



#### Carbine Tungsten Limited (ASX: CNQ)

Investor Presentation – February 2013



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#### **Ore Reserves and Mineral Resources Reporting Requirements**

As an Australian company with securities listed on the Australian Securities Exchange ("ASX"), CNQ is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act and the ASX. Investors should note that it is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") and that CNQ's ore reserve and mineral resource estimates comply with the JORC Code.

#### **Competent Person's Statement**

The information in this document relating to Exploration Results, Mineral Resources, Production Targets and Ore Reserves is based on information compiled by Dr Andrew White, who is a Fellow of the Australian Institute of Geoscientists and a Director of CNQ. Dr White has sufficient experience relevant to the style of mineralisation, mining and processing the type of deposit under consideration 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" (the JORC code). Dr White consents to the inclusion of matters based on his information in the form and context in which it appears.



# **Investment Highlights**

- Carbine Tungsten Limited (ASX: CNQ) is a Tungsten producer and project developer focusing on the Mt Carbine Project in Far North Queensland.
- Highly buoyant global Tungsten market with limited supply
- Has focused on tailings retreatment currently producing approx. 1,500 mtu of high-grade tungsten concentrate per month.
- CNQ's current focus is securing permits and approvals to commence development of stockpiles and previous hard rock open pit mine ("The Hard Rock Project")
  - Environmental Management Plan ("EMP") and associated engineering works required with no requirement for Environmental Impact Study ("EIS")
  - Strong production upside through processing on-site stockpiles with 10+ year mine life potential - approvals expected in third quarter C2013
  - Adjacent brownfield hard rock exploration and development opportunity has potential to add significantly to resource base and mine life potential – approvals expected in fourth quarter C2013
- Feasibility study based on production of 21,800 mtu/month from the Hard Rock Project and Tailings Retreatment
- Off-take agreements/partnerships with blue chip end-user Mitsubishi Unimetals Corp.
- Board & Management with significant experience in mine development and construction



# **History / Transition**





Junior Diversified Exploration Company



Significant Mine Development Major Tungsten Producer

Tungsten Mining & Production Company Pure Play Tungsten Company





## **Diversified Asset Base**

#### Tailings Re-Treatment

- Established CNQ in the market as a Tungsten producer.
- Currently producing ~1,500 mtu of high-grade concentrate per month.
- Supplying high grade Tungsten to off- take partner, Mitsubishi Unimetals Corp.
- Further refinements planned to increase recovery and throughput.
- Will continue to provide CNQ with revenue while the company focuses on the Hard Rock Project

#### Hard Rock Stockpiles

- Commercial resource with a mine life potential of approximately 5 years
- Will form immediate focus for CNQ while exploration activity progresses on Hard Rock Project
- DEHP approvals expected in third quarter of C2013
- Will be used to rapidly meet increasing demand from off-take partners

#### Hard Rock Open Pit Mine

- Large scale hard rock deposit previously mined for 13+ years producing a significant profit.
- Higher grade material than stockpiles.
- Has mine life potential of approximately 10 years.
- Mining operation planned below existing open pit.
- Approvals expected in fourth quarter C2013
- Drilling program planned on adjacent deposit 'Iron Duke' to extend potential resource base.

CNQ is making the transition from a tailings retreatment operator to focusing on the development of the Hard Rock Project and advanced exploration to extend the mine life.



### **Corporate Snapshot**

Capital Structure						
ASX Code	CNQ					
Shares on Issue	275,962,719			Board	of Directors	
Market Cap (\$)	20 million			Dr. Leon Pretorius	Chairman	
Share Price (52	<u>\$0 14 - \$0 08</u>	\$0.14 - \$0.08		Jim Morgan	Managing Directo	or/CEO
week High/Low)	ŞU.14 ŞU.UU			Tony Gordon	Non-Executive Di	rector
Cash at Bank (At 31 December)	~ \$1.02 millio	วท				
Debt	Nil					
Shareholders	1,198					
Тор 10	35.65%			Top Shareholders		%
		Dr L	Dr Leon Pretorius 11.55			
		Mot	a Er	ngil Minerals & Mining	Investments BV	5.86
		Bagl	lora	Pty Ltd <mott family="" s<="" td=""><td>Super Fund A/C&gt;</td><td>4.16</td></mott>	Super Fund A/C>	4.16
			il Kenneth Watson and Margaret Helen proney <rossdale a="" c="" fund="" super=""></rossdale>			3.22
		Silva	a Pty	/ Ltd		2.72



## **Board of Directors**



#### Dr Leon Pretorius – Chairman

Dr Pretorius has 41 years international mineral and mining experience. He has also been involved as a public Company director in Australia and overseas for more than 25 years and most recently in Australia prior to joining Icon's Board he was an Executive Director of Paladin Energy Limited and Managing Director of Deep Yellow Limited.



#### Jim Morgan – Chief Executive Officer, Managing Director

Mr Morgan has over 30 years of experience in the Australian and international mining and construction industries, most recently as General Manager - Project Development for ASX-listed Paladin Energy Ltd. Before joining Paladin, he held senior positions and played key roles in the mine development of Lafayette Mining Limited (Owner's Representative), Rapu Rapu mine in the Philippines and Ticor (Owner's Representative) at the Richards Bay mineral sands mining and titanium smelter project in South Africa.



#### Tony Gordon – Non-Executive Director

Mr Gordon has over 25 years experience in financial markets primarily stockbroking and has held directorships and senior management positions with a number of Australian stockbroking and financial services companies. Over this time his focus has been the listed resources sector. More recently Mr Gordon has provided advice to a number of Chinese, South East Asian and North American projects that are held by Australian Listed and un-listed entities. Mr Gordon is also currently CEO of Hanuman Investments Pty Limited.



## **Share Purchase Plan**

- CNQ has launched a Share Purchase Plan ("SPP") to raise \$3 million
- \$0.075 purchase price of new shares available to shareholders is an 18.5% discount to volume weighted average price ("VWAP")
- Shareholders can subscribe for up to \$15,000 of new shares
- Funding to be used to finalise permitting and approvals process required to advance the for Hard Rock Project to the development and construction execution phase

SPP Schedule					
Friday 1 February 2013	Record Date				
Wednesday 13 February 2013	Documents mailed to Eligible Shareholders				
Wednesday 13 February 2013	Offer under SPP opens				
Wednesday 27 February 2013	Offer under SPP closes				
Wednesday 6 March 2013	Issue of shares under the SPP				
Wednesday 6 March 2013	Expected dispatch of holding statements and confirmation advices				
Thursday 7 March 2013	Quotation of Shares on ASX				



### **Tungsten a "Strategic Metal"**

- Strategic metal for modern industrialised manufacturing based economies.
- Few viable substitutes.
- Unique capability to maintain strength at high temperatures
- Estimated global consumption: 71,000t (virgin demand), 95,000t (incl scrap)

#### Uses of Tungsten include?

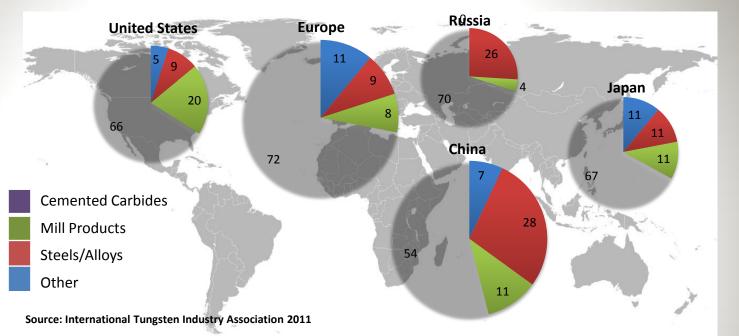
- High-strength, high-speed steel for cutting, stamping, casting tools, dies & rock/concrete drilling;
- Alloy steel armour for military vehicles, warships and specialised armour piercing ammunition;
- High temperature coating materials in the construction of jet engines;
- Filaments for incandescent lamps; and
- Very specialised surgical instructions.







## **Tungsten Market Outlook**



#### China

**CARBINE TUNGSTEN** 

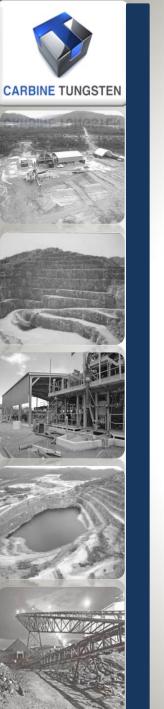
- Produces 80% of the world's tungsten.
- Domestic demand is overtaking supply.
- Rapidly eliminating export subsidies.
- Approximately 50% of mines have closed - China cannot be considered an exporter of tungsten.

#### North America

- Production not dedicated to domestic market.
- Generally sold to the highest bidder.
- Asia becoming a major customer.

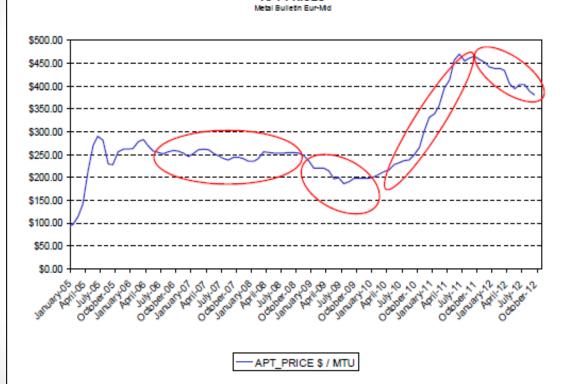
#### **United States of America**

- Domestic demand is approx. 20,000 MT per year.
- 75% of this demand is imported while the balance is recovered domestically from recycling scrap.



### **Global Tungsten Market**

APT PRICES



#### **Major Phases**

- Price Stabilisation 2006-2008
- Price Deterioration 2008-2009
- Price Increase 2010-2011
- Price Deterioration or Stabilisation? 2012-2013



### **Mt Carbine**

The mine is located 130km by sealed highway from the port of *Cairns*, and a 45 minute drive from Port Douglas.

The northern face of the open pit mine is visible from the highway.





# **Mt Carbine Tungsten Project**

- The Mt Carbine project mining leases cover approx. 367 hectares.
- Previous large scale, open cut mining operation operated for 13+ years until 1987
- CNQ has detailed technical information from historical exploration and mining activity
  - Supporting current and planned CNQ activity
- Transport infrastructure in place:
  - The historical Mt Carbine tungsten mine is located 130km by sealed highway from the port of Cairns
  - 5 45 minutes drive from Port Douglas
- CNQ currently producing high-grade Tungsten from tailings re-treatment operation





### **Tailings Retreatment Plant**

- CNQ has successfully established a Tailings Retreatment Plant recovering a high-grade wolframite/scheelite product.
- Tailings to support current operations for 2 years.
- Existing resource base of approximately 2MT @ 0.1% WO<sub>3</sub> in tailings Dam #4.
- Strong recoveries approx. 50% of tungsten in feed.
- Off-take partner Mitsubishi Unimetals Corp. currently purchasing all product.
- Experienced CNQ technical team managing Tailings Retreatment Project.
- Further optimisation planned for increased recovery and throughput.



**Tailings Retreatment Plant** 



## **Focus on Hardrock - Feasibility**

Mt. Carbine Project Outline							
NPV	\$161 million						
Resources							
Mine	47Mt @ 0.13% WO <sub>3</sub>						
Stockpile	12Mt @ 0.07% WO <sub>3</sub>						
Tailings	2Mt @ 0.1% WO <sub>3</sub>						
Reserves							
Mine	18Mt @ 0.14% WO <sub>3</sub>						
Rock feed rate	3 Mtpa						
Rock feed grade	0.12% WO <sub>3</sub>						
Ore sorted feed rate	350 ktpa						
Ore sorted feed grade	0.7% WO <sub>3</sub>						
Processing recovery	76%						
Production WO <sub>3</sub>	261,550 MTUpa						
Project capital	\$55M						
Operating costs	137 \$/MTU						
Budget sale price	290 \$/MTU						

- CNQ completed a feasibility study in July 2012 confirming the viability of the Mt Carbine Project.
- Key outcomes confirm potential for:
  - Recommencement of mining operation below existing open pit.
  - Recovery and processing of ore from stockpiles.
  - X-Ray ore sorting process.
  - Simple gravity separation process.

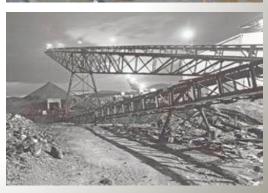


## Previous Operations Inform Planned Activity

- Former operations between 1972 and 1987 confirms operational viability.
- CNQ has detailed data from past mining and processing activity.
- CNQ processing outlook aligned with previous operations.
- Establishment of gravity plant will be improved version of historical plant.
- Former mine site has in place:
  - Transport infrastructure;
  - Plant foundations;
  - Facilities;
  - Power infrastructure.









## **Focus on Hardrock - Stockpiles**

- Commercial low-grade resource with a mine life potential of approximately 5 years.
- Minimal additional permitting/approvals required to commence processing.
- DEHP approvals expected by the third quarter 2012.
- Objective is to process stockpile concurrently with ore from open pit.



Processing to rapidly increase production to meet strong demand from off-take partner.



## Focus on Hardrock – Open Pit

- Large scale open-cut mine operated successfully & profitably for over 13 years.
- DEHP approvals expected to be granted by third quarter of 2013.
- Environmental Management Plan ("EMP") and engineering works in progress.
- Contains higher grade material than the Hard Rock stockpiles.
- 10 year mine life.
- Significant exploration upside mineralisation remains open at depth.
- Low planned strip ratio.
- Capital costs to be funded via off-take agreements with established tungsten producers.







## **Low Cost Processing**



• Total feed of 3MTPA



#### X-Ray Sorting

- Easily assess average grade of rock
- Extensive testing of stockpile already undertaken



 Off-take agreements already in place

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76% overall recovery producing 65% concentrate

#### **Gravity Processing**

• Throughput capacity of 0.5MTPA



## **Strong Infrastructure**

- **Transport** project site located within 250 metres of Mulligan Highway leading to Port Douglas and Cairns.
- **Port** Cairns Port located approximately 130km by road from site.
- **Power** Access to grid power.
- Water Existing facilities expected to provide for planned operations.
- Labour Surrounding cities and townships provide strong access to labour.

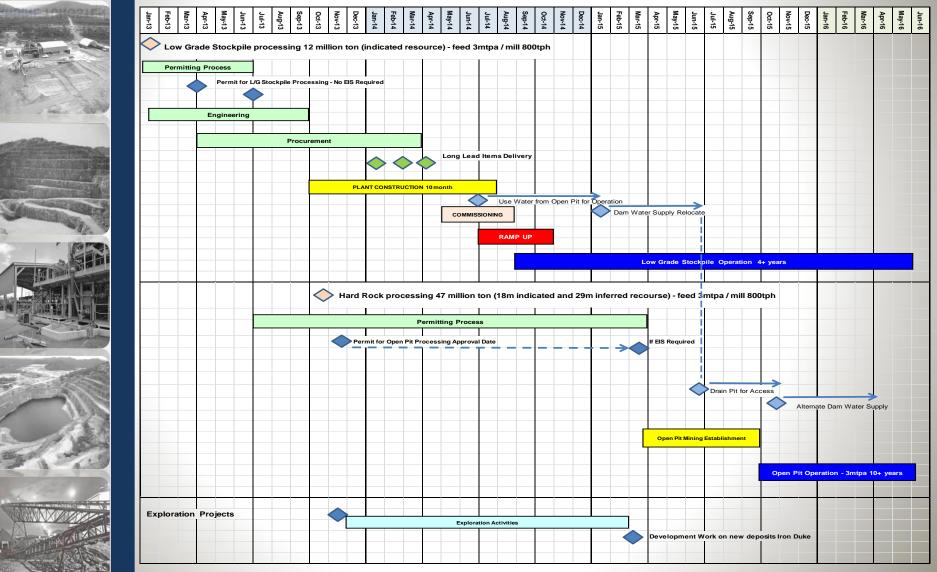


## **Permitting & Approvals**

- Environmental Permit already in place for Tailings Retreatment operation.
- Construction and operating permit for stockpile processing already underway.
- Additional permitting required for open pit operation baseline studies currently underway:
  - o Environmental Management Plan required
  - Associated engineering studies required
- Approval of required permits for processing of stockpiles expected by the third quarter in 2013.
- Approval of required permits for commencement of operations at the former open pit mine site expected by the fourth quarter in 2013.



### **Project Outlook**



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### **Investment Summary**

- CNQ making transition from tailings production to hard rock development and production company.
- Diversified asset base provides a range of low cost tungsten feed options.
- Combined assets to provide 14 years potential mine life on current resource estimates.
- Availability of historical data allows CNQ to optimise exploration and production activity.
- Blue chip off-take partner already in place Mitsubishi Unimetals Corp.
- Immediate opportunity to increase production through stockpiles to meet increasing demand from off-takers.
- Low-cost mining and processing program.
- Initial Feasibility Study on Hard Rock Project already completed significant NPV outlined.
- Advanced Hard Rock exploration projects present significant opportunity to increase potential resource base.
- Board and senior management have successful track record of bringing hard rock projects into production.



### **Contact Us**

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