	96.81
Jumbo	300 to 500	26.1	97.82	25.0	98.66	10.6	97.64
Large	180 to 300	36.4	97.43	36.6	98.64	34.7	97.70
Medium	150 to 180	9.5	96.96	10.3	98.46	14.8	97.76
Small	75 to 150	18.4	96.85	20.5	98.42	34.7	97.78
Fines	<75	4.2	88.6	1.1	97.71	4.2	96.12
Combined Concentrate		100	96.99	100	98.52	100	97.67

Table 5. Graphite Size distribution and recovery grades

Vanadium recovery testwork by wet high intensity magnetic separation (WHIMS) has delivered promising results which could form the basis of a commercial processing route[11].

The testwork results support the assumptions made for the process design, recoveries and concentrate grades in the Scoping Study.

The graphite and vanadium recovery process consists of:

- Crushing
  - Ore receiving - ROM bin and apron feeder
  - Vibrating grizzly for scalping fines ahead of the jaw crusher
  - Primary Crushing - jaw crusher
  - Secondary and tertiary crushing – cone crushers in closed circuit with a double deck screen
  - Fine ore bin – live capacity 2,000 tonnes

- Grinding and Flotation
  - Milling – a rod mill and ball mill operating in closed circuit with a spiral classifier
  - Rougher/Scavenger Flotation – rougher and scavenger flotation followed by re-flotation of rougher concentrate.

[11] Refer to ASX Announcement dated 3 October 2018

- Tailings transfer – a thickener for process water recovery, followed by pumps for transferring thickened tailings to the vanadium recovery section.
- Regrind cleaner flotation – three stages of attrition regrinding and cleaner flotation, followed by a two cleaning stages.

- Concentrate Handling
    - Filtration and concentrate drying.
    - Screening of dry concentrate.
    - Bagging of concentrate.

- Mobile Equipment
    - Two front end loaders, one for ore handling in the crushing section and the other for concentrate bag handling.
    - A telehandler for reagents handling and general plant maintenance work.
    - A 60-tonne rough terrain mobile crane, originally used for plant construction work, and then left on site for crusher maintenance and general use around the mine site, including offloading of sea containers from road transport.

Based on the RoM schedule developed for the mine the plant will receive an average of 1.5 Mtpa at an average grade of 10% TGC. Graphite recovery is planned at 85%, with a concentrate grade of at least 96%.

The Crushing Section design basis was 1.5 Mtpa of ore processed over 6,000 operating hours per year. This corresponds to 250 tons per hour and an overall running time of 68.49%. In practice, the plant is expected to operate for 6 days per week, for 50 weeks per year. The grinding and flotation section design basis was 1.5 Mtpa of ore processed over 8,000 operating hours per year. This corresponds to 187.5 tonnes per hour and an overall running time of 91.32%.

The Concentrate Handling Section has been designed to handle up to 250,000 tonnes of concentrate over 8,000 operating hours per year. This corresponds to a concentrate production rate of 31.25 tonnes per hour. The design capacity is about 40% higher than average annual production to allow for flexibility to accommodate ore grade fluctuations.

Plant tailings will be thickened and then pumped to the vanadium concentrate recovery section. The thickener will recover water from the tailings to minimise the overall water consumption. The thickener underflow will be at least 50% solids.

Vanadium Concentrate Production

Metallurgical information on the nature and mode of occurrence of vanadium values in the ore has been obtained from the testwork conducted to date. The information has been supplemented from a review of published information on vanadium occurrences in other comparable graphitic schist projects and deposits, other micaceous deposits and vanadium operations utilising similar processing methods.

From preliminary work done by the Company, the Study has concluded that all vanadium-containing mineral species also contain enough iron to make them paramagnetic. Testwork has indicated that good recoveries of such particles (over 90 %) can be achieved by Wet High Intensity Magnetic Separation (WHIMS). Furthermore, concentrate grades, which are suitable for further processing to economically extract vanadium, can be produced.

Based on WHIMS testwork and allowing for a more complex multi-stage WHIMS flowsheet, a preliminary estimate for the composition of the New Energy Minerals Caula vanadium concentrate is shown below in Table 6, below.

Vanadium Concentrate Chemical Composition	
Analysis	Value (%)
V_2O_5	1.70
SiO2	50
Fe2O3	15
Al2O3	9
CaO	13
MgO	7
S	5

Table 6. Chemical composition of the Vanadium Concentrate from the Caula Project

The vanadium content of the concentrate is distributed across a number of iron-containing minerals. Some of these have been identified by semiquantitative XRD Mineral analyses of concentrate. A very significant proportion of the vanadium is associated with micas such as roscoelite and vanidiferous muscovite. Part of the vanadium is also associated with fine iron oxide minerals and clays. Some of the vanadium may also occur as the vanadium garnet mineral, goldmanite.

The vanadium concentrator will produce a concentrate with a grade of 1.7% V_2O_5 and the expected recovery to concentrate is 90%. Subsequent semi-quantitative XRD analyses of testwork products showed that the concentrate contained about 25% of the non-magnetic mineral quartz, and that the tailings contained low levels of minerals believed to be vanadium-bearing. These observations support the contention that grade and recovery performance improvements are possible.

The tailings from the graphite concentrator will be treated for vanadium. The vanadium extraction process consists of:

- Regrinding

- WHIMS concentration to treat tails from graphite flotation
- Drying & bagging of vanadium concentrates

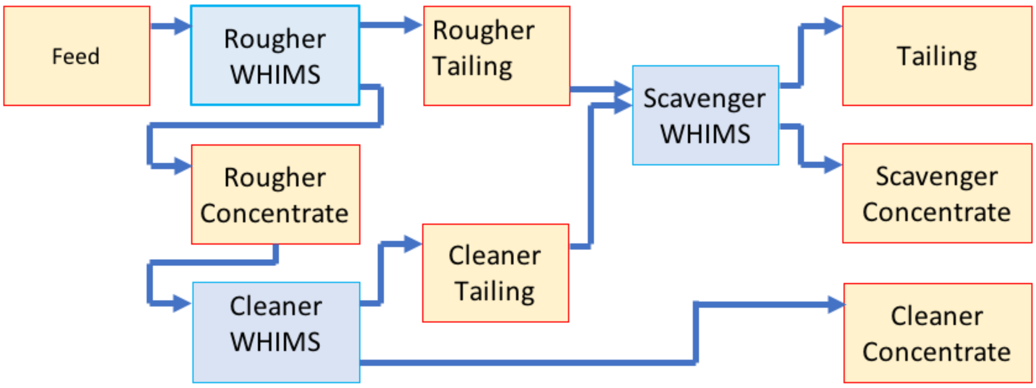

Figure 8. Block diagram for the Caula vanadium concentrate extraction testwork

Vanadium Pentoxide (Flake & Powder) Production

The Company has started the process of further testing on Caula ores to determine the optimal flowsheet to produce >98% V_2O_5 products. One of the processes being tested is as follows:

- Roasting to alter the vanadium minerals and render them amenable to leaching
- Leaching with sodium carobonate/bicarbonate to solubilise the vanadium
- Solution purification followed by precipitation of ammonium metavanadate
- Calcining to drive off ammonia and produce vanadium pentoxide
- Melting to produce a vanadium pentoxide flake product.

This vanadium extraction process consists of roasting with anhydrite followed by carbonate/bicarbonate leaching. After liquid solids separation, the vanadium-containing solution is purified by precipitation of silica and other contaminants. The solution would then be evaporated to close to saturation to allow efficient (close to stoichiometric) vanadium precipitation as ammonium metavanadate.

The Company is confident that this extraction process will be successful given its analysis of two other relevant study documents of similar deposits or processing methods, that are available in the public domain:

- Syrah Resources, ASX announcement, Vanadium Scoping Study finalised, 30 July 2014. The Syrah Resources Project is less than 50 km away from Caula with similar geological characteristics.
- Bushveld Minerals, Mokopane Vanadium Project, Pre-feasibility Study, 29 January 2018. The Bushveld minerals pre-feasibility study describes the same process as proposed in the Caula Scoping Study. This study states the following regarding the salt roast process; "The recovery of final vanadium product from ore material is achieved through the salt roast

process, as is typically employed by a number of existing vanadium producers in South Africa”

Note: The Scoping Study assumes that only vanadium concentrates are produced over the life of mine and sold to vanadium treatment plants/roasters in either Mozambique (“over the fence”), South Africa or China at approximately US$200/tonne, at the mine gate. The Company is undergoing further metallurgical testing on the optimal beneficiation process for the vanadium concentrates and results thereof will be incorporated into the PFS where Phase 2 will look at incorporating a roast-leach vanadium (>98% V_2O_5) extraction process.

Tailings

Separate tailings storage facility is planned for the concentrator tailings (graphite and vanadium). The concentrator tailings facility is a conventional clay lined facility.

9. Mine Support Infrastructure

All required infrastructure to support the proposed mining and processing plan has been allowed for, this includes the following elements:

- Bulk power supply
- Bulk water supply
- Access roads to site
- Tailings dam facility
- Waste rock dumps
- Mine Infrastructure cluster including:

    - Site roads
    - Site water reticulation
    - Site Power reticulation
    - Workshops
    - Offices
    - Change house
    - Stores
    - Sewage treatment
    - Fuel and lube storage and disposal
    - Explosives magazine
    - Accommodation camp

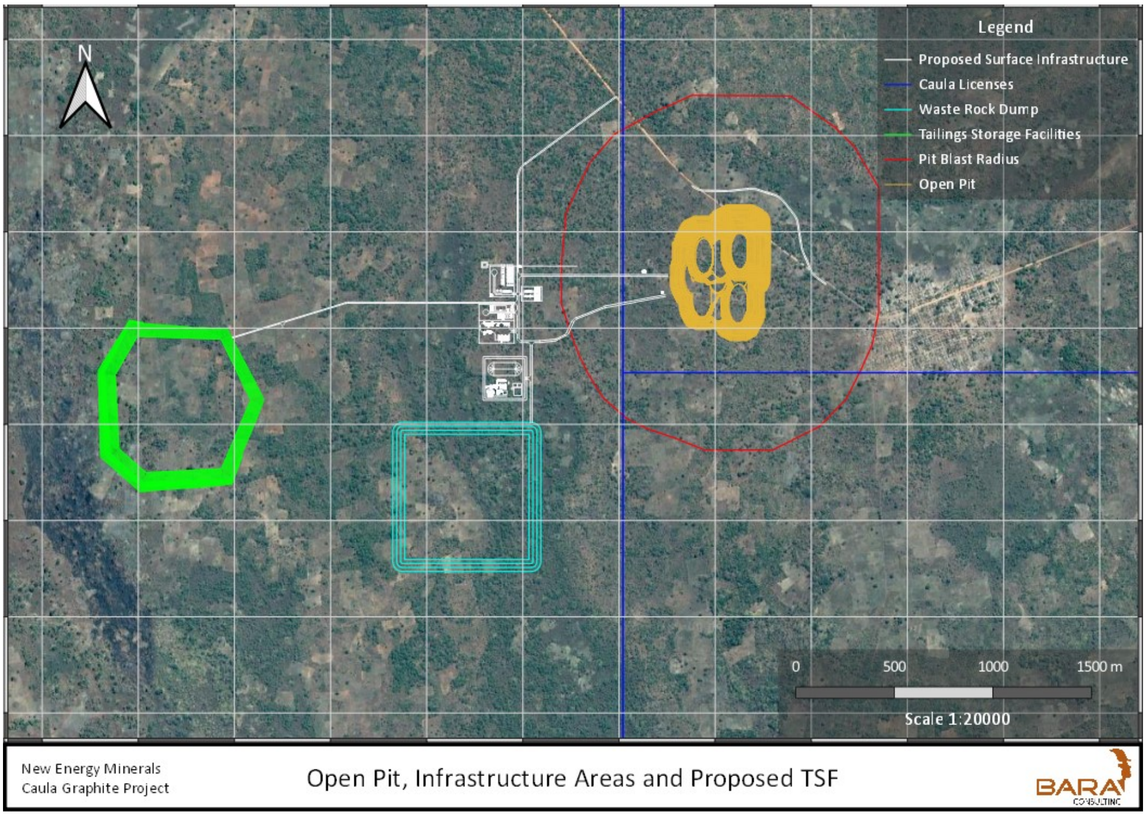

Figure 9. Site layout of the Caula Vanadium-Graphite Project

10. Labour

Labour has been estimated based on a 30 day per month operation. It is proposed that mining for Phase 1 and security (for Phase 1 and 2) are outsourced to a contractor, whilst all other activities will be undertaken by New Energy Minerals. A summary of the total manpower requirement is shown Table 7 below.

Total Manpower Complement (Full capacity)			
Department	No. per Shift	Total	Camp
Management and Administration	99	191	20
Mining	39	115	16
Engineering and Maintenance	27	49	1
Processing	116	203	19
Total	**281**	**558**	**56**

Table 7. Total manpower requirement at full capacity

11. Environmental and Social

An environmental and social scan was undertaken, which included a site visit, to identify and fatal flaws and/or material issues at the site as very little site-specific information is currently available for environmental and social conditions. Detailed baseline studies will need to be undertaken as the project progresses, in support of an EIA process. Generally, more detailed baseline information is required for the pre-feasibility study, and an EIA to follow (which identifies and assesses potential impacts and recommends mitigation measures) is required in support of the detailed feasibility study. No issues were identified which are likely to pose a significant risk to the project.

12. Financial Evaluation

Capital and operating costs have been generated for the technical solution described above, these costs are summarised in Tables 8 and 9 below:

Summary of Project Capital Cost			
Area	Initial Cost	Ramp-up Cost	Total Cost
	USD'mill	USD'mill	USD'mil
Mining Equipment	-	6.05	6.05
Pilot Processing Plant	5.06	-	5.06
Processing Plant	-	60.09	60.09
Tailings Storage Facilities	0.43	6.92	7.35
Surface Infrastructure and Accommodation Camp	0.82	15.01	15.82
Environmental, Permitting, Relocation	0.10	0.23	0.33
Logistics	-	2.00	2.00
Indirect Costs	-	9.02	9.02
Contingency	0.96	14.89	15.85
Total Project Capital Cost	7.37	114.21	121.58

Table 8. Summary of project capital cost

Summary of Total Operating Cost			
Area	LOM Total	Unit Cost	Combined Graphite and Vanadium Unit Cost Expressed as USD / t Graphite Conc.
	USD'mill	USD / ROM t	
Mining	227.52	6.81	28.90
Processing - Graphite Concentrator	393.76	11.79	50.02
Processing - Vanadium Pentoxide Concentrator	240.60	7.20	30.57
General and Administration	194.07	5.81	24.66

Concentrate Transport	634.125	18.98	80.56
Overheads	9.36	0.28	1.19
Operating Cost Total	**1 699.47**	**50.87**	**215.90**

Table 9. Summary of total operating costs

Using the mining schedules, process recoveries and the proposed sales prices, along with the costs generated, a financial evaluation was undertaken.

Financial Analysis Results		
Description	Value	Unit
Project Cashflows		
Revenue – Graphite	3 165 463 842	USD
Revenue – Vanadium	1 361 710 473	USD
Total Revenue	4 527 174 315	USD
Operating cost	1 699 475 930	USD
Total Project Capital cost	139 725 921	USD
Royalties	135 815 229	USD
Project Pre-Tax Cashflow	2 552 157 234	USD
Tax	817 754 564	USD
Project Post-Tax Cashflow	1 734 402 670	USD
EBITDA	2 691 883 155	USD
EBIT	2 553 215 436	USD
FCF	1 734 402 670	USD
Financial Metrics		
Pre-Tax NPV (10%)	673 406 247	USD
Pre-Tax IRR	78.3	%
Post-Tax NPV (10%)	448 760 692	USD
Post-Tax IRR	58.8	%
Operating Margin	85	%
Payback Period	3.79	
Peak Funding Requirement	77 545 700	USD

Table 10. Caula financial analysis results

The project cashflow analysis is illustrated in Figure 9 below, showing that the project is profitable from Year 3 on and the payback period is four years from start of Phase 1.

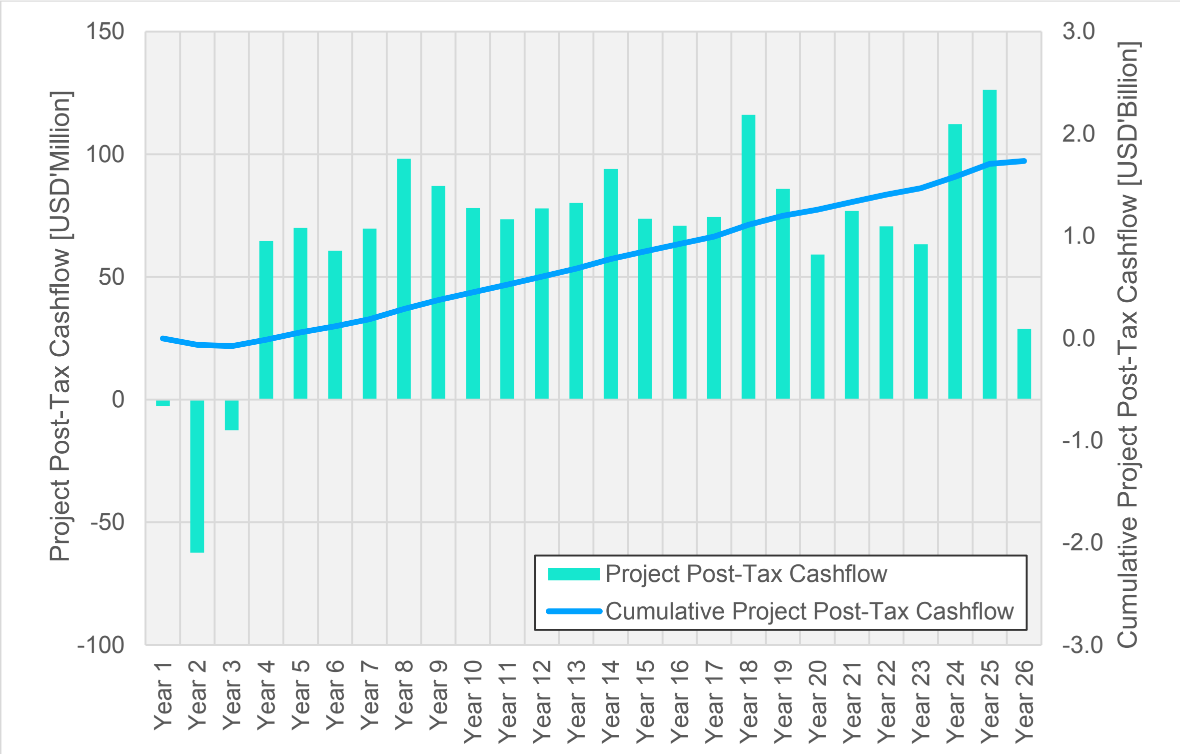

Figure 10. Caula Project cash flow analysis

13. Product Pricing

Graphite

A total of eight campaigns of mineral processing testwork has been completed on the mineralised material from Caula and is described in more detail in Section 7 of this announcement. As stated, the graphite concentrate testwork has delivered high-grade concentrates grades of up to 98.7% TGC, with average concentrate grades of >97% TGC for all mineralised material types (see Table 5 in Section 7 and Table 12 below). Graphite pricing is linked to flake sizes and purity (measured in carbon content expressed as a percentage) with prices varying from ~US$400/tonne to over US$3,000/tonne depending on the flake size and carbon content (see Table 13 below). The metallurgical testing done to date has firmly established Caula as being able to yield high percentages Super Jumbo, Jumbo and Large flakes. The Cumulative proportion of large to super jumbo flakes (>180µm) averages 60% TGC for the combined Oxide Zone while the Fresh Zone averages 68% TGC giving a combined average for the Oxide Zone and Fresh Zone of 63% TGC. This is a significantly better higher-value product distribution than all other peers in the Balama graphite province (including Syrah Resources).

Bara calculated a basket price of $1,103.50/tonne based on prices for the various flake sizes used in recent published peer group studies as well as market prices published by Benchmark Mineral Intelligence. See Table 11 below for a breakdown of the Caula graphite basket price assumptions.

Category	US$/tonne	% Sales based on Caula’s actual flake distribution
Super Jumbo (+500μm)	$3,500	5.4%
Jumbo (+300μm / -500μm)	$1,440	24.7%
Large (+180μm / -300 μm)	$976	36.3%
Medium (+150μm / -180μm)	$813	10.1%
Small (+75μm / -150μm)	$539	20.2%
Fines (-75μm)	$403	3.2%
Basket Price		US$1,103.50/tonne

Table 11. Graphite basket price breakdown (concentrates produced from all ore zones)

Graphite Product	Size Fraction (μm)	Fresh Sample		Transitional Sample		Oxide Sample	
		Mass (%)	TGC (%)	Mass (%)	TGC (%)	Mass (%)	TGC (%)
Super Jumbo	>500	5.4	97.58	6.5	98.11	0.9	96.81
Jumbo	300 to 500	26.1	97.82	25.0	98.66	10.6	97.64
Large	180 to 300	36.4	97.43	36.6	98.64	34.7	97.70
Medium	150 to 180	9.5	96.96	10.3	98.46	14.8	97.76
Small	75 to 150	18.4	96.85	20.5	98.42	34.7	97.78
Fines	<75	4.2	88.6	1.1	97.71	4.2	96.12
Combined Concentrate		100	96.99	100	98.52	100	97.67

Table 12. Caula Flake Size Distribution and purity (Carbon content/TGC)

New Energy Minerals believes these prices to be conservative given the 2017 and 2018 published market prices for high purity graphite concentrates with a 19% to 34% discount to the published September 2018 flake graphite prices provided by Benchmark Mineral Intelligence (BMI) as detailed in Table 13 below.

Category	Purity/Spec (TGC%)	US$/tonne (Mid)
Jumbo (+300μm / -500μm) (+50mesh)	96-97% C	$2,020

Large (+180μm / -300 μm)(+80 mesh)	96-97% C	$1,265
Medium (+150μm / -180μm) (+100 mesh)	96-97% C	$1,005
Small (+75μm / -150μm) (-100mesh)	96-97% C	$825

Table 13. Graphite concentrate prices (September 2018) as published by Benchmark Mineral Intelligence

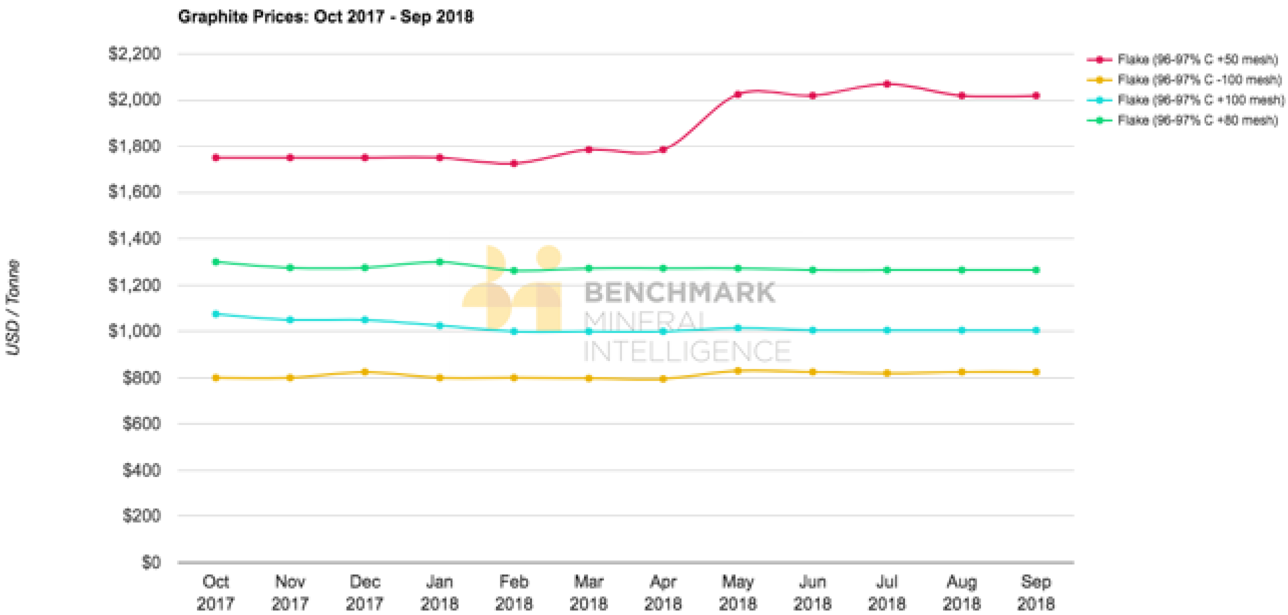

Figure 11. 96-97% C Flake Graphite Prices October 2017 to September 2018. FOB China

Furthermore, New Energy Minerals also believes that its average concentrate grade of >97% TGC is well above the product specifications quoted by Benchmark Mineral Intelligence (being 96-97% C) and quoted in Table 13 above.

New Energy Minerals believes the graphite basket price of $1,103.50, based on its flake size distribution and product specifications, as listed in Table 11, to be saleable, especially when comparing its favourable graphite grade and flake size distribution against its East African peers. This is further supported by initial feedback from discussions between the Company and potential off-take partners and customers.

Vanadium

Vanadium Pentoxide (V_2O_5) is priced according to is purity, predominantly as a FOB price expressed as US$/pound for 98% vanadium pentoxide (V_2O_5) flake. Various published sources provide current prices, which as at 20 October 2018, for 98% V_2O_5, FOB China, was quoted at US$29.90 / pound (see www.asianmetal.com and www.vanadiumprice.com for both current and historical vanadium pentoxide prices).

The Scoping Study done by Bara assumed a price of US$18.49 / pound for 98% V_2O_5, FOB China, which represents a 38% discount to the current (20 October 2018) FOB China price of US$29.90 / pound, see Table 14 below.

Vanadium Pentoxide (V_2O_5) Product Pricing	US$/tonne	US$/pound
1.7% Vanadium Pentoxide (V_2O_5) Concentrate	$200	$0.09
Vanadium Pentoxide (V_2O_5) 98% assumed in this Study	$40,785	$18.49
Current Vanadium Pentoxide (V_2O_5) 98% Price (FOB)	$65,900	$29.90
Percentage Discount to Current Prices	38.16%	

Table 14. Vanadium pentoxide product pricing

The Scoping Study then used this vanadium pentoxide (98% purity) price as the basis from which to calculate a price of US$200/tonne for 1.7% V_2O_5 vanadium concentrate (Mine gate). The study has estimated the sales value of the concentrate based on the contained value of vanadium in the concentrate using the scoping study price for 98% vanadium pentoxide flake, roasting & leaching treatment costs. Various delivery destinations were considered, both in South Africa and in China. A robust transport cost of US$215 per tonne of concentrate was used as an estimate that would allow for shipment to various destinations in either country. For example, in regard to the South African alternatives this would allow road transport to Pemba, ship-loading and sea-freight to Maputo and then road transport to the Brits area of South Africa or to China. An estimate of the roast leach treatment cost was taken from the Bushveldt Minerals' Feasibility Study. This cost was US$3,870 per tonne of V_2O_5, (US$68.50/tonne for the 1.7% V2O5 Caula concentrate).

At the vanadium pentoxide price of US$40,785 used in the Scoping Study, the value of contained vanadium per tonne of concentrate is US$693. Subtracting the transport and treatment costs leaves US$409/tonne of potential profit from processing. Sharing this profit equally between the concentrate supplier and the treatment facility would give a net revenue of approximately US$200 per tonne of concentrate to New Energy Minerals (ca. US$276 FOB Pemba)

The Company had preliminary discussions with potential off-take partners regarding the vanadium concentrates (to be produced from Phase 1 and Phase 2) and these parties confirmed that they believe these products will be saleable given the current market prices for vanadium as well as the strong demand for additional vanadium supply. The Caula vanadium concentrates will either be sold "over the fence" to a vanadium treatment facility near the mine or transported to port and exported either to South Africa or China to be treated there or a combination of both. The Company has already received interest in the "toll-treatment" of vanadium concentrates from the Caula project.

As previously stated it is the Company's intention to ultimately produce >98% V_2O_5 products on site in a fully integrated plant and work is currently underway to determine the most optimal processing route to achieve this outcome. Subsequent studies will look to incorporate the results from this work and investigate the economics of the production of high purity flake and powder vanadium pentoxide on site.

14. Sensitivity analysis

The sensitivity analysis shows that the project is most sensitive to changes in revenue, however the dual product nature of the operation does mitigate this risk to an extent. The contribution to revenue from graphite and vanadium is similar. The sensitivity of the post-tax NPV to changes in Revenue, operating cost and capital cost is shown below. Please refer to Appendix 2 for a detailed sensitivity analysis as well as a range of capital and operating costs.

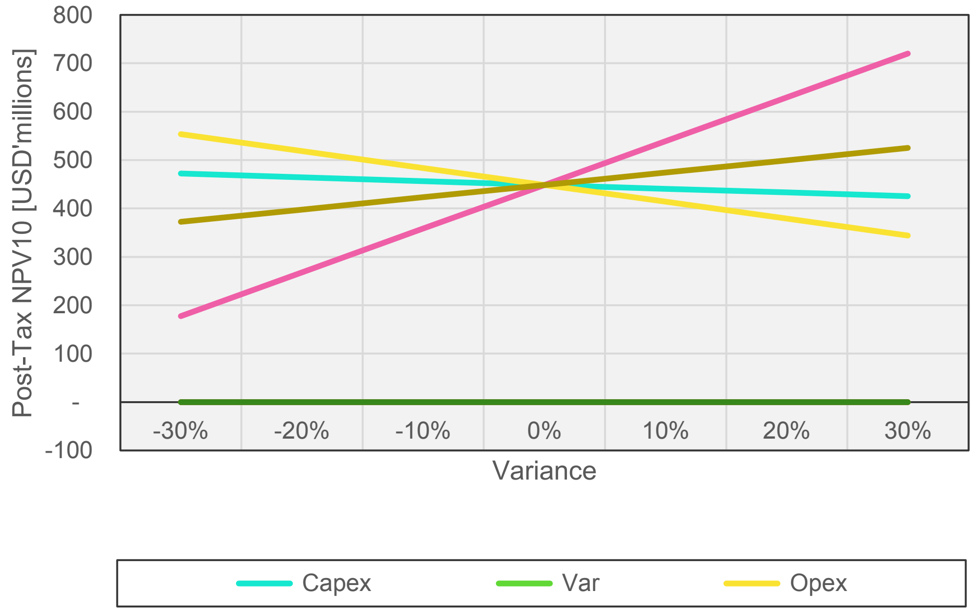

Figure 15. Caula Project Sensitivity Analysis

15. Consultants participating in the Scoping Study

The Caula Vanadium-Graphite project Scoping Study was centrally managed from Johannesburg by independent mining consultancy Bara International, with specialist independent consultants contributing to the resource definition, metallurgy, environmental and hydrology and social elements.

The following consultants and individuals contributed to the key components of the Study:

Responsible Persons for the Caula Scoping Study Report		
Report Section	**Name**	**Company**
Geology and Resources	Johan Erasmus	Sumsare Consulting
Mine design	Clive Brown	Bara International
Metallurgical testwork (Lead)	Evan Kirby	New Energy Minerals
Process plant design and cost estimate (Lead)	Evan Kirby	New Energy Minerals
Metallurgical testwork (Review)	Richard Way	Bara International
Process plant design and cost estimate (Review)	Richard Way	Bara International
Tailings storage facility	Stephan Geyer	Bara International
Mine Infrastructure	Allan du Plessis	Bara International
Environmental and permitting	Peter Theron	Bara International
Financial modelling	Etienne de Villiers	Bara International

For and on behalf of the Board

Bernard Olivier

Dr. Bernard Olivier
Managing Director

FOR FURTHER INFORMATION, PLEASE CONTACT:

New Energy Minerals Limited

Bernard Olivier

Managing Director

bernard@newenergyminerals.com.au

+61 (0) 408 948 182

+27 (66) 4702 979

Jane Morgan Management

Jane Morgan

Media & Investor Relations

jm@janemorganmanagement.com.au

+ 61 (0) 405 555 618

COMPETENT PERSON STATEMENTS:

Information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Johan Erasmus, a Competent Person who is a registered member of the South African Council for Natural Scientific Professions (SACNASP) which is a Recognised Professional Organisation (RPO) included in a list posted on the ASX website. Mr Erasmus is a consultant to Sumsare Consulting, Witbank, South Africa which was engaged to undertake this work. Mr Erasmus 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 by the 2012 Edition of the Australasian Code for Reporting of Exploration Results. Mr Erasmus consents to the inclusion of the data in the form and context in which it appears.

Information in this report that relates to the ore sorting and sample composites of the Caula Graphite & Vanadium Project is based on information compiled by Dr. Evan Kirby, a Competent Person who is a registered member of the South African Institute for Mining and Metallurgy (SAIMM), which is a Recognised Professional Organisation (RPO) included in a list posted on the ASX website. Dr Kirby is a consultant who was engaged by the company to undertake this work. Dr Kirby is a Non-Executive Director of the company. Dr Kirby 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 by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Kirby consents to the inclusion of the data in the form and context in which it appears.

The information in this report that relates to metallurgical test and process plant design was reviewed by Richard Way, a fellow of the South African Institute of Mining and Metallurgy (SAIMM) and a member of the South African Mine Metallurgical Managers Association. Richard Way holds a M.Sc in Mineral Process Design and a Diploma in Mineral Processing from the Imperial College, London and a B.Sc (Hons) in Chemistry and Physics from the University of London. Richard Way is the Principal Metallurgical consultant at Bara International and consents to the inclusion of the data in the form and context in which it appears.

The information in this document that relates to mine design for a scoping study level assessment is based on information compiled or reviewed by Clive Brown, principal mining engineer at Bara International, a Fellow of the South African Institute of Mining and Metallurgy, professional engineer registered with the Engineering Council of South Africa. Clive Brown provided the Capital Cost and Operating Cost estimates for the mine and associated infrastructure for the Caula Project's financial model. The information in this document that relates to these inputs is based on information compiled or reviewed by Clive Brown. Clive Brown has extensive experience in the preparation of capital and operating cost estimates for mines and mineral processing plants. Clive Brown consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS AND DISCLAIMERS:

This document may include forward-looking statements. Forward-looking statements include, but are not necessarily limited to the Company's planned exploration program and other statements that are not historic facts. When used in this document, words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although the Company considers that its expectations reflected in these statements 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.

Recipients are cautioned against placing reliance on forward-looking statements in the announcement, actual values, results and or interpretations may be materially different to those implied or expressed as they are limited to this announcements date of issue.

The announcement is in summary form and for information purposes only, recipients are urged to conduct their own analysis to satisfy themselves to the accuracy and completeness of the information, any statements and/or opinions that have been made in this announcement.

This announcement and the information summarised herein does not constitute as offer, invitation, solicitation or recommendation in relation to the sale or purchase of shares in any jurisdiction. The announcement may only be distributed in jurisdictions where the legal requirements of that jurisdiction is met. Recipients are advised to familiarise themselves and be aware of the legal requirements and restrictions that may apply to their jurisdictions as a failure to comply may result in a violation of the securities laws.

The announcement has been compiled without consideration to the recipient's investment objectives, financial needs or circumstances. The information, opinions and recommendations in this announcement does not constitute investment advice or recommendation. Recipients are urged to always seek professional advice before making any investment decision.

All investment transactions involve risk, including but not limited to, market fluctuations, adverse political and financial developments. New Energy Minerals Limited, its employees, its contractors, its officers, its agents and advisors do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinion, estimates, forecasts or other representations contained in this announcement. No responsibility for any errors or omissions from the announcement arising out of negligence or otherwise is accepted.

This announcement has been prepared by New Energy Minerals Limited (ASX:NXE), this document contains background information about NXE that is current at the date of this announcement. This announcement is in a summary format and should not be seen as all-inclusive or complete.

APPENDIX 1 – MATERIAL MODIFYING FACTORS AND ASSUMPTIONS UNDERPINNING THE PRODUCTION TARGETS

Material assumptions and modifying factors used in the estimation of the production targets and associated financial information are set out in the following table.

Criteria	Commentary
Study Status	The production target and financial information in this announcement are based on a Scoping Study. The Scoping Study referred to in this announcement is based on low level technical and economic assessments and is insufficient to support the estimation of Ore Reserves or to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the Scoping Study will be realised.
Mineral resource underpinning the production target	The Mineral Resources estimate declared in July 2018 (see ASX Announcements dated 20 and 24 July 2018) underpins the production target. This estimate was prepared by a Competent Person in accordance with the JORC Code 2012 ("the JORC Code"). The JORC Code (Clause 49) requires that industrial minerals must be reported "in terms of the mineral or minerals on which the project is to be based and must include the specification of those minerals" and that "it may be necessary, prior to the reporting of a Mineral Resource or Ore Reserve, to take particular account of certain key characteristics or qualities such as likely product specifications, proximity to markets and general product marketability". The likelihood of eventual economic extraction was considered in terms of possible open pit mining, likely product specifications, possible product marketability and potentially favourable logistics to port.
Mining factors or assumptions	Mining is based on an open cut operation utilising conventional drill and blast, load and haul and crusher feed, with mining to initially be

	undertaken by experienced mining contractors during phase 1 and thereafter by the Company using its own fleet during phase 2.
Metallurgical factors or assumptions	The graphite metallurgical process is a standard process for graphite flotation developed through extensive testing campaigns at various laboratories. Flotation technology is well tested and extensively used in the industry. The material tested is representative of different lithologies of the orebody (oxidised as well as fresh ore) and an 85% metallurgical recovery was assumed for purposes of the study. Further feasibility level testing for graphite recovery is planned at a larger scale. The vanadium metallurgical process used is a standard process of magnetic separation developed through a recent campaign (refer to 3 October 2018 ASX Announcement). Magnetic separation (WHIMS) technology is well tested and extensively used in the industry. The material tested is representative of the fresh zone of the orebody and further testwork is planned to validate other lithologies' performance prior to further studies. A higher grade/recovery performance was assumed than achieved in the initial test results published by the Company on 3 October 2018. Following simple open circuit metallurgical testing the Company believes it has reasonable grounds to assume a commercial processing plant with multi-stage WHIMS recovery and recycle of intermediate streams will deliver 90% vanadium recovery to a concentrate grade of 1.7%. In the open circuit testwork, the rougher plus scavenger recovery was 90% to a concentrate grade of 1.42% V_2O_5, whilst the recovery to cleaner concentrate was 80.6% to a concentrate grade of 1.66% V_2O_5. Subsequent semi-quantitative XRD analyses of testwork products showed that the concentrate contained about 25% of the non-magnetic mineral quartz, and that the tailings contained low levels of minerals believed to be vanadium bearing. These observations support the contention that grade and recovery performance improvements are possible. The assumed vanadium recovery of 90% to a concentrate grade of 1.7% V_2O_5 is believed to be conservative.
Infrastructure and logistics	The cost of concentrate transportation used in the evaluation is USD 76 per tonne of wet concentrate. The cost includes road transportation of

	the Graphite and Vanadium concentrates as well as Vanadium Product from site to Pemba, as well as port costs at Pemba. The cost was sourced from transportation costs in the Bara cost database and equates to 7.34 USD per ROM tonne. The study assumes approvals for trucking of products and port allocation which are still to be secured by the Company. Bulk power will be provided by means of a 10MW diesel generating plant, as there is no available connection to the national power grid system. The peak demand is estimated at 8MW. The diesel power plant includes sufficient spare units to cater for maintenance and breakdowns. The cost per kWh calculated for the power plant is based on a diesel price of US$1.10/l. A potential upside of the project would be the use of a heavy fuel oil (HFO) power plant which offers lower operating costs compared to diesel generation. The HFO solution would depend on the availability of fuel at the New Energy Minerals site and is recommended that this be investigated. Annual power consumption for peak production is calculated at 59 932 000 kWh, and includes the infrastructure, pumping and the processing facilities.
Capital costs	The project capital expenditure is incurred over the first three years of the project and may be divided into two distinct periods. The initial project capital, 7.4 million USD, is expended in year 1 and will be utilised for the construction of the pilot plant and any support infrastructure required to achieve 120ktpa throughput. The ramp-up capital will be utilised from year 2 to year 3 and will assist in expanding the operation to 1.5 Mpta by year 3. The cost for mechanised mining equipment is incurred in years 2 and 3 of the project with the expenditure accounting for lead time and deposit payments. It has been assumed that mining will be undertaken by a contractor for the pilot plant period, during years 1 and 2, and no mechanised equipment will be required as the contractor will supply their own equipment. The both pilot plant and nameplate capacity processing plant capital costs comprises the supply, installation and commissioning costs of the infrastructure required to process ROM ore. In the case of the pilot plant, 120 ktpa ROM is processed and graphite and vanadium concentrate is produced over the initial two-year

	project period. The nameplate capacity plant, processing at 1.5 Mtpa ROM, produces a vanadium concentrate product in addition to graphite concentrate and is commissioned in year 3. The capital cost of the tailings storage facilities (TSF) comprise the construction and commissioning of a Flotation plant. The cost for the Phase 1 TSF, which stores Graphite flotation tailings, is 0.43 million USD and is incurred in year 1. The flotation TSF expansion is 7.35 million USD and is incurred in year 1 (for Phase 1) and year 2 and 3 for Phase 2. Surface infrastructure cost, at USD 15.82 million for Phase 1 (USD 0.82 million) and 2 combined (USD 15 million), includes all services, infrastructure and facilities used for the joint operation of the mine and process plant. Surface infrastructure cost also includes provision for an accommodation camp. Surface infrastructure is commissioning in the 3 years preceding steady state production at the ultimate mine production rate. In addition to the above capital costs, a provision cost for environmental and permitting has been included at USD 100 000 and was provided by New Energy Minerals also provided unit costs for relocation of residence and farms within the proximity of the open pit. Relocation costs have been included for 12 residential units and 6 farms and are incurred during year 2 at a total cost of USD 225 000. Provision has also been made for upgrading the logistics infrastructure at Pemba at an estimate of USD 2 million. Indirect costs such as engineering design fees, contract management and procurement at 10 per cent of the direct capital bill and equates to USD 9.03 million. Similarly, a contingency allowance of 15 per cent of capital was included at USD 15.86 million. The costs have been estimated from the Bara cost database and costs provided by New Energy Minerals.
Operating costs	Operating cost has been defined as the cost of all ongoing mining, processing and operational activities. Operating costs comprise: • The cost of mining the ore from the open pit mine, including the cost of all manpower and consumables.

	• The cost of processing the ore to saleable products, including the cost of manpower and consumables.
	• The cost of general and administrative activities including;
	    o The cost of general and administration labour
	    o The cost of and bulk supply of power and water to the process plant, support infrastructure and accommodation camp.
	    o The cost of maintaining the support infrastructure and the accommodation camp.
	    o The cost of the maintenance of the tailings storage facilities.
	    o The cost of sustenance for all mine personnel and operation of the accommodation camp.
	• The cost of transporting the concentrates to the point of sale.
	• New Energy Minerals' overhead costs
	
	The mining operating cost is the cost of owner mining, including mining consumables and labour. The operating cost for mining was based on the actual data gathered from New Energy Minerals 's Ruby mining operation near Montepuez. The current mining cost on the Ruby mine is <u>US$2.20</u> per tonne mined. At the Ruby operation, no drill and blast is required. Bara estimated the drill and blast cost to be
	
	USD1.00 per tonne mined, from other projects that we are familiar with in Southern Africa. It was assumed that for the top soil no drill and blast will be required but as weathering decreases so the quantity of waste and ore requiring drilling and blasting will increase. The cost was also increased by USD0.07 per 10 m bench to account for increasing haul distances as the pit gets deeper. The average mining cost per tonne of RoM ore processed, over the life of mine is USD6.81. The average cost per tonnes mined (Ore and waste) is USD3.67.
	
	Processing operating costs were estimated by a combination of first principles cost estimating and benchmarking with similar projects. The aspects making up the processing costs were estimated as follows:
	
	• Plant consumables – Consumption rates were estimate based on experience or industry guidelines and these we multiplied by the product prices which were sourced from database costs.

- Power cost – The plant power consumption was estimated based on the installed power in the plant and the operating hours. The cost per KW hour for diesel generated cost was calculated using typical fuel consumptions and running costs for diesel generators. The diesel cost used was USD1.1/l delivered to site. The cost for power generation amounts to USD 0.31 per kWhr.
- Manpower costs – the cost of manpower to operate the plant was based on benchmarked costs from plants of similar size in the New Energy Minerals database.
- Maintenance costs – Maintenance costs were based on the rule of thumb of 2.5% of the capital cost per year.

General and administration labour, at 0.87 USD per ROM tonne, was determined through first principles whereby a labour complement was developed and salary scales applied. Support infrastructure and accommodation camp maintenance was determined through the expected life of the proposed infrastructure and equates to 0.13 USD per ROM tonne. Accommodation camp and sustenance costs, at USD 3.22 per ROM tonne, were provided by New Energy Minerals and are based on the costs currently incurred at their current Ruby operation. Tailings maintenance costs were determined through the Bara cost database and equate to 0.5 USD per dry tonne of tailings. Bulk power cost was determined through applying the project electrical load requirements to the cost of diesel generated power – this cost equates to USD 1.14 per ROM tonne. The diesel price used is USD 1.10/l (delivered to site). No bulk water supply cost is included as water will be sourced

on site and pumping costs are included in the site power and maintenance costs.

The cost of concentrate transportation used in the evaluation is USD 76 per tonne of wet concentrate. The cost includes road transportation of the Graphite and Vanadium concentrates from site to Pemba, as well as port costs at Pemba. The cost was sourced from transportation costs in the Bara cost database and equates to 7.34 USD per ROM tonne.

Finally, overhead costs comprise an annual cost of USD 360 000 for the operation of New Energy Minerals' off-site offices. This cost was

	provided by New Energy Minerals and equates to 0.28 USD per ROM tonne.
Revenue factors	Products prices are based on discussions with end-users and market professionals and examination of other studies for graphite and vanadium projects. Additionally, the Company considered the prevailing market prices for graphite concentrates CIF China, as published by Benchmark Mineral Intelligence as well as market prices for vanadium pentoxide as published by vanadiumprice.com. Appropriate and conservative discounts were applied to these prevailing prices to further mitigate against commodity price cycles. Risks associated with these assumptions used in product pricing include that the product split is not achieved and that the prices assumptions are not met by the prevailing graphite and vanadium market.
Schedule and timeframe	The Study scheduling and the Company's target date of H2-2019 to commence phase 1 production, assumes that funding is secured and all requisite requirements met (permitting etc.) by Q1-2019. The Company has already done significant work in identifying plant equipment suppliers in China as well as progressing permitting and remaining phase 1 metallurgy work and therefore believes that it has a reasonable basis at present for a targeted phase 1 production date of H2-2019. Furthermore, for phase 2 construction to commence in H2-2020 the Study assumes that the required peak funding of approximately US$77.54 million is successfully raised by H1-2021 and that all required definitive feasibility studies and permits are finalized .
Market assessment	Currently in excess of 90% of vanadium demand is driven by industrial steel applications (e.g. steel rebar) where vanadium is used as a steel strengthening alloy. Market demand is estimated to grow 5.6% CAGR up to 133,000 MTVA (Metric tonnes vanadium per annum) by 2025 and supply including new mines is estimated to grow 3.7% CAGR to 111,000 MTVA. Due largely to the change of steel strengthening requirements in China and the shutdown of major producing mines in South Africa

	(Evraz) and China (stone coal producers) the price for vanadium has increased ~500% over the past 2 years. An additional high growth market for vanadium is the energy storage systems (ESS) market which currently consumes less than 5% of vanadium supply but is growing rapidly year on year as Vanadium Redox Flow Battery (VRFB) technology is implemented at large scale. Although the Company cannot predict future price fluctuations it is the view of many market participants that the vanadium market has undergone a structural shift and the outlook presently looks positive for new vanadium production. The majority of current world demand for graphite (>80%) is driven by industrial applications (steel making, refractories and lubricants) that are growing at around 3% per annum. Within the industrial sector, lithium ion batteries represent a potential high growth area due to the impact of electric vehicles and grid power storage. Other new applications comprising expandable graphite (flame retardant materials, graphite foil, graphite paper, knitted tape), and specialist applications (micronised graphite, and graphene) are leading to an increase in demand.
Funding	The Company is currently in discussion with various parties regarding potential off-take agreements and/or funding opportunities for the project which include (but are not limited to) pre-payment finance. Given the small initial pre-production capital expenditure for phase 1 of approximately A$10 million the Company is confident that funding can be obtained to proceed with phase 1 with commissioning targeted for H2-2019, however no certainty is given that the Company will be successful in raising the required capital through equity/debt/ off-take pre-payments. New Energy Mineral's Board believes that there is a reasonable basis to assume that funding will be available to complete all feasibility studies and finance the pre-production activities necessary to commence phase 1 production on the following basis: • The Board and executive team have a strong financing track record in developing resources projects; • The Company has a proven ability to attract new capital; • The Board believes this Scoping Study demonstrates the project's strong potential to deliver favourable economic return; and

	• Other companies at a similar stage in development have been able to raise similar amounts of capital in recent capital raisings. For the funding of phase 2 the Company is pursuing a strategy of early engagement with EPC Companies in Asia with strong technical, execution and funding track records and which have access to suitable ECA (Export Credit Agency) debt financing. The Company believes that the 2 phased approach will also increase the confidence of potential off-takers for Phase 2 which could potentially open the door for pre-payment funding and equity participation from graphite and/or vanadium strategic investors. It is likely that the required funding to execute the Caula project as detailed in this scoping study may only be available on terms that may be dilutive to or otherwise affect the value of New Energy Mineral's shares.
Economic	A discount rate of 10% has been used for financial modelling. This number was selected as a generic market related cost of capital and considered a prudent and suitable discount rate for project funding and economic forecasts. The model has been run as a life of mine model and includes sustaining capital. The Study outcome was tested for key financial inputs including: basket price, capital and operating costs with a sensitivity analysis as detailed in Appendix 2 below
Exchange rate	The exchange rate used is of AU$1.00 = US$0.724
Environmental & Social	The proposed surface infrastructure is located approximately 500 m from Namagere village (also called Caula). Households within the 500 m blast radius have been identified and resettlement discussions are underway. A suitable host site has been identified for resettlement. According to Mozambican law the resettlement process must be formalised via the development of a Resettlement Action Plan. The village of Mirate is located approximately 1.5 km from the proposed infrastructure. Villagers have constructed machambas (subsistence farming plots) throughout

	the area. A loss of machambas would result in a loss of income or affected livelihood, and it is assumed that the affected villagers or households would also need to be compensated. Located approximately 26 km (by road) to the east, Montepuez is the area's main economic centre. The road between the proposed mine and Montepuez is a gravel road, parts of which will be upgraded to allow for truck haulage associated with the project. Sacred sites and graves will need to be identified in the areas to be affected by the project infrastructure. The following potential environmental and social impacts can be expected as a result of the project and will need to be mitigated: • Dewatering of shallow groundwater resources • Potential contamination of surface and groundwater resources • Generation of dust and gaseous emissions as a result of crushing, loading, stockpiles, use of generator and operation of the processing plant • Generation of noise - affecting nearby communities and local fauna • Disturbance of natural vegetation, exacerbating the existing degradation caused by human activities and resulting in loss of biodiversity and ecosystem services • Lack of access to communal grazing areas and machambas (affecting livelihoods and income generation) • Contamination of soil and land, affecting the potential for rehabilitation or future agricultural activities • In-migration of job-seekers, leading to social ills and increased pressure on natural resources • Health and safety related impacts on the community Very little site-specific information is currently available for environmental and social conditions however the New Energy Minerals core team has been operating a exploration project in the same district for the past 4 years and as such has established good relationships with local communities and local Government. Detailed baseline studies will need to be undertaken as the project progresses, in support of an EIA process. Generally, more detailed baseline information is required for the pre-feasibility study, and an EIA to follow (which identifies and assesses potential impacts and recommends mitigation measures) is required in support of the detailed feasibility study. The EIA process is set out in the EIA Regulations of 2004.

Other	There are several other material risks to this project including product price, competition, regulatory approval, social license, scheduling and other risks typical of projects of similar nature and scale

APPENDIX 2 – SENSITIVITY ANALYSIS

A sensitivity analysis was performed in order to determine the economic robustness of the project. The analysis determined that the project is most sensitive to changes in revenue for both NPV and IRR. A change in revenue could be effected by a variation in any of the following factors, or a combination of these factors:

- In-situ grade
- Plant recovery
- Graphite or Vanadium product pricing

The analysis also considered the individual effects of variability in Graphite or Vanadium product pricing on project sensitivity; the impact in the variation in either of these commodity prices is near identical.

The sensitivity of post-tax NPV is presented in Figure 13 and tabled in Table 13 while the sensitivity of post-tax IRR is presented in Figure 14 and tabled in Table 15. The sensitivity of payback period is presented in Figure 15 and tabled in Table 16.

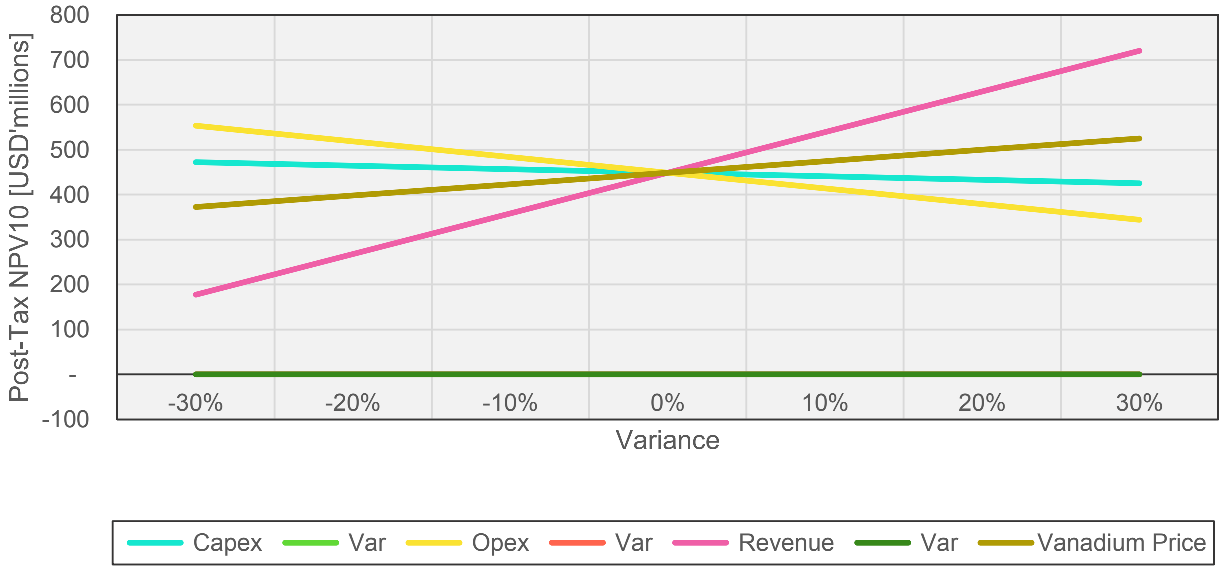

Figure 13. Post Tax NPV(10) Sensitivity

Post-Tax NPV10 Sensitivity									
Var	Capex	Var	Opex	Var	Revenue	Var	Graphite Price	Var	Vanadium Price
-30%	472,269,159	-30%	553,493,228	-30%	177,417,430	-30%	261,988,371	-30%	372,446,055
-20%	464,433,003	-20%	518,582,383	-20%	267,941,087	-20%	324,249,216	-20%	397,887,672
-10%	456,596,847	-10%	483,671,537	-10%	358,355,997	-10%	386,510,061	-10%	423,329,289
0%	448,760,692	0%	448,760,692	0%	448,760,692	0%	448,760,692	0%	448,760,692
10%	440,910,912	10%	413,840,294	10%	539,131,188	10%	510,990,573	10%	474,190,192
20%	433,050,918	20%	378,909,683	20%	629,501,685	20%	573,220,455	20%	499,619,692
30%	425,190,923	30%	343,979,071	30%	719,872,182	30%	635,450,336	30%	525,049,193

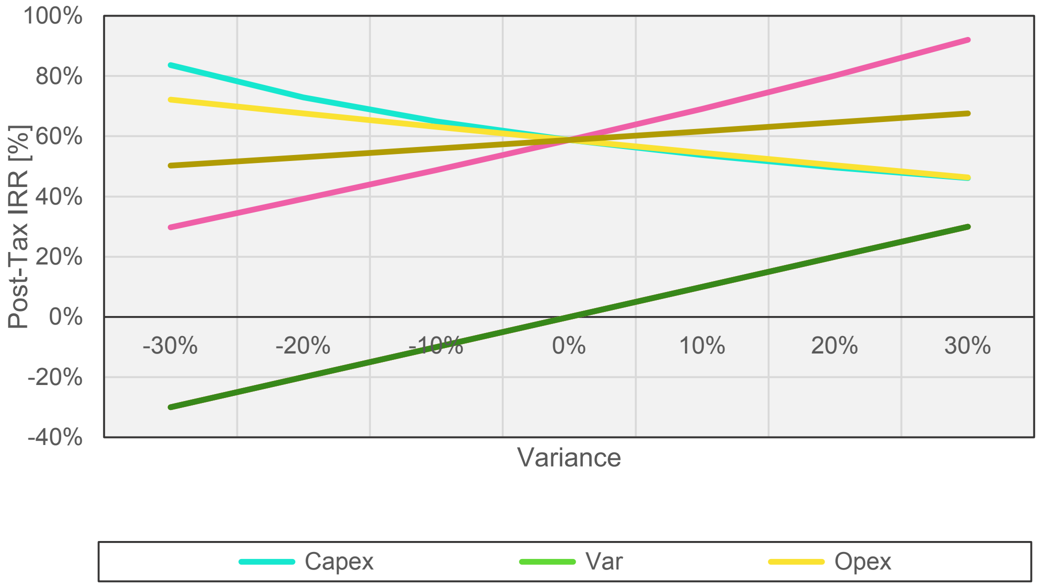

Figure 14. Post Tax IRR Sensitivity

Post-Tax IRR Sensitivity							
Var	**Capex**	**Var**	**Opex**	**Var**	**Revenue**	**Var**	**Vanadium Price**
-30%	84%	-30%	72%	30%	30%	-30%	50%
-20%	73%	-20%	68%	-20%	39%	-20%	53%
-10%	65%	-10%	63%	-10%	49%	-10%	56%
0%	59%	0%	59%	0%	59%	0%	59%
10%	54%	10%	55%	10%	69%	10%	62%
20%	50%	20%	50%	20%	80%	20%	65%
30%	46%	30%	46%	30%	92%	30%	68%

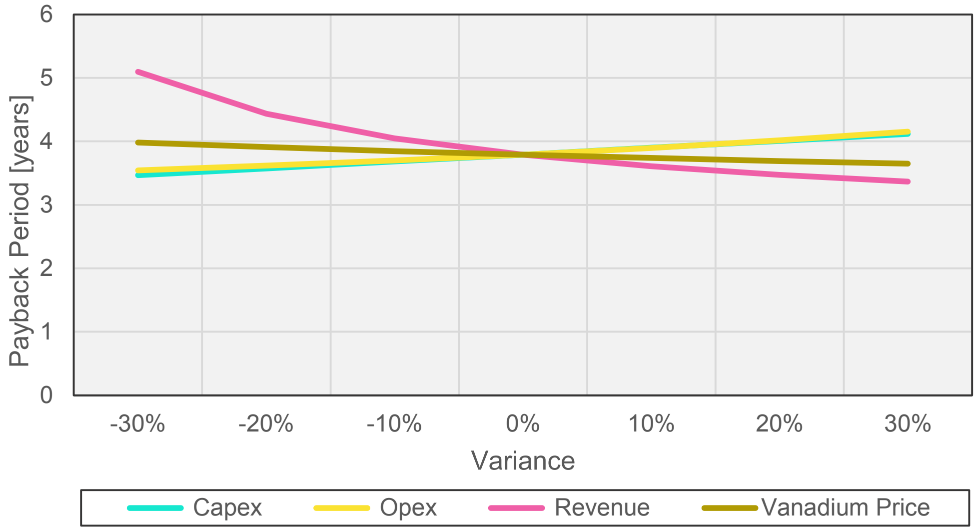

Figure 15. Payback Period Sensitivity

Payback Period Sensitivity							
Var	Capex	Var	Opex	Var	Revenue	Var	Vanadium Price
-30%	3.47	-30%	3.54	-30%	5.10	-30%	3.98
-20%	3.57	-20%	3.62	-20%	4.44	-20%	3.91
-10%	3.68	-10%	3.70	-10%	4.05	-10%	3.85
0%	3.79	0%	3.79	0%	3.79	0%	3.79
10%	3.90	10%	3.89	10%	3.61	10%	3.74
20%	4.01	20%	4.02	20%	3.47	20%	3.69
30%	4.12	30%	4.15	30%	3.37	30%	3.65

APPENDIX 3 – DD DRILLHOLE SUMMARY TABLE

Note – Drillhole coordinates WGS 84 UTM – Zone 37S.

DD drillholes drilled in November/December 2016 – refer to ASX announcement dated 6 November 2017 for additional information pertaining to these five drillholes

Drill Hole	East (m)	North (m)	Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	%TGC
MODD001	485,040	8,563,594	-55	153	65.68	10	14	4	20.98%
						17.4	20.44	3.04	20.56%
						21.44	24.44	3	21.87%
						26.44	35.44	9	14.03%
						38.44	42.44	4	12.44%
						43.44	53.86	10.42	17.58%
						59.44	65.68	6.24	9.34%
MODD002	485057	8563110	-55	43	63.14	19.04	21	1.96	19.58%
						31.64	33.05	1.41	8.43%
						37	43.06	6.06	13.16%
						44.71	46.76	2.05	8.62%
						56.54	58.13	1.59	14.50%
						62.69	63.14	0.45	8.06%
MODD003	484966	8563488	-55	115	158.42	14.85	21.42	6.57m	15.01%
						26.42	28.42	2m	5.52%
						30.63	31.31	0.68m	15.50%
						50.34	53.59	3.25m	13.60%
						63.11	64.42	1.31m	12.70%
						66	66.78	0.78m	6.98%
						68	75.13	7.13m	21.10%
						80.9	90	9.10m	13.53%
						100	114	14m	13.09%
						116	122	6m	8.83%
						122	129	7m	18.15%
						129	137	8m	19.94%
						137	144	7m	13.76%
						144	146	2m	1.99%
						146	158	12.42m	19.53%
MODD004	484949	8563339	-60	91	97.04	17	20.54	3.54m	8.55%
						21.22	22	0.82m	7.98%
						22.89	24	1.15m	13.60%
						25.32	27	1.22m	10.30%
						27.39	28	0.65m	9.16%
						28.61	30	0.93m	6.89%
						30.05	32.54	2.35m	11.35%
						32.91	37.04	3.93m	17.08%
						37.32	39	1.68m	2.73%
						39	43	4m	12.50%

						43	45	2m	3.30%
						45	49	4m	17.52%
						56.54	59.54	3m	6.26%
						61.57	68.54	6.97m	17.69%
						70.42	79	8.58m	18.08%
						79	93.2	14.2m	10.98%
						93.2	97.04	3.84m	1.47%
MODD005	484992	8563210	-57	56	100.44	13.35	20.44	7.09m	18.70%
						24.08	27	2.92m	10.25%
						30.97	33	2.03m	9.82%
						37.46	38.6	1.14m	6.89%
						43.87	49.58	5.71m	7.89%
						50.44	51.66	1.22m	13.4%
						54.3	60	5.7m	5.82%
						60	64	4m	18.85%
						64	69	5m	6.19%
						71	84	13m	9.10%
						84	92	8m	7.46%
						92	100.44	8.44m	16.32%

DD drillholes drilled in November/December 2017– refer to ASX announcement dated 20 July 2018 and 24 July 2018 for additional information pertaining to these 11 drillholes

Hole ID	**WGS 84 UTM Zone 37s**		**EOH Depth (m)**	**Dip**	**Azimuth**	**From (m)**	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	**Northing**								
MOD D014	485052	8563473	143	53.42	104.55	17	39	22	16.2	0.31
						39	45	6	7.0	0.23
						45	55	10	17.6	0.35
						55	58	3	1.4	0.06
						58	63	5	17.6	0.47
						63	68	5	Gneiss	Gneiss
						68	104	36	16.5	0.60
						104	110	6	0.1	0.37
						110	118	8	11.0	0.48
						118	124	6	17.3	0.49
						124	137	13	11.6	0.32
						137	143	6	19.8	0.41

Hole ID	WGS 84 UTM - Zone 37s		EOH Depth (m)	Dip	Azimuth	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MOD D015	485057	8563362	118	54.26	84.99	17	31	14	16.7	0.36
						31	34	3	Gneis	Gneiss

									s	
						34	37	3	0.1	0.02
						37	89	52	9.2	0.25
						89	95	6	3.7	0.07
						95	110	15	7.6	0.13
						110	118	8	Gneis s	Gneiss

Hole ID	WGS 84 UTM - Zone 37s		EOH Depth (m)	Dip	Azimuth	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MOD D016	485107	8563261	80	54.46	70.90	20	24	4	11.2	0.24
						24	35	11	1.7	0.15
						35	49	14	8.6	0.26
						49	51	2	0.2	0.06

Hole ID	WGS 84 UTM - Zone 37s		EOH Depth (m)	Dip	Azimuth	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MODD017	485158	8563180	131	53.71	67.48	14	20	6	17.0	0.31
						20	23	3	6.1	0.23
						23	26	3	0.3	0.35
						26	38	12	Gneiss	Gneiss
						38	39.49	1.49	8.4	0.31
						39.49	47.66	8.17	Gneiss	Gneiss
						47.66	48.23	0.57	19.8	0.37
						48.23	50	1.77	Gneiss	Gneiss
						50	53	3	11.1	0.16
						53	56	3	13.5	0.33
						56	64	8	13.0	0.30
						64	70	6	1.8	0.08
						70	75	5	5.9	0.14
						75	78	3	0.2	0.02
						78	84	6	9.5	0.34
						84	94	10	6.4	0.10
						94	97	3	0.8	0.10
						97	107	10	7.1	0.15
						107	115	8	14.2	0.40
						115	121	6	8.2	0.23
						121	125	4	14.8	0.33

						125	131.1	6.1	7.7	0.13

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuh	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MOD D018	485114	8563455	55	80	217.8 9	6	19	13	15.47	0.29
						19	20	1	1.29	0.28
						20	25	5	16.62	0.52
						25	28	3	5.78	0.48
						28	30	2	26.65	36.79
						30	34	4	0.92	0.10
						34	37	3	19.73	0.29
						37	44	7	2.87	0.12
						44	63	19	20.22	0.42
						63	64	1	3.95	0.25
						64	78	14	14.06	0.49
						78	79	1	1.93	0.11
						79	84	5	23.98	0.33
						84	86	2	8.31	0.26
						86	92	6	20.87	0.70
						92	99	7	9.07	0.32
						99	112	13	18.00	0.38
						112	142	30	0.05	0.01
						142	165	23	15.97	0.49
						165	188	23	4.19	0.42
						188	220.89	32.89	16.14	0.78

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MODD 019	485152	8563372	55	73	127.96	6.9	18	11.1	10.45	0.27
						18	19	1	0.24	0.09
						19	23	4	8.38	0.30
						23	25	2	1.29	0.19
						25	30	5	14.36	0.40
						30	32	2	2.35	0.23
						32	34	2	9.25	0.33
						34	39	5	4.14	0.15
						39	45	6	10.24	0.41
						45	82	37	7.87	0.27
						82	89	7	19.17	0.53
						89	95	6	4.07	0.12
						95	99	4	15.10	0.41
						99	100	1	0.06	0.02

						100	105	5	8.97	0.21
						105	108	3	15.53	0.43
						108	109	1	3.27	0.12
						109	123	14	15.27	0.41
						123	127.96	4.96	3.86	0.13

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MODD020	485212	8563291	55	62	125.29	48	51	3	1.25	0.09
						51	57	6	15.77	0.35
						57	63	6	5.40	0.16
						63	95	32	9.83	0.24
						95	98	3	1.26	0.03
						98	114	16	10.57	0.18
						114	118	4	1.14	0.03
						118	123	5	15.42	0.43
						123	125	2	0.05	0.02

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MODD022	485181	8563465	55	55	161.29	22	23	1	14.21	0.40
						23	24	1	0.05	0.09
						24	34	10	16.43	0.32
						34	38	4	1.77	0.21
						38	41	3	14.08	0.60
						41	42	1	1.67	0.51
						42	66	24	15.52	0.41
						66	67	1	2.83	0.16
						67	78	11	15.92	0.43
						78	79	1	5.09	0.08
						79	93	14	15.90	0.40
						93	94	1	0.41	0.02
						94	110	16	16.17	0.38
						110	116	6	6.02	0.22
						116	132	16	9.71	0.26
						132	133	1	0.21	0.03

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								

MODD030	485029	8563297	55	93	95.54	7	20	13	14.16	0.33
						20	21	1	3.88	0.42
						21	25	4	12.26	0.25
						25	27	2	2.58	0.12
						27	35	8	13.30	0.31
						35	42	7	3.44	0.27
						42	49	7	12.03	0.34
						49	51	2	4.41	0.22
						51	57	6	15.77	0.29
						57	60	3	3.64	0.33
						60	61	1	19.30	0.35
						61	62	1	5.09	0.14
						62	65	3	12.27	0.30
						65	95.54	30.54	3.09	0.09

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V_2O_5 %
	Easting	Northing								
MODD031	485001	8563422	55	79	131.24	15.44	23	7.56	9.98	0.27
						23	30	7	17.49	0.42
						30	31	1	1.23	0.63
						31	33	2	18.25	0.40
						33	36	3	6.37	0.09
						36	48	12	22.67	0.35
						48	49	1	2.37	0.06
						49	51	2	17.25	0.27
						51	56	5	6.14	0.18
						56	90	34	16.51	0.41
						90	94	4	0.30	0.02
						94	100	6	12.96	0.37
						100	101	1	0.69	0.03
						101	121	20	7.89	0.17
						121	124	3	2.48	0.09
						124	131.24	7.24	12.53	0.30

Hole ID	WGS 84 UTM - Zone 37s		Dip	Azimuth	EOH Depth (m)	From (m)	To (m)	Interval (m)	Average TGC %	Average V2O5 %
	Easting	Northing								

MODD032	485085	8563199	55	63	87.59	6	7	1	0.43	0.19
						7	23	16	15.06	0.28
						23	25	2	3.54	0.19
						25	63	38	12.00	0.26
						63	69	6	3.71	0.17
						69	71	2	17.15	0.70
						71	73	2	0.96	0.04

JORC CODE, 2012 EDITION – TABLE 1

Appendix to Announcement – 10 October 2018

New Energy 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 relevant market announcement continue to apply and have not materially changed. New Energy 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 announcement.

Section 1: Sampling techniques and data.

Criteria	JORC Code Explanation	NXE 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	• • 2015 Field Program • Samples have been taken from a Reverse Circulation (RC) drill hole (MORC004) which was drilled by Mitchell Drilling, an Australian company with a regional presence in Mozambique. Reverse circulation drilling was used to collect 1m samples (roughly 35kg) by an air cyclone which was reduced to a 3kg sample by riffling. The drillhole collar location was generated based on results from a recently flown airborne SkyTEM EM survey (refer to previous MUS ASX announcements).

Criteria	JORC Code Explanation	NXE Commentary
	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.	• A total of 77 intervals from RC drillhole MORC-004 were selected for sampling. • Drillhole intervals were selected for sampling based on geological logging and samples showing no clear evidence of graphite mineralisation have been excluded (except 1m into barren zones) from the analysis completed by SGS Randfontein, an accredited laboratory. • The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a Leco Furnace, and the remaining split held in storage. • • 2016 Field Program • Five cored boreholes were drilled as part of the 2016 field program for the Caula deposit. The diamond drilling (DD) was completed using a Boart Longyear LF 90 drill-rig and the core was recovered with HQ (III) equipment. The contractor used for the 2016 drill program is Major Drilling Group International, a Canadian-based operation with a local presence in Mozambique. • Drillhole collar locations were generated based on results from a flown airborne SkyTEM EM survey which was completed during 2015 (refer to previous MUS ASX announcements). • Sampling is of HQ (III) DD core. A total of 298m of mineralisation were sampled over five DD boreholes. One DD hole (MOD004) have been twinned with an existing RC hole (MORC004) for lithology and grade verification. • The core is photographed in sequence as the core is packed into the core trays at the drill site. • The recovered DD core is cut lengthwise with a core splitting saw to produce 1m samples. Where lithological boundaries did not fit the 1m geometry or at end of hole sampling, the sample length was to be a minimum of 0.42m or a maximum of 1.68m. • Core is halved for normal analyses. In the case of duplicate analyses (1 in 20), the core is quartered. In total 933kg of sample (Including duplicates) was taken over 296 samples for chemical analyses. • The remaining core is halved in the mineralised zones to provide a quartered sample for metallurgical analysis. In total 334kg of sample over 296 samples was taken for metallurgical testwork. • The remaining quarters and halves are retained in stratigraphic sequence in the core trays. The remaining core has been photographed, and the trays wrapped in cling-film, before it

Criteria	JORC Code Explanation	NXE Commentary
		was put in container storage on site at the New Energy Minerals camp outside Montepuez. • Samples were submitted for LECO analyses. Mineralised zone core as well as 1m boundaries into non-mineralised zone core were submitted for analysis. • Initial metallurgical analysis and flow-sheet testwork was performed on 2 composited samples. The sampling was split between the oxidised and fresh mineralised zones. • • • 2017 Field Program • Eleven cored boreholes were drilled as part of the 2017 field program for the Caula deposit. The diamond drilling (DD) was completed using Boart Longyear LF 90 drill-rigs and the core was recovered with PQ (III) and HQ (III) equipment. The contractor used for the 2017 drill program is Major Drilling Group International, a Canadian based operation with a local presence in Mozambique. • Drillhole collar locations were generated based on results from a flown airborne SkyTEM EM survey which was completed during 2015 (refer to previous MUS ASX announcements), and from the 2016 core drilling program. • Sampling is of PQ (III) and HQ (III) DD core.. Sampling has been completed and the results have been reported on. • The core is photographed in sequence as the core is packed into the core trays at the drill site. • The recovered DD core is cut lengthwise with a core splitting saw to produce 1 m samples. Where lithological boundaries did not fit the 1m geometry or at end of hole sampling, the sample length was to be a minimum of 0.50m or a maximum of 2.00m. • Core is halved for normal analyses. In the case of duplicate analyses (1 in 20), the core is quartered. • The remaining core is halved in the mineralised zones to provide a quartered sample for metallurgical analysis. • The remaining quarters and halves are retained in stratigraphic sequence in the core trays. The remaining core has been photographed, and the trays wrapped in cling-film, before it is put in container storage on site at the New Energy Minerals camp outside Montepuez. • Samples were submitted for LECO and XRF major element analyses. Mineralised zone core as well as 1 m boundaries into non-mineralised zone core were submitted for analysis.

Criteria	JORC Code Explanation	NXE Commentary
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).	2015 Field Program Reverse circulation drilling was used to drill a 5.5 inch diameter borehole (MORC004). RC drill chips were collected by an air cyclone at 1m intervals for logging and sampling. Approximately 35kg per metre was collected by an air cyclone which was reduced to a 4kg sample by riffling. Reflex Ezy shot tools were used to take down-hole survey measurements to record drillhole azimuth and dip. 2016 Field Program The core drilling was completed with a Boart Longyear LF-90 drilling rig. The drilling equipment was HQ (III) sized. Drilling was planned to be as close to perpendicular as possible to strike, and as close as possible to true width intersections. The borehole dip and azimuth was surveyed at 3m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. The maximum deviation from the planned azimuth was measured at 6o in MODD003. The maximum deviation from the planned dip was measured at 5o in MODD004. Final borehole collar positions were surveyed with a handheld GPS survey instrument, and the collar elevations were projected from the DEM as generated during the SkyTEM survey in 2015. The core was oriented with a Reflex Tool. 2017 Field Program The core drilling was completed with Boart Longyear LF-90 drilling rigs. The drilling equipment was PQ (III) and HQ (III) sized. Drilling was planned to be as close to perpendicular as possible to strike, and as close as possible to true width intersections. The borehole dip and azimuth was surveyed at 3 m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. Final borehole collar positions were surveyed with a handheld GPS survey instrument, and the collar elevations were projected from the DEM as generated during the SkyTEM survey in 2015. The core was oriented with a Reflex Tool.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure	2015 Field Program The condition and qualitative estimates of RC sample recovery for MORC004 were determined through visual inspection of the 1m sample bags and recorded at the time of sampling. A hard copy and digital copy of the sampling log are maintained for data verification.

Criteria	JORC Code Explanation	NXE Commentary
	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.	Recovery has been good with 35kg + being returned per metre drilled. Due to the early stage of exploration work for the Caula project, no relationship between sample recovery and grade is known to exist at this point. 2016 Field Program The condition and qualitative estimates of DD sample recovery were determined through visual inspection and measurement of the drilling core runs and recorded at the time of recovery at the drill rig. A hard copy and digital copy of the sampling log are maintained for data verification. • Core recovery measurements are recorded for every borehole. • Where recoveries were found to be less than 95%, the drill runs were shortened to 1m, and drilling speed lowered to improve recovery. • In some instances, in the oxidised zone (faulting, jointing and severe oxidation), core losses were unavoidable. These losses are recorded, and have been zero rated in terms of grade for the modelling of the Caula graphite resource. The average core recovery for the oxidised zone is 83.1%. • Recoveries in the fresh zone were very good at an average of 98.8%. 2017 Field Program The condition and qualitative estimates of DD sample recovery were determined through visual inspection and measurement of the drilling core runs and recorded at the time of recovery at the drill-rig. A hard copy and digital copy of the sampling log are maintained for data verification. • Core recovery measurements are recorded for every borehole. • Where recoveries were found to be less than 95%, the drill runs were shortened to 1 m, and drilling speed lowered to improve recovery. • In some instances, in the oxidised zone (faulting, jointing and severe oxidation), core losses were unavoidable. These losses are recorded, and have been zero rated in terms of grade for the modelling of the Caula graphite resource. The average core recovery for the oxidized zone is 87 %. • Recoveries in the fresh zone were very good at an average of 98%.

Criteria	JORC Code Explanation	NXE Commentary
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.	<u>2015 Field Program</u> RC drill-chip samples were geologically logged by trained geologists. The drillhole (MORC004) is considered by the Company to be part of a maiden drill program aimed at identifying shallow graphite mineralisation. Then Mustang, now New Energy Minerals used the results from this maiden program to prioritise target areas, which then become the focus of the 2016 drillhole definition programs. Whilst the aim of this maiden drill program was not to produce a Mineral Resource estimate MORC004 was used for resource estimation purposes in this resource estimate. Logging of RC drill holes includes recording of lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RC Chip trays are photographed. Geological descriptions and estimates of visual graphite percentages on preliminary logs are semi-quantitative. All drillholes were logged in full. <u>2016 Field Program</u> • All holes drilled were logged in full and sampled by the site geologists. • All the logged information which includes depth, lithology, mineral assemblage, structural information, Cg mineralisation (laboratory data), collar survey and logging geologists are recorded in the field logging sheets and in digital format. • The recovered core is recorded in sequence as digital photographs. • The analytical samples were shipped by road to the SGS Randfontein laboratory in South Africa for analysis. The analyses were completed by SGS Randfontein, and have been used to estimate the grade of the Caula deposit in this CPR. • Umpire samples have been identified and were dispatched to Bureau Veritas in Centurion. These analyses have been completed and are included in the CPR. • The samples for metallurgy testwork were dispatched via South Africa to SGS Malaga in Perth, Australia. The testwork has been completed and these results have been included in this CPR. • The remaining core is in storage at the New Energy Minerals Exploration Camp near Montepuez in Mozambique. The remaining core is also recorded in sequence in digital photograph format.

Criteria	JORC Code Explanation	NXE Commentary
		2017 Field Program • All holes drilled were logged in full and sampled by the site geologists. • All the logged information which includes depth, lithology, mineral assemblage, structural information, Cg mineralisation (laboratory data), collar survey and logging geologists are recorded in the field logging sheets and in digital format. • The recovered core is recorded in sequence as digital photographs. • The analytical samples are to be shipped by road to the SGS Randfontein laboratory in South Africa for analysis. The analyses are to be completed by SGS Randfontein, and will be used to enhance the initial estimate of the grade of the Caula deposit in the next CPR update. • Umpire samples have been identified and were dispatched to Bureau Veritas in Centurion. • The samples for metallurgy testwork have been submitted for test to Nagrom in Perth, Australia. . • The remaining core is in storage at the New Energy Minerals Exploration Camp near Montepuez in Mozambique. The remaining core is also recorded in sequence in digital photograph format.
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	2015 Field Program RC samples were collected on the rig using riffle splitters to reduce the sample mass from 35kg to 4kg. Sample preparation of the RC chip samples follows industry best practice in sample preparation involving oven drying (105ºC), split (300g) and pulverising to a grind size of 85% passing 75 micron. The sample preparation for RC samples follows industry best practice. Field QC procedures were adopted as follows: • Insertion rate for blanks - 5% (1 in 20) • Insertion rate for standards - 5% (1 in 20) • Insertion rate for duplicates - 5% (1 in 20) • Umpire duplicates - 5% (1 in 20) Two CRM (GGC004 and GGC009) were obtained from Geostats Pty Ltd to monitor analysis of laboratory for graphitic carbon, carbon and sulphur. 1m RC composite sampling has been undertaken for this phase of the exploration program.

Criteria	JORC Code Explanation	NXE Commentary
	representitivity 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.	<u>2016 Field Program</u> The majority of samples were moist (from the DD process) at recovery, with ambient temperatures sufficiently high to dry the oxidised core before the commencement of sampling. Field QC procedures were adopted as follows over and above the laboratory internal controls: • Insertion rate for blanks – at least 5% (1 in 20) • Insertion rate for standards – at least 5% (1 in 20) • Insertion rate for duplicates – at least 5% (1 in 20) • Umpire duplicates – at least 5% (1 in 20) Four Graphite standards (GGC008, GGC005, GGC003 and GGC002) were obtained from Geostats Pty Ltd to monitor analysis by the laboratory for graphitic carbon, carbon and sulphur. As far as possible 1m DD composite sampling has been undertaken for this phase of the exploration program. • The core is split by saw and half core is submitted for analyses generally as 1m samples. When a duplicate sample is submitted, the core is quartered. • Mineralised samples are submitted for LECO analyses as well as for ICP Multi-element analyses. • Within the total samples dispatched a random sequence of at least 5% each of standards, blanks and duplicates are included. • Sample preparation is done by SGS in Johannesburg, before the prepared samples are analysed for content determination. • Sampling procedure include drying, crushing, splitting and pulverizing ensures that 85% of the sample is 75 micron or less in size. A split of the sample is analysed using a LECO analyser to determine carbon in graphite content. • The sample procedure standards followed are internal to SGS and are listed below: • WGH 79 (Receive Sample Weight), SCR 32 (Sample Screening), CSA01V (Total Carbon by LECO), CSA05V (Graphitic Carbon by LECO), CSA06V (Sulphur by LECO). • QC measures include the submission of duplicate samples (5% of samples), blanks (5% of samples) and standards (5% of samples) over and above the internal controls at SGS. • The smallest core sample dimension after cutting is 29mm. The largest category flake size is > 8 mesh or 2.38mm. The sample size exceeds the target material size comfortably.

Criteria	JORC Code Explanation	NXE Commentary
		• The metallurgical samples consist of quartered core, sampled and bagged generally per metre. • Sampling for metallurgical testing is complete, and included; Receipt of graphite samples, Formation of composites, Bond rod mill grindability, Head assay, Particle size distribution (PSD) and fraction assay on head samples, Rougher flotation, Rougher and multiple re-grind and cleaner flotation, Final concentrate PSD and fraction assays. • The metallurgical composites were batched by the laboratory metallurgists once the results from the initial laboratory work at SGS Randfontein had been received. <u>2017 Field Program</u> The majority of samples were moist (from the DD process) at recovery, with ambient temperatures sufficiently high to dry the oxidised core before the commencement of sampling. Field QC procedures were adopted as follows over and above the laboratory internal controls: • Insertion rate for blanks – at least 5% (1 in 20) • Insertion rate for standards – at least 5% (1 in 20) • Insertion rate for duplicates – at least 5% (1 in 20) • Umpire duplicates – at least 5% (1 in 20) • Four Graphite standards (GGC008, GGC005, GGC003 and GGC002) were obtained from Geostats Pty Ltd to monitor analysis by the laboratory for graphitic carbon, carbon and sulphur. As far as possible 1m DD composite sampling has been undertaken for this phase of the exploration program. • The core is split by saw and half core is submitted for analyses generally as 1 m samples. When a duplicate sample is submitted, the core is quartered. • Mineralised samples are submitted for LECO analyses as well as for ICP Multi-element analyses. • Within the total samples dispatched a random sequence of at least 5% each of standards, blanks and duplicates are included. • Sample preparation is done by SGS in Johannesburg, before the prepared samples are analysed for content determination. • Sampling procedure include drying, crushing, splitting and pulverizing ensures that 85% of the sample is 75 micron or

Criteria	JORC Code Explanation	NXE Commentary
		less in size. A split of the sample is analysed using a LECO analyser to determine carbon in graphite content. • The sample procedure standards followed are internal to SGS and are listed below: • WGH 79 (Receive Sample Weight), SCR 32 (Sample Screening), CSA01V (Total Carbon by LECO), CSA05V (Graphitic Carbon by LECO), CSA06V (Sulphur by LECO). • QC measures include the submission of duplicate samples (5% of samples), blanks (5% of samples) and standards (5% of samples) over and above the internal controls at SGS. • The smallest core sample dimension after cutting is 29mm. The largest category flake size is > 8 mesh or 2.38mm. The sample size exceeds the target material size comfortably. • The metallurgical samples consist of quartered core, sampled and bagged generally per metre. • Sampling for metallurgical testing is complete, and included; Receipt of graphite samples, Formation of composites, Bond rod mill grindability, Head assay, Particle size distribution (PSD) and fraction assay on head samples, Rougher flotation, Rougher and multiple re-grind and cleaner flotation, Final concentrate PSD and fraction assays. The metallurgical composites will be batched by the laboratory metallurgists once the results from the initial laboratory work at SGS Randfontein had been received. Metallurigcal work has been completed on some of the samples which was announced to the ASX on 25/06/2018 as more results become available, it will be released to the market.
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	• 2015 Field Program • A total 77 samples were analysed by SGS Laboratories in South Africa for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a Leco Furnace. • Detection limits for these analyses are considered appropriate for the reported assay grades and adequate for this phase of the exploration program. • No geophysical tools were used to determine any element concentrations. • The assaying and laboratory procedures used are appropriate for the material tested. • SGS carried out sample preparation checks for fineness as part of their internal procedures to ensure the grind size of 85% passing 75 microns were being attained. Laboratory

Criteria	JORC Code Explanation	NXE Commentary
	instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	QAQC involves the use of internal lab standards using certified reference material, blanks, and repeats as part of their in-house procedures. • • 2016 Field Program • All samples are labelled with a unique sequential number with a sample ledger recording all samples. • QA/QC samples are included in a random sequence at a frequency of at least 5% each for standards, blanks and duplicates. • The laboratory uses internal standards in addition to the standards, blanks and duplicates inserted by New Energy Minerals. • The standards are supplied by an external and independent third party. Four standards were used for the laboratory testwork; GGC-08 and GGC-05, GGC-03 and GGC-02. • The blanks are made up from non- graphitic rock. The duplicates are a quartered sample of the original halved cores. The umpire samples were selected from the prepared pulps of initial samples. • The detection limits are deemed sufficient for the purpose of the Caula Mineral Resource estimation. • The samples were analysed by SGS, with sample preparation done at the Randfontein laboratory in Johannesburg. Sampling procedures are listed above and includes drying, crushing, splitting and pulverizing such that 85% of the sample is 75 micron or less in size. A split of the sample will be analysed using a LECO analyser to determine carbon in graphite carbon content. • Laboratory testwork was completed during the first quarter of 2017, and the Metallurgy testwork followed on in the second quarter of 2017. • 2017 Field Program • All samples are labelled with a unique sequential number with a sample ledger recording all samples. • QA/QC samples are included in a random sequence at a frequency of at least 5% each for standards, blanks and duplicates. • The laboratory uses internal standards in addition to the standards, blanks and duplicates inserted by Mustang. • The standards are supplied by an external and independent third party. Four standards were used for the laboratory testwork; GGC-08 and GGC-05, GGC-03 and GGC-02.

Criteria	JORC Code Explanation	NXE Commentary
		• The blanks are made up from non- graphitic rock. The duplicates are a quartered sample of the original halved cores. The umpire samples were selected from the prepared pulps of initial samples. • The detection limits are deemed sufficient for the purpose of the Caula Mineral Resource estimation. • The samples were analysed by SGS, with sample preparation done at the Randfontein laboratory in Johannesburg. Sampling procedures are listed above and includes drying, crushing, splitting and pulverising such that 85% of the sample is 75 micron or less in size. A split of the sample will be analysed using a LECO analyser to determine carbon in graphite carbon content. A second split was submitted for XRF major element analysis (to get the v2O5%) • Laboratory testwork was completed during the first quarter of 2018, and the Metallurgy testwork has followed. Metallurigcal work has been completed on some of the samples which was announced to the ASX on 25/06/2018 as more results become available, it will be released to the market.
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, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	<u>2015 Field Program</u> Mr. Johan Erasmus, an independent geologist, visually verified the geological observations reported in the RC drillhole (MORC004). No twin holes have been drilled up to the end of the 2015 program. Sample information is recorded at the time of sampling in electronic and hard copy form. Data is documented by Mr. Johan Erasmus and primary data is kept in a Microsoft Access database. A copy of the data is stored in Mr. Erasmus' office as well as in New Energy Minerals' office in Pretoria, RSA. Verification was based on the use of duplicates, standards and blanks. Assay data was reported as received from the laboratory. No adjustments or calibrations have been made to any assay data. The laboratory data from borehole MORC004 was included in the resource estimation for the Caula graphite project. <u>2016 Field Program</u> • The Exploration Manager and field geologists are in the employment of New Energy Minerals, and external oversight is established with the contracting of Sumsare Consulting, a South-African consulting company. Sumsare is supplying an external Competent Person.

Criteria	JORC Code Explanation	NXE Commentary
		• The twinning of RC boreholes was done by DD in 1 instance as a correlation exercise. MODD004 was drilled as a duplicate for MORC004. A comparison of the analytical data obtained from these twinned holes was completed and statistically these samples were found to be sets from the same population (95% confidence). • The primary data is kept in the company office in Pretoria under the custodianship of the Exploration Manager. The CP has a duplicate dataset at his office in South Africa, and the company has a data set in the Australian office. • Assay data is not adjusted, and is released to the market as it is received from the laboratory. 2017 Field Program • The Exploration Manager and field geologists are in the employment of New Energy Minerals, and external oversight is established with the contracting of Sumsare Consulting, a South-African consulting company. Sumsare is supplying an external Competent Person. • The primary data is kept in the company office in Pretoria under the custodianship of the Exploration Manager. The CP has a duplicate dataset at his office in South-Africa, and the company has a dataset in the Australian office. • Assay data is not adjusted, and is released to the market as it is received from the laboratory.
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.	2015 Field Program Collar locations were surveyed with a Garmin 62/64s GPS Device. The Garmin devices typically have an error of +/- 7m. All spatial data was collected in WGS 84 and the datum used is UTM Zone 37 South. A DEM surface was produced by SkyTEM as part of the recent (2015) airborne geophysics program completed by New Energy Minerals. 2016 Field Program A hand-held Garmin 62/64s GPS was used to site the drill holes (x, y horizontal error of 7 metres) and reported using WGS 84 grid and UTM datum zone 37 south. • Topographic control is good due to the SkyTEM survey that was completed during 2015. A DEM surface was

Criteria	JORC Code Explanation	NXE Commentary
		produced by SkyTEM as part of the EM geophysics program. • The borehole dip and azimuth was surveyed at 3 m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. • Final borehole collar positions are to be surveyed with a differential GPS survey instrument, by an independent external surveyor. • The core was oriented with a Reflex Tool. • 2017 Field Program • A hand-held Garmin 62/64s GPS was used to site the drill holes (x, y horizontal error of 7 metres) and reported using WGS 84 grid and UTM datum zone 37 south. • Topographic control is good due to the SkyTEM survey that was completed during 2015. A DEM surface was produced by SkyTEM as part of the EM geophysics program. • The borehole dip and azimuth was surveyed at 3 m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. • Final borehole collar positions were surveyed with a differential GPS survey instrument, by an independent external surveyor. • The core was oriented with a Reflex Tool.
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.	2015 Field Program MORC004 was drilled at an inclination of on average at -77 degrees. Due to the early stage of the exploration program, there is no nominal sample spacing. This borehole has been included in the 2017 resource estimation for the Caula project, since additional drilling was completed during 2016. Drillhole collars have been planned to test EM anomalies. Samples have been composited to a maximum of one metre for the RC samples. 2016 Field Program • The spacing of the five DD drillholes was at a grid of approximately 133m. • All five of the DD drillholes were inclined on average at between -55o to 60o. The collar details are tabulated in Appendix 1.

Criteria	JORC Code Explanation	NXE Commentary
		• Sample compositing for the DD program has not been applied. 2017 Field Program • The spacing of the eleven DD drillholes was at a grid of approximately 133m. • All eleven of the DD drillholes were inclined on average at between -55o to 60o. The collar details are tabulated in Appendix 1. Sample compositing for the DD program has not been applied.
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.	2015 Field Program The orientation of the RC holes was designed based on regional geology interpretations and designed to test the broad stratigraphy. The collar details are tabulated in Appendix 1. No sampling bias is considered to have been introduced at this early stage of the project. 2016 Field Program • The orientation of the DD holes was planned based on the regional geology interpretation and planned to test the broad stratigraphy. The collar details are tabulated in Appendix 1. • No sampling bias is considered to have been introduced at this early stage of the project. • From the previous surface mapping of the area, the regional foliation dips at steep angles of between 50 and 70 degrees to the west. • The drilling was hence planned at an inclined orientation of 55o from the horizontal in an easterly direction across strike. From prior experience, drilling at angles shallower than 55o is usually problematic. The SkyTEM EM data was used to fix a strike direction. • The borehole dip and azimuth was surveyed at 3m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. • Final borehole collar positions were surveyed with a differential GPS survey instrument, by an independent external surveyor. • The core was oriented with a Reflex Tool. • The structural analysis shows a regional foliation dip at an average of 59o. So far, an association between structure and Cg grade has not been established, but hinge zones are suspected to improve Cg grades, and potentially flake sizes.

Criteria	JORC Code Explanation	NXE Commentary
		<u>2017 Field Program</u> • The orientation of the DD holes was planned based on the regional geology interpretation and planned to test the broad stratigraphy. The collar details are tabulated in Appendix 1. • No sampling bias is considered to have been introduced at this stage of the project. • From the previous surface mapping of the area, the regional foliation dips at steep angles of between 50 and 70 degrees to the west. • The drilling is hence planned at an inclined orientation of 55o from the horizontal in an easterly direction across strike. From prior experience, drilling at angles shallower than 55o is usually problematic. The SkyTEM EM data was used to fix a strike direction. • The borehole dip and azimuth was surveyed at 3m intervals from the bottom of the borehole with a Reflex EZ-Trac tool. • Final borehole collar positions were surveyed with a differential GPS survey instrument, by an independent external surveyor. • The core is oriented with a Reflex Tool.
Sample security	• The measures taken to ensure sample security.	<u>2015 Field Program</u> • Samples were stored at the company's field base in a locked and sealed shipping container until it was dispatched to the laboratory in Johannesburg. • Samples were transported in sealed containers by road to South Africa for analysis. The sample export procedure as required by the Mozambican government was followed, and the samples were delivered to SGS in Johannesburg for analysis. • No signs of tampering were reported by the laboratory upon sample receipt. <u>2016 Field Program</u> • Samples were stored at the company's field base until dispatched to the laboratory. Samples were transported in sealed containers by road, to South Africa for analysis. • The sample export procedure as required by the Mozambican government was followed, and the

Criteria	JORC Code Explanation	NXE Commentary
		samples were delivered to SGS in Johannesburg for analysis. • The sample logistics between Mozambique and South Africa are handled in-house by New Energy Minerals. • No signs of tampering were reported by the laboratory upon sample receipt. • The samples for metallurgical testwork were shipped via South Africa to SGS Malaga in Perth. • The sample export procedure as required by the Australian government was followed, and the samples were delivered to SGS Malaga in Perth for analysis. • No signs of tampering were reported by the laboratory upon sample receipt. • The remaining core is kept in a safe facility under guard at the site office in Montepuez in Mozambique. • 2017 Field Program • Samples are stored at the company's field base until dispatched to the laboratory. Samples are transported in sealed containers by road to South Africa for analysis. • The sample export procedure as required by the Mozambican government is followed, and the samples are delivered to SGS in Johannesburg for analysis. • The samples for metallurgical testwork were shipped via South Africa to Nagrom in Perth • The sample logistics between Mozambique and South-Africa are handled in-house by New Energy Minerals. • The remaining core is kept in a safe facility under guard at the site office in Montepuez in Mozambique.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No external audits have been undertaken up to this stage of work.

Section 2: Reporting of exploration results

Criteria	Explanation	NXE 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.	New Energy Minerals's Caula Graphite Project area consists of one prospecting & exploration licence 6678L covering a total area of 3 185.76ha. The Licence is held in the name of Tchaumba Minerais S.A. New Energy Minerals Resources holds an 80% interest in Tchaumba Minerais S.A. via its wholly owned subsidiaries Balama Resources Pty Ltd (Australia) and Mustang Graphite Lda.. Refer to ASX announcement dated 20 October 2014 for full details regarding ownership and earn-in rights. All statutory requirements were acquired prior to exploration work. All licences have been awarded and issued The Company is not aware of any impediments relating to the licence or the area.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	No prior exploration work done by other parties on the licence areas except for the 1:250,000 geological maps generated by the Government of Mozambique and country wide airborne magnetics and radiometric geophysical surveys flown over the region by the Government of Mozambique.
Geology	• Deposit type, geological setting and style of mineralisation.	The area is predominantly underlain by Proterozoic rocks that form a number of gneiss complexes that range from Palaeo to Neoproterozoic in age (Boyd et al., 20 10). The Caula project area is underlain by metamorphic rocks of the Neoproterozoic Lurio Group within the Xixano Complex (Brice, 2012) in north-eastern Mozambique. The Xixano complex is composed dominantly of mafic to intermediate orthogneiss with intercalations of paragneiss, meta-arkose, quartzite, tremolite-rich marble and graphitic schist. Graphite rich units are comprised of sequences of metamorphosed carbonaceous pelitic and psammitic (sandstone) sediments within the Proterozoic Mozambique Belt (Brice, 2012). The metamorphic grade is typically of amphibolite facies.

Criteria	Explanation	NXE Commentary
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth hole length. • 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.	Ten RC holes were drilled in late 2015 as part of an EM survey verification drilling program. Refer to ASX announcement dated 10 June 2015 for further information and results. Only one of these holes (MORC004) is used in this estimate. All the other holes were drilled on adjacent areas. FiveDD boreholes were drilled on Licence 6678L between October and November of 2016. These DD holes were drilled to draw a comparison with some of the RC holes drilled during 2015, and to collect data for an initial JORC (2012) compliant resource statement. All five of these boreholes were used in this resource estimate.. Eleven DD boreholes were drilled during November and December 2017. These holes were drilled to collect data for an updated JORC (2012) compliant resource statement. Information pertaining to drilling completed and used in this CPR is provided in Appendix 1 and Appendix 2.

Criteria	Explanation	NXE Commentary
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.	Weighted average was applied for sample length. No grade truncations were applied. Grade-tonnage curves were produced and could be used to determine the effect of cut-off grades on remaining mineralised tonnages. The calculated grade is weighted for representative mass, as calculated in Voxler.
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.	No relationship between mineralisation widths and intercept lengths is known at this stage. Assay grades have been reported and tabulated by sample interval for the 2014 drill program and are reported in ASX announcement dated 10 June 2015. These results are not used in this estimate. Assay grades have been reported and tabulated by sample interval for the 2015 drill program and are reported in ASX announcement dated 10 June 2015. Only the results from Borehole MORC004 are used in this estimate. The cored DD program for 2016 has been completed with structural data collected from orientated core intersections. The structural

Criteria	Explanation	NXE Commentary
	• 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').	analysis shows foliation that follows the regional orientation of the mineralised zones. The mineralised zone dips at an average of 59º to the west. Analytical results have been received from both the laboratory and metallurgical testwork. The laboratory and metallurgy work was completed during 2017. The cored Diamond Drilling program for 2017 has been completed with structural data collected from orientated core intersections. The samples have been submitted for laboratory and metallurgy testwork.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate sections plans and diagrams are included in the body of the initial CPR.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The report is considered to be balanced. The 2015 drilling and sampling results have been reported in the ASX announcement dated 10 June 2015. Borehole MORC004 was used in this CPR, since it occurs within the Caula project area. Five boreholes from the 2016 campaign and eleven boreholes from the 2017 drilling and sampling campaign were used for the 2018 Resource and 2018 Scoping Study. These five boreholes occur within the Caula project area. Core from these five boreholes were used to determine Total Graphitic Carbon and the V_2O_5 content.

Criteria	Explanation	NXE Commentary
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 geological mapping and regional airborne geophysics (magnetics and radiometrics) have been obtained from the Mozambican Government. In addition, then Mustang, (now New Energy Minerals) commissioned an airborne EM geophysics survey (SkyTEM) across 6678L and the adjacent tenements. The geophysics datasets were used to aid in interpretations and plan the 2015 and 2016 drill-hole programs' collar locations. Laboratory analyses were performed by SGS Randfontein in Johannesburg, and % Total Graphitic Carbon, % Total Carbon and % Total Sulphur was analysed for. No bulk samples have been taken. Metallurgical testwork was completed on composite samples made up from quartered core samples of the five cored boreholes. Clays in the oxidised zone (that increase settling times) have been observed as potential deleterious materials as part of this testwork. Eleven boreholes were completed during 2017. These boreholes are in the process of being sampled. Groundwater work and Geotechnical work have not yet been undertaken. The first metallurgy testwork was completed by SGS Malaga in Perth. This was standard testwork requested to establish the metallurgical properties of this deposit before advanced flow-sheet development can be undertaken. The composited samples were tested for grindability and the Bond rod mill index suggests that the Caula host rock is softer than comparable graphite deposits. The settling time for the oxidised composite sample was noted to be longer due to the presence of clays in this zone. Testwork on Met Sample 2 indicates that the sample is very amenable to beneficiation by froth flotation realising a final concentrate stream grading 94.9% TGC at 96.3% recovery. After screening of the concentrate, >50% of the concentrate falls in the large and extra-large flake classes and was upgraded to >97% TGC. Testwork on Met Sample 1 indicates that the sample is amenable to beneficiation by froth flotation using a single stream flotation scheme, realising a final concentrate stream grading 97.5% TGC at 80.3% recovery. After screening of the concentrate, >43% of the concentrate falls in the large and extra-large flake classes and was upgraded to >97% TGC. Subsequent to the completion of the initial metallurgical testwork, an optimisation program was completed by Wave International and IMO

Criteria	Explanation	NXE Commentary
		which indicates that the + 180 micron flake from the oxide material can be upgraded to 98% TGC. Quarter core from all of the 2017 drilling was sent to Nagrom Laboratories, Perth for metallurgical testwork during 2018. This core has been catalogued and composites of core, representing various styles of mineralisation, have been selected for a range of metallurgical testwork. Three levels of compositing are being implemented, the first level combines samples from a continuous intersection in a single borehole. The next level combines similar samples (in terms of grade and oxidation) from zones of boreholes. The third level combines similar samples (in terms of grade and oxidation) into master composites. A first level composite of core was selected to test the amenability of the deposit to sensor based ore sorting. The sample selected was a continuous portion of quartered NQ diamond drill core from 58m to 88m downhole in borehole MODD015. The sample was chosen to represent fresh material with moderate grades of graphite and vanadium and no visible barren rock intersections. First level core composites from borehole MODD015 were also used for a preliminary investigation of the treatment characteristics of the deposit in the area covered by the 2017 drill program. Three composite samples were made up from continuous portions of diamond drill core. The oxide and transition samples were from 17 to 30, and 37 to 57 meters respectively. The fresh composite was a sub sample of the composite used to evaluate sensor based ore sorting. Grinding and froth flotation testwork for graphite concentrate recovery was carried out at the Independent Metallurgy laboratory, Perth. Results of this work demonstrate significantly improved performance in terms of graphite concentrate sizing compared with all previous metallurgical testwork. Metallurigcal work has been completed on some of the samples which was announced to the ASX on 25/06/2018 as more results become available, it will be released to the market.
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).	The drilling of priority targets identified from the SkyTEM survey is ongoing. Additional areas on Prospecting Licences 5873L and 6678L have been identified for future drilling. Potential extensions with are discussed in the Interpretation and Conclusions in the CPR.

Criteria	Explanation	NXE Commentary
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

Section 3: Estimation and reporting of mineral resources

Criteria	Explanation	NXE Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	The project data is kept in set directories and before any results are released to the market, the CP and the New Energy Minerals Exploration Manager would check the calculations independently. Manual checks between datasets as received from the laboratory and compared with the database.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The CP visited the site for extended periods during the phases of exploration. The date and duration of each visit is listed below; - 19 Sept 2014 to 06 Oct 2014, 18 Days, site visit, EM Line preparation, drilling verification, - 27 Oct 2015 to 26 Nov 2015, 31 Days, site visit, RC drilling verification, sampling verification.

Criteria	Explanation	NXE Commentary
	• If no site visits have been undertaken indicate why this is the case.	- 06 Oct 2016 to 09 Dec 2016, 53 Days, site visit, DD drilling verification, logging and sampling checks and verification. - 10 Nov 2017 to 8 Dec 2017, 28 Days, site visit, DD drilling verification, sampling verification. - 17 Jan 2018 to 29 Jan 2018, 12 Days, site visit, DD drilling verification, logging and sampling checks and verification.
Geological interpretatio n	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	The geological mapping of this area is complicated by the relatively deep soil profile and the lack of outcrop. The single biggest element of confidence is provided by the extremely strong EM signature of the graphite mineralisation which occurs associated with the vanadium bearing roscoelite. The relationship between the EM data and the confirmed mineralisation by drilling is significant. The absence of EM response to non-mineralisation in the adjacent quartziztic schist is sufficient to accurately place exploration targets. The graphite and roscoelite mineralisation is easy to distinguish and hence easy to delimit. Attaching boundaries to mineralised areas is not subject to complicated interpretation, since the resource boundaries are clear. The amphibolite to granulite facies of metamorphism has displayed a concentration of the graphitic and roscoelite mineralisation in the amphibolitic portion of the host rock. The granulitic proportion is the lesser lithology in terms of volume. Continuity along strike appears to be consistent within the similar EM signature. Continuity in the Z-direction is truncated by granulitic facies at infrequent intervals.
Dimensions	•The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower	This Caula deposit is divided into an upper Oxidised Zone and a lower Fresh Zone. The plan footprint covers an area of 12.2 ha, and the plan width at this stage is 330 m. The top of the Oxidised Zone is between 13 and 20 metres below surface across the various boreholes. This elevation in the model is at an average of 517m above mean sea level (mamsl). This horizon was modelled as the top of the oxidised zone of mineralisation, with the base of this horizon determined by the lower-most of the oxidised logged samples. The average elevation for the base of the oxidised zone comes in at 480 mamsl. The depth of

Criteria	Explanation	NXE Commentary
	limits of the Mineral Resource.	oxidation along trajectory varies between 51 and 66m for the cored boreholes, while the lowest depth of oxidation for the reverse circulation borehole is 59m (drilled at a steeper angle). In terms of depth this surface is a flat plane which is an average of 48m below surface (vertical). On average the Oxidised zone is then 37m thick. The base of the Fresh zone is delineated by the extent of drilling, and is truncated by drilling depth. The deeper fresh mineralised zone is open at depth, and hence the fresh model will significantly expand with future drilling. At the moment this zone is modelled to a vertical depth of 180 m in MODD018. This translates to a vertical thickness of at least 132m for the fresh zone.
Estimation and modelling Techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes	The geological model used for the resource estimation was created in Voxler (Version 4.2.584), a modelling package developed and distributed by Golden Software in Colorado. The dataset was populated with the lithological, sample interval and quality data and then interrogated by the software for the required outcomes. Parameters controlling the modelling operation (such as interpolator selection and conformable relationships) are defined and maintained in the model framework. The Gridder module interpolates scattered point data onto a uniform lattice. This type of lattice is used to create several types of output graphics, including Isosurfaces. A uniform lattice is a one-, two-, or three-dimensional orthogonal array of data points arranged in the XYZ directions with points equally spaced in each direction. The distance between data points in the X, Y, and Z directions is the same throughout the lattice, but the X separation distance is not necessarily the same as the Y or Z separation distances. The range and resolution of the output lattice may be specified along with the interpolation method and associated parameters. Point data is the input type for the Gridder module. The Gridder module creates a uniform lattice as an output. This lattice spacing is set to 25 x 25 x 25m^3 for this project. The gridding method used is the inverse of distance squared. For this horizontal sample spacing Kriging is not appropriate. The remaining model geometry is defined by the settings of the anisotropy tool as defined for the X, Y and Z directions during gridding. The maximum search radius in the Y-direction (N-S orientation) was set at 100 m. The maximum search radius in the X-direction (E-W orientation) was set at 50 m. The search radius for the vertical component (Z- dimension) is set at 1 m to coincide with the average sampling width of 1 m along the drillhole trajectory. Structural boundaries are not applied at this stage, since the drilled boreholes

Criteria	Explanation	NXE Commentary
	appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the	were all terminated within the graphitic mineralised zone. The models are thus defined and delimited within an open mineralised zone. The Isosurface module creates an isosurface through an input lattice. An isosurface is a surface of constant value in a three-dimensional volume. In this instance the isosurfaces are various grades of V_2O_5 and TGC%. The isosurface separates regions of less than the selected isovalue from regions with values greater than the selected isovalue. All points on the isosurface have the same value i.e. 0.25% V_2O_5. This module provides a very quick method for constructing polygonal surface models from a lattice. The algorithm computes lattice cell interactions and combines them into triangle meshes for rendering. An Isosurface module can be exported to different file types, including IV, 3D DXF, and XYZC data files in the following data file formats: CSV, DAT, SLK, TXT, XLS, and XLSX. The component value is the same for every point in the isosurface. A uniform grid with nodes is generated for each volume. Given the drilling spacing, the grid cell size is set at 25 x 25 x 25 m^3. It is pointless to grid to a smaller size given that the average borehole spacing across the whole area came to an average of 85 m in a roughly straight line. Volumes were calculated for various grades across the sample result range. The deposit was divided into an upper oxidised zone and a lower fresh zone. Once a specific grade volume has been calculated a weighted average density is applied to the volume and a tonnage is determined. Weighted averaging for sample length was applied. No grade truncations were applied. A cut-off grade of 0.2% has been applied for V_2O_5 and 8% for TGC% was used in the Vanadium and Graphite Resource Statements dated July 2018. Grade-tonnage curves were produced and could be used to determine the effect of cut-off grades on remaining mineralised tonnages, but the drilled resource is calculated as intersected in-situ. The calculated grade is weighted for representative mass, as calculated in Voxler. A manual check estimate was completed and the tonnages and the grades compared very closely. No previous estimates have been reported for this project, and hence no reconciliation could be done. Provision or assumptions for the recovery of by-products have not been made. The only deleterious element that has been detected so far is the presence of clays in the oxidised zone. This is to be expected, and the influence on metallurgy would be to extend settling time in the process of separation.

Criteria	Explanation	NXE Commentary
	checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	• Whether the tonnages are estimated on a dry basis or wit/h natural moisture, and the method of determination of the moisture content.	The tonnages are estimated on a dry basis. The influence of moisture on the estimation of the Fresh Zone is considered to be negligible. The porosity of the host rock is very low. The Oxidised Zone may be influenced by moisture content in the shallower parts.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	A 0.2% grade cut-off was applied for V_2O_5 and 8% grade cut-off for TGC was used in the Vanadium and Graphite Resource Statements dated July 2018. The modelling is limited by drilling extent. The drilling has not intersected and hence delineated the outer edge of barren host rock. The physical limits of the mineralisation will be established with additional drilling programs. Grade-tonnage curves were produced and the influence of various cut-off grades can be investigated. The physical deposit boundaries have not been intersected in the drilling work and hence the model is suspended within graphite and roscoelite mineralised rock. The western and northern deposit boundary (at shallow depth), is expected to be fixed with the next phase of drilling. The eastern and southern boundaries are open to at least 200m and several kilometres respectively.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both	The report is considered to be balanced. Based on the observed lithology and the influence of oxidation, the deposit is divided into an upper Oxidised Zone and a lower Fresh Zone. Grade differences between the two zones are observed, with the fresh zone showing an elevated grade.

Criteria	Explanation	NXE Commentary
	low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	. Material assumptions and modifying factors used in the estimation of the production targets and associated financial information are set out in Appendix 1. The Resource has been based on the drilling orientations, thicknesses and depths to which the graphitic rich zones have been modelled. The estimated grades are based on TGC's and V_2O_5 assays.

Criteria	Explanation	NXE Commentary
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The metallurgy testwork was completed by SGS Malaga in Perth. This was standard testwork requested to establish the metallurgical properties of this deposit before advanced flow-sheet development can be undertaken. The composited samples were tested for grindability and the Bond rod mill index suggests that the Caula host rock is softer than comparable graphite deposits. The settling time for the oxidised composite sample was noted to be longer due to the presence of clays in this zone. Testwork on Met Sample 2 indicates that the sample is very amenable to beneficiation by froth flotation realising a final concentrate stream grading 94.9% TGC at 96.3% recovery. After screening of the concentrate, >50% of the concentrate falls in the large and extra-large flake classes and was upgraded to >97% TGC. Testwork on Met Sample 1 indicates that the sample is amenable to beneficiation by froth flotation using a single stream flotation scheme, realising a final concentrate stream grading 97.5% TGC at 80.3% recovery. After screening of the concentrate, >43% of the concentrate falls in the large and extra-large flake classes and was upgraded to >97% TGC. Subsequent to the completion of the initial metallurgical testwork, an optimisation program was completed by Wave International and IMO which indicates that the + 180 micron flake from the oxide material can be upgraded to 98% TGC. At the moment, Nagrom in Perth is busy refining the processing flowsheet with continuing metallurgical testwork.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental	An environmental and social scan was undertaken, which included a site visit, to identify any fatal flaws and/or material issues at the site as very little site-specific information is currently available for environmental and social conditions. No issues were identified which are likely to pose a significant risk to the project. Additional environmental factors and assumptions are noted in Appendix 1.

Criteria	Explanation	NXE Commentary
	impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green-fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account	Density data for the first 5 DD boreholes was taken from the recovered core and determined on site during the field sampling process. The 11 DD holes that were drilled during 2017 was analysed for density by Pycnometer, and 243 samples were submitted for density determination. The weighted air dry density for the oxidised zone is calculated to be 2.550 tonne/ m^3. The weighted air dry density for the fresh zone is calculated to be 2.650 tonne/ m^3. These densities are comparable to similar geological settings, and will hence result in realistic resource tonnage estimates.

Criteria	Explanation	NXE Commentary
	for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit	The resource is classified as Measured. The core losses in the DD boreholes were assigned 0% V_2O_5 and 0% TGC values as a conservative measure. With additional drilling in the future, the confidence in the estimate may very well improve. The CP has no reason to doubt the input data from the core logging to the laboratory results. The estimate is conservative and probably understated in both tonnage and grade.

Criteria	Explanation	NXE Commentary
Audits or reviews.	The results of any audits or reviews of Mineral Resource estimates.	No reviews or audits have been completed for this deposit.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the	The geovariance for the TGC in the Caula deposit is calculated over 14 ranges with 27 data-pairs. The range is estimated to be 170 m and the sill grade is 11 % TGC. The nugget value is 3.7% TGC, and the variance is 7.3 %. This calculation is based on information from 17 boreholes, and may well change as it gets updated with new drilling information. Based on this geovariance, the drill spacing at an average of 85 m is considered to be sufficient to determine a measured resource. The geovariance for the V_2O_5 in the Caula deposit is calculated over 14 ranges with 27 data-pairs. The range is estimated to be 170 m and the sill grade is 0.025% V_2O_5. The nugget value is 0.012% V_2O_5, and the variance is 0.013%. This calculation is based on information from 16 boreholes, and may well change as it gets updated with new drilling information. Based on this geovariance, the drill spacing at an average of 85 m is considered to be sufficient to determine a measured resource. There is no current operation in place and hence no site-specific production data for comparisons to be made.

Criteria	Explanation	NXE Commentary
	relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	