



Austmine 2015  
Mining Innovator  
of the Year

# CARBINE RESOURCES LIMITED

## Mount Morgan Gold & Copper Project

2016 Asia Mines & Money Conference:  
*Developing one of Australia's lowest cost  
gold operations*

April 2016

# DISCLAIMER

## Mineral Resources

The Indicated and Inferred Resources referred to in this presentation were presented by Norton Gold Fields Limited at the Mining 2009 Resource Convention (Brisbane). The presentation was released to the ASX on 28 October 2009 and is available for viewing on the Norton Gold Fields website ([www.nortongoldfields.com.au](http://www.nortongoldfields.com.au)). The resources were stated to have been prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Competent Person Troy Lowien, Resource Geologist, of consultants Coffey Mining Pty Ltd.

There is a low level of geological confidence associated with the inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The Company confirms that all material assumptions underpinning the production target, or the forecast financial information derived from the production target, as initially reported to the ASX on 13 August 2015 continue to apply and have not materially changed.

## Exploration Targets

Carbine has identified an Exploration Target at the site comprising low grade mullock dumps, slag dumps and retreated tailings from previous operations. In the Exploration Target table of this presentation a range of approximate tonnage and grade has been compiled from extensive review of historic reports and studies by previous owners. Carbine has not yet completed any exploration activity on the Exploration Target. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource, and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The basis for the estimates of tonnage and grade include historic production records, various topographic and volume surveys, drilling by various methods, grab and channel sampling and small scale bulk sampling. Carbine proposes to further evaluate the Exploration Target during the next year by drilling and possible bulk testing to provide material for additional metallurgical test work and to verify tonnage and grade.

## Metal Equivalents

It is the Company's opinion that all of the metal products included in the metal equivalents calculation have a reasonable potential to be recovered and sold. Feasibility level metallurgical test work on Mount Morgan tailings mineralisation indicates recovery rates of 76% for copper, 68% for gold and 90% for pyrite .

Formula for calculation of gold metal equivalence for copper and pyrite:

Gold Metal Equivalent = (Copper/Pyrite Production x Copper/Pyrite Price)/Gold Price

The calculation of gold equivalent is based on the following metal price assumptions:

Gold price US\$1,175/oz

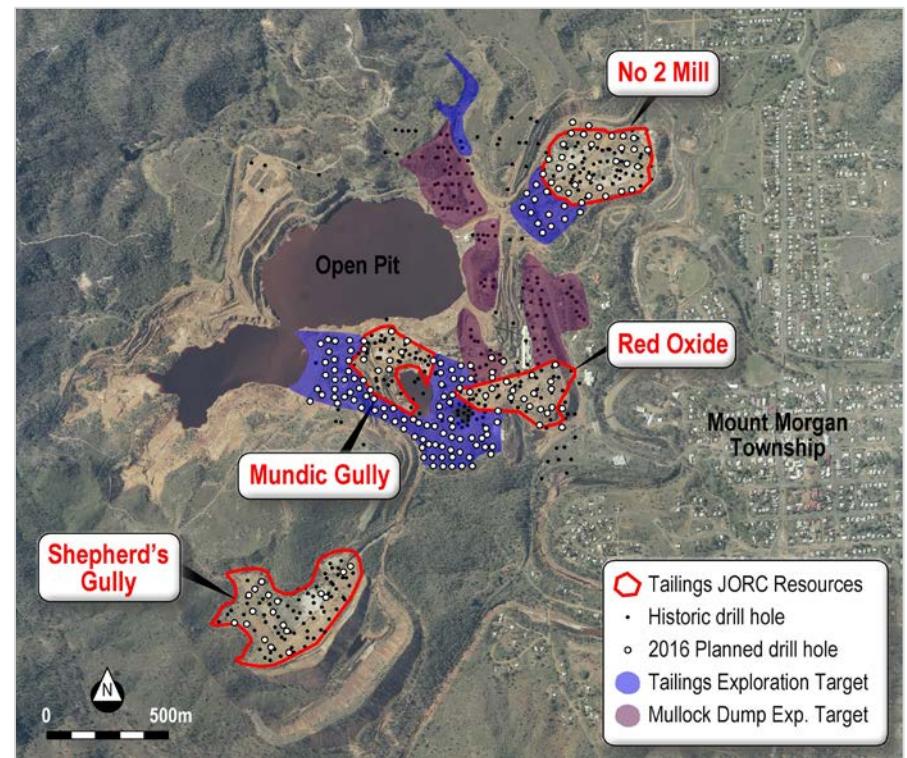
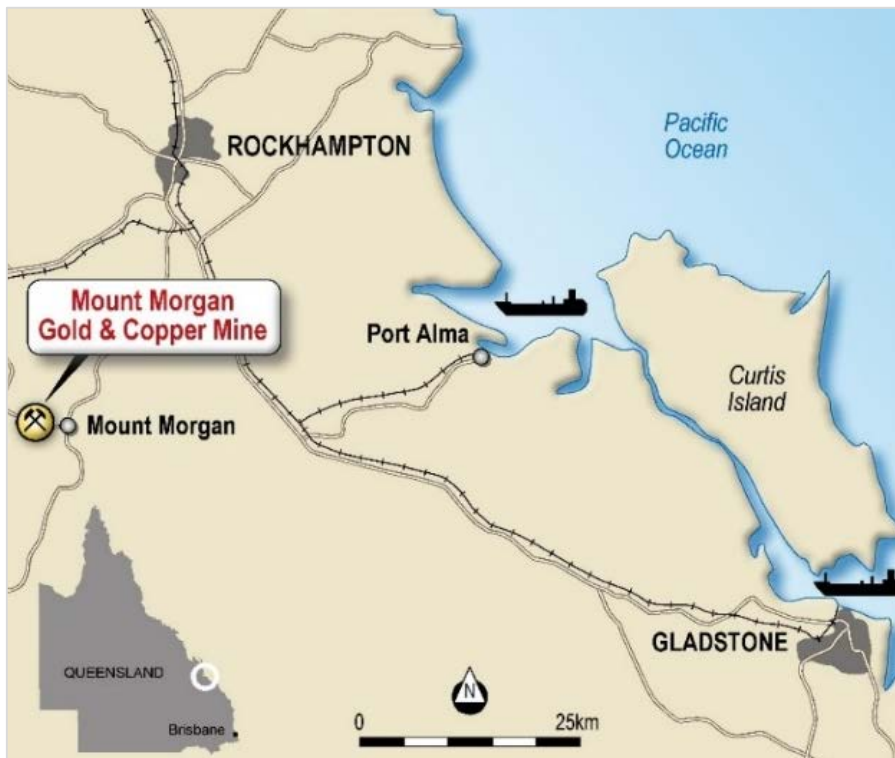
Copper price US\$5,100/t

Pyrite price = US\$60/t

# MOUNT MORGAN MINE

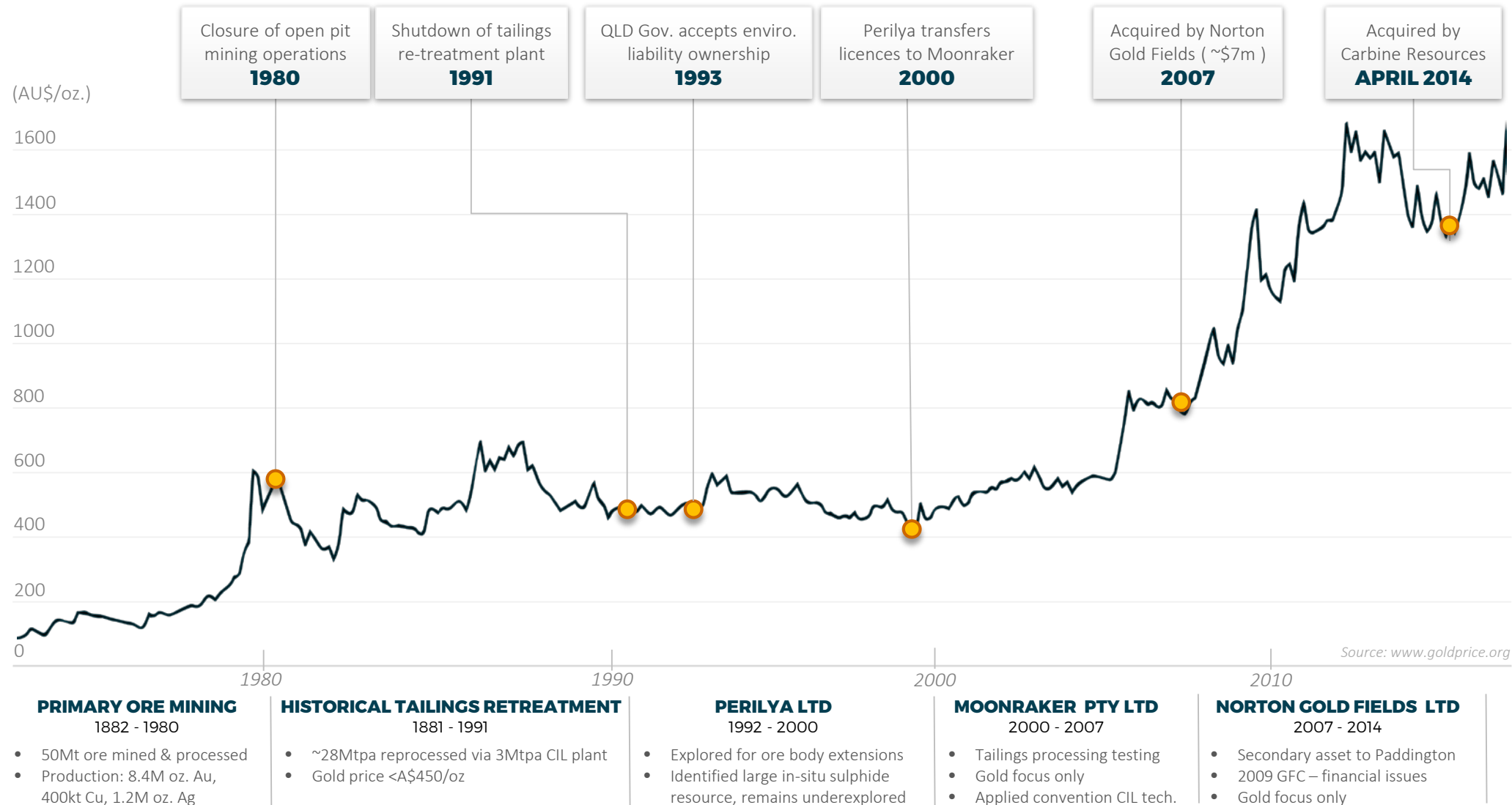
## Overview

- Historic QLD gold mine - close proximity to infrastructure, cities, ports & rail
- Primary deposit mined for ~100 years (8.4Moz Gold, 400kt Copper)
- Environmental legacy 100% owned by QLD government



# MINING HISTORY

No operations for 25 years (gold <A\$450/oz at last production)



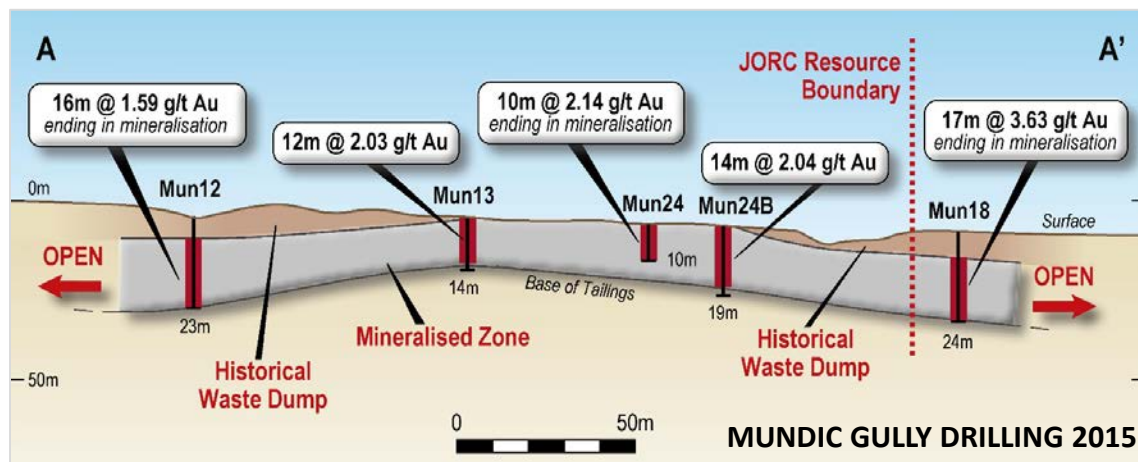
# SIGNIFICANT RESOURCE BASE

Resource crushed, ground & stockpiled at surface

Resources		Tonnes	Au (g/t)	Cu (%)	Au (oz)	Cu (t)
JORC Resources		8.4 Mt	1.23	0.15%	329,000	12,300
Exploration Target	Low	4.7 Mt	1.54	0.12%	231,000	5,700
	High	5.8 Mt	1.81	0.17%	336,000	9,800

The potential quantity & quality in this exploration target is conceptual in nature with insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.

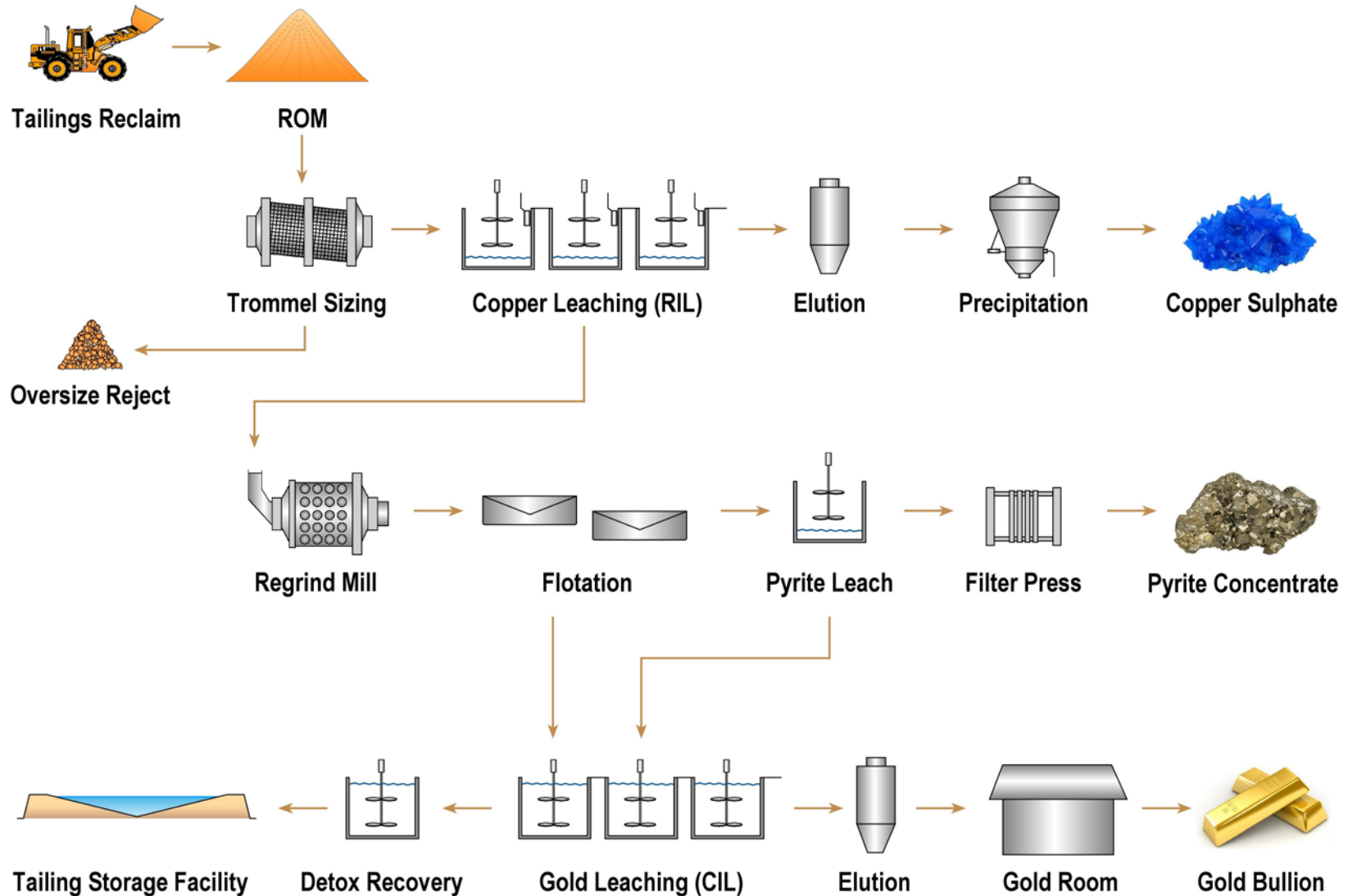
## 2016 Drilling Program: 5,000m (~50% complete)





# PROCESS PLANT FLOWSHEET

Multiple by-products = low all-in sustaining costs

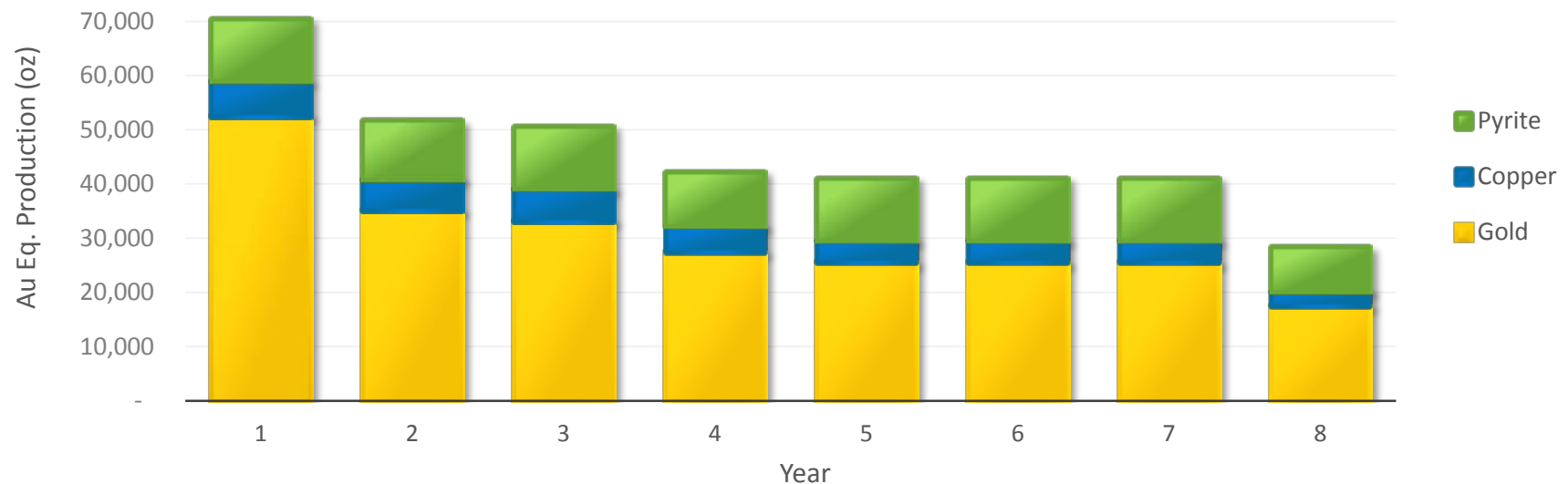


# PRODUCTION SCHEDULE

High grade tailings processed in early operations

PFS Results - Production	Value	Notes
Mine Life (minimum)	8 years	JORC resources only (<30% of known mineralisation)
Annual Throughput	1,000,000 t/yr	Based on available JORC resources
Average Production	31,200 oz/yr 3,200 tpa 211,000 tpa	Gold Copper Sulphate Pyrite Concentrate
<b>Average Gold Eq. Production</b>	<b>46,500 oz/yr</b>	<b>Inc. &gt;58,000oz/yr Au eq. in years 1 – 3</b>

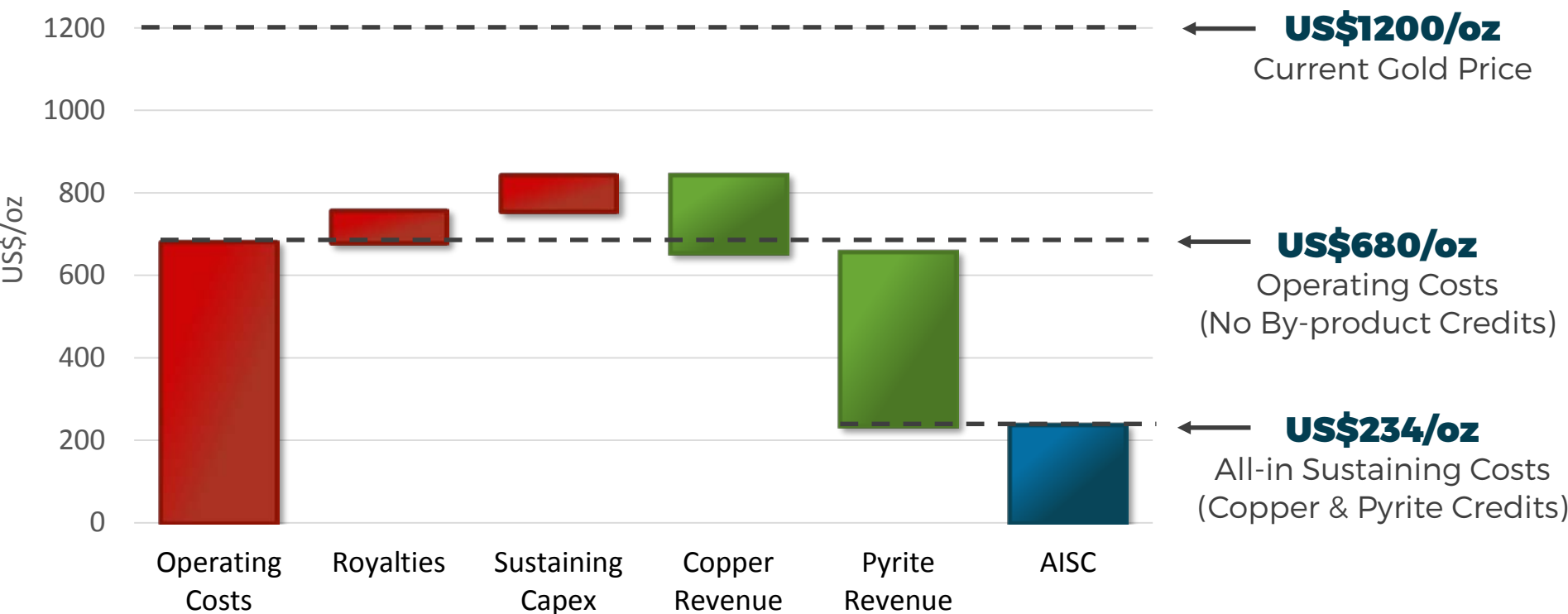
*\*Note: Metal prices Au US\$1,175/oz.; Cu US\$5,100/t;  
Pyrite US\$60/t. Ex. rate \$0.75.*



# CAPITAL & OPERATING COSTS

PFS completed by GR Engineering

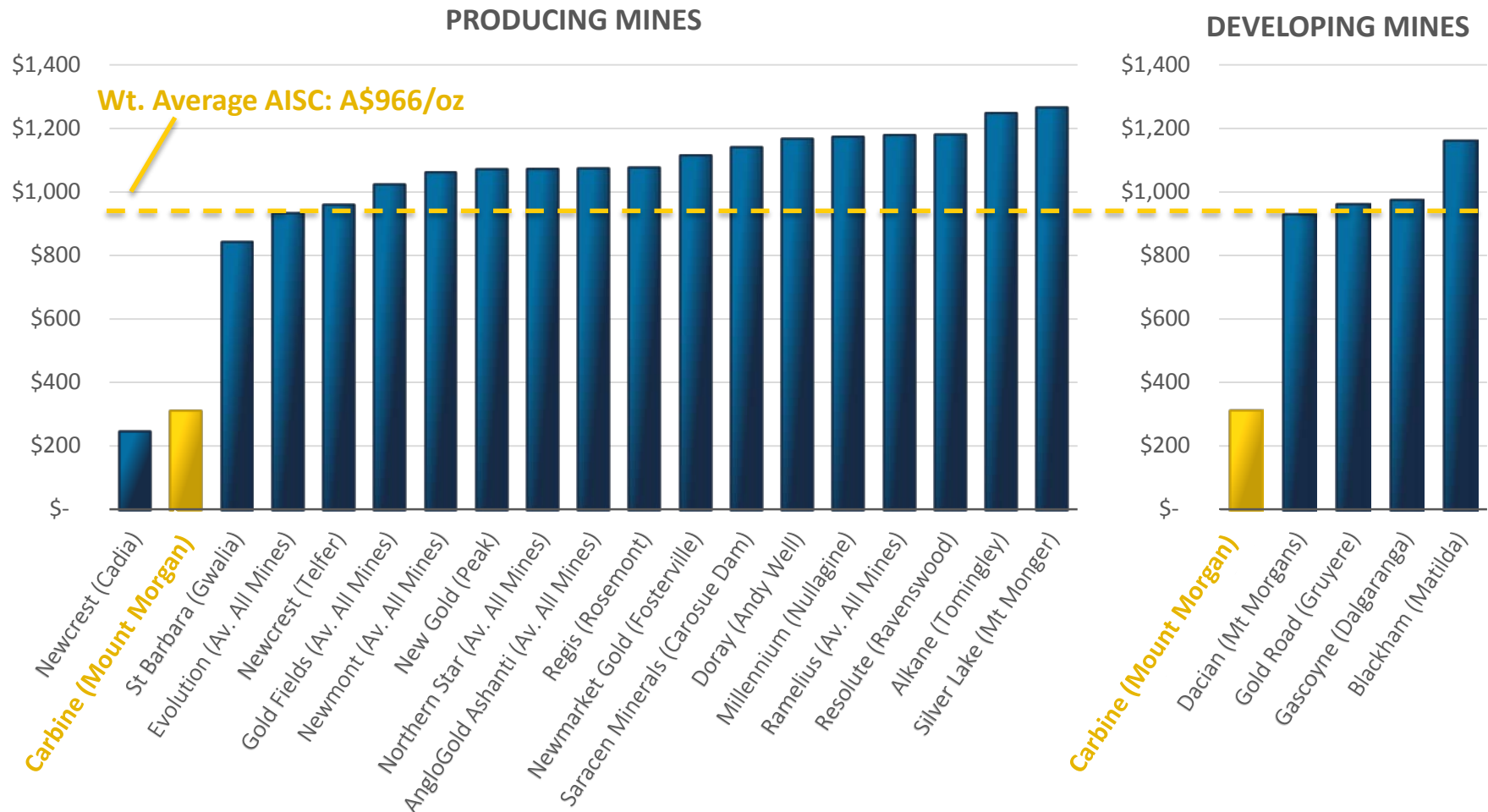
PFS Results - Financial	Value	Notes
Capital Costs	A\$ 63.3M	Assumed new plant construction
Operating Costs	A\$ 29.2/t	
All-in Sustaining Costs	US\$ 234/oz	Life of mine





# ALL-IN SUSTAINING COSTS

Comparison with Australian producing mines & developers



Source: PCF Capital (2015 Y Data)

# SECURED BY-PRODUCT OFFTAKES

Pyrite & copper underpin low cost gold operation

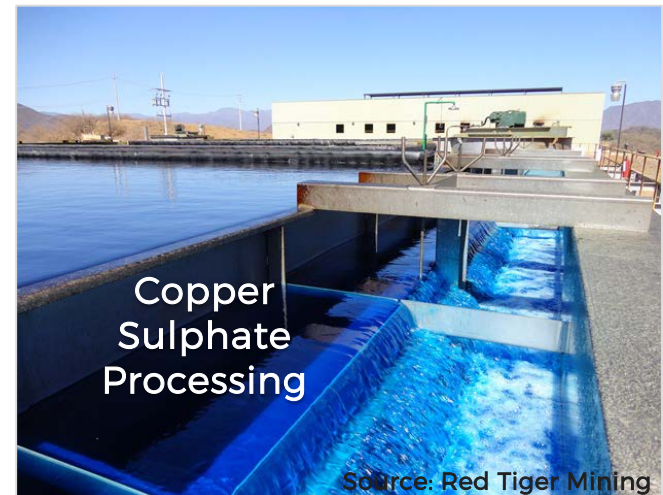
## Pyrite Concentrate

- Four year contract – up to 225,000tpa
- Sale price: US\$80/t FOB Gladstone Port
- 90% payment at mine gate, letter of credit terms
- *Revenue base of up to ~A\$25 Million per annum*



## Copper Sulphate

- Three year contract – up to 5,000tpa
- Sale price: formula relative to LME Cu price + premium
- Mine gate sales
- *Revenue base of up to ~A\$8 Million per annum*

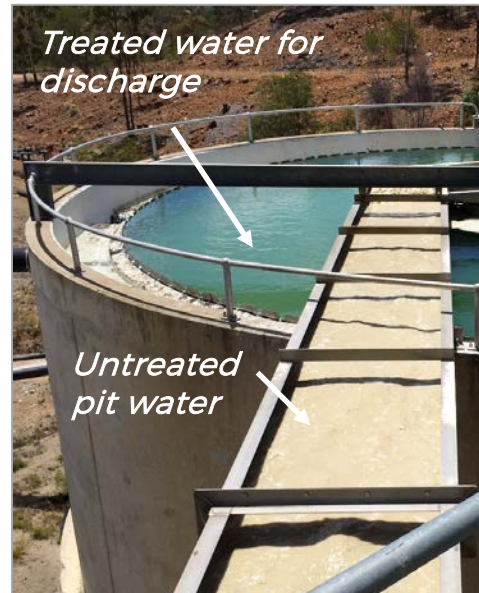


# MINE WATER TREATMENT

Immediate site cashflow generation

## **Long term service agreement to operate existing site water treatment plant**

- 10 year contract – treating up to 500ML per annum (revenue of \$2,500/ML before costs)
- Targeting further improvement in volume and quality of discharge water
- Further cashflow opportunity via extraction of up to 300tpa of copper from pit water





# STRATEGIC PARTNERSHIP

GR Engineering now Carbine's largest shareholder

## Alliance with GR Engineering for future mine development

- Dec 2015: Binding MOU with GR Engineering Services Limited (ASX: GNG)
- A\$750,000 placement: strong vote of confidence in Carbine's development plans
- Long term relationship for ongoing engineering, design, construction and operations

## GR Engineering Overview

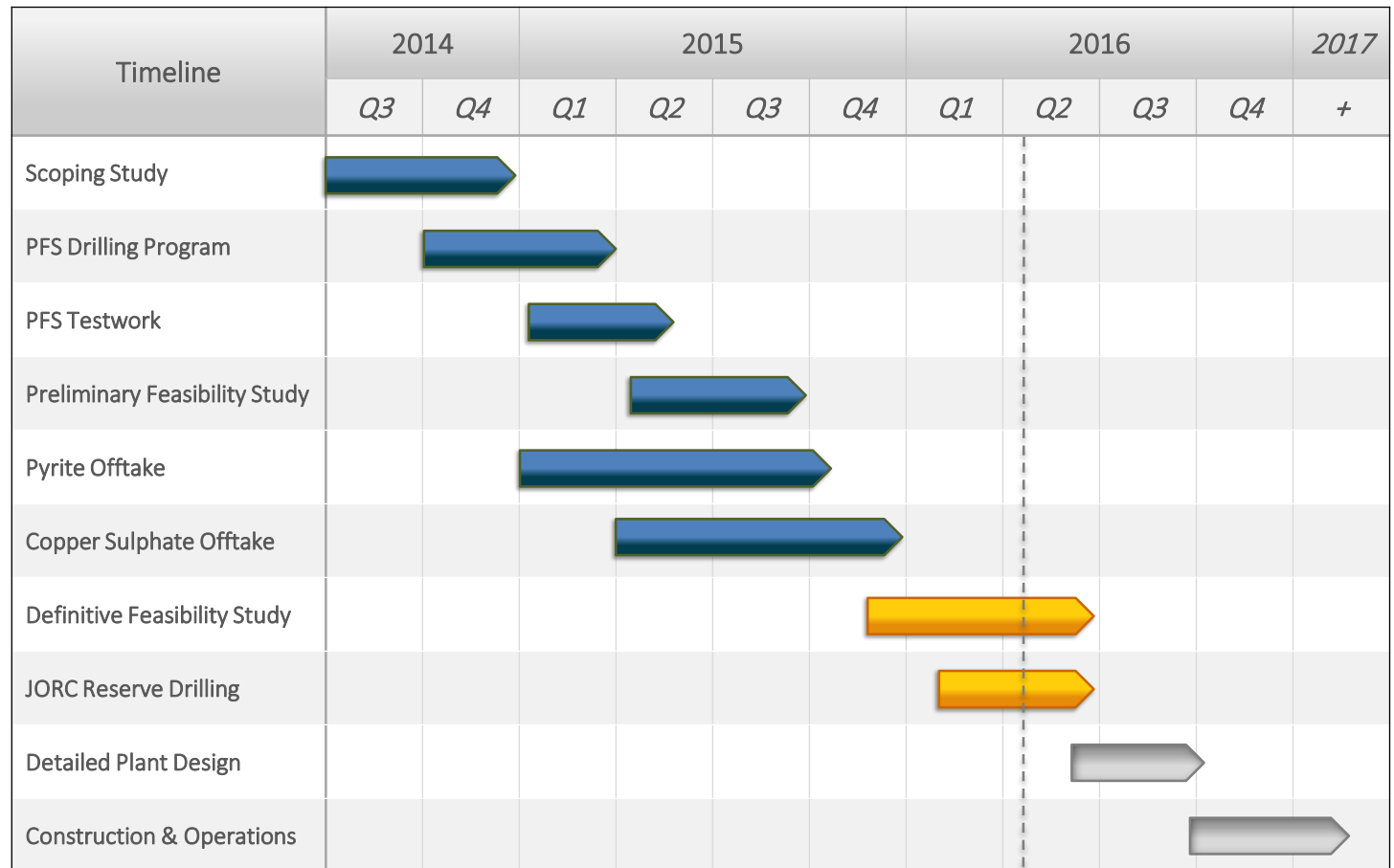
- ASX Listed, leader in specialist process engineering, design and construction
- Strong reputation and experience in tailings reprocessing
- Track record of project delivery in 13 countries



Andy Well Gold Process Plant (GR Engineering EPC)  
Source: Doray Minerals Ltd

## Final feasibility & financing process underway

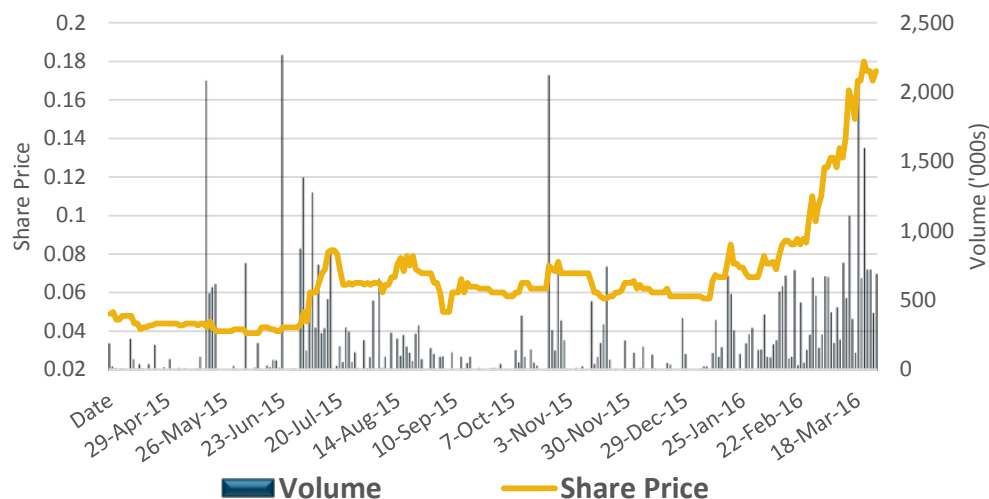
- ✓ Confirmed US\$234 AISC via independent PFS
- ✓ Binding pyrite offtake – A\$25M p.a. revenue
- ✓ Binding copper sulphate offtake – A\$8M p.a. revenue
- ✓ DFS & drilling underway
- ✓ Employed key technical and financial staff
- ✓ 2015 Austmine Innovation Award for Miners
- ✓ Three phases of independent testwork
- ✓ Maintained strong cash balance



# CARBINE SNAPSHOT

Experienced board & management, quality major shareholders

## Share Price History



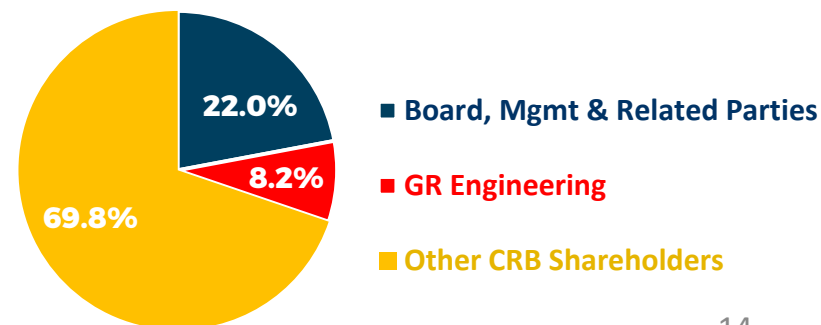
## Board & Management

Patrick Walta	Executive Director
Evan Cranston	Non-Exe.
Tom Bahen	Non-Exe.
Stephen Dobson	Non-Exe.
Terry Moylan	Chief Operating Officer
Rod Smith	Chief Metallurgist
Russell Dann	Project Specialist

## Capital Structure

<b>Shares</b> (ASX: CRB)	152 Million
<b>Unlisted Options</b> (\$0.05 - \$0.10)	25 Million
<b>Market Capitalisation</b> (@ \$0.18/share)	\$27.5M
<b>Cash &amp; Deposits</b> (10 Jan 2016)	\$3.0M

## Significant Shareholders





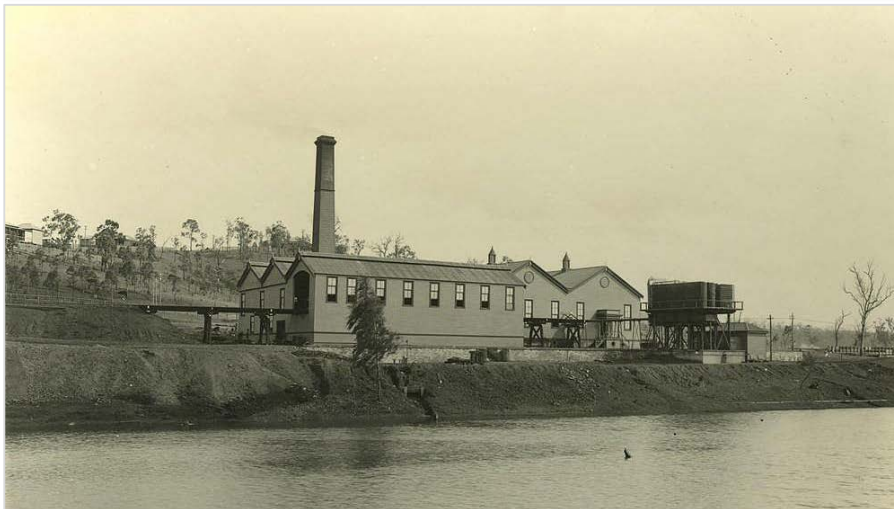
# HISTORY SET TO REPEAT...

Using the success of the past in restarting operations

## 1927

*Underground → Open Pit Operations*

- Gold production main focus
- Initial revenue via copper (flooded underground)
- Pyrite by-product sales
- Mine operated for a further 50 years



## 2016 (planned)

*Primary Ore → Tailings Operations*

- Gold production main focus
- Initial revenue via copper (flooded open pit)
- Pyrite by-product sales
- Potential for another 25+ years of operations





# CARBINE RESOURCES LIMITED

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## Contact

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*Unlocking significant metal value left behind  
after 100+ years of operations*

# COMPETENT PERSONS STATEMENT

The information in this report that relates to the recently completed exploration results is based on and fairly represents information compiled by Dr Marat Abzalov, who is a geological consultant to Carbine Resources Limited. Dr Abzalov is a Fellow of The Australasian Institute of Mining and Metallurgy (FAusIMM) and he has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity 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”. Dr Abzalov consents to the inclusion in the report of the matters based on information in the form and context in which it appears. Previous results were released to the ASX on 16 March and 20 April 2015 and have not materially changed since last reported.

The information in this report that relates to the Exploration Target is based on information compiled by Lance Govey, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Lance Govey is an independent geological consultant and has no association with Carbine Resources Limited other than being engaged for services in relation to the preparation of parts of this report. Lance Govey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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’. Lance Govey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This was initially release to the ASX on 13 November 2014 and has not materially changed since it was last reported.

The information in this report that relates to the Mineral Resources of the Mount Morgan Mine project was prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (“JORC Code”) by Troy Lowien, Resource Geologist, of consultants Coffey Mining Pty Ltd, who is a Member of The Australasian Institute of Mining and Metallurgy (“AusIMM”) and has a minimum of five years of experience in the estimation, assessment and evaluation of Mineral Resources of this style and is the Competent Person as defined in the JORC Code. Troy Lowien conducted the geological modelling, statistical analysis, variography, grade estimation, and report preparation. This report accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since last reported on 28 October 2009.