



## **Mount Peake** *A major new resource project in Australia*

### **Highlights:**

- **DFS completed: A\$4.9 billion NPV, 41% IRR**
- **Binding off-take agreements under negotiation**
- **Financing discussions underway**



**9<sup>th</sup> Annual Mining the Territory Conference**  
**August 2015**

**Paul Burton**  
**Managing Director**

# Disclaimer

## Forward-Looking Statements

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## Competent Person's Statements

The information in this report that relates to the Mount Peake Mineral Resource estimates is extracted from an ASX Announcement dated 26 March 2013, (see ASX Announcement – 26 March 2013, "Additional Information on the Mount Peake Resource", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)), and was completed in accordance with the guidelines of the JORC Code (2012). Initial mining and financial assessment work, based on the Mineral Resource,

followed (see ASX Announcement – 15 July 2013, "TNG Considers Two-Stage Development Option for Mount Peake Project, NT", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)).

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 that all material assumptions and technical parameters underpinning the Mineral Resource 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 represented have not been materially modified from the original market announcement.

The information in this report that relates to the Mount Peake Ore Reserve estimates is extracted from an ASX Announcement dated 31 July 2015, (see ASX Announcement – 31 July 2015, "Mount Peake Feasibility Study Confirms a World-Class Project", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asc.com.au](http://www.asc.com.au)) and was completed in accordance with the guidelines of the JORC Code (2012). 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 that all material assumptions and technical parameters underpinning the Ore Reserve 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 represented have not been materially modified from the original market announcement.

The information in this report that relates to Exploration Results and Exploration Targets for Mount Peake and Mt Hardy projects are based on information compiled by Exploration Manager Mr Kim Grey B.Sc. and M. Econ. Geol. Mr Grey is also a member of the Australian Institute of Geoscientists and a full time employee of TNG Limited. Mr Grey has sufficient experience 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 Exploration Results, Mineral Resources and Ore Reserves'. Mr Grey consents to the inclusion in the report of the matters based on his information in the form and context in which it appear.

## Production Targets and Financial Information

Information in relation to the Mount Peake Definitive Feasibility, including production targets and financial information, included in this report is extracted from an ASX Announcement dated 31 July 2015, (see ASX Announcement – 31 July 2015, "Mount Peake Feasibility Study Confirms a World-Class Project", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://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 31 July 2015 continue to apply and have not materially changed.

# TNG Corporate Overview

## Key Corporate and Financial Data

ASX code:	TNG
Market capitalisation (at 19c):	\$135M
Shares on issue:	712M
Cash:	\$8.2M
Auditors: KPMG	
Lawyers: Clifford Chance	

## Board of Directors

Michael Evans	Acting Chairman
Paul Burton	Managing Director
Stuart Crow	Non-executive Director
Rex Turkington	Non-executive Director
Jianrong Xu	Non-executive Director
Zhigang Wang	Non-executive Director

## Major Shareholders

WWB Investments P/L	11.15%
Ao-Zhong International Mineral Resources	8.74%
Aosu Investment & Development Co	7.91%

*(Directors and their related companies hold approximately 13% of issued capital)*

## 12-month share price



# TNG Projects, Northern Territory, Australia



DFS completed July 2015 – Technically and Financially Robust

# MOUNT PEAKE

## VANADIUM AND TITANIUM PROJECT

Conceptual Design

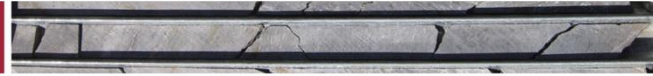
17-year project life

Annual Production : 560t  $V_2O_5$ , 236,000t  $TiO_2$  pigment, 637,000t pig iron

A\$4.9 billion NPV, 41% IRR



# Mount Peake: Set to deliver substantial returns for shareholders



## Key Features of Mount Peake

Close to infrastructure – Road, Rail, Gas

Downstream TIVAN® hydrometallurgical refinery to be located in Darwin

Diversified product mix – vanadium pentoxide, titanium dioxide, pig iron

Strategic development and off-take partnerships already in place

Binding off-take agreements expected to be confirmed this Quarter

Awarded Major Project Status by NT Government – likely to be next major resource project after INPEX

Government and Traditional Owners support development

A long-life strategic metals project with a diversified product mix and outstanding returns

## Mount Peake – Resources & Reserves

- Mineral Resources as at March 2013

Category	Tonnes (Mt)	V <sub>2</sub> O <sub>5</sub> %	TiO <sub>2</sub> %	Fe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %
Measured	118	0.29	5.48	23.64	8.18	32.81
Indicated	19.5	0.28	5.33	22.05	9.09	33.98
Inferred	22	0.22	4.41	19.06	10.38	37.79
Total	160	0.28	5.31	22.81	8.60	33.64

- Maiden Ore Reserve as at July 2015

Category	Tonnes (Mt)	Cut-off	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	Fe
Probable	41.1		0.42%	7.99%	28.0%

Refer ASX announcement 31 July 2015.

## Key Consultants

Feasibility Study leaders	<b>Snowden Mining Group</b>
Advisors: Feasibility; metallurgical; plant design	<b>SMS Siemag</b>
Metallurgical testwork and flowsheet design:	<b>CSIRO (Perth), METS, ALS Ammtec, BureauVeritas, Outotec</b>
Environmental, hydrology and Environmental Impact Statement:	<b>GHD</b>
Engineering, mine plant design:	<b>Como Engineers</b>
Mine and Infrastructure:	<b>McMahon Services</b>

SMS group



MECHANICAL & MINERAL PROCESS ENGINEERS

METS ENGINEERING





## Feasibility Study – Key Metrics



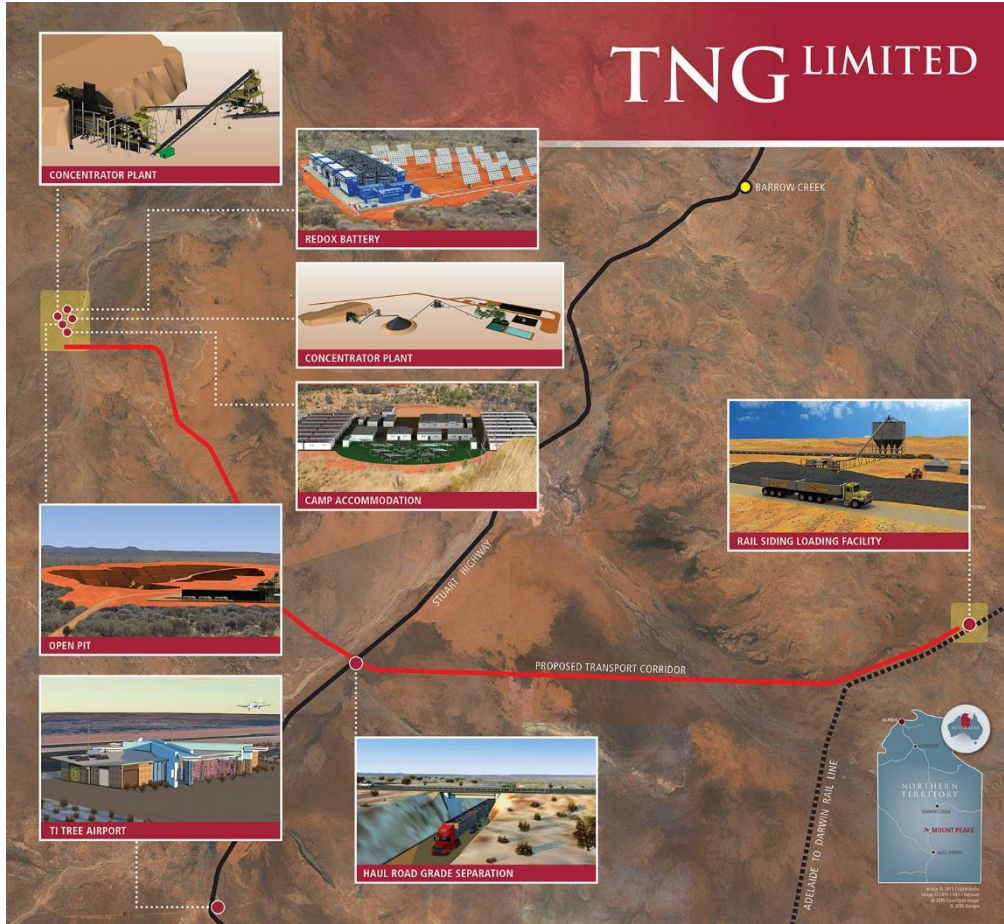
### Technically and Financially Robust project

Project life	17 years
Mining rate	3Mtpa (Stage 1) expanding to 6Mtpa (Stage 2) after 4 years
Pre-production capital estimate (including all infrastructure)	A\$970 million (stage 2 expected to be covered from revenue )
Total operating costs (including mining, processing, transport & royalties)	A\$167 per tonne
Total revenue (life-of-mine)	A\$27.3 billion
Operating cash flow (life-of-mine)	A\$13.6 billion
Net cash flow (life-of-mine)	A\$11.6 billion
Payback period	4 years
Net annual operating cash flow	A\$780M
IRR pre-tax	41%
NPV (at 8% discounted)	A\$4.9 billion

Refer ASX announcement 31 July 2015.

# Mount Peake Project

## TNG LIMITED



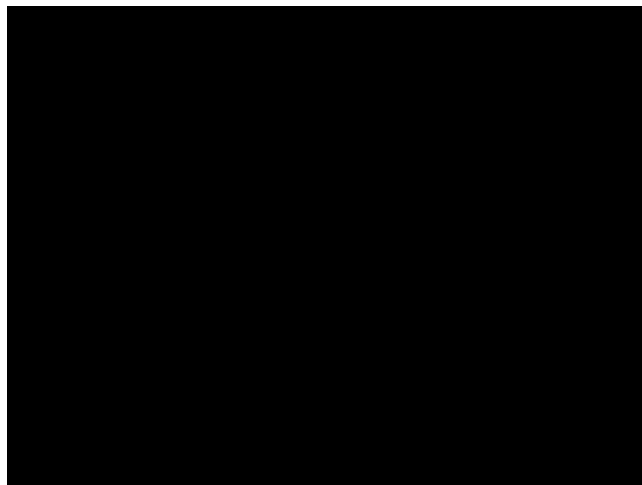
## Project Overview

Magnetite concentrate to be produced on site at Mount Peake

Concentrate to be trucked and then railed north to a TIVAN® Refinery facility to be located in Darwin, ~10km from Darwin Port

TIVAN® facility will produce high-purity vanadium pentoxide, titanium dioxide concentrate and iron oxide

Associated downstream plants will produce high-grade titanium pigment and pig iron for export



# Metallurgical Process: TIVAN®

**TIVAN® PROCESS 100%-owned by TNG**  
Allows maximum recovery of value from resource

Optimised magnetic concentrate passes through TIVAN® refinery

Bulk leaching for three product separation

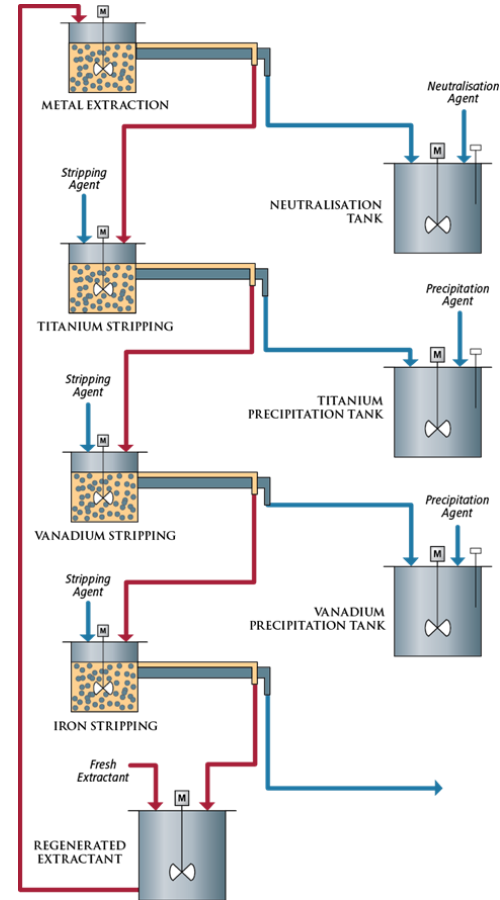
Leaching and SX process well understood, good recoveries, high purity products:

$V_2O_5$  Vanadium Pentoxide

$TiO_2$  Titanium Dioxide concentrate

$Fe_2O_3$  Iron Oxide

Then Further refine  $TiO_2$  to pigment grade and  $Fe_2O_3$  to Pig Iron





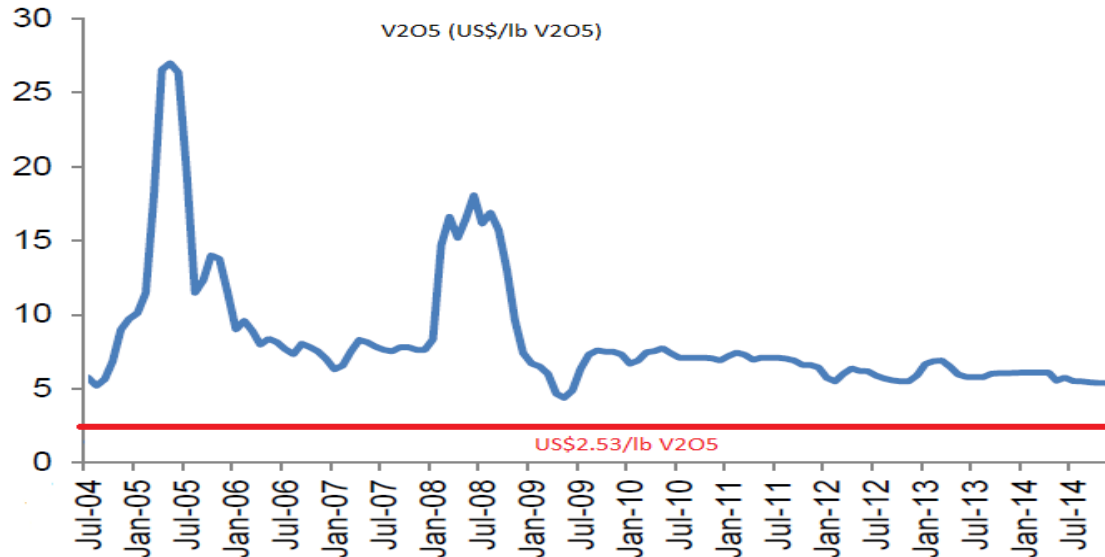
## Vanadium Pentoxide (V2O5)

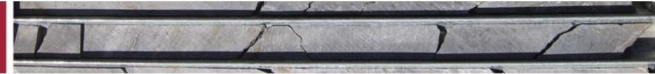
World's demand: 140,000tpa

TNG's nameplate production: 17,560tpa (12.5% of world's demand)

Main usage: Steel, non-ferrous alloys, chemicals, catalysts and energy storage (VRB)

Cost of production approx. US\$2.5/lb V2O5 (red line below)





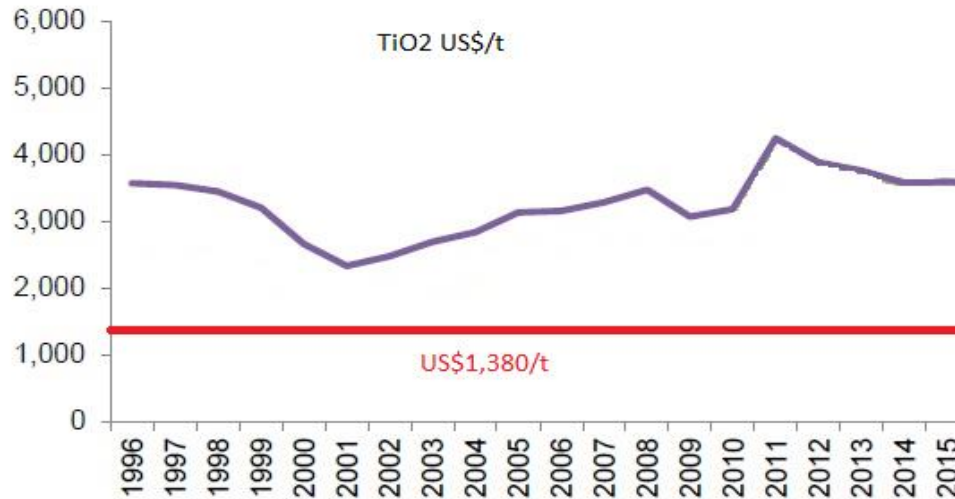
## Titanium dioxide pigment (TiO<sub>2</sub>)

World's demand: 6,600,000tpa

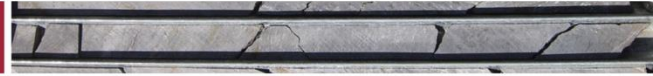
TNG's nameplate production: 236,000tpa (3.5% of world's demand)

Main usage: Paint, plastics, paper and inks

Cost of production approx US\$1,380/t (red line below)



# TIVAN'S products – Pig iron



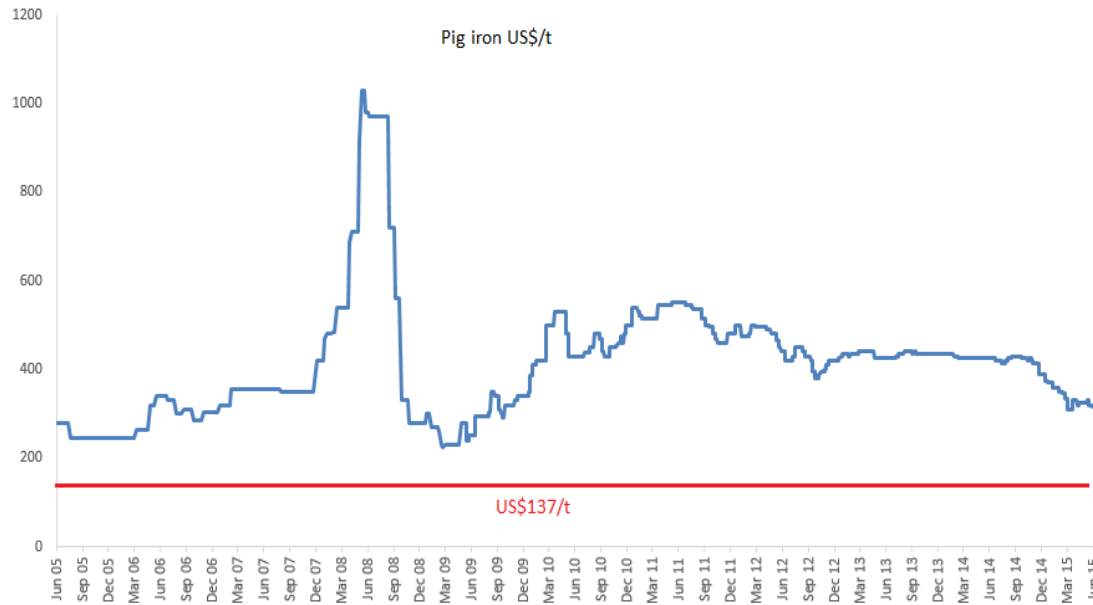
## Pig Iron

World's demand: 1.2 billion tpa

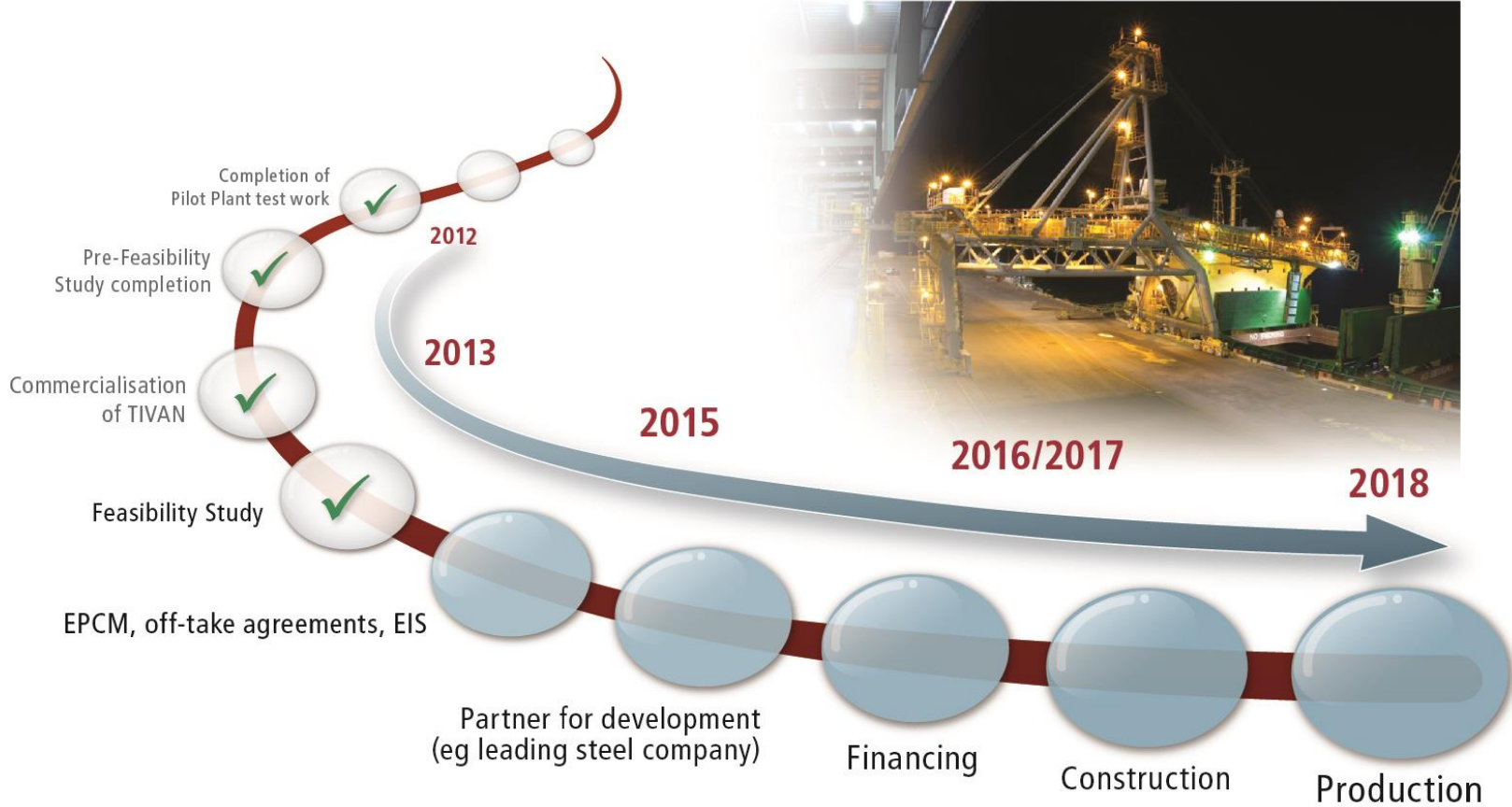
TNG's nameplate production: 637,000tpa (0.05% of world's demand)

Main usage: Steel making

Cost of production approx US\$137/t (red line below)

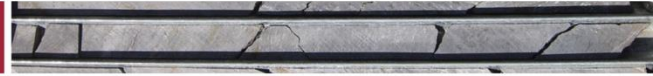


# Mount Peake Development Pathway





# Mount Peake Project – Development Partners



## Development Agreements

- **HYUNDAI STEEL** – MoU Cornerstone Investment
- **POSCO E&C** – MoU EPMC
- **Hyundai EC** – EPMC
- **SMS SEIMAG** – Refinery Build



## Off-take Agreements

- **WOJIN METALS (Korea)** –  $V_2O_5$
- **Gunvor (Singapore)** –  $Fe_2O_3$  / Pig-iron
- **Global Pacific Partners** –  $TiO_2$  / Pigment

## Mine Development

- **Snowden Mining Consultants** – Mine design
- **McMahon Services** – Mine and infrastructure



SMS group



GLOBAL-PACIFIC PARTNERS



# TNG and the Northern Territory (NT) Government

## NT Government – Pro-Resource development

- Major Project Status awarded to Mount Peake in 2012
- Excellent geological and infrastructure support
- Darwin – North Australia's development hub
- Rapidly developing region



# TNG and Traditional Owners

## Corporate aim to be a leader in indigenous involvement

- Demonstrated commitment to working with employing Traditional Owners
- Long-standing relationships developed from decades of successful exploration on indigenous land
- Positive support for Mount Peake
- Clearance obtained for mine and infrastructure



# Mount Peake Project – Next Steps

## Extensive ground work completed over past 12 months

### 1. Project Finance : - Expect consortium mix for project based equity finance

- **Cornerstone investor / partner** – eg: Hyundai Steel, MoU in place, potential funding may include Korean Exim Bank
- **Major partner / offtake partner finance arrangements** : eg: SMS Seimag ; Refinery –finance via German Export Credit bank
- **Equity / Debt finance** : Discussions in place with major funds in New York, Hong Kong and London
- *TNG embarking on extensive overseas visit commencing next week.*
- **Federal Government** : \$5 billion development fund for Northern Australia

### 2. Submission of Environmental Impact Statement

### 3. Mining agreement and Mining Permit approvals

### 4. EPCM and Contractor award



# TNG: Investment Summary

## Building a premier Australian mining group

- Developing the next major resource project in the Northern Territory
- Large Resource
- Key Infrastructure in place
- Exceptional project economics
- 3-product stream
- Production planned for 2018
- Tier 1 development partners
- Mineral-asset rich project portfolio
- Quality projects
- Experienced management



# TNG LIMITED

ASX: TNG

[www.tngltd.com.au](http://www.tngltd.com.au)



**THANK YOU**

**Paul Burton – Managing Director**