TRITON MINERALS LTD

PDAC Conference, Toronto Corporate Presentation

2 March 2015

'Safer than Mainstream Mining'

TRITON MINERALS LID

Corporate Snapshot

Capital Structure

Share Price [28 January 2015]	A\$ cents	17.0
Shares outstanding	m	318.6
Options and performance rights	m	40.4
Market capitalisation (undiluted)	A\$m	48
Cash & Funding Facility	A\$m	~21
Debt	A\$m	0

Directors & Major Shareholders

Directors:	
Alan Jenks	Non Executive Chairman
Brad Boyle	CEO & Managing Director
Alf Gillman	Executive Director
Major Shareholders:	
Directors	~13%
Top 20 shareholders	~45%

Share Price Graph (ASX:TON)





Jumbo graphite flakes obtained from Ancuabe rock chip samples



Investment Highlights



Overview of the Balama and Ancuabe project areas

World's largest Graphite & Vanadium Deposit

- Triton is acquiring 100%¹ interest in 3 graphite projects in Mozambique covering a total area of ~1,150 km²
- The critical components to develop a graphite project are purity and flake distribution to ensure a market, a flexible resource with good metallurgy and access to infrastructure
- Large flake graphite has been identified at the Company's flagship project, Nicanda Hill located within the Balama North project, as well as Balama South and Ancuabe projects with a total JORC Resource of **1,560B** tonnes defined
- Lab test work shows that Nicanda Hill ore is upgradeable to 99.9%C with low impurities making it ideal for high value end users
- Easy access to sites and adjacent to all required infrastructure for future project development
- Strong Local Community and Federal Government support
- Rapid development program is underway at Nicanda Hill: Scoping Study results released in November 2014, Feasibility Study commenced, environmental studies commenced, mining licence expected CY2015 for first production CY2017
- Triton actively engaged with potential off-take/strategic partners from Europe, America, Japan and China.

[Note 1: Triton is currently earning its 100% interest from Grafex via the further payment of US\$9.2 million in cash and shares over the next 12 months]



Nicanda Hill Scoping Study Results

Summary of Economic Assessment						
Item	Unit	Value				
Mining Inventory		51Mt @ 12.4% TGC				
Production rate	Mtpa	1.8				
Mine life (including construction)	Years	30				
Pre-production capex	US\$M	110				
LOM sustaining capex	US\$M	29				
Cash operating costs	US\$/t produced	338				
LOM free cashflow	US\$/t produced	624				
DCF / NPV ₁₀	US\$M	1,230				
IRR	%	137				



- Independent Scoping Study undertaken by Optiro Pty Ltd shows a low technical risk, economically robust and commercially viable graphite project
- NPV₁₀ US\$1,230 million (pre-tax)
- Pre-tax IRR 137%

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- 1.8Mtpa throughput plant for 210Kt annual production of premium quality flake graphite for 30 years
- Incorporates only a fraction of the total resource
- Estimated capex US\$110 million with FOB operating costs of US\$315 per tonne to pay back within 12 months of commissioning
- Low capital intensity reflect the favorable infrastructure and relatively simple plant design (see adjacent)
- The vanadium upside has not been included in the Scoping Study with separate work being undertaken to quantify this potential



Nicanda Hill Resource

World's largest graphite deposit: The Nicanda Hill Mineral Resource estimate comprises 1,457 Mt at 10.7% Total Graphitic Carbon (TGC) and 0.27% Vanadium Pentoxide (V_2O_5), classified as Indicated and Inferred

Substantial high grade zones: 15%TGC cut off in the Nicanda Hill deposit, 28.1Mt of graphitic material with an average grade of 15.8%TGC contained in Mutola, Grande and Macico (**MGM**) high grade graphite zones

Flexible Resource: High grade zones can be targeted to keep operating costs low and produce the product that offtakers want Nicanda Hill October 2014 Mineral Resource Estimate Table completed in accordance with the JORC Code (2012)

Classification	Tonnes (Mt)	Grade (TGC%)	Contained Graphite (Mt)	Grade (V ₂ O ₅ %)	Contained V ₂ O ₅ (Mt)
Indicated	328	11.0	36.1	0.26	0.85
Inferred	1,129	10.6	119.7	0.27	3.05
Total	1,457	10.7	155.9	0.27	3.93

Note1: Reported using block model zero cut-off grade. Note 2: Some of the numbers may not equate fully due to the effects of rounding

Competent Person's Statement

The information in this report that relates to Mineral Resource estimate at the Nicanda Hill deposit on Balama North project is based on, and fairly represents, information and supporting documentation prepared by Mr Mark Drabble, who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Drabble is not a full-time employee of the Company. Mr Drabble is employed as a Consultant from Optiro Pty. Ltd. Mr Drabble has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Drabble consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.



Nicanda Hill Resource

Nicanda Hill deposit was defined within 6 months from the commencement of drilling along a foot print that is 6.2km long (5.2km²) and still open in all directions

Hydrothermal (Mutola) zone averages nearly 12% TGC and Macico and Grande graphite zones average 11% TGC, with higher grade zones within the MGM zone averaging 15.8%TGC (15%TGC cut-off)

Diamond drilling confirms mineralisation from surface to over 400 vertical meters, open at depth



Plan showing conceptual pit outline associated with the high grade Mutola, Grande and Macici graphite zones

Nicanda Hill Cross section N7 showing arrangement and geometry of resource model with conceptual open pit overlays





Nicanda Hill Resource

- Nicanda Hill is a shallow open pit operation, focused initially on the MGM graphite zones and accessed by three separate ramps
- The shallow nature of the open pit operation combined with a mineralised waste grade averaging 8%TGC, represents exceptionally low technical risk
- Average grades for the first five years expected to be in excess of 13%TGC
- Initial waste to ore strip ratio expected to average 0.84:1, with the LOM strip ratio to be approximately 1:1. The majority of the waste material averages approximately 8%TGC
- The simplicity of the deposit and relatively low capital intensity means that production is effectively limited by the requirements of customers and an increase (or decrease) dependent on demand given this flexibility



Conceptual open pit design by Optiro for a 30 year mine life. The pit is approximately 3kms long and averaging 200m wide and 60m deep



Nicanda Hill Preliminary Metallurgical & Mineralogical Analysis

Graphitic material being liberated using a flotation method at the ALS Metallurgy laboratory



Published flake size, purity and resource size (bubble); Source: GMP Research



- High purity graphite concentrate of **94-97%TGC** may be produced on site through simple flotation
- Graphite concentrates with a weighted average purity of **97.1%TGC, 2.7%** Ash and **0.2% Volatiles**, no need for chemical treatment
- Exceptional purity of 99.9%C achievable from graphite concentrate
- Vanadium and Zinc occur as credits and may be recovered as a concentrate without difficulty
- Vanadium concentrate grades of up to **0.74%V₂O₅** achieved to date
- Mineralogical tests demonstrated 23% of the graphite samples were very large flake which are 212µm or larger
- Zinc concentrate grades of up to 7%Zn in concentrate tailings achieved to date
- The tests verify low levels of volatiles and impurities
- Additional metallurgical work underway to refine the recovery processes



Nicanda Hill Project Development Timeline

Targeted project timeline for development of Nicanda Hill, subject to obtaining the relevant funding and regulatory approvals

Activity	2014			2015			2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Resource Definition			\checkmark											
Scoping Study				\checkmark										
EIA & Final Feasibility Study						Underwa	ay							
Permitting						Un	derway							
Pilot Plant Production														
Project Finance														
Procurement														
Construction														
Commissioning														
Production														



Nicanda Hill Definitive Feasibility Study

EXPERT FEASIBILITY TEAM

Environment Coastal Services

- Will complete the Environmental Management and Impact Assessment at Nicanda Hill.
- DRA Global
 - Specialists in project management of mining, infrastructure and mineral process plant design and construction.
- ORElogy
 - Will complete the Reserve Classifications at Nicanda Hill, design for the proposed open pit, the Life of Mine schedule and all associated mine planning for the project.

Golder Associates

- Exceptional global reputation, engaged to complete the Tailings Storage Facility design for the DFS at Nicanda Hill.

Jem-Met

- Will assist with the overall supervision of the DFS process on behalf of Triton, to ensure the study is completed on time and on budget.

Legacy Project Solutions

 Will assist on behalf of Triton to oversee the various consultants in South Africa and Mozambique during the study period.

DFS due to be completed by December 2015.

This expert team will work in collaboration with Triton to ensure that the Nicanda Hill DFS is delivered on time and on budget

Balama North Further Exploration Potential

- Exploration to date has been low cost and low risk: Nicanda Hill defined and taken to a JORC Resource within 6 months of drilling and associated costs of about A\$5 million
- Charmers, Black Hills, Nacugi and Western prospects yet to be tested
- Preliminary data from VTEM survey identifies new P1 and P2 targets in the Balama North project
- VTEM survey data pending for Ancuabe and Balama projects
- Potential to identify further near surface, large flake high grade graphitic mineralisation within tenements

Overview of the new anomaly on License 5365 identified by the recent VTEM survey





Ancuabe Project: Jumbo Graphite Flake



- Surrounds historic Ancuabe Mine held by AMG Mining through GK.
- Strong indicators of the high quality nature of the Ancuabe Project
- Three new prospect areas defined by VTEM survey
- Initial rock chip samples return grades of up to 22.3%TGC
- Preliminary mineralogical results confirm visual observations of jumbo flake graphite
- Flake graphite in excess of **3mm** liberated in primary crusher discharge
- 85% of graphite flakes exceed **212μm**
- Graphite head grades of up to **23%TGC**
- Further metallurgical (flotation) work underway on 100kg sample

Ancuabe Preliminary Mineralogical Analysis



- 85% graphite flakes greater than 212μm
- ~60% of the graphite flakes recovered from the crusher discharge ranges between 600µm and 3300µm, (i.e. jumbo graphite flakes)
- Graphite flakes liberate cleanly with crusher from the surrounding gangue material without the need for additional processing

- Preliminary assay results has head grade of up to
 22.8% Total Graphitic Carbon (TGC) in the flake size range between 600µm and 800µm,
- Overall graphite grades across the full range of graphite flake sizes still averaged **16.2%** TGC
- Complete flotation testing program is being undertaken a Mintek Laboratories

Optical Microscope Photos from -3.35mm Crusher Discharge showing liberated jumbo graphite flakes from Ancuabe graphite sample





Ancuabe Preliminary Mineralogical Analysis

Discrete Particle Size Distribution



Size Classes (um)

Discrete particle size distribution of the graphite flakes from the Ancuabe graphite sample.

TRITON MINERALS LTD

Integrated Development Concept Plan





Building Towards the Future

Professional Team

- Triton has a highly motivated professional team
- Currently enhancing the Board and management teams
- Delivering key milestones in record time
- Rapid production development programs for Nicanda Hill and Ancuabe
- Triton to become a low cost and reliable producer of high quality flake graphite

Expert Support

- Mintek/SGS
- IMO
- Oriental Link Holdings
- World Industrial Minerals

Strategic Partnerships and Relationships

- Triton, together with the assistance of WIM and OLH, are actively advancing discussions with current and new potential strategic partners from Europe, Japan, China and North America.
- Creating long term strategic relationships to add real value for all Triton stakeholders.



Graphite Flake Sale Prices

- Deutsche Bank and Industrial Minerals have projected that flake graphite prices will increase over the next 5 years
- Average Selling price/tonne @ 94-97% purity:

Flake size	Price US\$
Jumbo	\$2200
Large	\$1250
Medium	\$1100
Small	\$900
Fines	\$550

Source: Industrial Minerals 2015

• Increased purity across flake sizes can attract increased prices

Triton's projects have the flexibility to produce graphite across all flake sizes and with purity from 95 -97% that can easily be upgradeable to 99.9%.



Graphite Uses and Demand

Refractories

- Largest current market, 3-5% growth each year for past decade
- 40% of current graphite demand
- Mostly medium & large flake used

Batteries

- Largest potential market, increase in Li-ion batteries will drive growth
- growing at 9% per annum
- 25% of current graphite demand
- Flake size less important than purity, must be 99.9%

Consumer Electronics

- Fastest growing market
- 10% of current graphite demand
- Mostly large and jumbo flake used

Emerging Technologies

- Mobile and stationary fuel cells
- Graphene
- Vanadium redox batteries
- Variety of flake sizes and purities required

Triton has the scale, variety and quality of product to be applied to all these uses as well as potential enter non-traditional market.





Powering the future

Electronic vehicles

- 45kg of graphite in every EV.
- 10kg of graphite in every Hybrid EV.



Batteries

- 2013 alone 5 billion lithium-ion batteries were sold to consumers across a wide spectrum of products (phones, computers, etc).
- It should be noted that it is the tendency for purity levels to increase with flake size that is the real reason for the common 'mantra' that for battery-grade materials, the bigger the flake size, the better. In fact, the ideal precursor material would have small flake size if it had sufficient purity levels for the subsequent processing to be cost-effective.
- Triton has demonstrated that it can produce 99.9% pure graphite across a variety of flake sizes.

Graphene

- Graphite wonder product still in R&D phase
- Potential commercial, industrial, defence and residential uses are being developed and tested.
- Potential upside is huge, however, graphite demand for graphene application is currently unknown.



ITON Permitting & Corporate Social Responsibility





Permitting

- Mozambique is a favourable and supportive environment for mining and hosts a number of coal mining projects, a small graphite mine and a mineral sands project
- A mining license at Nicanda Hill is expected in CY2015. The application process involves an environmental management assessment which has commenced

Corporate and Social Responsibility

Triton provides an **ongoing support program** which includes the provision of water bores and review of school and medical facilities to the local people in the surrounding local villages of Mapapulo, Nicanda, Napavale, Nacugi and Naropa which are home to approx. 20,000 people

Triton provides Employment and Training to the local people to assist wherever possible to advance its projects, this includes:

- 4 x Mozambique Geologists
- 4 x Mozambique Field Hands/Labourers
- Approximately 150 local villagers employed over last 18 months
- Utilises local service providers
 - Drilling/Logistics/Transportation/Supplies
 - Housing/Vehicle hire
 - Lawyers/Accountants/Customs Agents

Triton geologists and field hands cutting diamond core at Nicanda Hill prospect (Source: www.thebutterflytree.org.uk)



Future Outlook

- Nicanda Hill is the largest high-grade flake graphite and vanadium deposit in the world: 1.457Bt at 10.7%TGC and 0.27%V₂O₅
- Flexible Resource: High grade zones can be targeted to keep operating costs low and produce the product that off takers want
- High grade jumbo flake graphite confirmed at Ancuabe project (up to **3,300µm** in length)
- Triton is in preliminary discussions with a number of parties for potential off-take agreements with the flexibility of the large resource and excellent metallurgy holding appeal
- Ideally located in East Africa, with established infrastructure and local community and government support
- High grade graphite concentrates of up **97.3%TGC** from traditional flotation methods with exceptional purity of **99.9%C** achievable from graphite concentrate
- Vanadium Pentoxide (**0.74%V₂O₅**) and Zinc (**7%Zn**) concentrates can be recovered from flotation methods
- Development timeline to graphite production by Q1 2017 with studies on-going at Nicanda Hill
- Predicted strong future global demand for flake graphite and vanadium, Triton is aiming to become a global and market leading low cost producer with a full range of graphite flake sizes





Contact Details



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Competent Person's Statement

Diamond drill core from Nicanda Hill prospect on License 5966 showing graphite and vanadium

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The information in this presentation that relates to Exploration Results on Balama North project is extracted from the reports entitled ASX Release "Balama North Project Update" created 5 March 2014, ASX Release "Positive Metallurgical Results For Nicanda Hill" created 16 September 2014, ASX Release "Further Positive Drilling Results From Nicanda Hill" created 9 October 2014, ASX Release "Nicanda Hill Maiden Jorc Resource – 1.457 Billion Tonnes At 10.7%TGC And 0.27% V₂O₅", created 21 October 2014, ASX Release "Solid Drilling Results Continue At Nicanda Hill" dated 30 October 2014, ASX Release "Nicanda Hill Scoping Study", dated 26 November 2014, ASX Release "Nicanda Hill Update", dated 28 November 2014 and is available to view on <u>www.tritonmineralsltd.com.au</u> The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this presentation that relates to Exploration Results on Ancuabe project is extracted from the reports entitled ASX Release "High Grade Large Flake Graphite Identified at Ancuabe Project" dated 31 October 2013, ASX Release "Mozambique Projects Update", dated 4 February 2015 and 26 February 2015 and is available to view on <u>www.tritonmineralstd.com.au</u> The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the trelevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been market announcement.

Forward-Looking Statements

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

