



Markets first

Chilalo Project: Financing and Offtake

May 2017



- ✓ **Strategy:** Clear and differentiated strategy of understanding end markets, moving quickly and supplying favourable expandable graphite markets
- ✓ **Expandable graphite market is growing quickly and available now:** Chinese supply restrictions, huge demand upside from flame retardants
- ✓ **High quality project:** Market-leading product, significant growing resource – located in centre of world class Tanzanian graphite province
- ✓ **Poised for binding JV and offtake agreements:** Non-binding Term Sheet agreed, binding documentation under way
- ✓ **Fully permitted project:** Mining licence and environmental approvals in place – advanced project capable of being brought into production quickly
- ✓ **Capacity to deliver:** Board and management with demonstrated capability to deliver project
- ✓ **Value:** Attractive investment opportunity – PFS: US\$200M NPV, 62% pre-tax IRR, 19 month payback of capital (see Slide 24)¹

1. Results are prior to 80% increase in Mineral Resource announced on 2 February 2017

Term sheet agreed for JV development of Chilalo



Agreement on non-binding term sheet provides clear pathway for development of Chilalo – with minimal dilution for Graphex shareholders

- 50/50 Joint Venture with Graphex and a Chinese syndicate led by CN Docking Joint Investment and Development Co Ltd, a subsidiary of China National Building Materials Group
- Preparation of binding documentation under way – targeting completion August 2017
- Proposed 65% debt and equity will provide funding for ~US\$51M of project development costs without contribution from Graphex shareholders

SUMMARY OF KEY TERMS

Equity joint venture

- Investment of US\$18-20M for 50% interest
- Project level incorporated joint venture

Offtake arrangements

- Offtake agreement for minimum 50% of production covering all specification
- Product sold at prevailing market price
- Graphex able to market remainder of production (with assistance from Chinese partner)

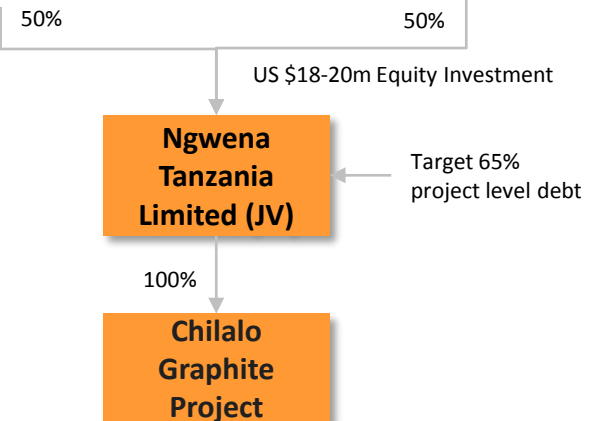
Debt

- Joint venture will target project level debt for 65% of final capital costs
- Chinese partner responsible for procuring debt
- Both equity parties required to provide debt guarantees (if required)

STRUCTURE



CN Docking led syndicate



Next steps and strategy

Completion of the binding agreements remains top priority for Graphex and the proposed Chinese JV partner. Securing a strategic partner is expected to provide longer term benefits.

Near Term Strategy

- Complete joint venture and offtake binding agreements
- Final design / value engineering – targeting lower capital costs than November 2015 PFS
- Assemble development team
- Construction / commissioning
- Production



Longer Term Value Enhancement

- Production expansions
- Downstream processing
- Leverage to growing lithium-ion battery demand
- Assessment of graphene opportunities and potential strategic partnerships

Chilalo: New, world-class source of expandable graphite

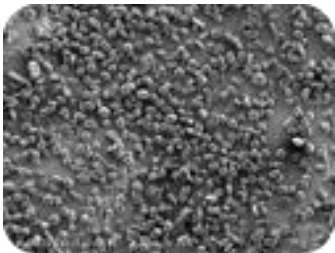


Factors underpinning Graphex's clear and differentiated strategy

- ✓ **Fully permitted**
Mining licence in place, environmental approvals received, relocation plan agreed
- ✓ **High-margin project**
Market-leading expandability, high-grade deposit and proximity to existing infrastructure will deliver margins in the first quartile
- ✓ **In-depth understanding of graphite market**
Engagement of expert advisors and commitment of management time to understanding Chinese market
- ✓ **Strategic Chinese partner**
Term sheet for joint venture, offtake and prospective project financing agreed
- ✓ **Strong in-country relationships**
National/regional government and local communities from 10+ years of operations at Ntaka Hill Nickel Project

With permitting, offtake and funding in place, Graphex can rapidly emerge as a producer of high-quality, high-margin graphite into growing markets – all with minimal dilution for shareholders

Primary graphite markets and specifications

Graphite Specifications	Batteries	Traditional markets (refractories / foundries)	Expandable graphite markets (including foil, sheet, gasket, seals, flame retardants)
Flake Size	Fine (<150 micron)	Medium-large (150-300 micron)	Mainly coarse (>180 micron) ¹
Purity	Higher purity marginally reduces purification cost for spherical graphite producer	Minimum 94% TGC purity	Higher purity (95% TGC) opens up number of applications
Other	Favourable battery performance	N/A	Expansion rate, method and temperature
			

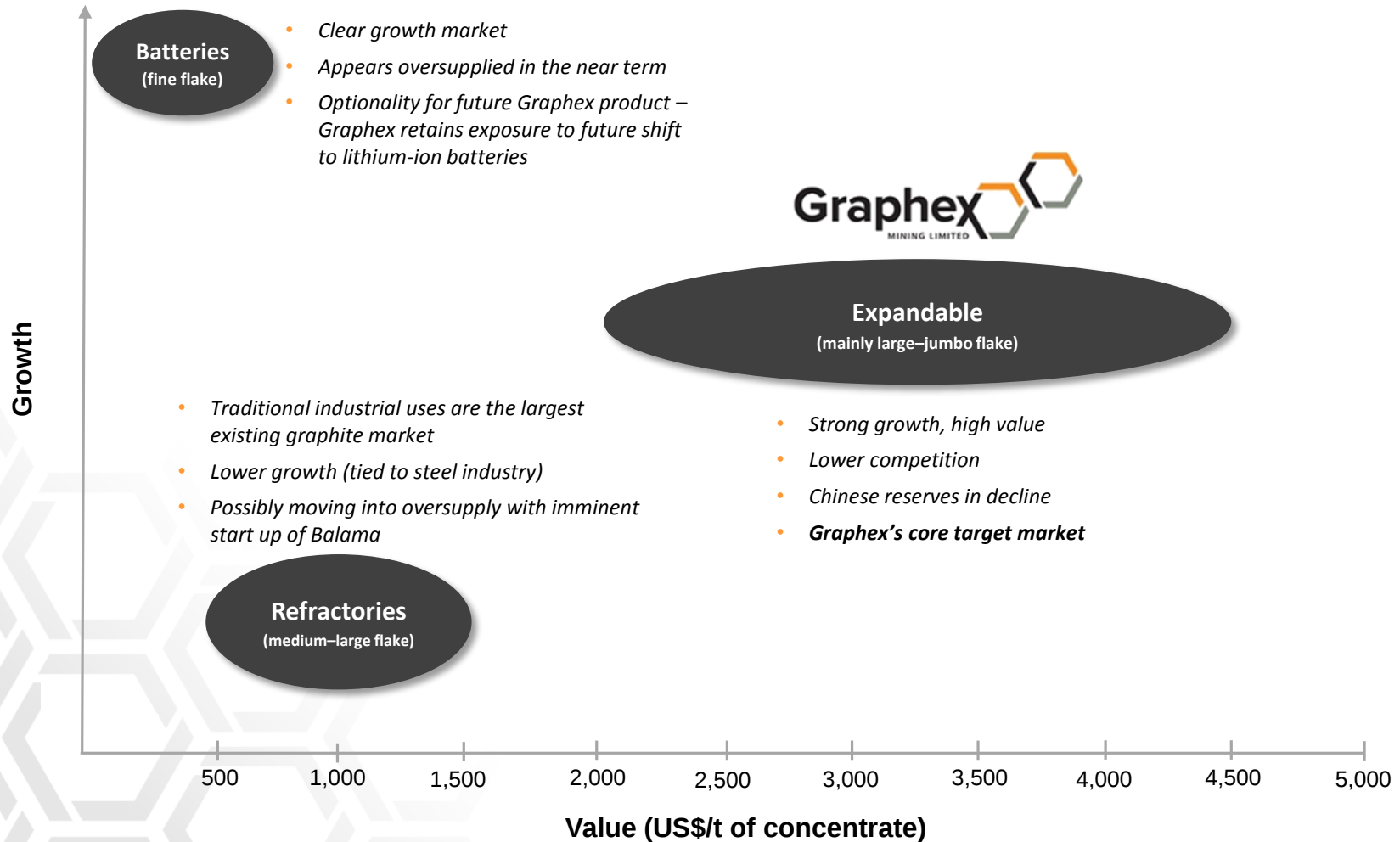
Graphex's Chilalo project can produce all of these specifications

Notes:

1. Certain expandable graphite applications also require fine-medium flake

Graphite Markets – Growth vs Value

Graphex is deliberately and strategically targeting the expandable market based on its attractive growth and value characteristics. Future optionality to supply battery market as market develops.



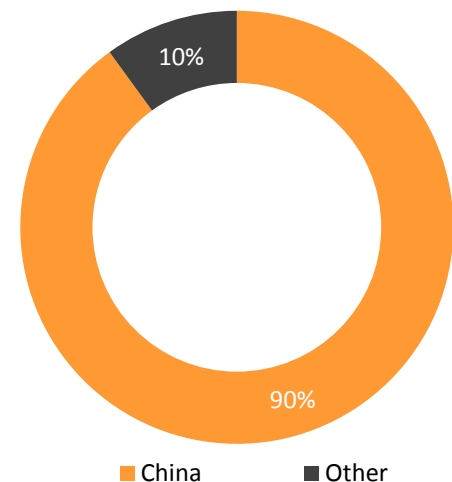
Expandable Graphite

Expandable graphite is a value-added product derived from flake graphite

- Manufactured by treating flake graphite with acid and oxidising agents and then applying heat
- When heated, rapidly expands to several hundred times its original size (expansion ratio)
- The expansion ratio is the volume of expandable graphite produced per gram of graphite product at a specified temperature – measured in mL per gram (how many mL of expandable graphite produced from 1 gram of graphite)
- Not all graphite is expandable and expansion rates vary
- Expansion rates dependent on thickness of graphite flakes
- Expandable graphite currently used to produce:
 - Graphite foil – the heat shield in electronic devices
 - Graphite paper/sheet
 - Seals, gaskets
 - Flame retardant building materials
- Unique properties of expandable graphite include high heat resistance, corrosion resistance, softness, compression resilience and radiation resistance



Expandable graphite supply



Visit www.graphexmining.com.au to view videos of the expandability of Chilalo graphite and the flame retardant properties of expandable graphite.

Why target the expandable graphite market?

Slide Reference

Significant demand driven opportunity – amendments to Chinese building regulations requiring use of flame retardant building materials

10

Chinese domestic supply situation

11-14

Chilalo demonstrates market-leading expansion rates

15

Coarse flake graphite represents highest proportion and highest value of Chilalo revenue

Expandable Graphite – Demand Drivers

Flame retardant building materials (FRBMs) are driving substantial demand for flake graphite in China

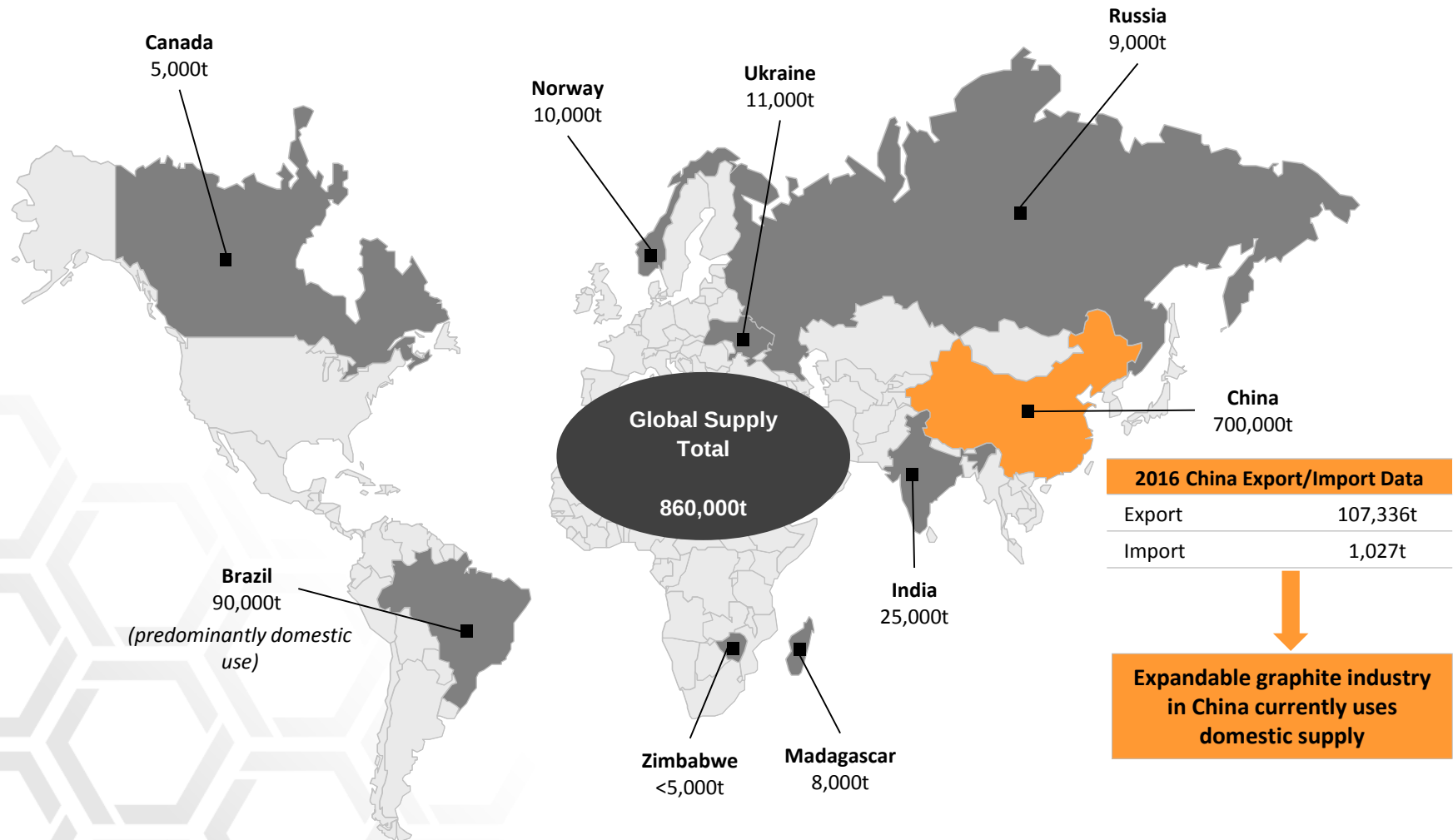
- From 2016, Chinese building regulations now stipulate the use of FRBMs for all inner insulation and finishing of exterior walls
- Expandable graphite has no competitor product for FRBMs in China
- End users indicate that expandable graphite content in FRBMs varies from 5-50% with an average of 10%
- Japan and Korea moving towards adopting similar building regulations as China
- China currently exporting FRBMs to Korea
- EU has banned brominated flame retardants from 2017 onwards due to environmental concerns – China to follow suit in 2018
- Expandable graphite to be used as flame retardant in other industries – car seat material, vehicle frames

Installing flame retardant insulation foam



2016 Global flake graphite supply

China continues to dominate global flake graphite supply. Brazil is the second largest producer, however the majority of supply is for domestic use.



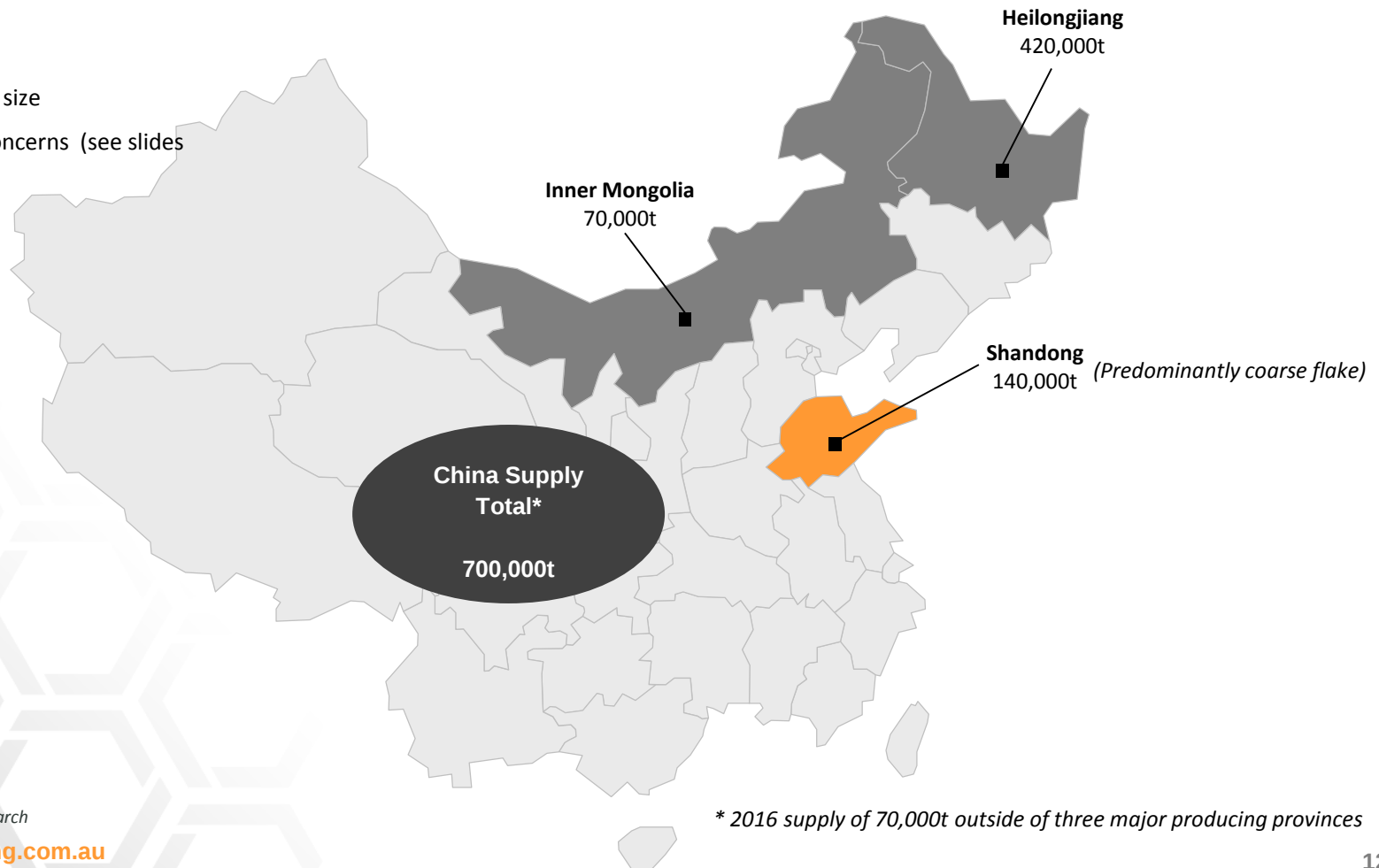
2016 Chinese flake graphite supply

Coarse flake graphite supply > 180 microns is dominated by Shandong province

China Flake Graphite Supply Issues

China's flake graphite reserves are increasingly subject to:

1. Lower grades
2. Higher costs
3. Diminishing flake size
4. Environmental concerns (see slides 13-14)



Chinese Pollution Problem

China's Pollution Problem

- President Xi Jinping recently listed air pollution as one of the six issues the country needs to address
- Tiny particles, known as PM2.5 can penetrate deep into the lungs and cardiovascular system, increasing the risk of disease
- Report by International Energy Agency (IEA) estimates that:
 - 97% of Chinese people are exposed to concentrations of PM2.5 above WHO guidelines
 - Severe air pollution has shortened life expectancy in China by 25 months

Pollution in Beijing

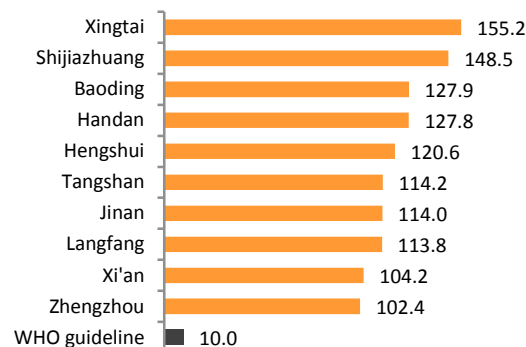


Source: Chinese Ministry of Environmental Protection, American Lung Association and WHO

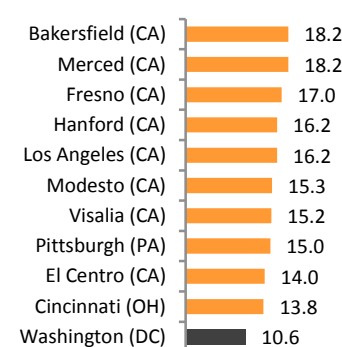
PM2.5 in Chinese Cities

- In December 2016, 32 cities were under 'red alert' (China's most severe pollution warning). 2 red alerts in Beijing forced closure of schools and factories and half the city's cars were banned from the road
- WHO guidelines consider anything over 10 micrograms per cubic meter of PM2.5 to be hazardous to health

10 WORST CHINESE CITIES



10 WORST US CITIES



Impact of Graphite Production

- Whilst PM2.5 issues are predominantly caused by coal, air pollutants emitted from graphite plants contribute to increased PM2.5

Environmental drivers

China's current 5 year plan (2016-2020) includes several targets aimed at reducing air pollution and energy consumption. This will result in increased domestic graphite demand and lower domestic graphite supply.

Target

Increase the average life expectancy by 1 year

18% reduction in CO₂ emissions per unit of GDP

Increase in days of 'good' or 'excellent' air quality in cities from 76.7% to 80%

18% reduction in cities failing the PM2.5 intensity target of 35 micrograms per m³

Various other water quality and pollutant emissions targets

15% reduction in energy consumption per unit of GDP

Impact on Graphite Market

Graphite demand increase due to electric vehicle growth

Graphite supply decreases in China due to depletion of higher grade resources, environmental controls (incl. environmental tax) and industry consolidation

Increased thermal insulation (historically flammable). Flame retardant polystyrene foam satisfies insulation and flame retardant requirements

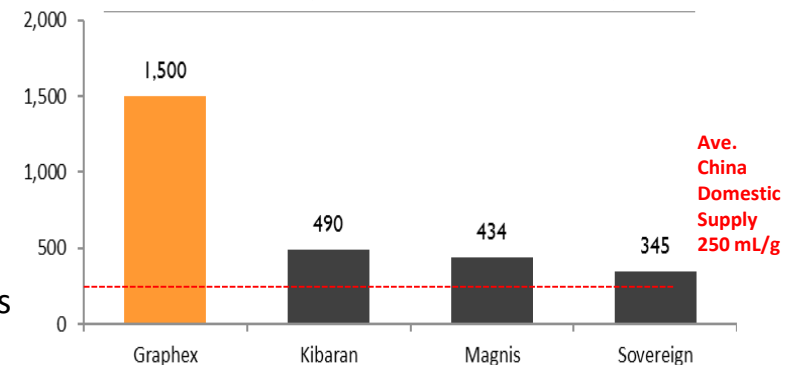
Expandable graphite producers are looking to source graphite feedstock such as Chilalo that meets market specifications at lower temperatures

Market-leading product

Chilalo product is in demand from multiple end users

- Chilalo produces a high quality product
 - Coarse flake
 - Market-leading expansion rates at high temperatures
 - Meets specifications for flame retardants and graphite foil at low temperatures
 - No deleterious elements
- Significant testwork carried out by independent testing authorities
- Potential to produce 99.4% TGC through simple floatation
- Final specifications to be guided by offtaker demand
- Independent surveys of Chinese expandable graphite market determined that basket price assumptions are conservative

Published Expansion Rates (mL/g)



Chilalo Product Specifications

Flake Size	Microns	Mesh	Mass Dist. %	Assay TGC %	Price (US\$/t) ¹	Basket Price (US\$/t) ¹	Potential Markets
Super Jumbo	>500	35 Mesh	1.9	95.9	2,500	47	Expandable
Jumbo	300-500	50 Mesh	24.0	95.6	2,200	528	Expandable
Large	180-300	80 Mesh	22.5	93.7	1,400	315	Expandable / Refractory
Medium	150-180	100 Mesh	6.0	93.9	950	57	Expandable / Refractory
Small	75-150	200 Mesh	20.6	94.9	700	144	Expandable / Battery-grade spherical
Fines	<75	-200 Mesh	25.0	90.0	500	125	Expandable / Battery-grade spherical
Total			100.0			1,217	

1. Source: Benchmark Minerals Intelligence 2015

Project location – centre of new graphite province

- Tanzania proving to be the coarsest flake graphite province in the world
- Experienced in-country operator – over 15 years experience at nearby Ntaka Hill nickel project
- Board and management have recent Tanzanian project development experience
- Proximity to existing infrastructure – sealed roads, deep water port

Tanzania

- Stable democratic Government
- Strong GDP growth over the past 10 years
- Established mining history (4th largest gold producer in Africa)
- Globally competitive tax and regulatory regime
- Access to skilled and educated workforce
- Issues associated with export of concentrate not applicable to non-metallic minerals (Ministry of Energy and Minerals press release 3 March 2017)

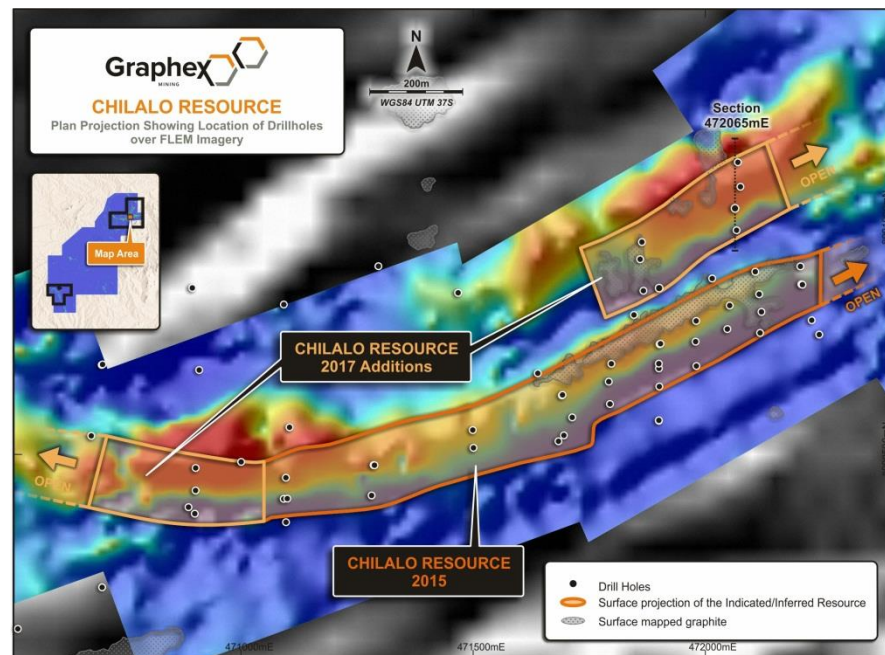
Located within Tanzania/Mozambique Graphite Province



Chilalo Ore Reserves and Mineral Resources

Underpinned by a large high-grade resource

- High-grade Mineral Resource (Indicated and Inferred) of 16.9Mt @ 10.2% TGC
- Mineralisation at or near surface
- Recent exploration drilling increased high-grade resource by 80%
- Resource upgrade expected to significantly increase previous 10 year mine life
- Less than 10% of strike length drilled



Chilalo Project: Ore Reserves and Mineral Resources¹

Domain	Classification	Tonnes (Mt)	TGC%	Contained Graphite (Kt)
High-grade zone	Probable Reserve	4.7	11.0	517
Total ore reserves	Probable Reserve	4.7	11.0	517
High-grade zone	Indicated	5.2	11.9	622
High-grade zone	Inferred	11.7	9.4	1,100
Total high-grade resource	Indicated and Inferred	16.9	10.2	1,722
Low-grade zone	Inferred	36.6	3.5	1,265
Total resource	Indicated and Inferred	53.5	5.6	2,987

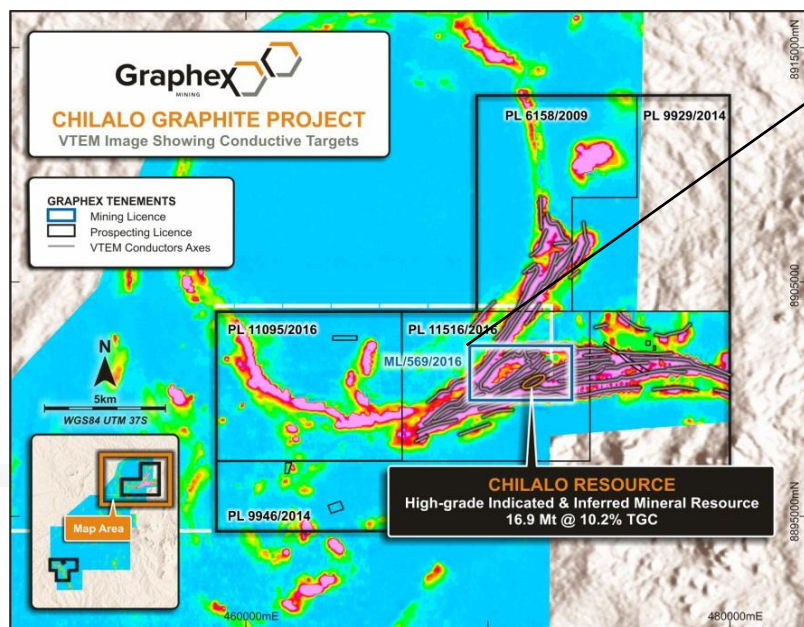
1. ASX announcement 2 February 2017.

Please note: Mineral Resources are inclusive of Ore Reserves. The Mineral Resource was estimated within constraining wireframe solids using a core high grade domain defined above a nominal 5% TGC cut-off within a surrounding low grade zone defined above a nominal 2% TGC cut-off. The resource is quoted from all classified blocks within these wireframe solids. Differences may occur due to rounding.

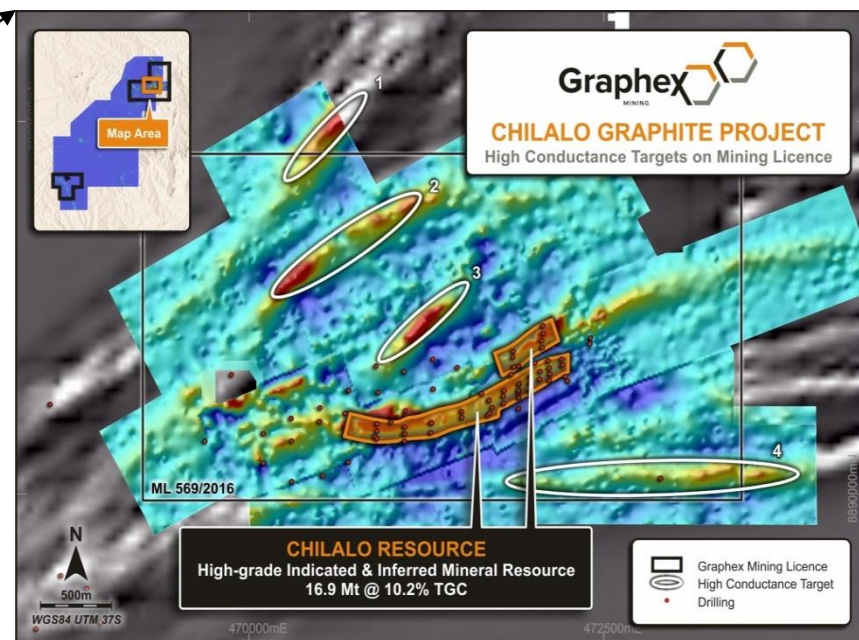
Significant resource upside

Multi-decade mine life potential

VTEM – 3km drilled of the 35km of high-conductance targets²



FLEM identifies 4 high-conductance targets on Mining Licence²



- Exploration target tonnage of 100-350Mt @ 3-11% TGC
- Success of 2016 drill program confirmed technique of targeting high-grade graphite
- Further exploration will be market-dependent

1. The potential quantity and grade of an Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for the Exploration Target, which excludes the Chilalo Mineral Resource, and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Since IMX's announcement of the Exploration Target on 2 September 2015, Graphex confirms that it is not aware of any new information or data that materially affects the information included in that announcement.

2. ASX announcement 15 December 2016.

Existing infrastructure

Roads and transport

- Chilalo to Mtwara Port is ~ 220km, predominantly sealed
- Government project to seal unsealed section has commenced
- Existing airport at Nachingwea ~ 47km from Chilalo

Mtwara Port

- Commercial deep water port with capacity to handle Chilalo's volumes
- Expansion to double capacity under way
- Land available for concentrate storage

Power

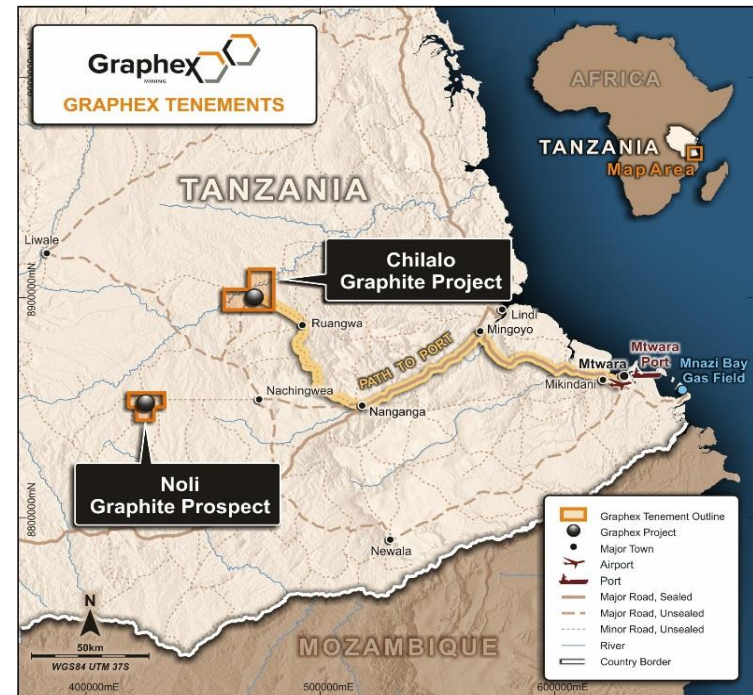
- PFS assumed 4MW diesel generated power
- Expansions to grid power supply under way in SE Tanzania – scope for significant reductions in operating costs

Water

- Preliminary studies indicate that water supply is expected to be available at site from borefield

No significant capex required

Chilalo route to port



Mtwara Port



Robust project economics

Low capex and high margins underpin a quality project

Operational metrics		PFS
Life of Mine	Yrs	10
Average annual production (LOM)	tpa	69,123
Plant feed rate	tpa	630,000
Average head grade (LOM)	% TGC	10.85
Average recovery	%	94
Average concentrate grade	% TGC	94
Financial metrics		PFS
LOM Revenue	US\$M	838
LOM Pre-tax Net Cashflow	US\$M	391
Average annual EBITDA	US\$M	47
Basket sales price	US\$/t	1,217
Operating cost per tonne of concentrate	US\$/t	490
Operating margin	US\$/t	727
Pre-production capital cost	US\$M	74
Pre-tax payback period	Yrs	1 year 7 months
Pre-tax NPV (10% discount rate)	US\$M	200
Pre-tax IRR	%	62

1. Operational and financial metrics are based on the November 2015 Mineral Resource and do not take account of the recent 80% increase in the high-grade Mineral Resource (ASX announcement 2 February 2017). Graphex confirms that all material assumptions underpinning the production targets and forecast financial information in the PFS announced on 23 November 2015 continue to apply and have not materially changed.

www.graphexmining.com.au



Value engineering expected to reveal capex efficiencies relative to PFS

Fully permitted with significant Tanzanian capability

Supportive community, experienced team capable of delivery



Fully Permitted

- Mining Licence granted
- Environmental certificate received

In-Country Capability

Experienced Country Manager:
Heavenlight Kavishe

- Holds degrees in Engineering and Business Administration
- Holds post-graduate qualifications in project management utility regulation
- Has held leadership positions with Tanzanian government agencies



Community

Current and historical CSR programs – Nachingwea Secondary School

Consultation with district officials and local communities



- Relocation Action Plan completed, compensation agreed

Corporate overview



Overview

ASX Code	GPX
Issued Capital	57.8M
Share Price	\$0.425
Market Capitalisation	\$24.6M
Cash – 31 March 2017	\$1.9M
Enterprise Value	\$22.7M
Options	18.8M

Analyst Coverage

Pulse Markets	<i>Chris Baker</i>
RM Research	<i>Guy Le Page</i>
BR Securities	<i>David Greenwood</i>
The Sophisticated Investor	<i>Adam Kiley</i>

Top 5 Shareholders

J P Morgan Nominees Australia Limited	7.3%
MMG Exploration Holdings	6.1%
Christopher Shun	5.1%
One Managed Investment Funds Limited	4.9%
BPM Commodities	2.8%

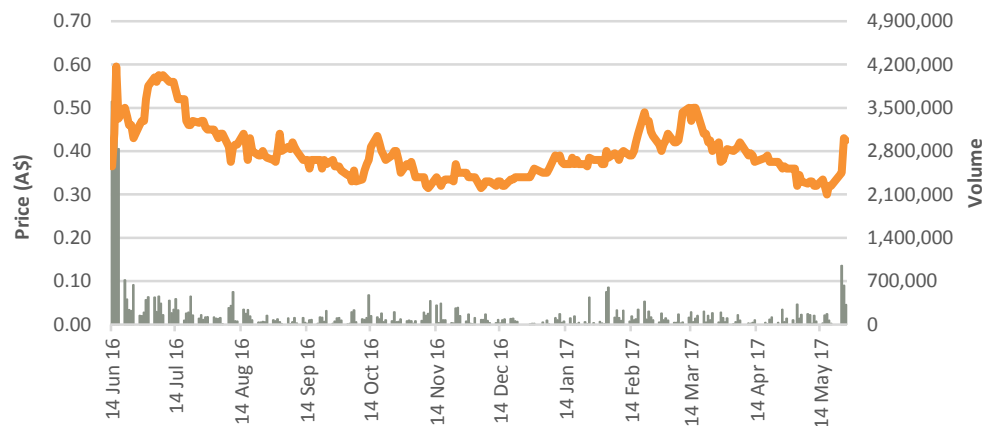
Board

Stephen Dennis	<i>Non-executive Chairman</i>
Grant Davey	<i>Non-executive Director</i>
Phil Hoskins	<i>Managing Director</i>

Key Management

Phil Hoskins	<i>Managing Director</i>
Nick Corlis	<i>General Manager - Technical</i>
Stuart McKenzie	<i>Company Secretary / Commercial Manager</i>
Chris Knee	<i>Chief Financial Officer</i>
Heavenlight Kavishe	<i>Country Manager, Tanzania</i>

GPX Share Price Movements



Advanced stage, value upside



Chilalo is one of the most advanced graphite projects on the ASX, fully permitted and term sheet agreed with Chinese partners for joint venture, offtake and debt guarantee

						
Project	Chilalo, Tanzania	Balama, Mozambique	Nachu, Tanzania	Namangale, Tanzania	Montepuez, Mozambique	Epanko, Tanzania
Targeted Production (tpa)	69,000	350,000	240,000	20,000	100,000	40,000
Market Cap (A\$m)	24.6	679.3	349.8	32.2	29.8	37.7
Enterprise Value (A\$m)	22.7	353.2	347.4	28.9	20.0	30.5
Permitting	Yes	Yes	Yes	N/A	N/A	Yes
Offtake Status	Offtake term sheet ²	Binding offtake agreements	MOU announced recently	N/A	N/A	Binding offtake agreements
Finance	Joint venture and debt guarantee term sheet ²	Financed	N/A	N/A	N/A	Under negotiation
Target Market – Geographical	China	Global	Russia, other	USA, China	USA	Germany, Japan
Target Market – Product	Expandable	Batteries, Industrial Uses	Batteries	Batteries	Batteries	Expandable, Batteries, Industrial Uses

Source: 1. Company announcements, share price as at 26 May 2017

2. Non-binding term sheet announced 24 May 2017

Disclaimer and Competent Persons' Statements



- This presentation (the "Presentation") has been prepared by Graphex. No party other than Graphex has authorised or caused the issue of this document, or takes responsibility for, or makes any statements, representations or undertakings in this Presentation. This Presentation does not constitute an offer, invitation or recommendation to subscribe for or purchase any securities and neither this Presentation nor anything contained in it shall form the basis of any contract or commitment.
- This Presentation contains summary information about Graphex and its activities, which is current as at the date of this Presentation. The information in this Presentation is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Graphex that would be required in a prospectus or product disclosure statement prepared in accordance with the requirements of the Corporations Act 2001 (Cth). This Presentation should be read in conjunction with Graphex's other disclosures and announcements lodged with the ASX, which are available at www.asx.com.au.
- This Presentation is not a prospectus, product disclosure statement or other offering document under Australian law (and will not be lodged with the Australian Securities and Investment Commission) or any other law. A prospectus for an initial public offering of Graphex Mining Limited is available at www.graphexmining.com and www.asx.com.au.
- This presentation includes certain "forward-looking statements". Forward-looking statements and forward-looking information are frequently characterised by words such as "plan," "expect," "project," "intend," "believe," "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may", "will" or "could" occur. All statements other than statements of historical fact included in this presentation are forward-looking statements or constitute forward-looking information. 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. Important factors that could cause actual results to differ materially from those in forward-looking statements include the market price of graphite, exploitation and exploration successes, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, as well as those factors disclosed in the Company's filed documents. Accordingly, readers should not place undue reliance on "forward looking information". There can be no assurance that a transaction for offtake and finance will be concluded, or that development of the Chilalo Graphite Project will proceed as planned or that the resources at Chilalo can be economically exploited.
- This Presentation has been prepared in good faith, but 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, Graphex and 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 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.
- The information in this Presentation that relates to in situ Mineral Resources for Chilalo, as announced on 2 February 2017, is based on information compiled by Mr. Grant Louw under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global Pty Ltd. Dr Scogings takes overall responsibility for the report. Dr Scogings is a Member of both the Australian Institute of Geoscientists and Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012). Dr Scogings consents to the inclusion of such information in this Presentation in the form and context in which it appears. Graphex confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 2 February 2017 and that all material assumptions and technical parameters underpinning the estimates in the announcement of 2 February 2017 continue to apply and have not materially changed.
- The information in this Presentation that relates to the Ore Reserve at the Chilalo Project is based on information compiled by Mr Karl van Olden, a Competent Person, who is a Fellow of The Australasian Institute of Mining and Metallurgy, which was announced by IMX Resources Limited (now Indiana Resources Limited) on 10 May 2016. Karl van Olden is employed by CSA Global Pty Ltd, an independent consulting company. Mr van Olden 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 JORC Code 2012. Mr van Olden consents to the inclusion in this Presentation of the matters based on his information in the form and context in which it appears. Graphex confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 10 May 2016 and that all material assumptions and technical parameters underpinning the estimates in the announcement of 10 May 2016 continue to apply and have not materially changed.
- Information in this Presentation that relates to exploration results at the Chilalo Project is based on data collected under the supervision of Mr Nick Corlis, in his capacity as Executive Director, Exploration (prior to the formation of Graphex) and in his capacity as General Manager – Technical (following the listing of Graphex). Mr Corlis, BSc (Hons) MSc, is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking, to qualify as a Competent Person under the JORC Code 2012. Mr Corlis has verified the data underlying the information contained in this Presentation and approves and consents to the inclusion of the data in the form and context in which it appears. The relevant announcements to which information in this Presentation on exploration results at the Chilalo Project relate are referenced in the Presentation. Graphex confirms that it is not aware of any new information or data that materially affects the information included in those relevant announcements.

Suite 4
Level 1, 2 Richardson Street
West Perth, 6005 Western Australia

Telephone: +61 8 9200 4960
Facsimile: +61 8 9200 4961

Phil Hoskins
Managing Director



Markets first

