For personal use only

TRITON MINERALS

Developing World Class Mozambique Graphite Projects

Quality Products - Established Graphite Province - Excellent Logistics

July 2017

Corporate Summary (ASX: TON)

For personal use only

Corporate Overview	
Shares on Issue	657.8M
Share Price (21 July 2017)	$0.048
Market Capitalisation	$31.6M
Unlisted Options*	59.5M

* 5M at $0.70 expiry August 17; 4.5M at $0.27 expiry January 2018; 50M at $0.10 expiry June 2018.

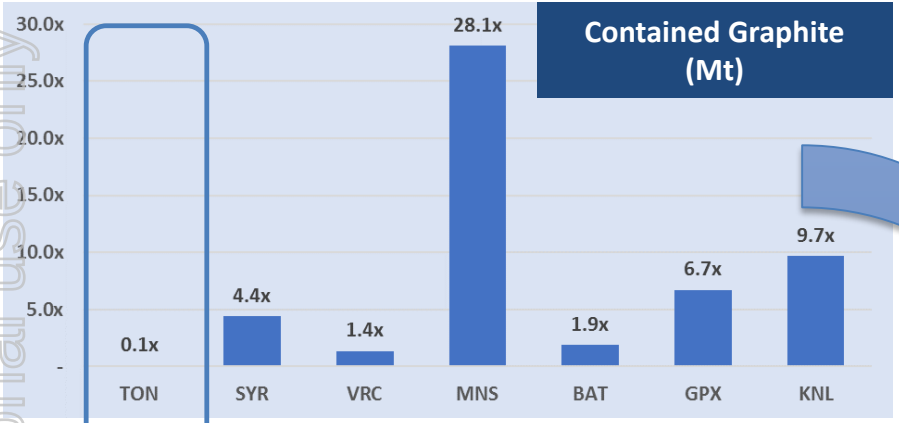
Share Price Performance and Daily Volume

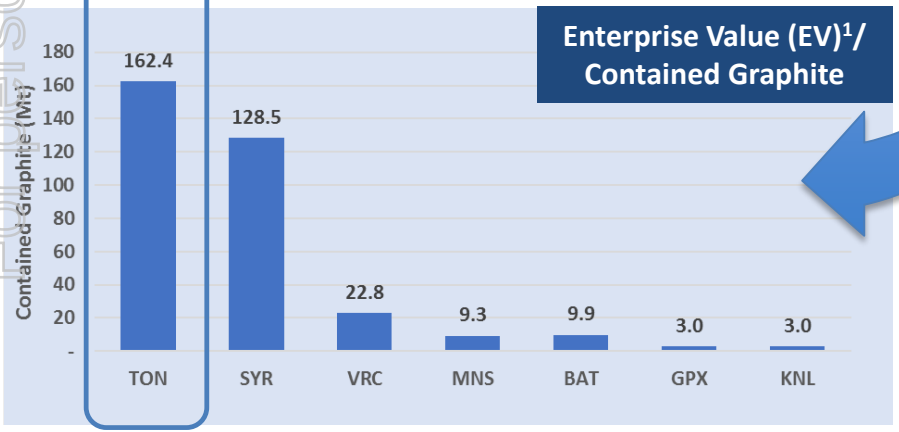
Substantial Shareholders	
Shandong Tianye Mining Co Ltd (In process of taking up creep provisions to 23%)	20.00%

Research Reports
Edison July 2017 – Valuation 22 cents per share
Somers May 2017 – Target Price 28 cents per share

Board and Management
Xingmin (Max) Ji – Non-Executive Chairman
Peter Canterbury - Managing Director
Patrick Burke – Non-Executive Director
Paula Ferreira - Non-Executive Director
Guanghui (Michael) Ji – Non-Executive Director

Undervalued Relative to Peer Group





1. Enterprise Value (EV) is market capitalisation plus debt less cash

Independent research supports undervalued proposition with Edison placing valuation of 22 cents per share

- Triton is trading at the lowest Enterprise Value /Contained Graphite multiple despite:
  - ✓ Project portfolio ideally suited to meet the forecast growth in the expandable and battery markets
  - ✓ Ancuabe: positive scoping study and DFS scheduled for completion December 2017
  - ✓ Nicanda Hill: World's largest graphite deposit ideally suited to the battery market and adjacent to Syrah's Balama Project
  - ✓ Large-scale resource to support growth in target markets
  - ✓ New executive team focused on transformation and delivering strategy
  - ✓ Stable mining jurisdiction and supportive cornerstone shareholder

For personal use only

Committed Board and Management team

Board of Directors	
Xingmin (Max) Ji Non Executive Chairman	Chairman of Minjar Gold and CEO for the Shandong Tianye Australia Group and led the investment in Triton. Over 20 years of experience in the finance and investment fields. Mr Ji has been the board representative of the majority shareholder for more than 20 companies.
Peter Canterbury Managing Director	Highly regarded mining executive with significant experience in project development and operations in Australia, Europe and Africa. Previously the CEO of Bauxite Resources and also CFO of Sundance Resources. Lead role in rebuilding Sundance Resources in 2010 and also negotiating the Mining and Development Convention in Cameroon for the integrated iron ore mine rail and port project.
Patrick Burke Non Executive Deputy Chairman	Extensive legal and corporate advisory experience, Director for a number of ASX and AIM listed small to midcap resources companies. His legal expertise is in Corporate commercial and securities law in particular capital raisings and M&A.
Paula Ferreira Non Executive Director	Mozambican citizen and former managing partner of Deloitte in Mozambique. Strong knowledge of the business environment in Mozambique including public sector and international funding agencies.
Guanghui (Michael) Ji Non Executive Director	CEO of Minjar Gold and has worked for various leading mining companies in China and Mongolia. 15 years experience in production, processing and resource development in the gold and non-ferrous industries.

Management	
Lisa Park GM Studies & Metallurgy	Highly credentialed process engineer with extensive experience across commodities and geographies, having held senior roles for Fluor Australia, and other leading engineering firms on major resource projects including Vale's Long Harbour Nickel and Cobalt refinery.
David Edwards CFO & Company Secretary	Significant experience in corporate governance, strategy and business planning, debt and equity markets, investor relations, joint venture management and operations. Previously senior finance and leadership roles with Clough Limited and Fortescue Metals Limited.
Gidião Mbanze Project Manager – Mozambique	Mozambican national with 10 years of experience in project management systems and reliability engineering with some of the world's largest mining companies (BHP's (now South 32) Mozal aluminium smelter and Vale's Moatize coal mine)
Ana Cruz Regional Operations Manager	Mozambican citizen with extensive experience in commercial operations, logistics and human resources with major organisations in Mozambique

Preliminary Discovery

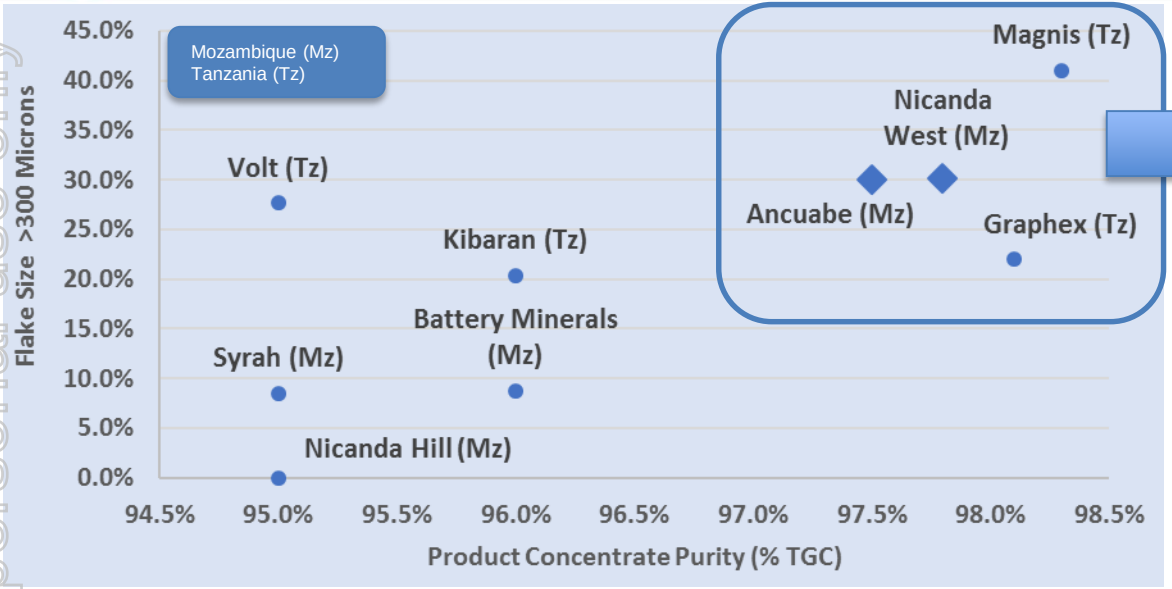
Portfolio Snapshot

- ✓ Portfolio of the some of the **world's largest and highest quality graphite projects**
- ✓ Ideally positioned to capture significant market share of a rapidly growing market as the graphite market **undergoes fundamental structural changes**
- ✓ **Clear, defined strategy** to deliver high quality Ancuabe product high value expandable graphite market
- ✓ Project Delivery Phase Underway – **Technical, Marketing and Strategic Advisors appointed in China** – DFS and Offtake discussions on target for end of 2017
  - Strategic Advisor appointed in China with established connections with the Construction and Graphite industries as well as deep relationships with major financial institutions and EPCM contractors in China
  - Shandong Tianye Mining providing graphite technical and marketing expertise in China

Project Portfolio	**Ancuabe:** Industry leading flake size distribution, purity and expandability **Nicanda Hill**: One of the largest flake graphite deposits in the world plus a substantial resource of vanadium **Nicanda West:** Industry leading flake size distribution and purity
Infrastructure	Projects located in Mozambique, the world's most advanced new graphite region Best access to port, power and road infrastructure of all the East African graphite projects Located next to existing graphite mines (AMG, Syrah Resources)
Markets	Independent testwork confirms product is highly suitable for the rapidly growing expandable graphite and battery markets

For personal use only

Products Ideally Suited to Growth Markets



'Sweet Spot' for the expandable market: high purity and high proportion of Jumbo (>300 Microns) flake size

Lower flake sizes suitable for the battery markets but TGC% remains a critical factor

- Margin not grade drives profitability - basket price is determined by concentrate purity, flake size distribution and end market suitability
- Significant purification cost benefits for higher concentrate graphite (over 97.0% TGC)
- East African Projects will support supply constrains impacting the traditional Chinese source of supply

For personal use only

Triton's initial focus: Expandable Graphite Market

For personal use only

PRODUCT QUALITY

- Ancuabe graphite has an optimal mix of large and jumbo flake and high TGC concentrate
- Ancuabe product is higher purity and expandable at levels significantly above Chinese domestic production

MARKET OPPORTUNITY

- Market is forecast to grow rapidly due to the removal of bromine and asbestos as a flame retardants and the introduction of mandatory use of flame retardants in buildings in China and other parts of Asia
- Level of expandable graphite in flame retardant building materials varies from 5-50% (average 10%). Estimates of between 250ktpa and 1,000ktpa demand in China alone by 2027[1]

COMPETETIVE ADVANTAGE

- Market leading flakes size and purity of Ancuabe from a proven graphite region
- Proximity to infrastructure – closest East African Project to operating container port

ADVISORS IN CHINA IN PLACE – PARTNER, OFFTAKE & FINANCING DISCUSSIONS UNDERWAY

- Strategic Advisor appointed in China with established connections with the Construction and Graphite industries as well as deep relationships with major financial institutions and EPCM contractors in China
- Shandong Tianye Mining providing graphite technical and marketing expertise in China

Note 1. Somers & Partners Research

World Class Portfolio of Graphite Assets

For personal use only

Ancuabe

- Premium quality graphite due to large flake size and very high purity and expandability - confirmed by internationally recognised independent experts
- Ideally suited for the expandable graphite market – Triton's primary focus
- Next door to AMG's GK Graphite Mine, a European specialty metals company
- Only 80km by sealed road to the port of Pemba, a very significant advantage compared to other graphite companies
- Feasibility & ESHIA studies underway, expected to complete December 2017
- STM appointed technical advisor in place and Financial Advisor appointed – Offtake discussions underway

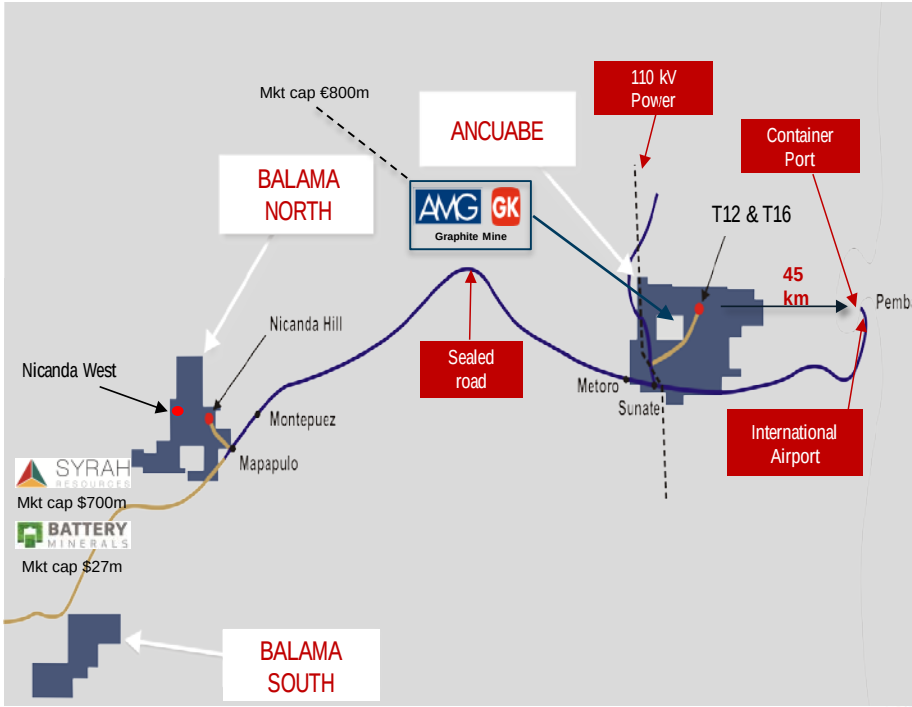
Nicanda Hill

- One of world's largest flake graphite and vanadium deposits
- JORC Resource 1.43 Bt at 11.1% TGC[1]
- Next door to Syrah Resources' Balama Project (ASX:SYR, market cap $700m)
- Positive scoping study. Study NPV of US$1.2bn[2] – An attractive development option when battery market potential is realised.
- Spherical graphite already produced from Nicanda Hill
- Feasibility study partially complete (Scoping Study and EPDA already completed)

Nicanda West

- 30Mt Mineral Resources Estimate at 6.6% TGC[3]
- 70% of material >150µm, 62% large flake size and above (>180µm)[3]
- Average purity of 97.6% TGC[3] – World class metallurgy

Projects



1. ASX Announcement 16 September 2016 "Restated Mineral Resource Estimate for Nicanda Hill"
2. ASX Announcement 26 November 2014 "Nicanda Hill Scoping Study"
3. ASX Announcement 17 May 2016 "Maiden Inferred Mineral Resource – Nicanda West"

There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised

Ancuabe Project – Snapshot

Premium Flake for Expandable Graphite Market

Infrastructure	• Located in Cabo Delgado providence of Mozambique, a proven graphite region • Adjacent to AMG's Ancuabe graphite mine • Close to sealed road, medium voltage power (110kV) and 80km by road to operational container port of Pemba, abundant process water source on-site, minimal impact on local communities
Resource	• Discovered T16 deposit in December 2016 • JORC Indicated + Inferred Resource: 27.9Mt at 6.0% (ASX Announcement 10 April 2017 'Major Resource Upgrade at Ancuabe') with significant scope to materially increase • JORC Reserve drilling underway for inclusion in DFS
Metallurgy	Industry leading flake size distribution and purity: • 59% large flake graphite (>180 microns), 32% jumbo flake graphite (>300 microns) • Excellent concentrate purity (average 97.5% TGC across all flake sizes) from simple flotation Excellent expandability results undertaken by independent experts and laboratories in Germany and China, with samples taken from whole of deposit (i.e. able to be replicated on commercial scale). Historical expansion results of 1,000 times[1]
Scoping Study	Positive Scoping Study (ASX Announcement 10 May 2017 'Áncuabe Scoping Study Results Highlight Premium Product') • Up to 60,000 tpa graphite concentrate • Mine life of at least 17 years based on conservative mine plan • NPV Range US$128-US$246M, based on US$83m pre-production CAPEX, LOM US$601/t OPEX and US$1,369/t basket price, payback period range 2.7 - 4.8 years
Markets	• **Expandable graphite for flame retardant building materials** • Expected markets China, Korea and Japan

Note: There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised

Note 1 – ASX Announcement 20 March 2015 – Triton Mozambique Graphite is Expandable

For personal use only

Ancuabe DFS – Moving Quickly for Completion in 2017

For personal use only

- ✓ **Mine Geotech and site Sterilisation Drilling completed**
- ✓ Final Phase of drilling for **Reserve and remaining site Geotech will be completed in July 2017**
- ✓ **Engineering Options Studies Completed** including power, plant capacity and major equipment type selection
- ✓ **DFS Engineering commenced** mid July 2017
- ✓ **Metallurgical parameterisation testwork** (grind size, reagents, floatation time, attrition time, additivity and locked cycle) **complete** in preparation for DFS Engineering
- ✓ **Continued Graphite Product Testwork**
- ✓ **Tailings Testwork** with Knight Piésold has **commenced**
- ✓ **ESHIA social and community site studies completed**, site hydrology investigations continuing. Remaining specialist studies in progress
- ✓ **Permitting Processes associated with community and land continuing**. Further site investigations planned for late July 2017
- ✓ **Commenced Early Works Construction Planning for 2018**

Nicanda Hill – Snapshot

World's Largest Graphite Resource For The EV Market

Infrastructure	• 3 hours via a sealed ~200km road from Pemba to regional centre Montepuez, 30km unsealed access road • Studies show access to onsite process water from aquifer and stormwater capture sources
Resource	• World's largest flake graphite deposit • Restated JORC Resource 1.43 Bt at 11.1% TGC (ASX Announcement dated 16 September 2016 'Restated Mineral Resource Estimate for Nicanda Hill') located immediately north of Syrah Resources' (ASX:SYR) (Mkt Cap ~$700m) Balama graphite project which is under construction and due for completion in July 2017 • Includes Indicated Mineral Resource Estimate of 369Mt at 11.3% TGC for 41.5Mt of contained graphite.
Metallurgical results and Markets	• Nicanda Hill graphite ideally suited to supply Lithium-ion Battery market: • Predominantly fine flake size material • Positive spheroidisation test-results
Scoping Study & DFS	• Results of Scoping Study (ASX Announcement dated 26 November 2014 'Nicanda Hill Scoping Study'): – 1.8Mtpa processing plant throughput for 210ktpa graphite production – US$1.23b NPV_{10} and IRR of 137% (pre-tax) based on US$110m pre-production capex, LOM US$338/t opex and US$985/t basket price – Initial mine life of 30 years – An attractive development option when battery market potential is realised • Partially completed DFS focused on a range of production profiles (50ktpa to 200ktpa) • Triton to leverage significant work undertaken to date in advancing value realisation options for the project
Next Steps	• Triton investigating value realisation options

Note: There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised

For personal use only

Accelerated project development

Aiming for first production in 2019

Timeline	Milestone
Q4 2016	✓ Triton recapitalised & appointment of Peter Canterbury as Managing Director ✓ Drilling commenced on T16 prospect ✓ Triton relisted on the Australian Securities Exchange, Board focus on Ancuabe
Q1 2017	✓ T16 discovery ✓ New management team appointed to deliver strategy ✓ Scoping study commences
Apr- Jul 2017	✓ Major resource upgrade ✓ Scoping study completed ✓ Feasibility study commenced, all major consultants appointed ➢ Appointed Technical and Marketing Advisor in China to undertake testing and customer acceptance ➢ Engaged Strategic Advisor to secure strategic partner and financing
Momentum continues to deliver strategy	
H2 2017	➢ Anticipated MOU with strategic financing/off-take partner ➢ Estimated completion of feasibility studies for Ancuabe
H1 2018	➢ Anticipated binding agreements with strategic financing/off-take partner ➢ Aim for Board investment decision & project approvals ➢ Aim to place orders for long lead items and commence construction
H2 2019	➢ Anticipated First Ore on Ship

For personal use only

Disclaimer and Competent Persons Statements

This presentation has been prepared by Triton Minerals Limited (Triton or the Company) and has been prepared for information purposes only. This presentation contains general and background information about the Company's activities current as at the date of the presentation and should not be considered to be comprehensive or to comprise all the information that an investor should consider when making an investment decision. The information is provided in summary form, has not been independently verified, and should not be considered to be comprehensive or complete. The Company is not responsible for providing updated information and assumes no responsibility to do so.

This presentation has been prepared without taking into account the objectives, financial situation or needs of individuals. This presentation is not, and should not be considered as, an offer, investment advice or a recommendation to acquire the Company securities or any other financial products and neither this document nor any of its contents will form the basis of any contract or commitment. Before making an investment decision prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, and seek legal, taxation and financial advice appropriate to their jurisdiction and circumstances. The Company assumes that the recipient is capable of making its own independent assessment, without reliance on this document, of the information and any potential investment and will conduct its own investigation.

This presentation is not, and should not be considered as, an offer or an invitation to acquire securities in the Company or any other financial products and neither this document nor any of its contents will form the basis of any contract or commitment. This presentation is not a prospectus. Offers of securities in the Company will only be made in places in which, or to persons to whom it would be lawful to make such offers. This presentation must not be disclosed to any other party and does not carry any right of publication. Neither this presentation nor any of its contents may be reproduced or used for any other purpose without the prior written consent of the Company.

This presentation includes certain "forward-looking statements" and opinions. Forward-looking statements and forward-looking information are frequently characterised by words such as "plan", "expect", "project", "intend", "believe", "forecast", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may", "will" or "could" occur. Although the Company believes the expectations expressed in such statements and information are based on reasonable assumptions, there can be no assurance that such information or statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such information. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast.

No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness, correctness, reliability or adequacy of any statements, estimates, opinions or other information, or to the reasonableness of any assumption or other statement, contained in the presentation (any of which may change without notice). To the maximum extent permitted by law, Triton, its professional advisers and their related bodies corporate, affiliates and each of their respective directors, officers, partners, employees, advisers and agents and any other person involved in the preparation of the presentation expressly disclaim all liability and responsibility (including, without limitation, any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use of or reliance on anything contained in, or omitted from, this presentation.

An investment in the Company shares is subject to investment and other known and unknown risks, some of which are beyond the control of the Company. Such risks include, but are not limited to the market price of graphite, general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities and feasibility studies; assumptions in economic valuations which prove to be inaccurate; possible variations of ore grade recoveries or rates; climatic conditions; political instabilities; insurrection or war; arbitrary decisions by governmental authorities; delays in obtaining government approvals or financing or in the completion of development or construction activities.

Information in relation to the Ancuabe Scoping Study, including production targets and financial information, included in this report is extracted from an ASX Announcement dated 10 May 2017 (see ASX Announcement – 10 May 2017), 'Ancuabe Scoping Study Results Highlight Premium Product with Robust Economics', www.tritonminerals.com and www.asx.com.au). The Company confirms that all material assumptions underpinning the production target and financial information set out in the announcement released on 10 May 2017 and continue to apply and have not materially changed.

For personal use only

Disclaimer and Competent Persons Statements

The Scoping Study referred to in this presentation has been undertaken to determine the potential viability of an open pit mine and graphite processing plant, constructed adjacent to the Ancuabe T12 and T16 deposits, and to reach a decision to proceed with more definitive feasibility studies. To achieve the range of proposed feasibility studies and potential mine development outcomes indicated in the Scoping Study, additional funding will likely be required. Investors should note that there is no certainty that Triton will be able to raise that funding when needed. It is also possible that such funding may only be available on terms that dilute or otherwise affect the value of existing Triton shares. It is also possible that Triton could pursue other 'value realisation' strategies such as sale, partial sale, or joint venture of the project. If it does, this could materially reduce Triton's proportionate ownership of the project. The Company has concluded it has a reasonable basis for providing the forward-looking statements included in this presentation and to expect that it will be able to fund the development of the project. Triton recognises that exclusion of the Inferred Mineral Resources from the mine plan reduces the potential returns for the Ancuabe Graphite Project. This will be addressed in the next and final stage of drilling, which commenced in May 2017. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Unless otherwise stated, all dollar values are in Australian dollars (A$). The information in this presentation remains subject to change without notice.

This presentation is not an offer of securities for sale in the United States. Any securities to be issued by the Company have not been and will not be registered under the US Securities Act of 1933, as amended (the "US Securities Act") and may not be offered or sold in the United States absent registration or an exemption from registration under the US Securities Act. No public offer of the securities is being made in the United States and the information contained herein does not constitute an offer of securities for sale in the United States. This presentation is not for distribution directly or indirectly in or into the United States or to US persons.

Distribution of this presentation may be restricted by law. Persons who come into possession of this presentation should seek advice on and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

Competent Person Statements

The information in this announcement that relates to the scoping study and resource estimates for the **Ancuabe Graphite Project** in relation to:
10 May 2017 "Ancuabe Scoping Study Results Highlights Premium Product with Robust Economics"
16 May 2017 "Testwork Confirms Ancuabe Graphite is a High Quality Product"
The Company confirms that it is not aware of any new information or data that materially affects the information as announced on 10 May 2017 and 16 May 2017. All material assumptions and technical parameters underpinning the results and estimates continue to apply and have not materially changed.

The information in this announcement that relates to the in situ mineral resources for the ***Nicanda West Graphite Project*** in relation to:
17 May 2016 "Maiden Inferred Mineral Resource – Nicanda West"
The Company confirms that it is not aware of any new information or data that materially affects the information as announced on 17 May 2016. All material assumptions and technical parameters underpinning the results and estimates continue to apply and have not materially changed.

The information in this announcement that relates to the scoping study and resource estimates for the **Nicanda Hill Graphite Project** in relation to:
16 September 2016 "Restated Mineral Resource Estimate for Nicanda Hill"
26 November 2014 "Nicanda Hill Scoping Study"
The Company confirms that it is not aware of any new information or data that materially affects the information as announced on "16 September 2016 and 26 November 2014. All material assumptions and technical parameters underpinning the results and estimates continue to apply and have not materially changed.

For personal use only

For personal use only

TRITON MINERALS

Market Appendices

Graphite Market Undergoing Major Transformation

Demand: Environmental legislation and structural change in the expandable graphite, Electronic Vehicle (EV) and battery markets

Supply: Supply is expected to come under pressure due to changing environmental regulations and declining grade in parts of China

Expandable Graphite

- New legislation in China, EU, Japan and Korea have either required flame retardants in building codes and/or banned brominated and asbestos based fire retardants
- Graphite is a cost effective alternative with the added advantages of higher thermal efficiency and denser composition
- Expandable graphite attracts a significant market premium to batteries and refractories with many uses outside the building industry
- The potential demand for graphite in flame retardants is estimated to reach between 250ktpa and 1,000ktpa by 2027[2] in China alone
- If similar laws enacted in other countries (EU for example) the potential growth in demand is exponential. Expandable graphite is anticipated to be the second highest graphite market segment
- Building fire safety improved significantly through use of flame retardant materials

EVs and batteries

- Strong demand for Lithium-Ion Batteries (LiBs) due to growth in EV and battery storage markets
- LiBs require spherical graphite as a non-substitutable component of the battery (anode)
- Graphite demand from LiBs driven by growth in EV's forecast to increase from 140ktpa in 2015 to more than 1,000ktpa in 2025[1.]
- UBS forecasts EV sales to grow at Compound Annual Growth Rate (CAGR) of 46% between 2020 and 2025[3]
- Contemporary Amperex Technology and Tesla are being joined by Panasonic, Samsung and LG Chem in developing the worlds largest gigafactories to supply the growing demand for LiBs
- Global shift towards sustainable sources of natural graphite as a cheaper, more efficient and more environmentally friendly alternative to synthetic graphite in the production of spherical graphite
- **The demand for LiBs is "unstoppable" according to Roskill, a globally recognised voice in graphite**

Note 1: Canaccord
Note 2. Somers & Partners Research
Note 3: UBS – Lithium & Graphite – June 2017

Triton's premium graphite is suitable for both markets

For personal use only

Chinese Market Dominance Declining

Driven by Environmental Policy & Legislation

For personal use only

- Environmental management is a key pillar of Chinese Government policy
- Not only focused on growing car and bus EV capability but also cleaning up major polluting industries
- Chinese graphite industry has already been impacted with many mines closed down
- Acid treatment (using hydrofluoric acid) of lower grade concentrate now a focus
- Government concern with poor management of acid treatment water

Examples of typical Chinese graphite plants and poor environmental management

What is Expandable Graphite?

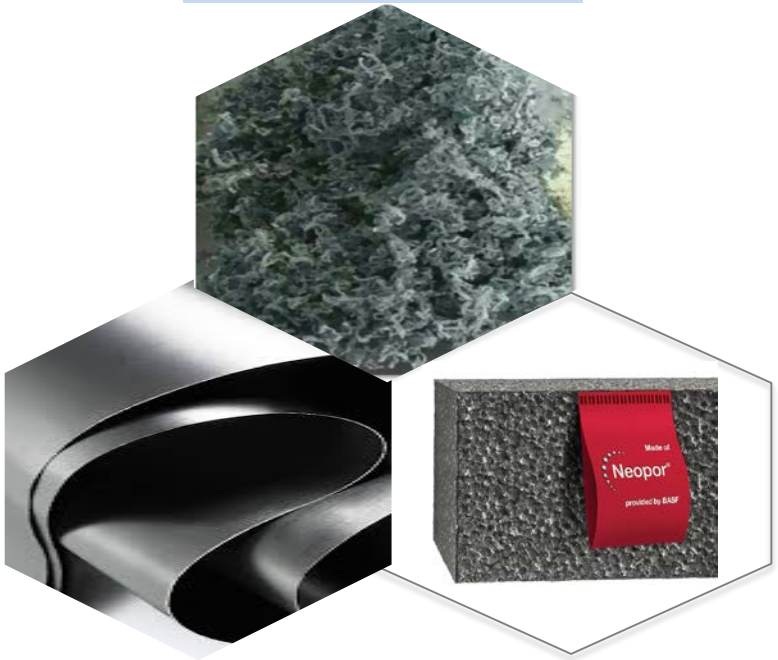
For personal use only

CONVERSION PROCESS

Graphite is expanded by immersing the natural flake graphite concentrate (usually at a grade of 95% to 99% Total Graphitic Carbon (TGC)), in a bath of acid and oxidising agents, which forces apart the crystal lattice planes, thus expanding or increasing the flake graphite surface area. Material is then heated (150-950^{o}C depending on end application) resulting in rapid expansion (usually 100+ times its original size) Expanded Graphite generates inert gas when heated and extinguishes a fire by cutting off the supply of air.

- Highly heat resistant
- Low material use
- Radiation resistant
- Corrosion resistant
- Free of heavy metals
- Non-polluting
- Relatively low cost
- Reduces fume formation

TRITON'S EXPANDED GRAPHITE



FOIL MADE FROM EXPANDED GRAPHITE

GRAPHITE FOAM MADE BY BASF

What will drive Expandable Graphite Demand?

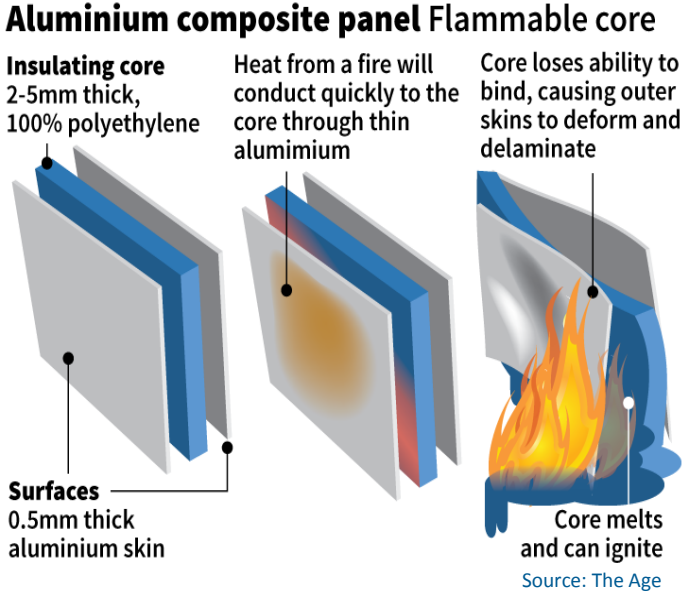
For personal use only

FLAME RETARDANT BUILDING MATERIALS (FRBM)

- Fire safety a growing global issue in commercial and residential construction
- China has recently mandated FRBM in all new buildings and will ban traditional brominate flame retardants in 2018
- Concerns over the combustibility in building materials used historically may require retrofitting of existing buildings (eg the Lacrosse Melbourne Docklands building fire in 2014 where combustible cladding was recently ordered to be replaced)
- Likely to drive the increased use of suitable flame retardant materials in all new buildings

Graphite based Flame Retardant Building Materials (FRBM) possess:

- ✓ excellent flame suppression qualities
- ✓ improved thermal efficiency
- ✓ cost effective alternative
- ✓ denser composition



Source: The Age

Expandable Graphite in Flame Retardant Building Materials

For personal use only

ADVANTAGES

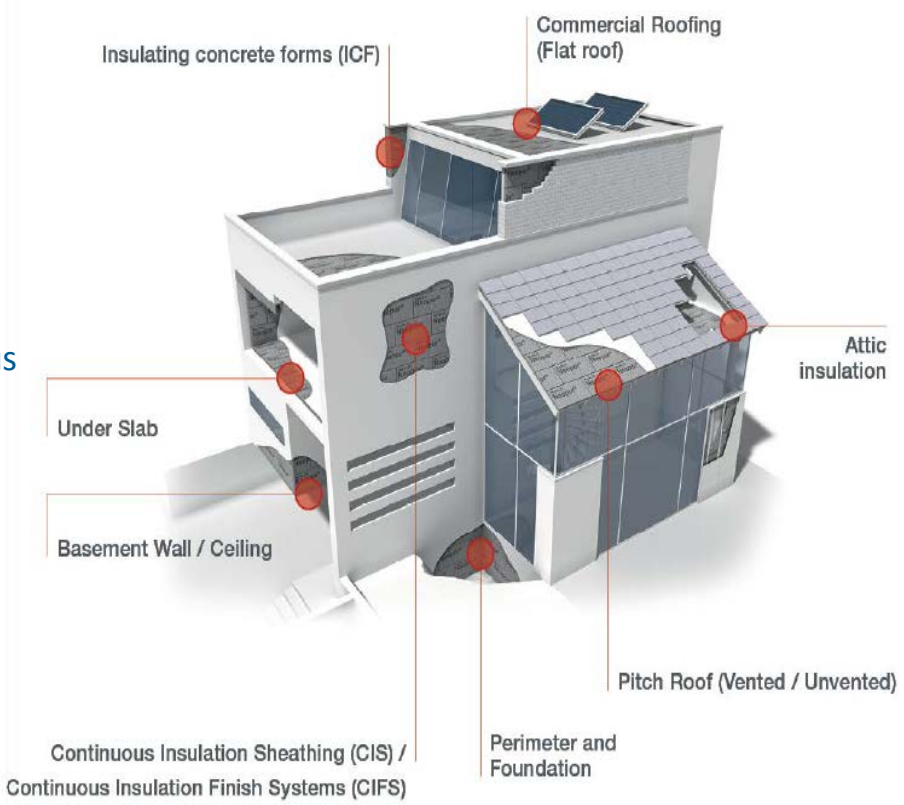
- ✓ Can be expanded by low heat (150 to 300°C)
- ✓ Safe and chemically inert
- ✓ Halogen free
- ✓ Heavy metal free
- ✓ Reflects radiant heat energy and reduces thermal conductivity

APPLICATIONS

Has been used as a non-halogen flame retardant in various applications such as:

- ✓ Polyurethane foam
- ✓ Roofing
- ✓ Non-flammable paint
- ✓ Sealings
- ✓ Thermoplastic resin
- ✓ EVA foam
- ✓ Concrete
- ✓ Construction materials
- ✓ Polyolefin resin
- ✓ Rubber

Uses for Graphite Polystyrene (Source BASF website)

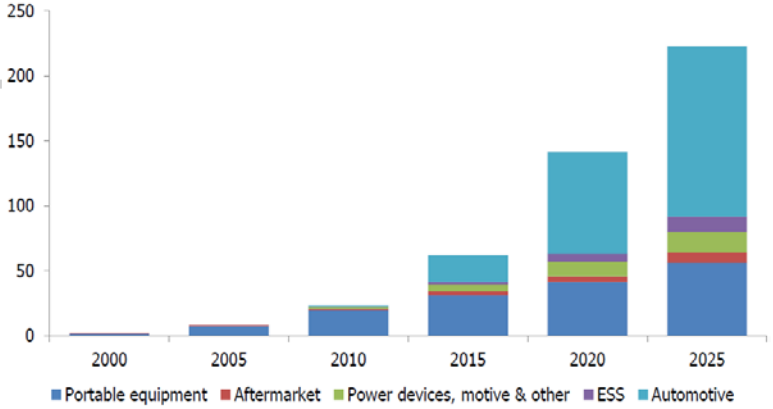


Graphite Demand – Battery Market

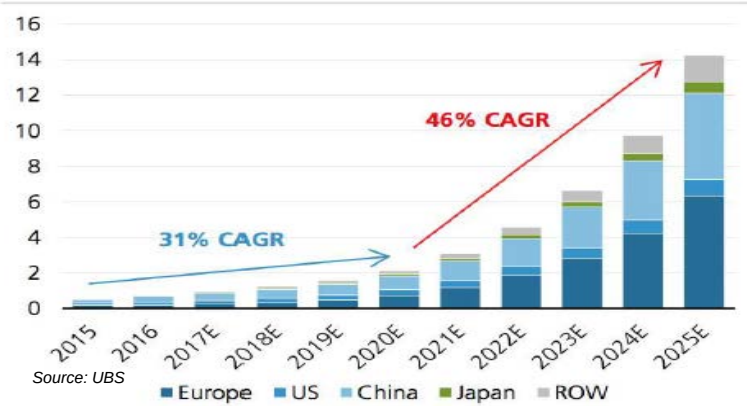
- Graphite demand from LiBs driven by growth in EV's forecast to increase from 140ktpa in 2015 to more than 1,000ktpa in 2025 (CAGR of 23%[1])
- China's 5 year plan alone calls for 5 million electric vehicles by 2020
- Amperex Technology and Tesla are being joined by Panasonic, Samsung and LG Chem in developing the world's largest battery manufacturing facilities to supply the growing demand for LiBs
- Global shift towards sustainable sources of natural graphite as a cheaper, more efficient and more environmentally friendly alternative to synthetic graphite in the production of spherical graphite
- Nicanda Hill is ideally suited to this market and provides a divestment or JV opportunity as the LIB market develops faster than the market forecasts
- **The demand for LiBs is "unstoppable" according to Roskill, a globally recognised voice in graphite**

Note1: Canaccord

Demand for LiB by application (GWh) (source UBS)



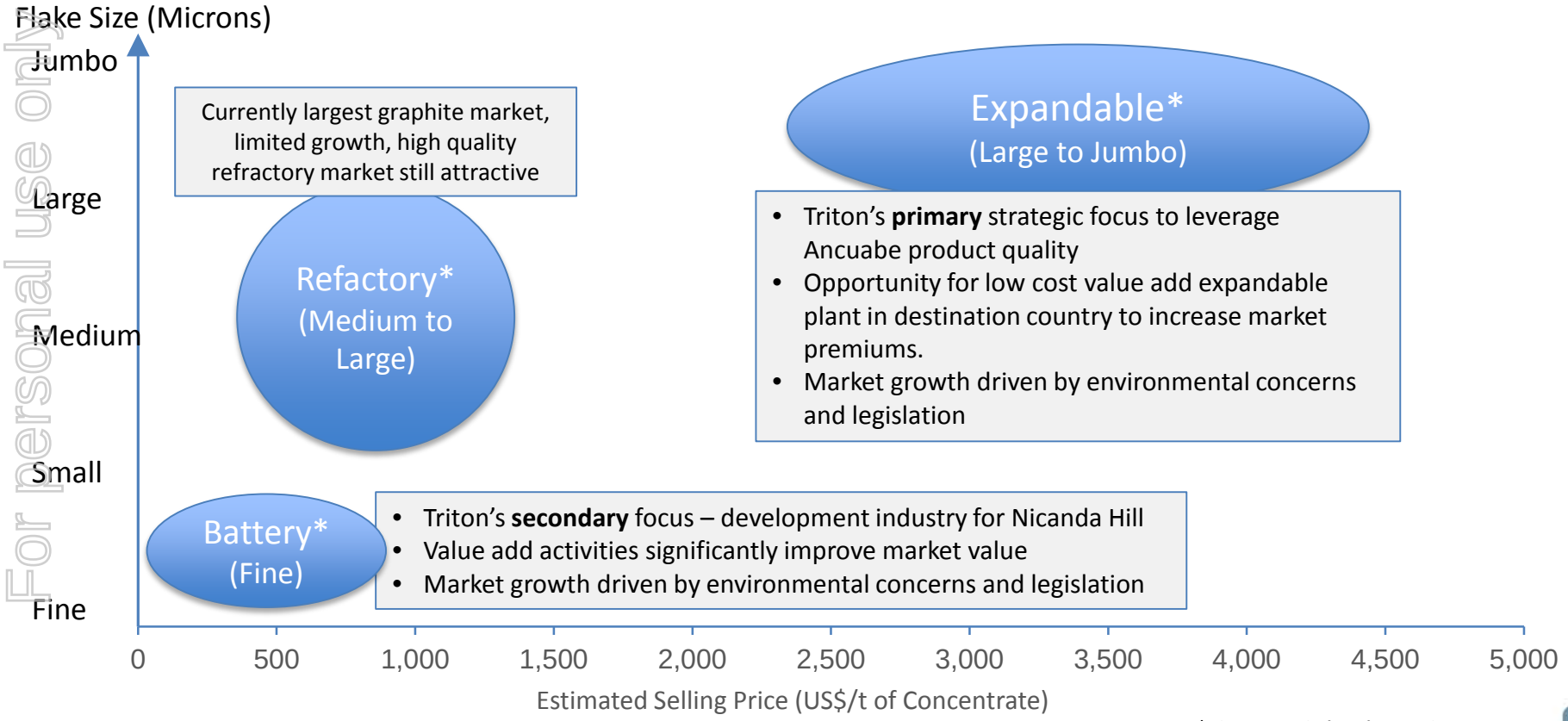
Global EV sales (million units) (Source UBS)



Source: UBS

For personal use only

Market Premiums For Expandable Graphite



*** Sizes are typical market requirements**

For personal use only