



# **WORLD TITANIUM RESOURCES**

## **BUILDING A TIER 1 MINERAL SANDS COMPANY**

GMP MINING JAMBOREE

FEBRUARY 2012

BRUCE GRIFFIN – CEO

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*The information in this announcement that relates to JORC resources and Exploration Targets has been compiled by GEOCraft Pty Ltd. Mr. Andrew Milne (B. Sc. (Hons) M. Sc.) is an employee of GEOCraft Pty Ltd. Mr. Milne is a member of a Geological Society of Australia ("GSA") and the Australasian Institute of Mining and Metallurgy ("AusIMM") and has the appropriate relevant qualifications, experience, competence and independence to be considered an "Expert" under the definitions provided in the Valmin Code and a "Competent Person" as defined in the JORC Code. Mr. Milne has consented to the inclusion in this release of the matters based on his information and in the form and context in which they appear.*

*The information in this release that relates to financial and mining analysis is based on information compiled by Mr Steve Gilman who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of TZ Minerals International. Mr Gilman 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Gilman consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.*

# World Titanium Resources

An ASX-listed mineral sands developer

A unique Tier 1 mineral sands asset

Simple development concept

Fundamentally and relatively undervalued

Targeting first production in 2014

Scalable



# ASX listed on 12 January 2012

Ticker	ASX:WTR
Market Cap <sup>1</sup>	A\$100 million
Capital structure	298.4 million shares 19.1 million unlisted options and warrants
Major shareholders	Boulle Titanium 20.7% Mineral Deposits Limited (ASX:MDL) 14.9%
Cash Balance <sup>2</sup>	A\$11.6 million
Key Asset	Toliara Sands Project

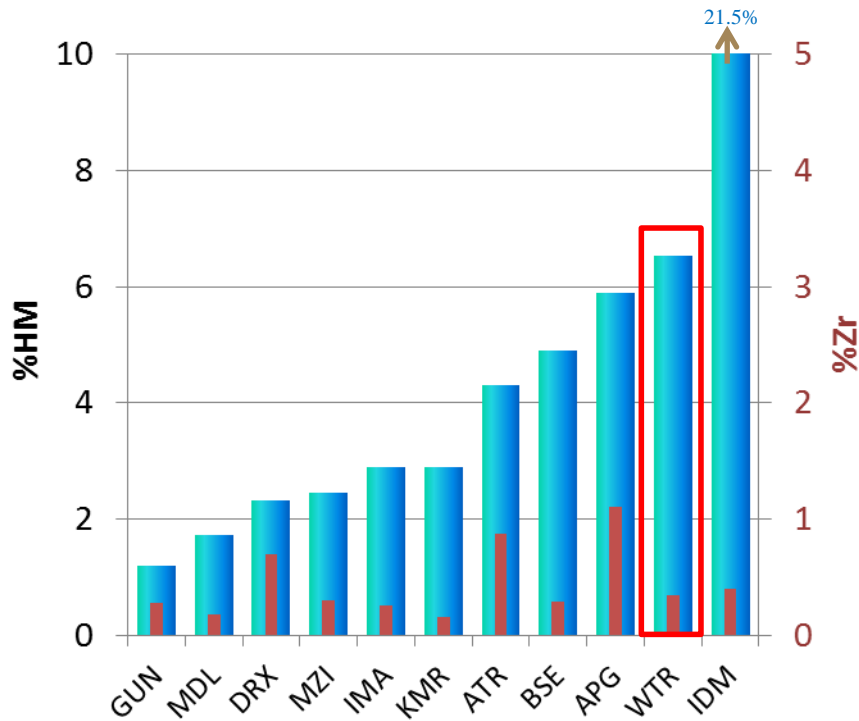
1) As at 20 January 2012 2) As at 31 December 2011

# High grade, high value deposit

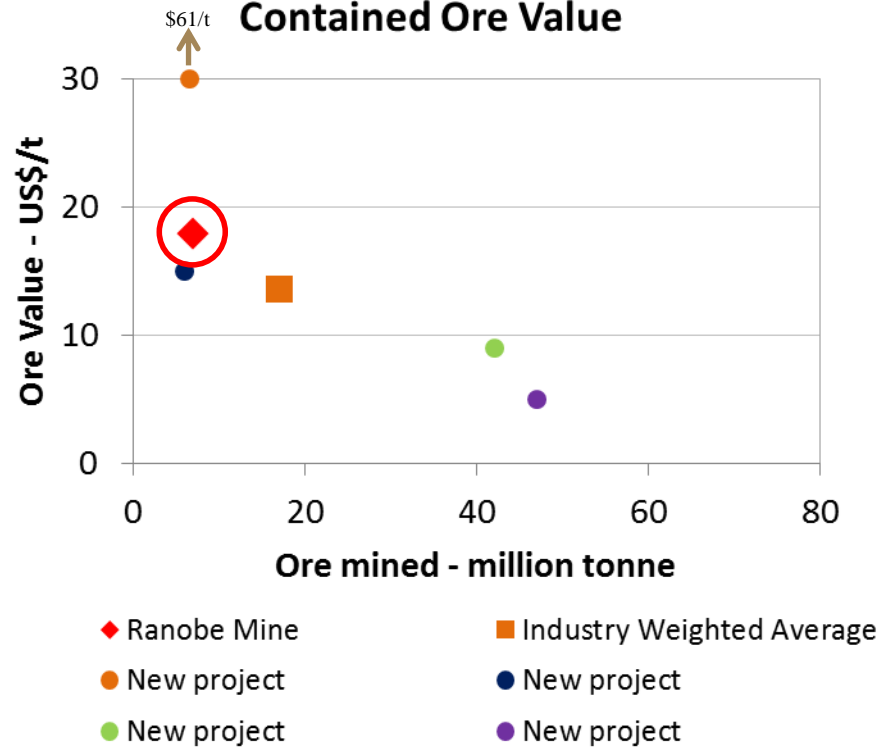
High grade ...

results in high contained value

**Heavy Mineral and Zircon Grade**



**Contained Ore Value**



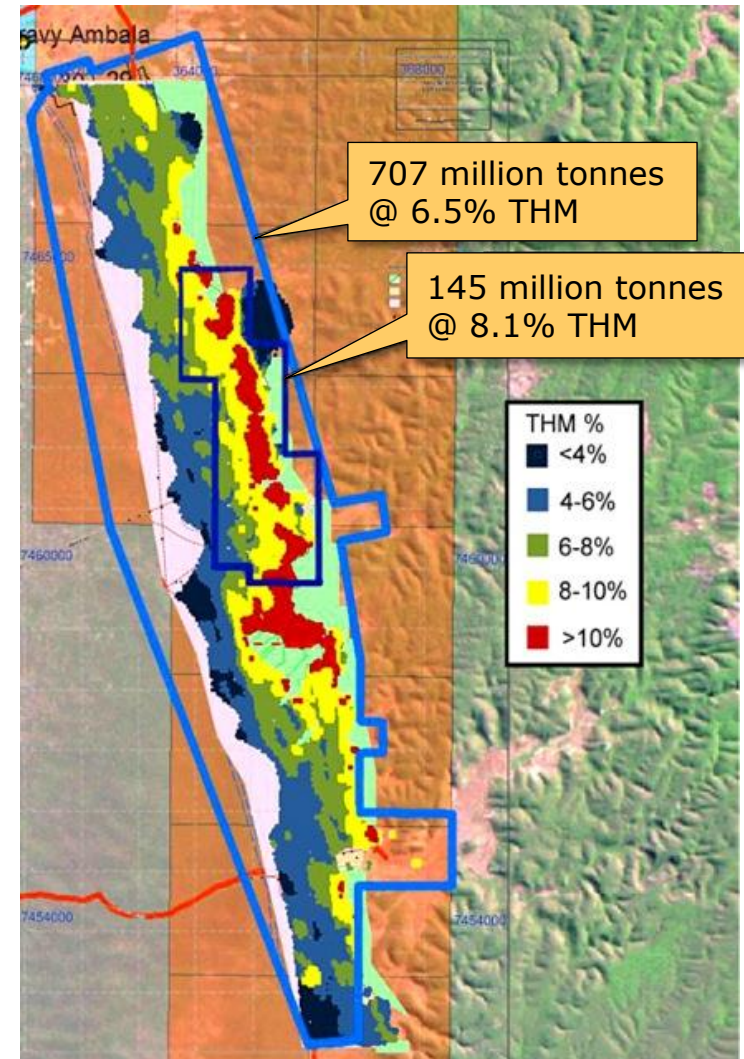
# Large, scalable asset

Large resource base in 'starter pit'...

- 19 year LOM
- 145 million tonnes at 8.1% THM

...just 20% of current JORC resource...

- 707 million tonnes at 6.5% THM
- ~75 years of initial production



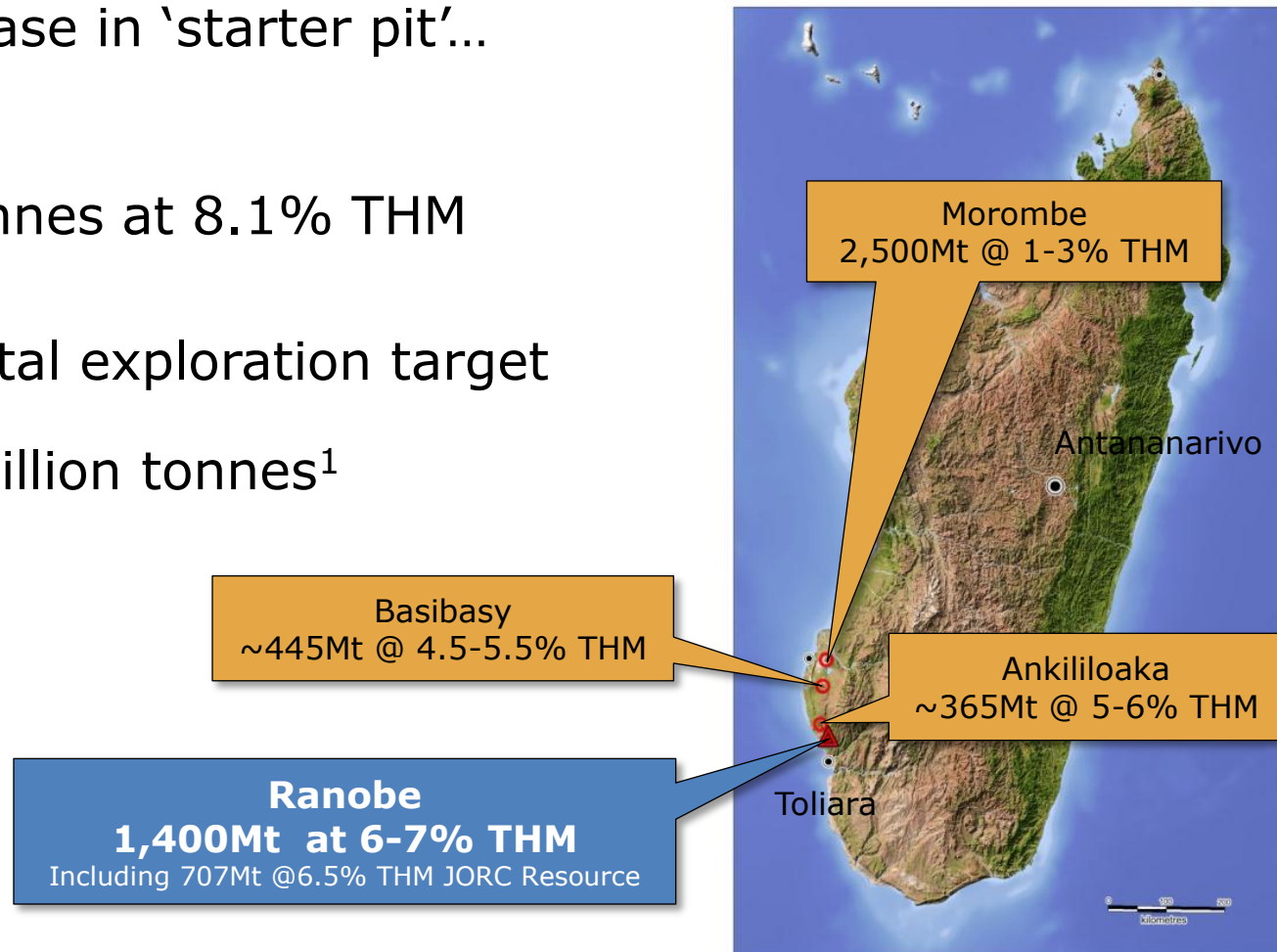
# With significant upside

Large resource base in 'starter pit'...

- 19 year LOM
- 145 million tonnes at 8.1% THM

and 3% of the total exploration target

- Estimated 4.7 billion tonnes<sup>1</sup>



<sup>1</sup>These Exploration Targets are at an early stage of evaluation, and the potential quantity and grade remain conceptual in nature. At this stage there has been insufficient exploration to define Mineral Resources and it is uncertain if further exploration will result in the determination of Mineral Resources greater than that already defined.



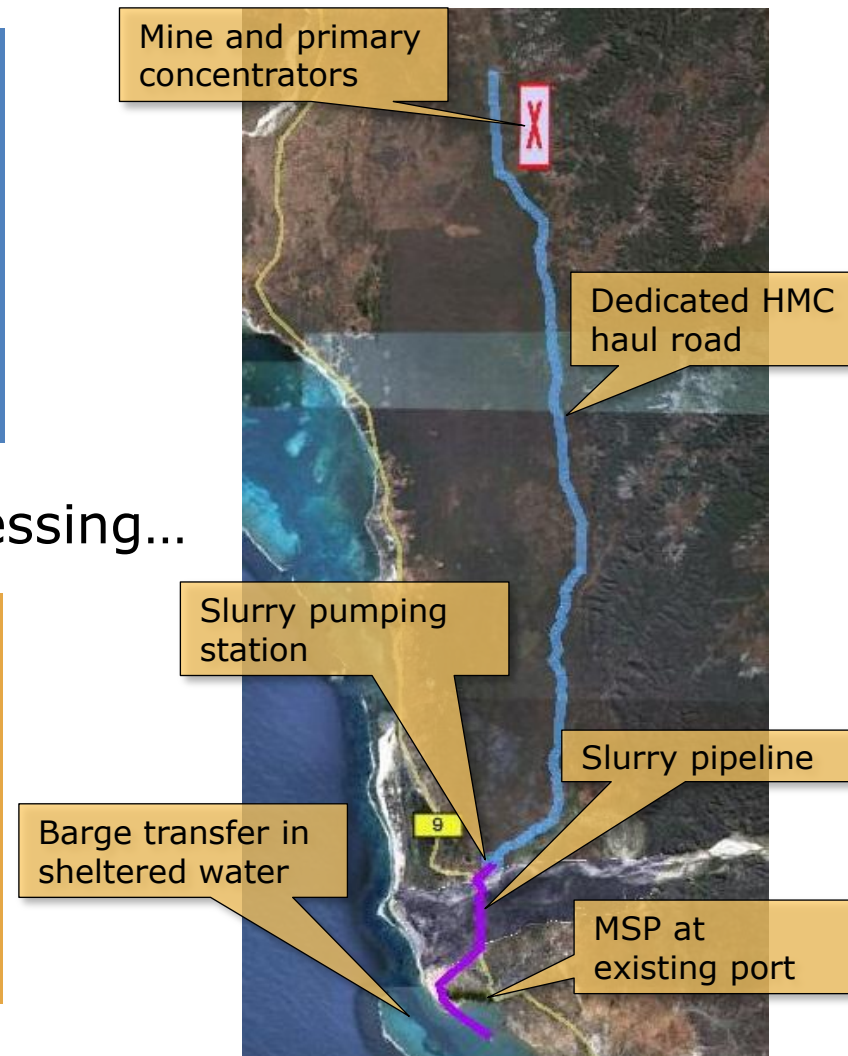
# Simple deposit ~ simple development

## Inherent advantages

- Unconsolidated sand
- Low slimes content
- No strip
- Consistent assemblage
- High-value zircon and rutile
- Close to existing infrastructure

...allowing simple mining and processing...

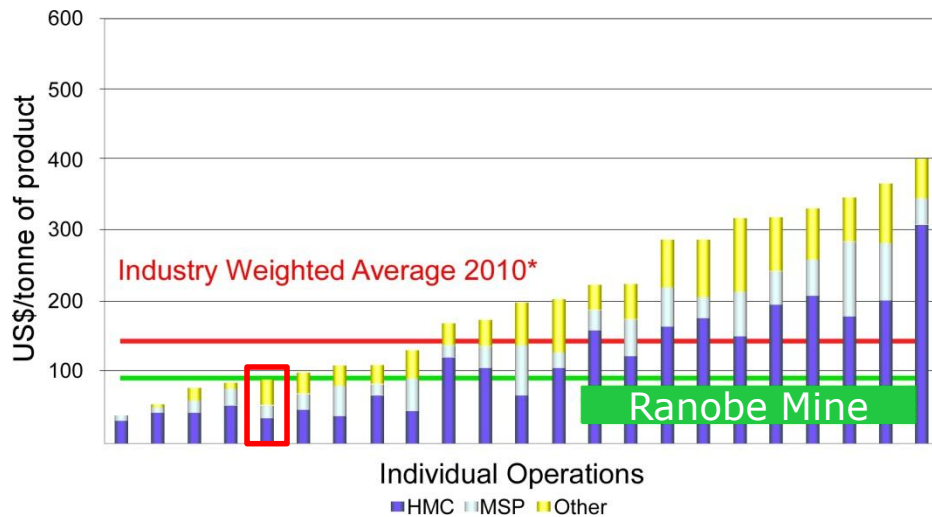
- Dry mine slurry to mobile concentrators
- ~40km HMC haul road
- ~10km buried slurry pipeline
- Mineral Separation Plant at port
- Produce a zircon/rutile concentrate
- Barge transfer in reef sheltered water



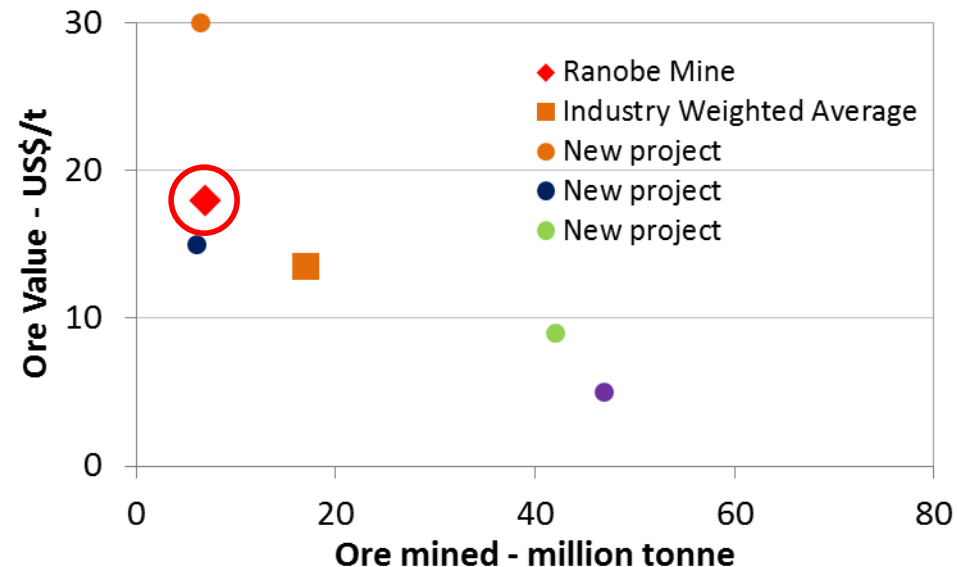


# A simple low cost operation

Low operating costs...

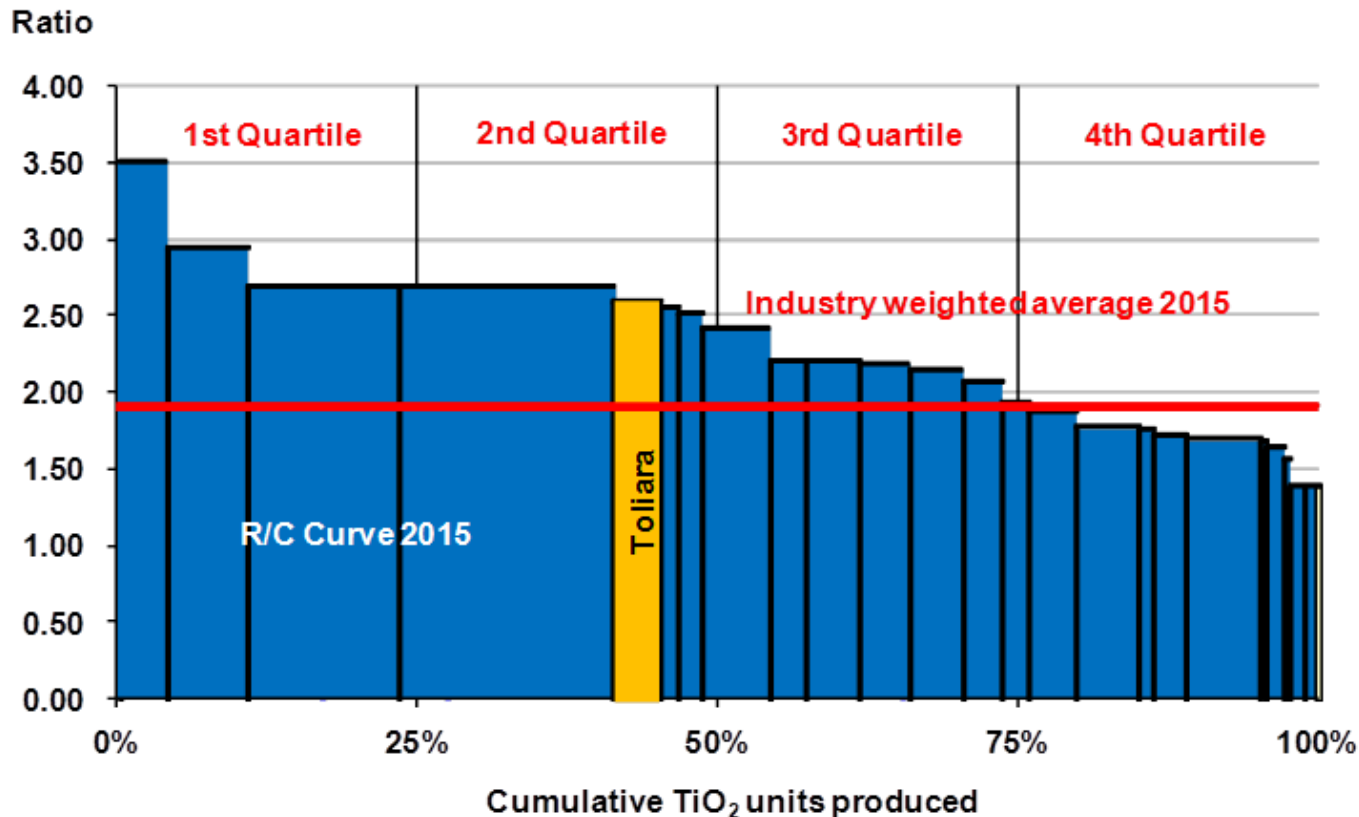


... combined with high value...



... that is fundamentally competitive

... result in high revenue-to-cost ratio



# Utilising existing infrastructure

Proximity to infrastructure minimises capital



Existing port facility at Toliara

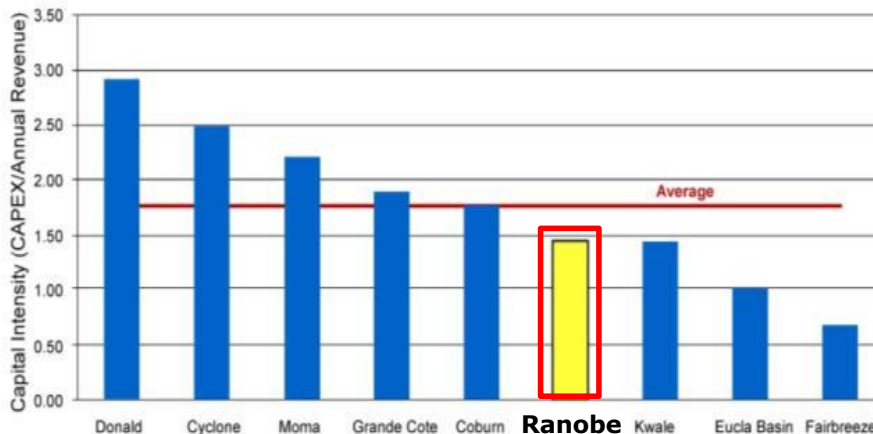
- 15,000 tonne wharf capacity
- Deep-water barge transfer to 35,000 tonne ships
- In reef-sheltered water

# ... reduces development capital

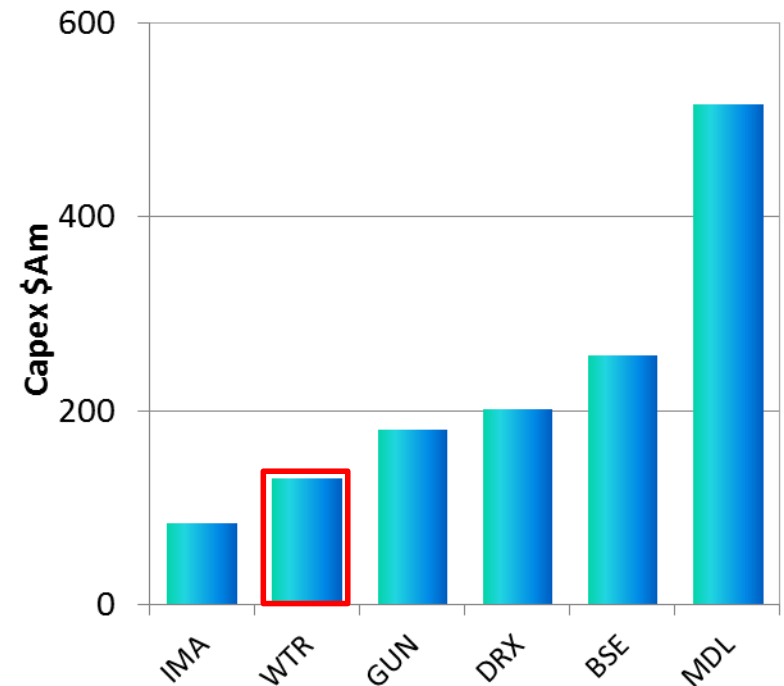
High capital efficiency ...

... and low absolute capital

**Capital Intensity**



**Initial Development Capital**



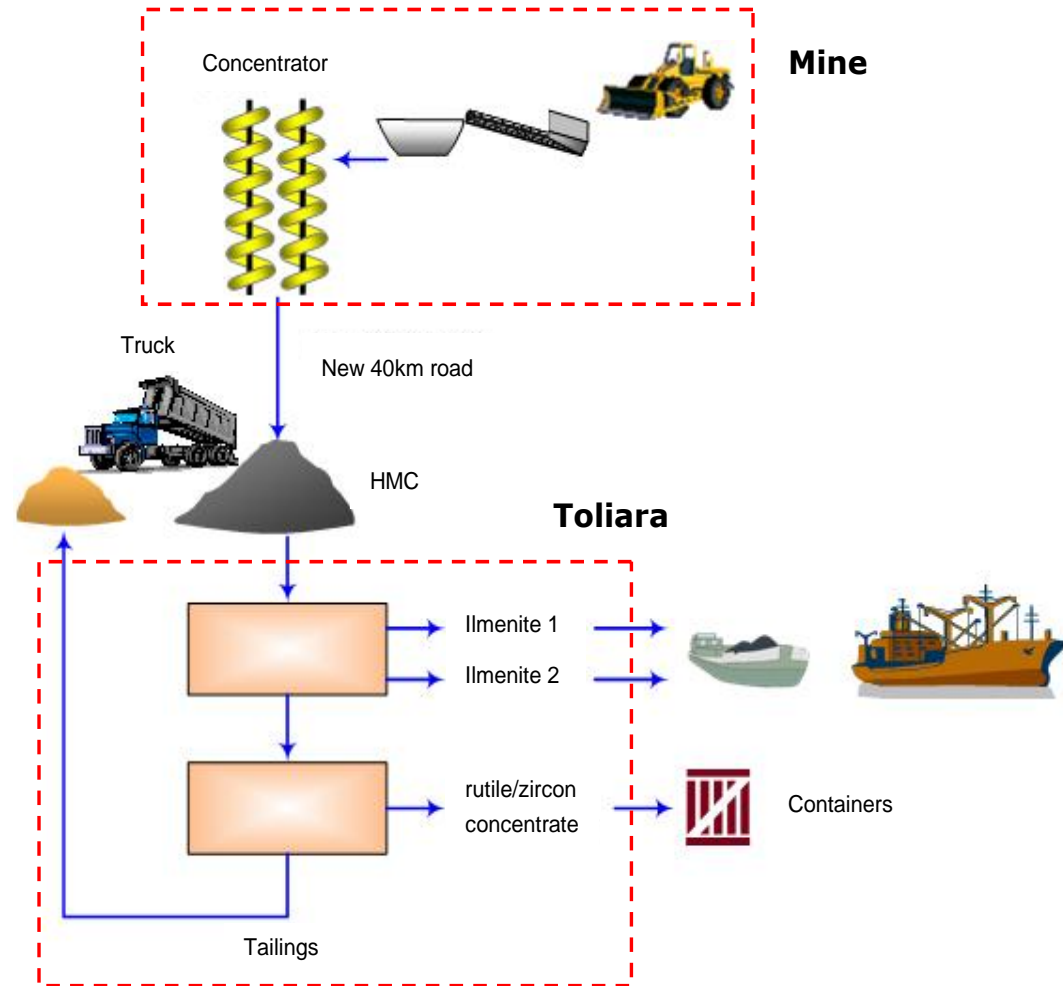
# Producing products suitable for key markets

Product	Annual production	Application
Sulfate ilmenite	326Kt	<ul style="list-style-type: none"> <li>• Sulfate pigment process</li> <li>• Utilised by the majority of China pigment plants</li> <li>• Smelting for chloride-grade slag</li> </ul>
Zircon/Rutile concentrate	43Kt	<ul style="list-style-type: none"> <li>• 74% Zircon, 16% Rutile, 10% Other</li> <li>• Shipment to overseas processors for treatment</li> <li>• Current high appetite for concentrate</li> </ul>
Chloride ilmenite	74Kt	<ul style="list-style-type: none"> <li>• Higher <math>\text{TiO}_2</math></li> <li>• Suitable for direct chlorination</li> <li>• Blend feed to synthetic rutile processors</li> </ul>

# ... from a proven flowsheet

## Simple Processing

- Straight forward flow sheet
- Delivering three products
  - Sulfate ilmenite
  - Zircon/rutile concentrate
  - Chloride ilmenite
- Confirmed by pilot scale trials
  - 5,000t of ore processed
  - Proved easy separation

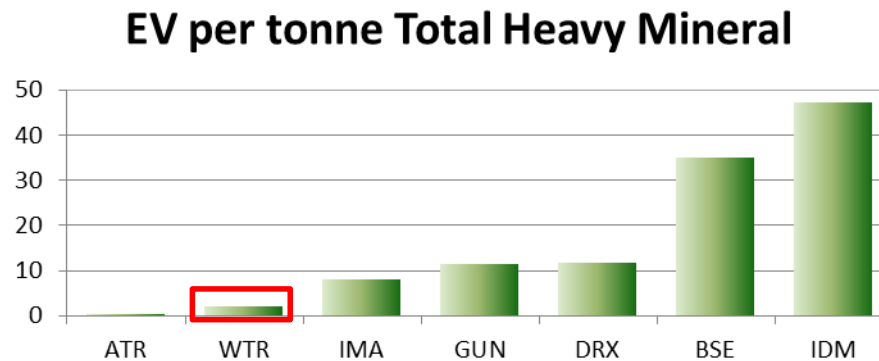
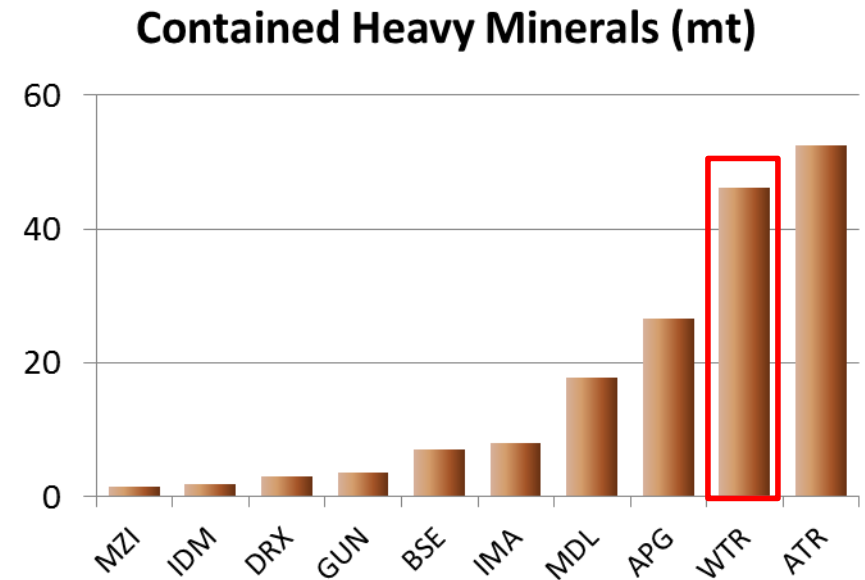
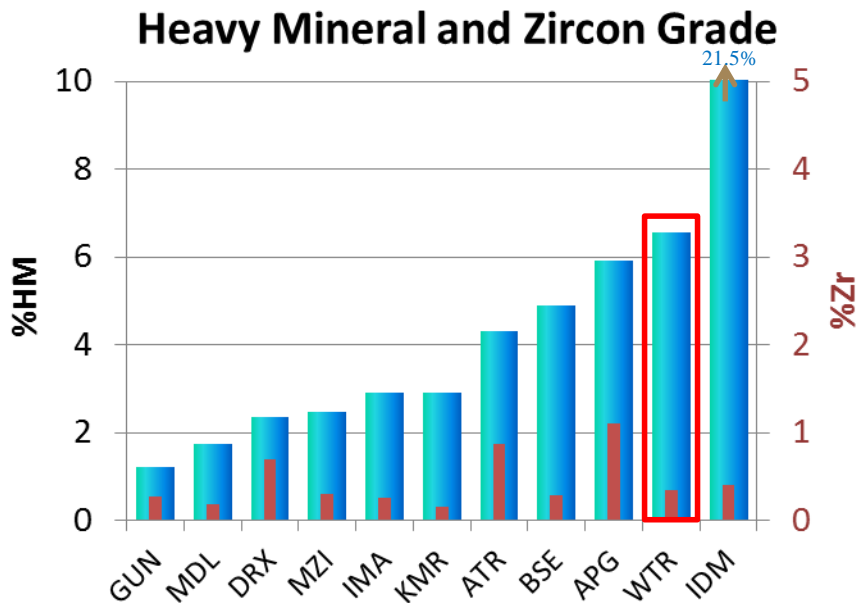




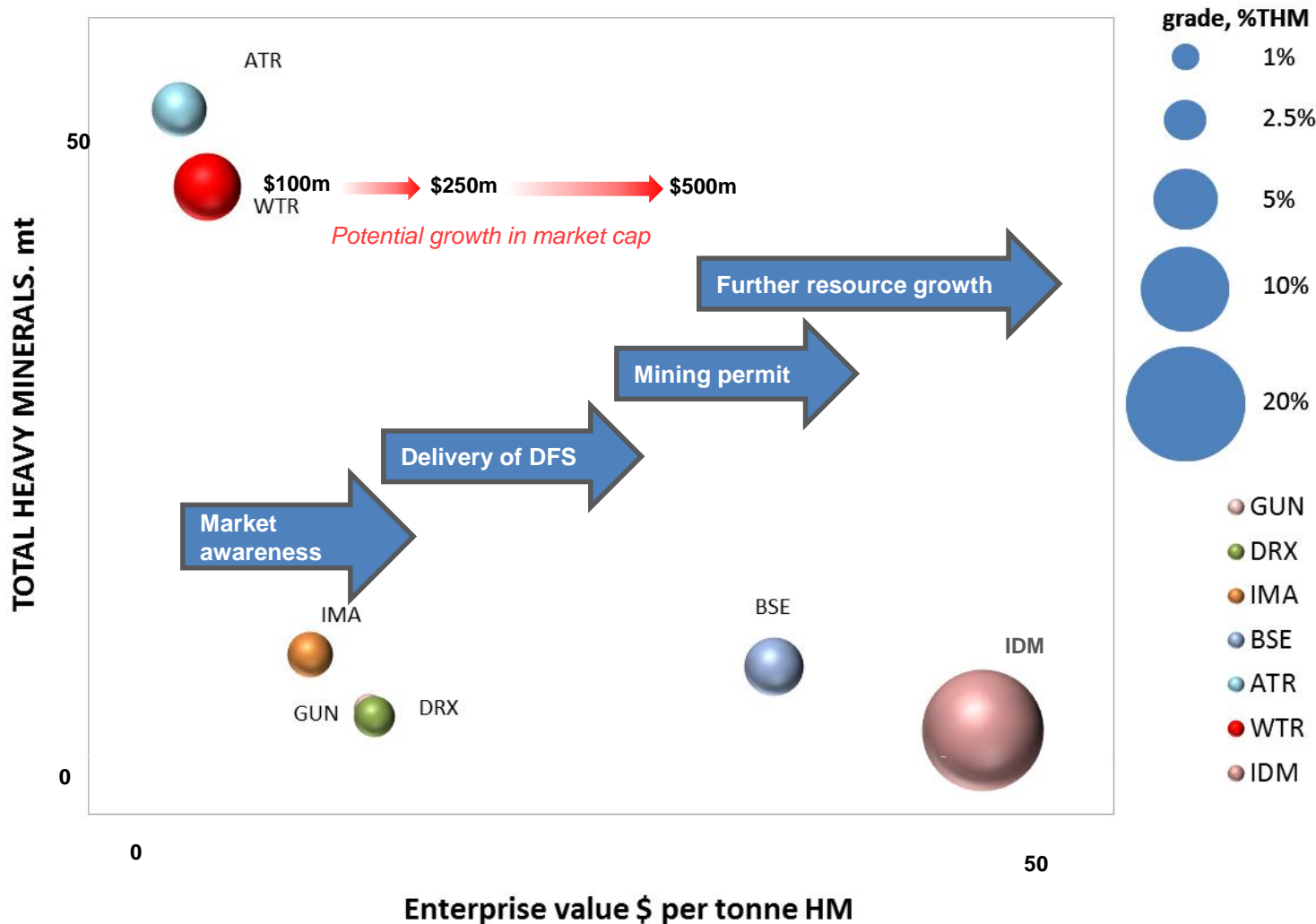
# Delivering fundamental value

'Starter Pit'	
Mine life	19 years
Annual production rate ilmenite zircon/rutile concentrate	400,000 tpa 43,000 tpa
Ore mined Average grade Ore mined per annum	145 million tonnes 8.1% 7.0 million tonnes in years 1 to 10 9.4 million tonnes in years 13 to 19
Capital investment	US\$131 million + US\$19 million working capital US\$24 million in year 10 for third mining plant
Forecast project financials	
IRR (after tax)	45%
NPV (after tax 10% Real)	US \$323 million
Payback	2 to 3 years
Annual after tax cash flow	~ US\$ 51 million
Price assumptions (average)	
ilmenite	\$151/t
zircon/rutile concentrate	\$1108/t

# Undervalued relative to peers



# Re-rating as the Project is 'de-risked'



# First production in 2014

Steps	Status
Complete ASX Listing	Completed: January 2012
Verify capital and operating cost	Underway: Completion mid 2012
Definitive engineering study	Underway: Completion 2H 2012
Secure mining licence	Underway: Expected 2H 2012
Environmental approval, surface rights, etc	Underway: Expected 2H 2012
Determine optimum funding strategy	Underway: Completion 1H 2012
Raise development capital	2H 2012
Design, construct and commission	Late 2012 to early 2014
First production	1H 2014

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