

MANTLE MINING CORPORATION LTD



## **An Emerging Gold Producer**

Corporate Presentation – October 2015



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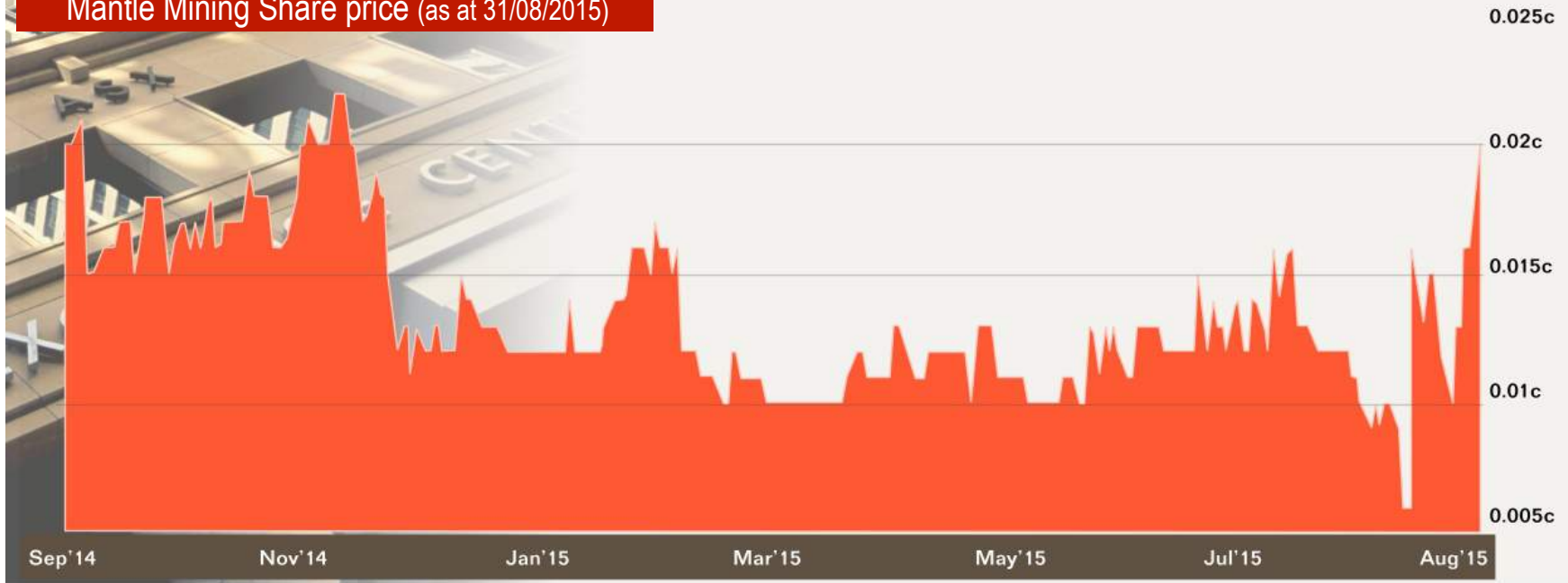


# Corporate Snapshot

## Capital Structure (as at 30/9/15)

ASX Codes:	MNM MNMOB
Shares on Issue	518M
Options on Issue	53M
Market Cap	A\$10M (2.0c)

## Mantle Mining Share price (as at 31/08/2015)



## Top Shareholders (as at 30/9/15)

Top 40	61%
Incl. Board	13%



### Martin Blakeman

Non-Executive Chairman

Over 25 years experience at board level of junior resource companies including Metex Resources, Newera, Kodal Phosphate & Tetra Minerals



### Ian Kraemer

Managing Director

Mining Engineer with 30 years experience in mine acquisitions, construction and operational management with BHP, Pittston and Thiess



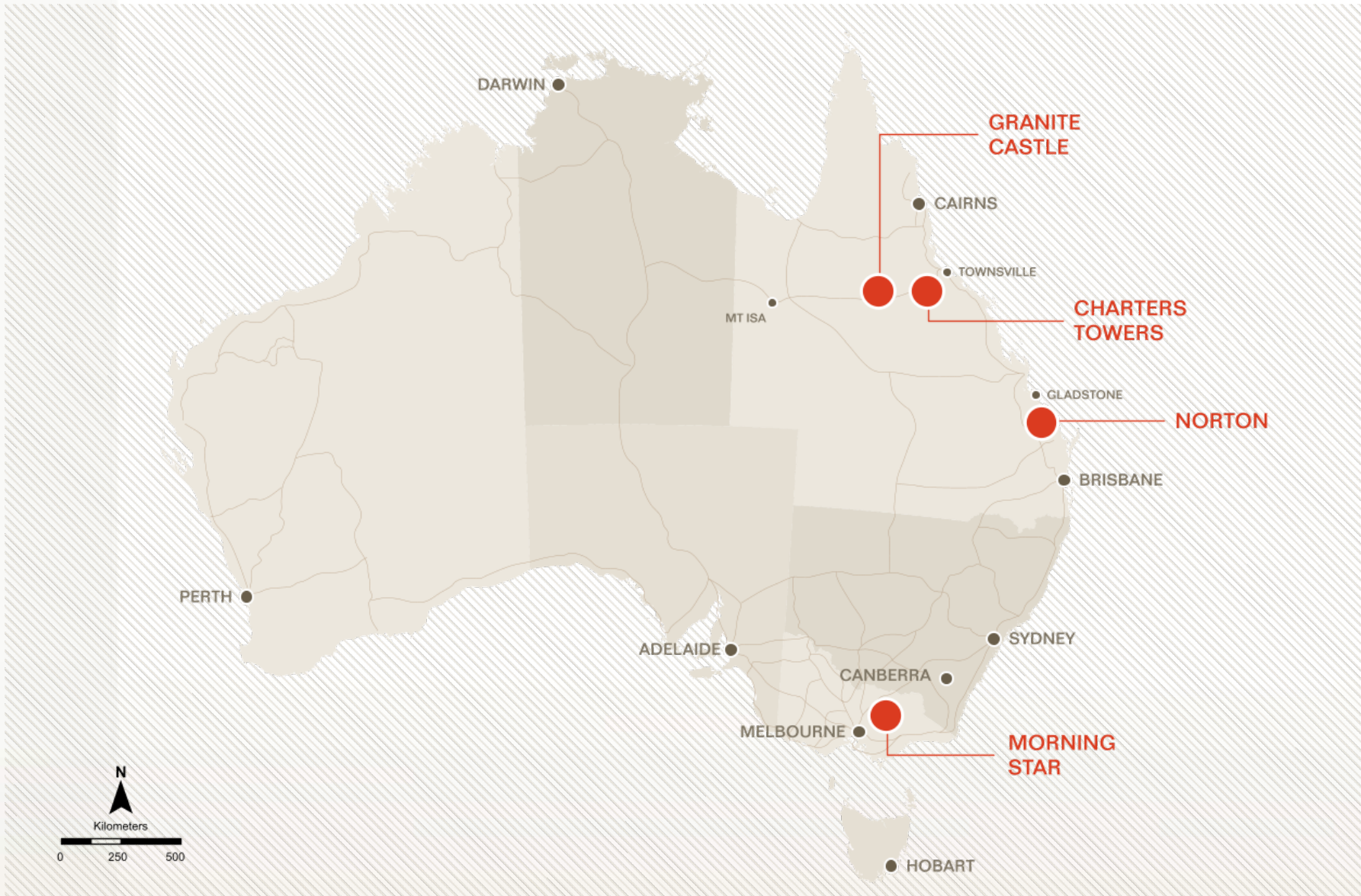
### Stephen de Belle

Non-Executive Director

Substantial track record in the finance, business and major project development sectors including with ABN AMRO, Barclays Bank, Midwest and Finders Resources



# Mantle's Gold Projects (post Morning Star acquisition)



## Gold Projects

Norton	90%
Morning Star	95%
Granite Castle	100%
Charters Towers	100%



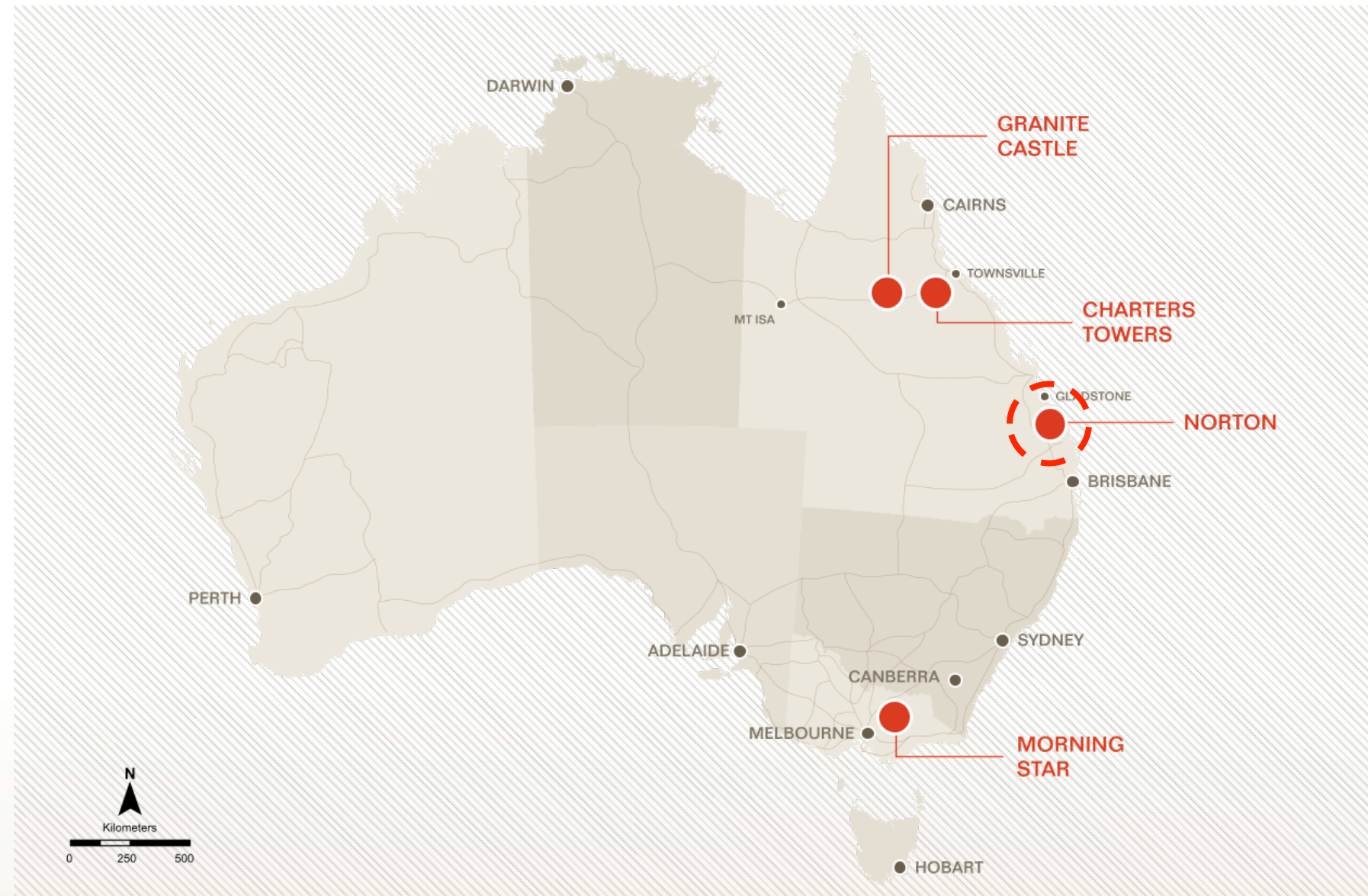


# NORTON GOLD MINE





# Queensland Operations - Norton



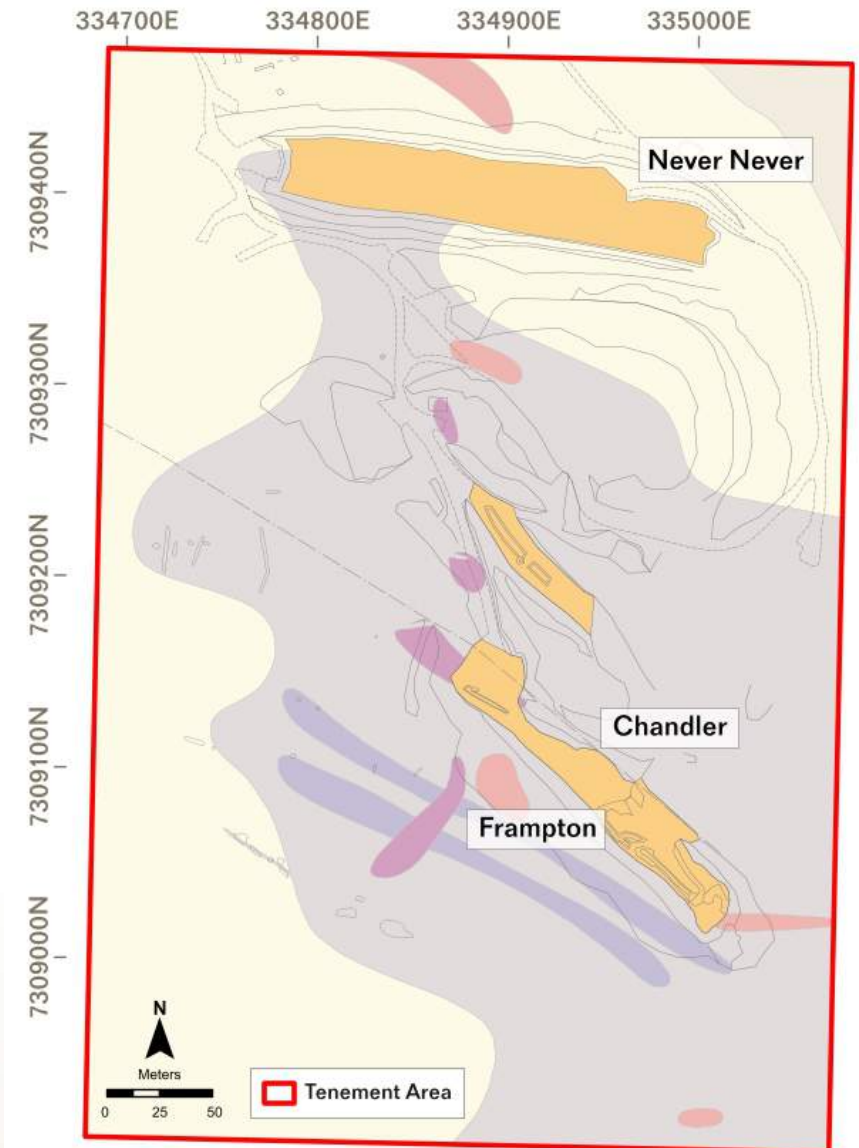
Situated in the Boyne Valley with excellent Infrastructure Support

- ~ 80 km or 1 hour from Gladstone
- ~ 12 km or 15 mins from Nagoorin
- ~ Regional Population approx. 3,000



## Norton Scoping Study:

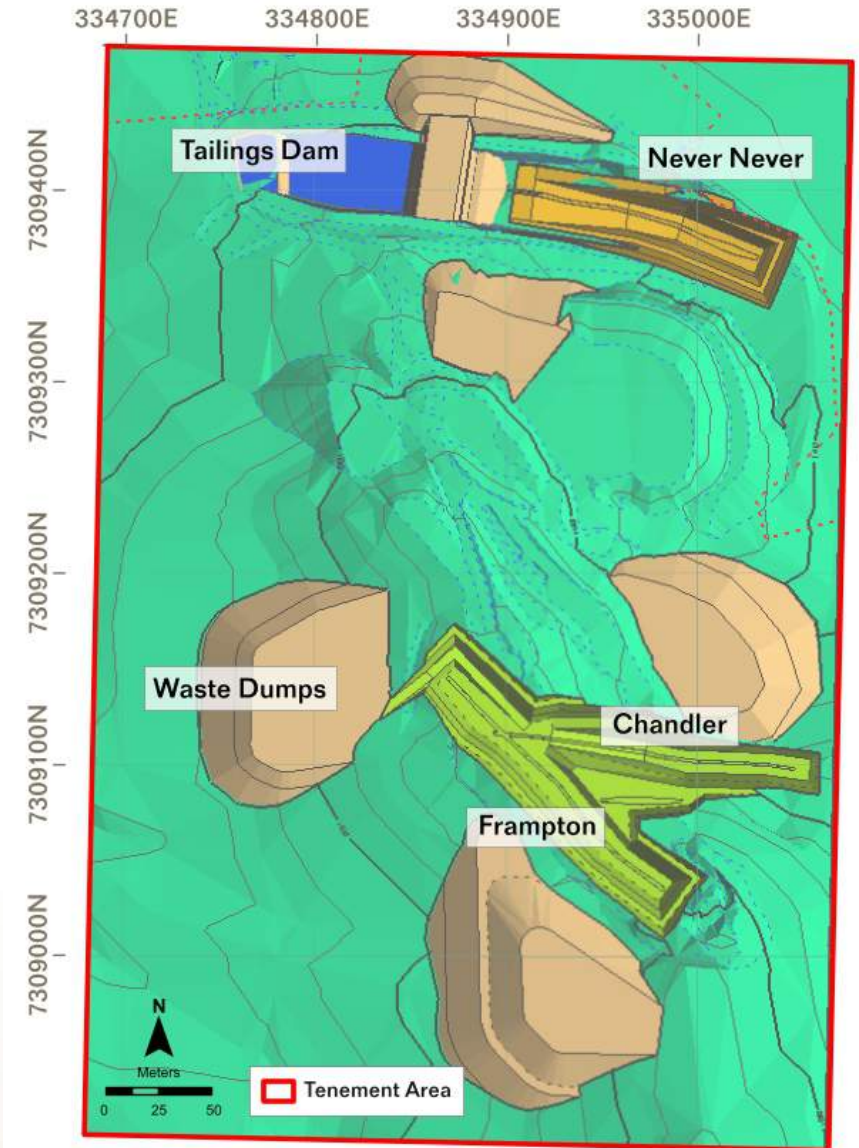
Tonnes and Grade	62,500t @ 6.5 g/t Au
Strip Ratio	14:1 W:O bcm
Concentrate	6,150t @ 58 g/t Au
Mine Life	2.5 years
Recovered Au	10,340 oz at 80% recovery overall
Gold Price	A\$ 1,500
<i>Capital</i>	
- Initial	A\$ 0.80M
- Sustaining	A\$ 0.10M/yr
All In Sustaining Cost	A\$ 775/oz Au
Payback Period	6 months
IRR	224%
NVP(8)	A\$ 4.7M



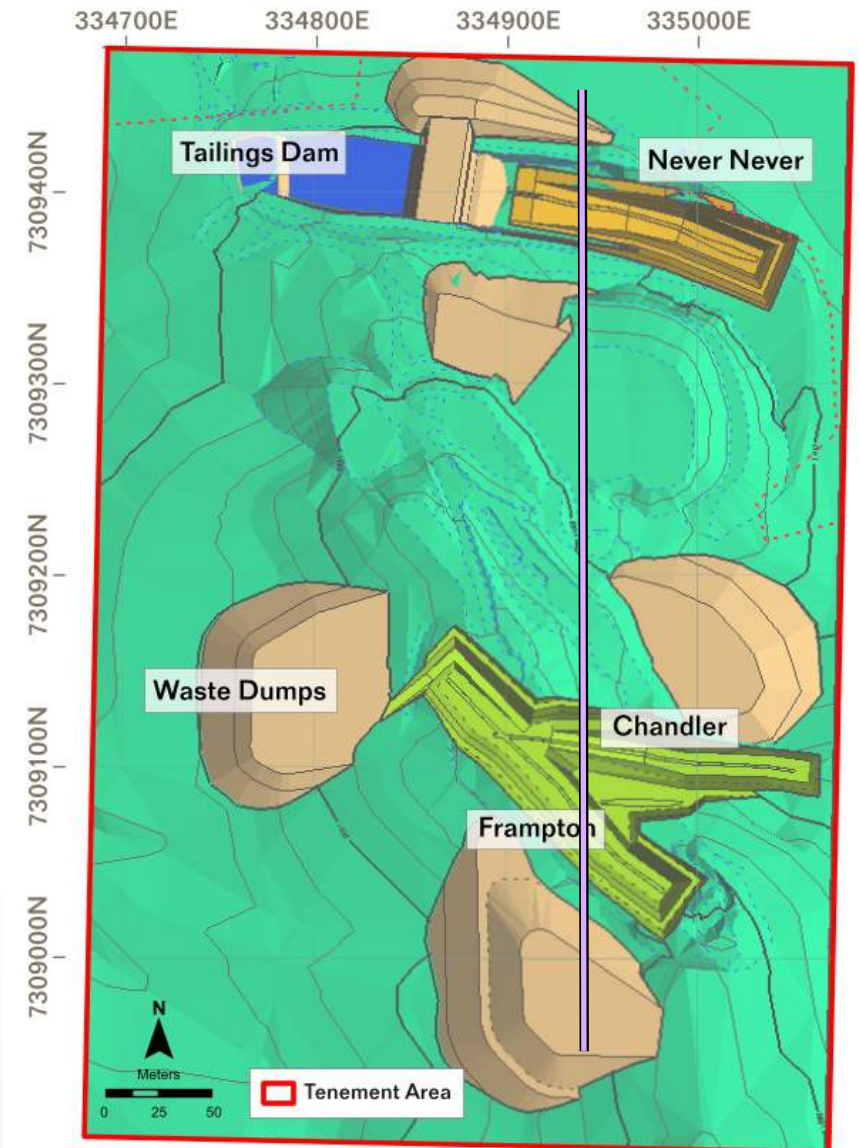
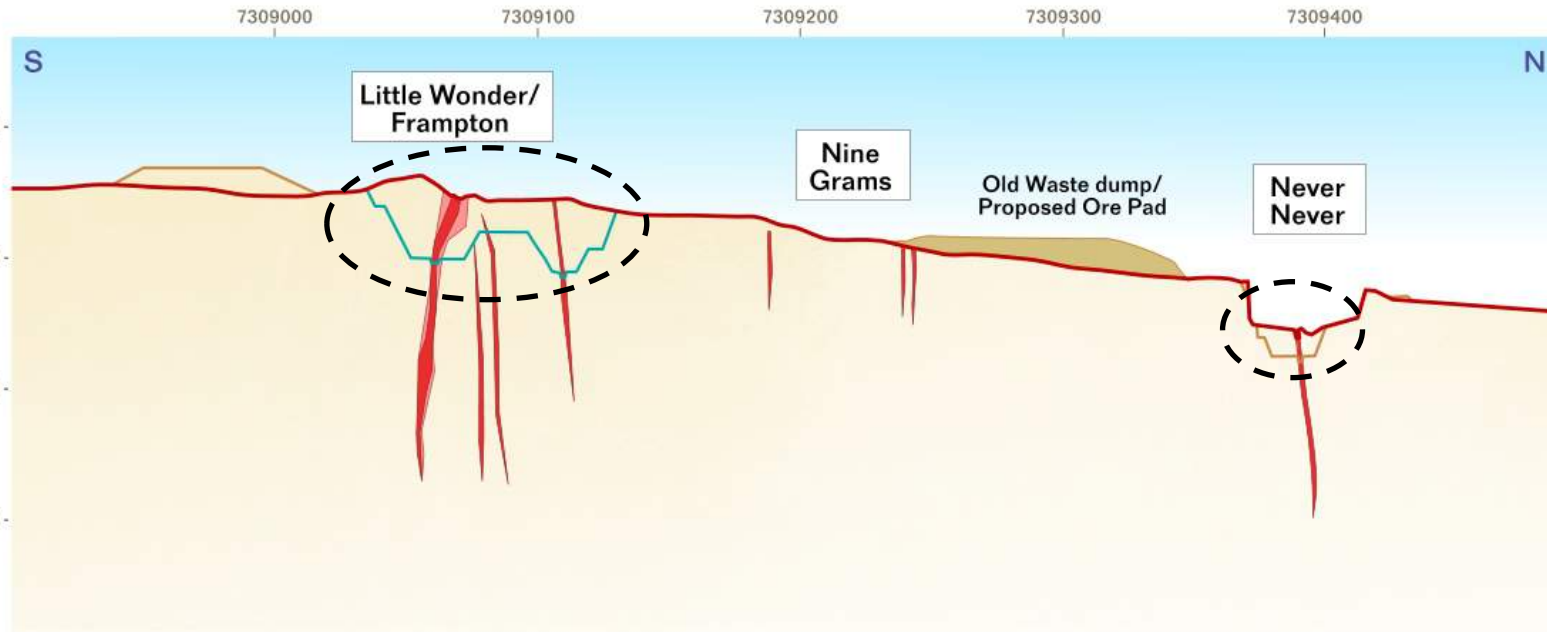


# Norton – Proposed Mining Method

- Mineralisation already exposed
- Experienced Mining Contractor engaged
- Updated Plan of Operations (PoO) submitted
- Selective mining to minimize dilution



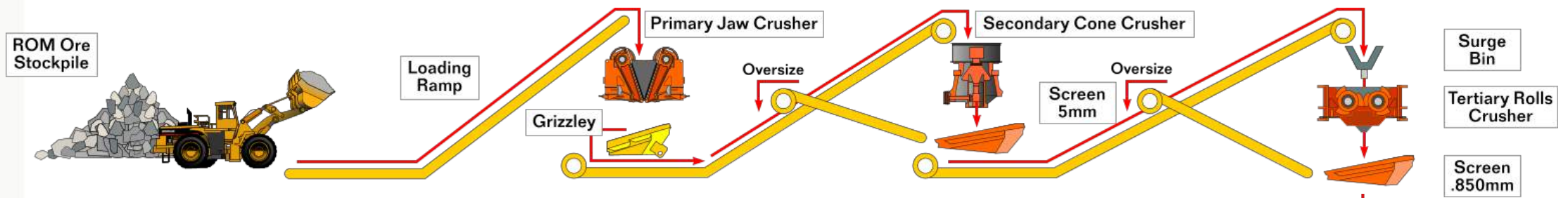
# Norton – Pit Development



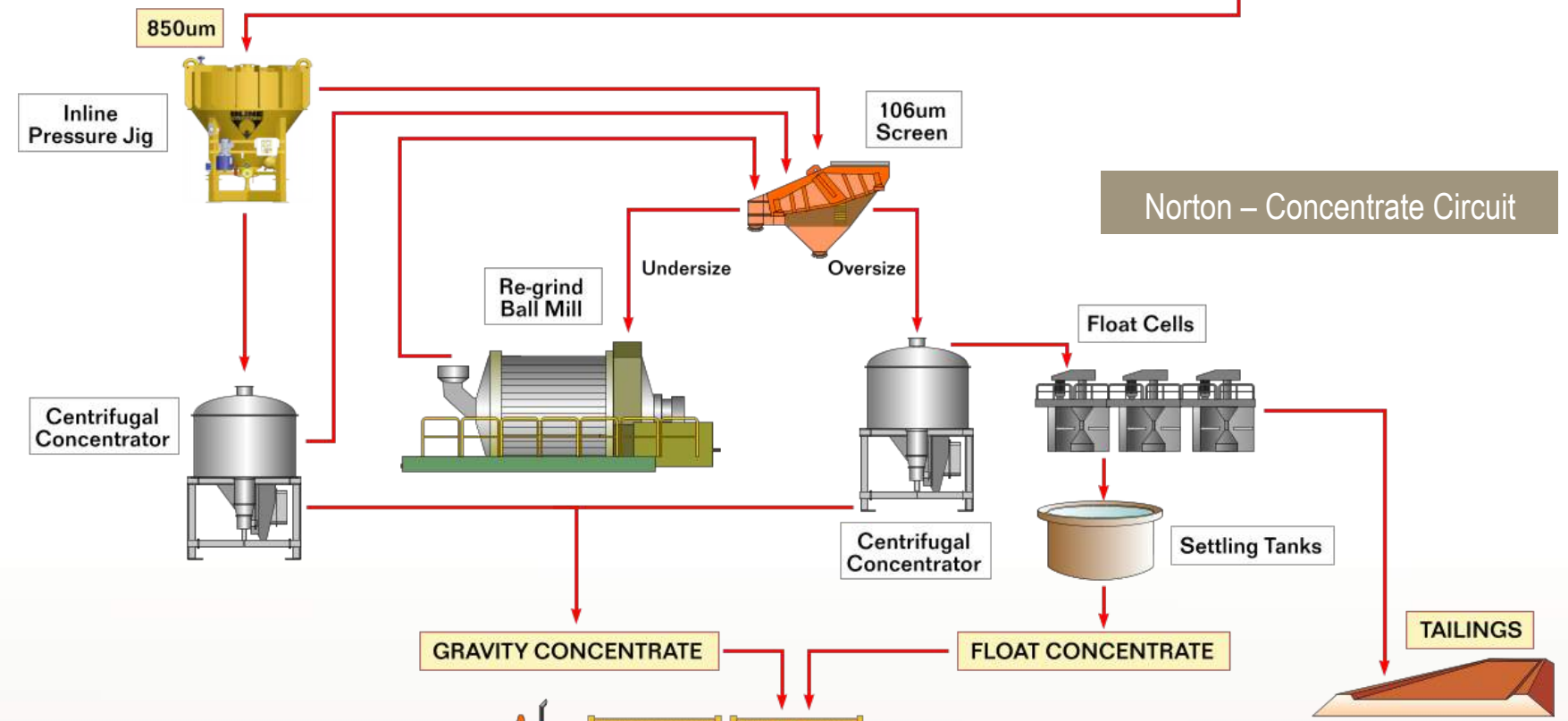
- Two pits operational to enhance selective mining
- Target ROM production 1,500 to 3,000 t/mth
- Capacity to grow – only scheduling 5 shifts /week



# Norton – Processing: Concentrate Circuit (Sept'15 update)



Norton – Crushing Circuit



Norton – Concentrate Circuit

Sept 2015 Concentrate Testwork

92% Recovery at 10% Mass Pull

95% Recovery at 15 % Mass Pull

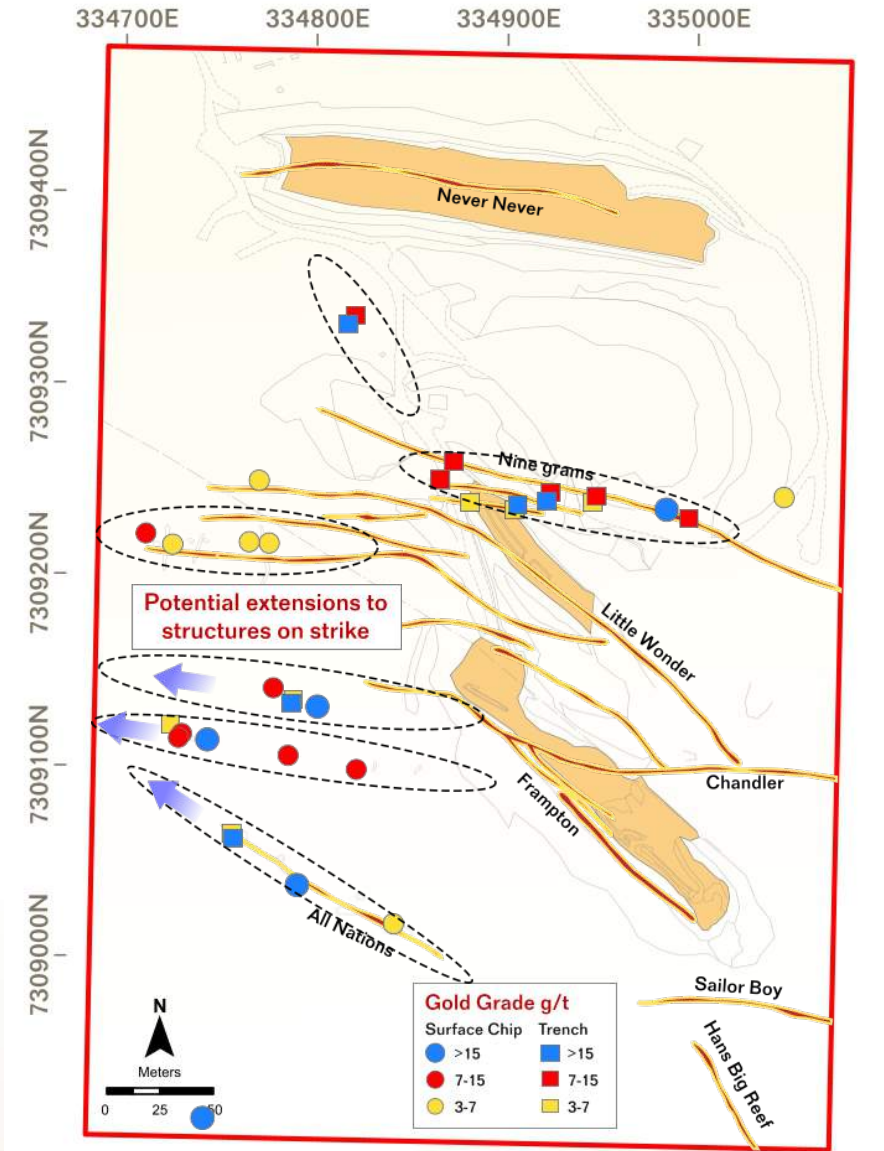
Concentrate Sales or Toll Treatment



Transport to Refining

# Norton – Potential Expansion

- Known Shear Structures
- Trench and Chip Sampling Programme
- Potential Shear Extensions and New Shears
- Mineralisation Extends to Depth



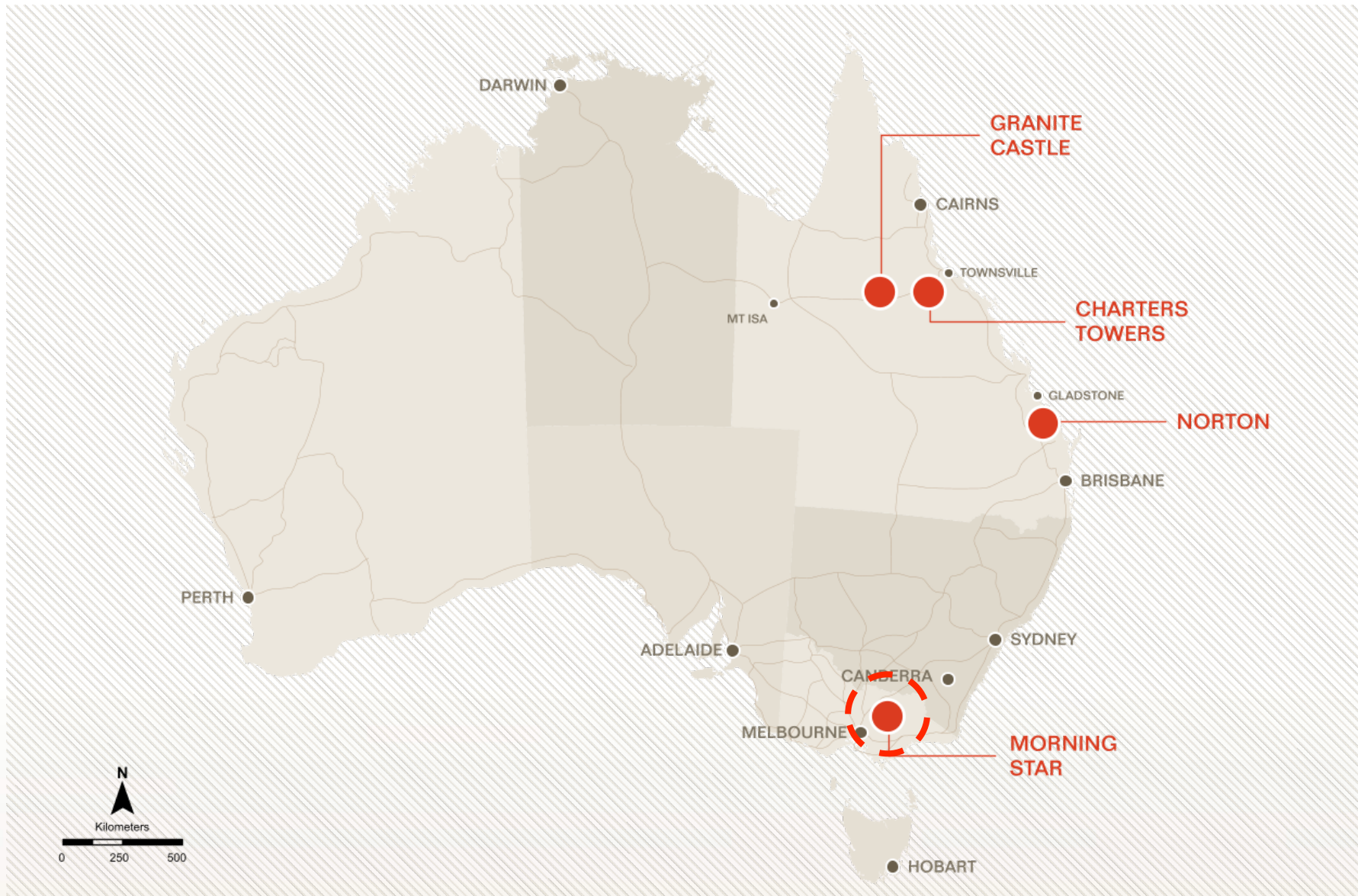


# MORNING STAR GOLD MINE





# Victoria Operations – Morning Star (post acquisition)

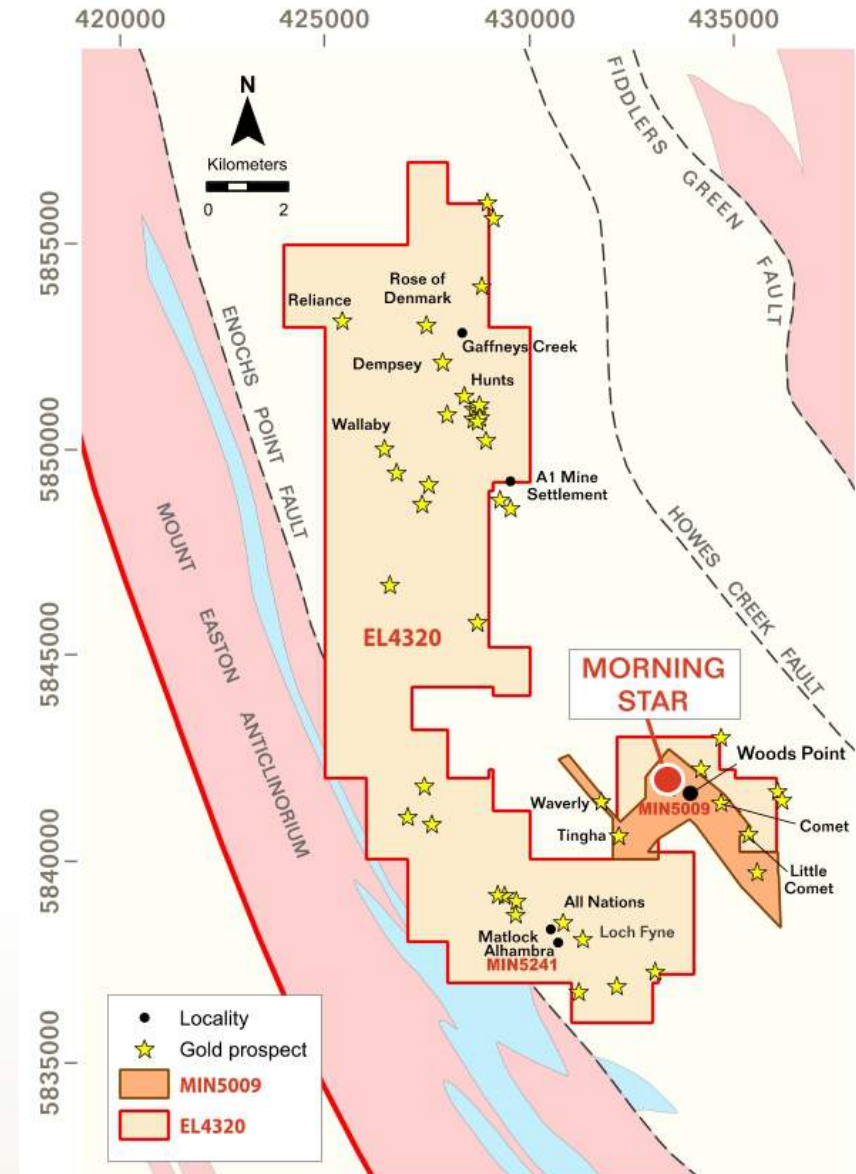


- Approximately 200km or three hours from Melbourne



## The Cost - A\$ 3.75M plus Royalty secures 95% of MCO

- \$100,000 Deposit already paid
- \$650,000 Tranche 1 payment due after Shareholder Meeting
- \$1 million Tranche 2 payment due 28 February 2016
- \$1 million Tranche 3 payment due 31 August 2016
- \$1 million Tranche 4 payment due 28 February 2017
- 1% Gross Sales Royalty for 5 years from first production







# MCO – The Deal

## The Assets:

- 95% interest in the then issued Ordinary Shares of MCO
- 910,000 oz Gold Mineral Resource (MCO 2008 – see appendix)
- Morning Star Mine Shaft refurbished to 300m, accessible to 9 level
- 80 KTPA Processing Plant (Expandable)
- Paste Fill Plant
- Administration Office and 9 person Accommodation Facility, Buildings and Fitout
- 105 Square Km of tenements with five targets already established
- **A\$ 30 M** accumulated tax losses potentially available to offset future earnings

Value ~ A\$ 2.0M

Value ~ A\$ 5.6M

Value ~ A\$ 2.1M

Value ~ A\$ 1.9M

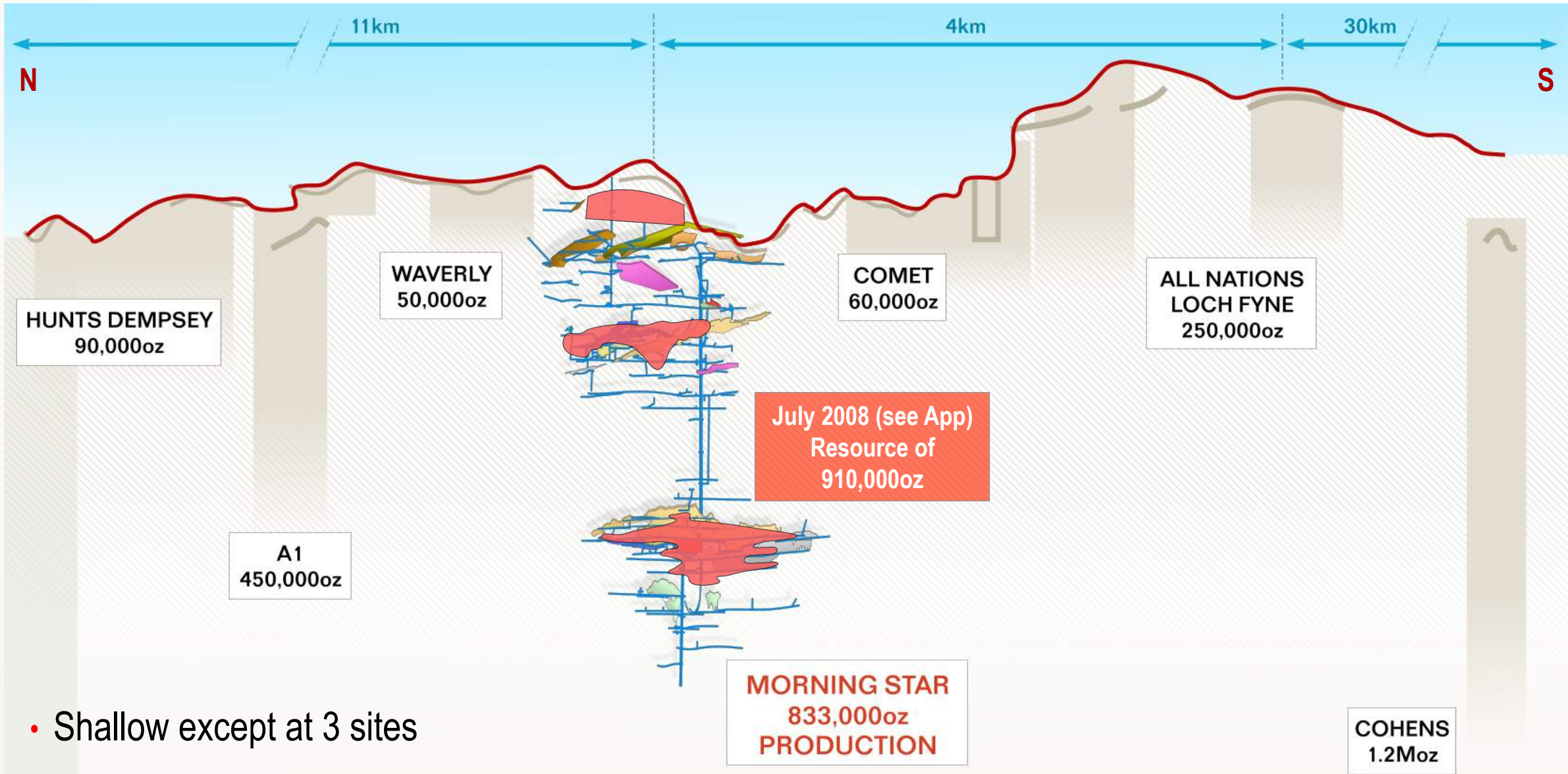
Value ~ A\$ 11.6M\*



\* "WDV MCO Asset Reg"



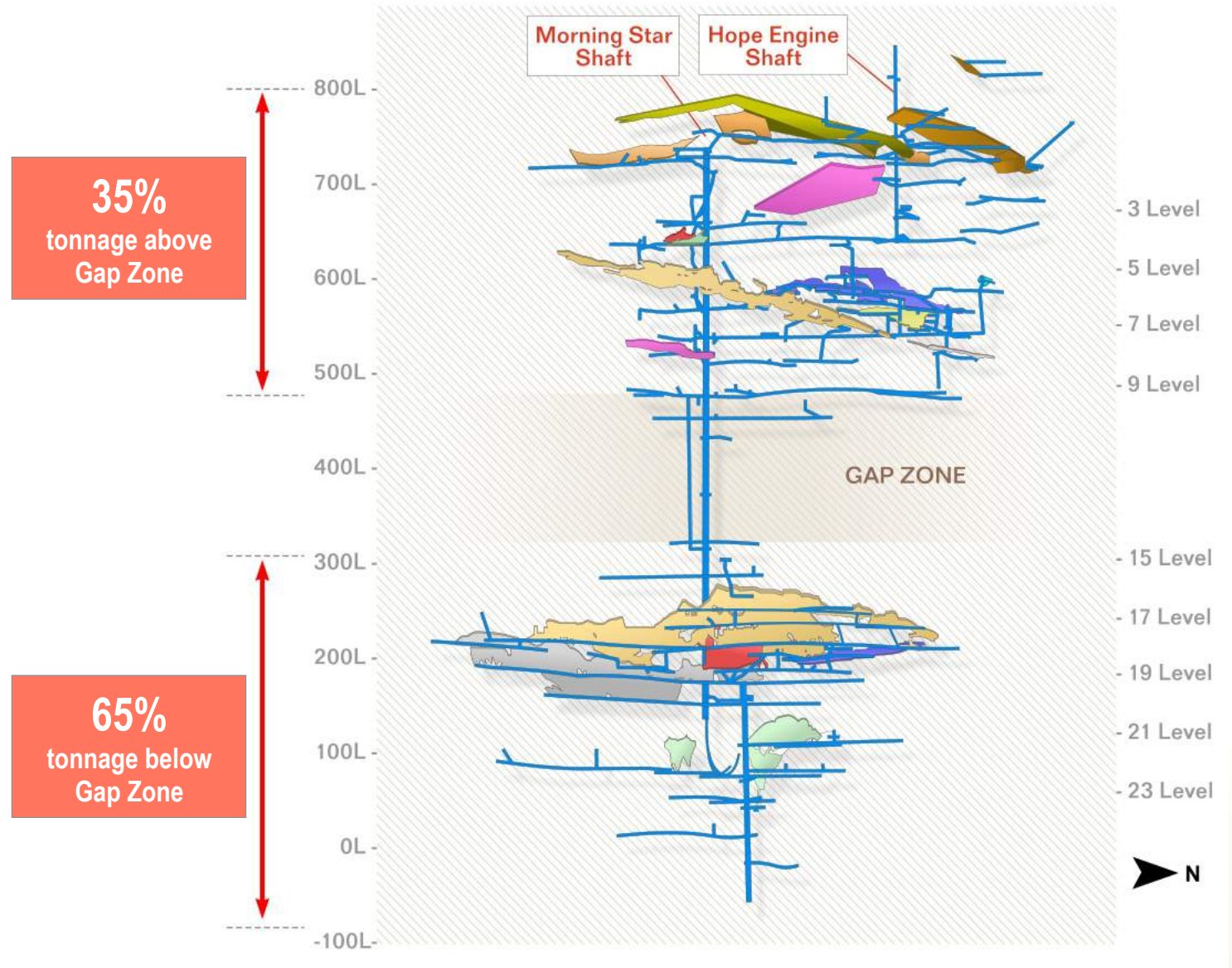
# Regional Belt – Historic Depth of Production



- Shallow except at 3 sites

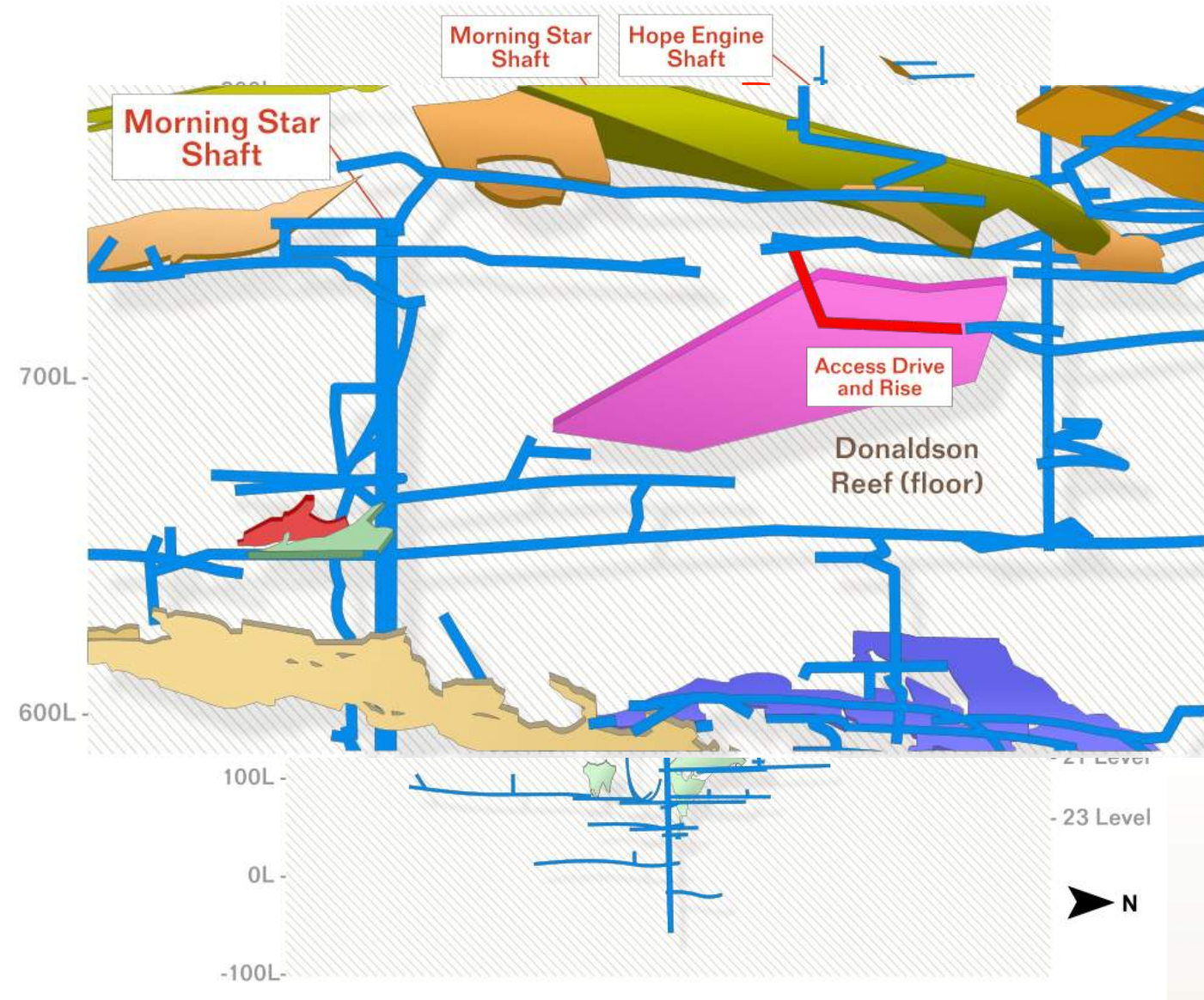
# Morning Star – Overview and Work Program (Phase 1)

- 910,000 oz Gold Mineral Resource
- (Incl. 726,000 oz @ 11.2g/t)
- (MCO 2008 – See Appendix)



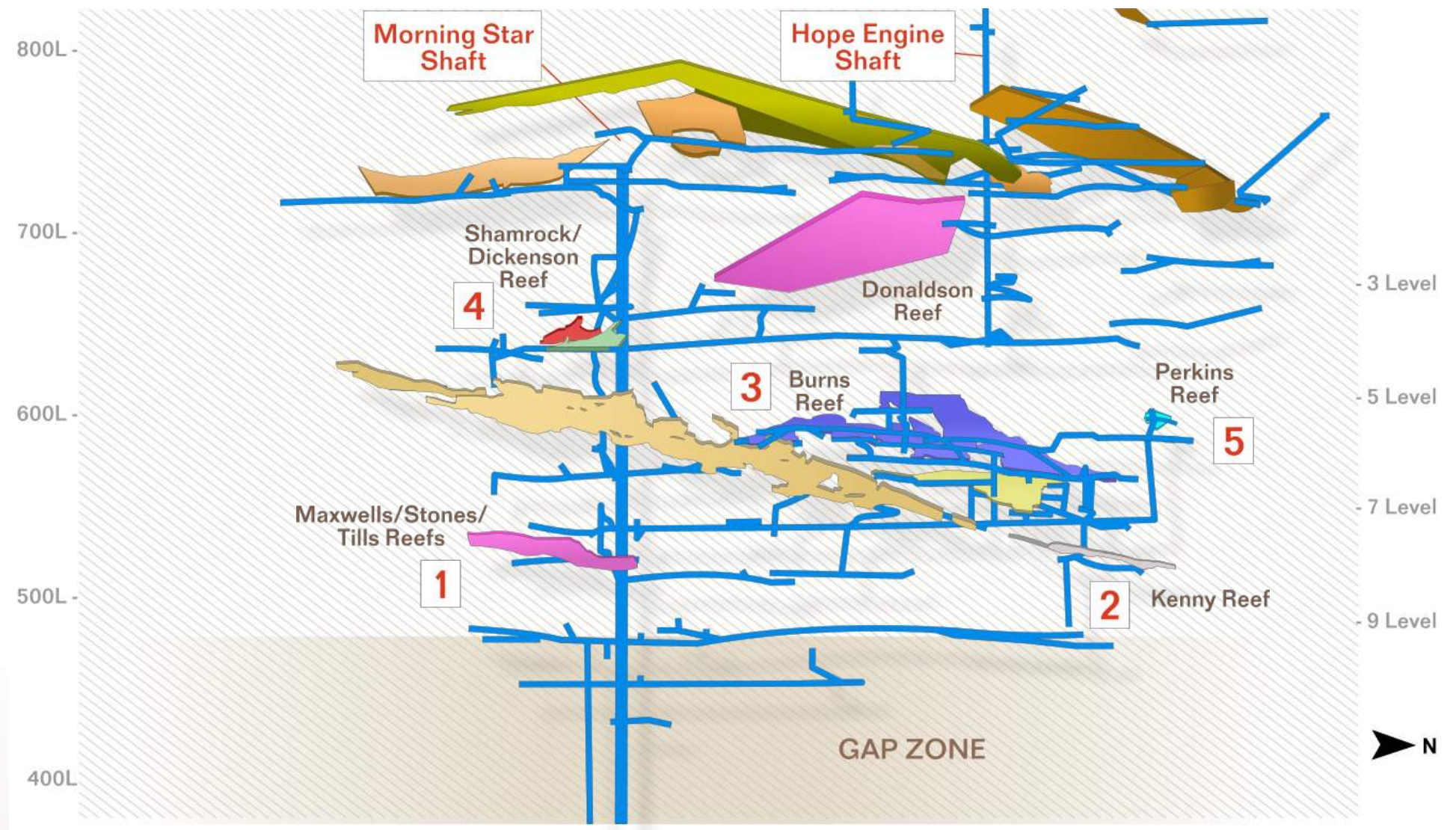
# Morning Star – Overview - Donaldsons

- Mineralised Zone at ~ 80m depth
- 16 diamond drill holes intersect zone with best intercept: -
  - Hole MS357 - 4.1m @ 18.8g/t Au from 138.6m downhole including 0.3m @ 206g/t Au from 140.05m
- Accessible via existing infrastructure - only 100m to go





# Morning Star – Overview - Near Surface Targets



## Geology

- Resource Model Review
- Assess Potential of Donaldson's Reef

## Mine

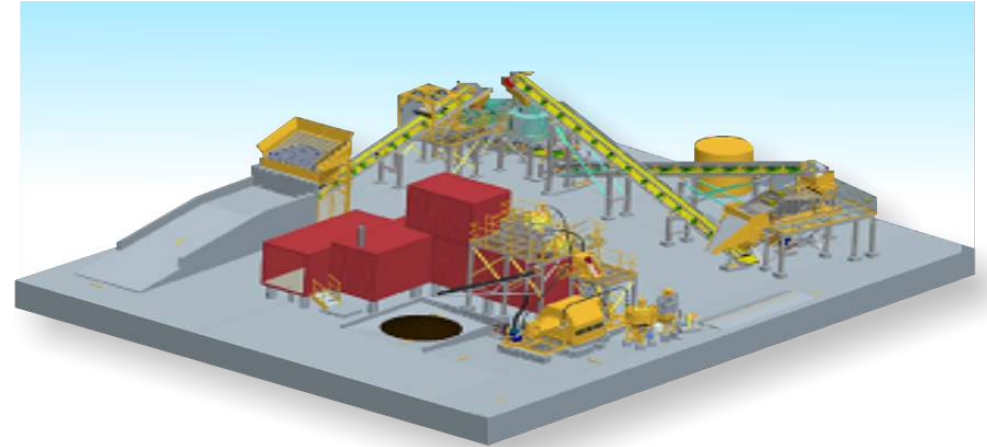
- Finalise Mine re-opening strategy
- Tender Mine Works

## Process Plant

- Audit Plant Design
- Design amendments as required

## Operational Costing and Financing

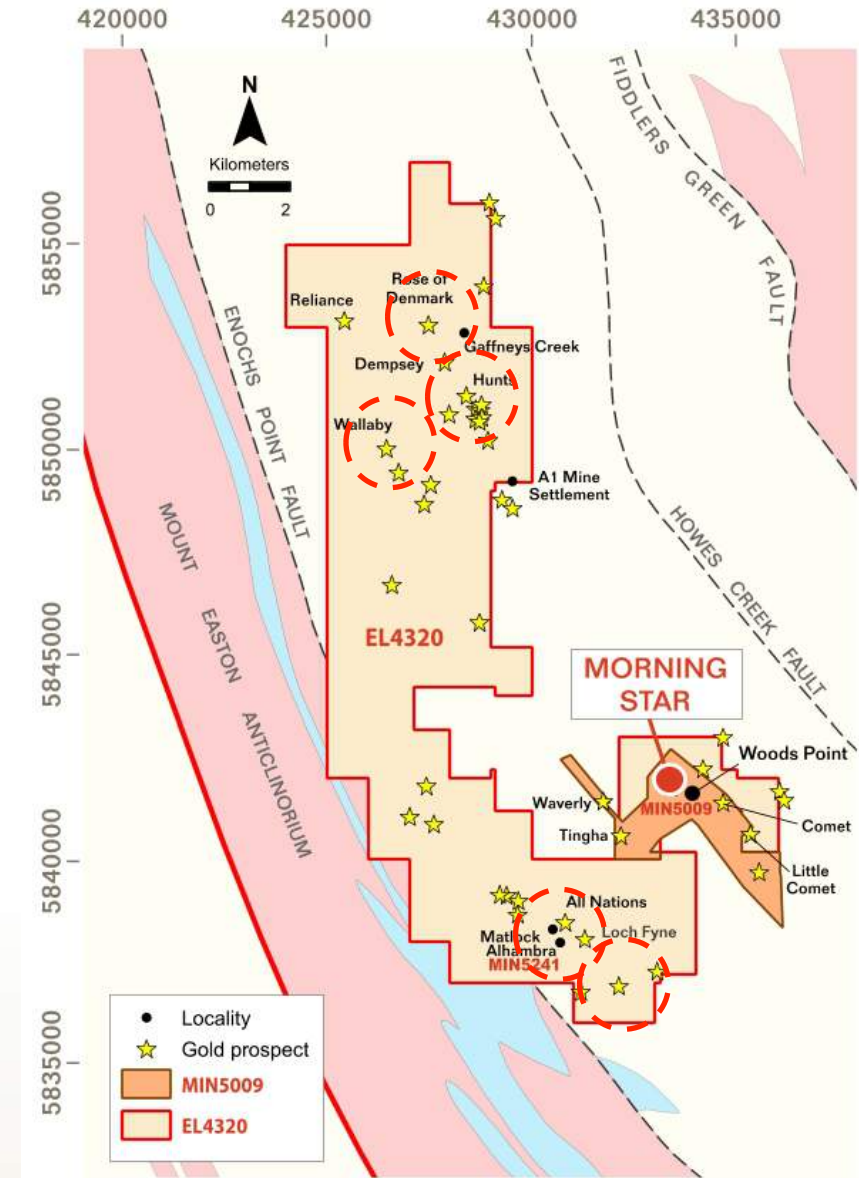
- Finalise Financial Model for restart of operations



## Regional Review to Deliver Exploration Programme

- *Rose of Denmark*
- *Loch Fyne*
- *Wallaby*
- *Alhambra*
- *Hunts*

**Becoming a Significant Regional Player**





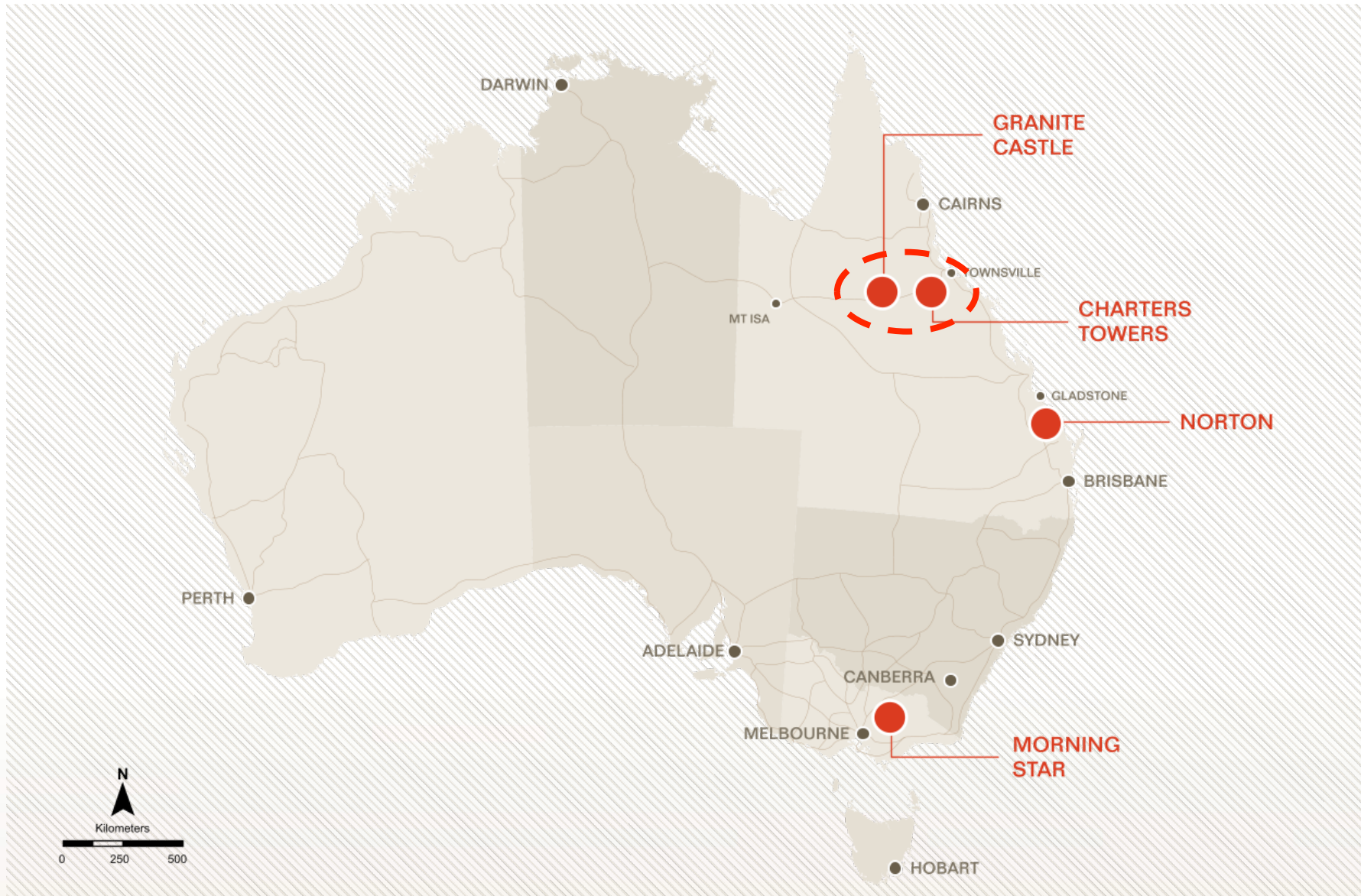
## OTHER GOLD PROJECTS





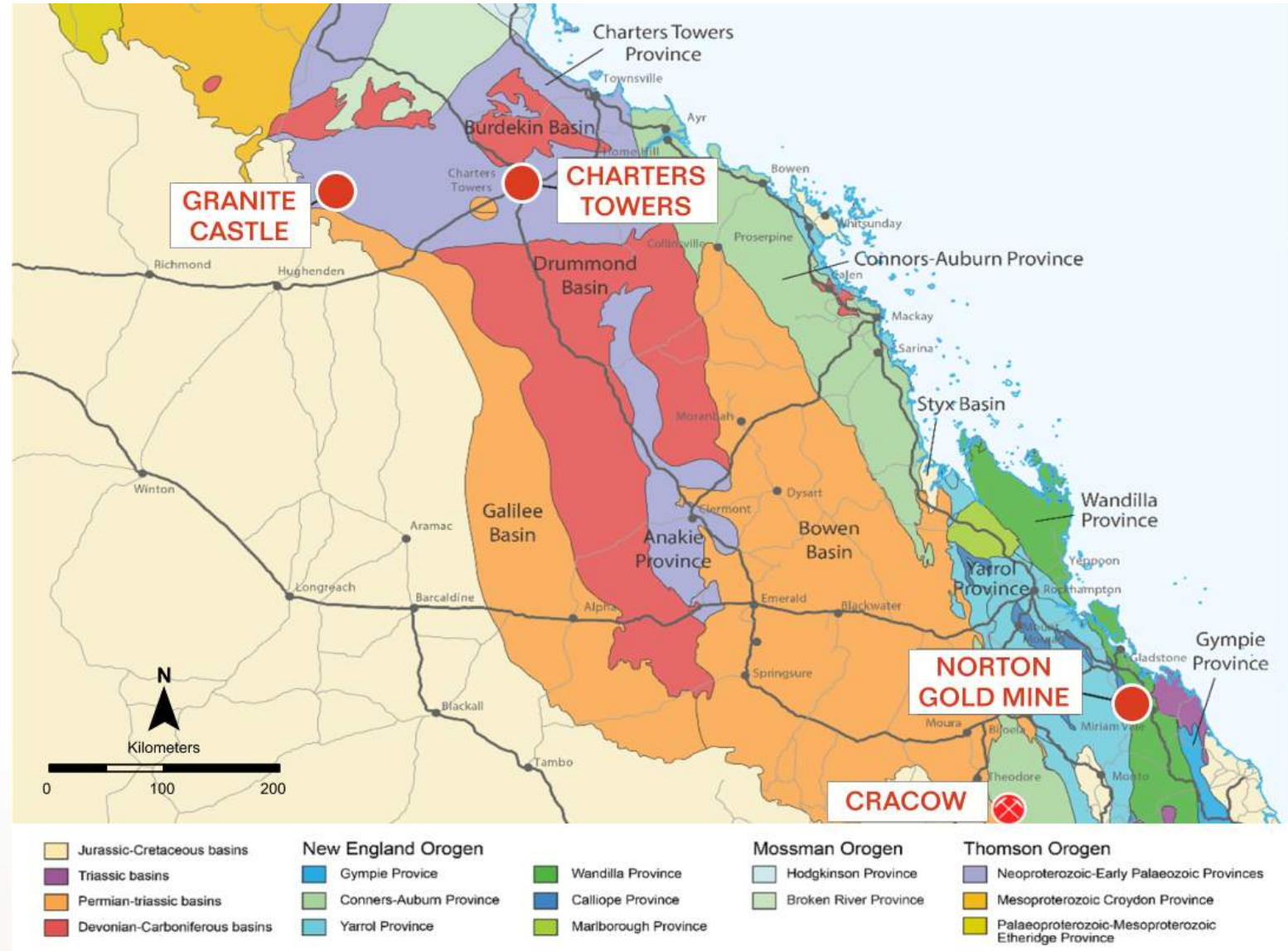


# Mantle Mining – Other Gold Projects



# Mantle Mining – Other Gold Projects

- Historic Queensland Mining Areas
- Resource Bases at all Projects
- MDL Application
- Opportunity for Copper at Charters Towers





# Granite Castle Gold Project

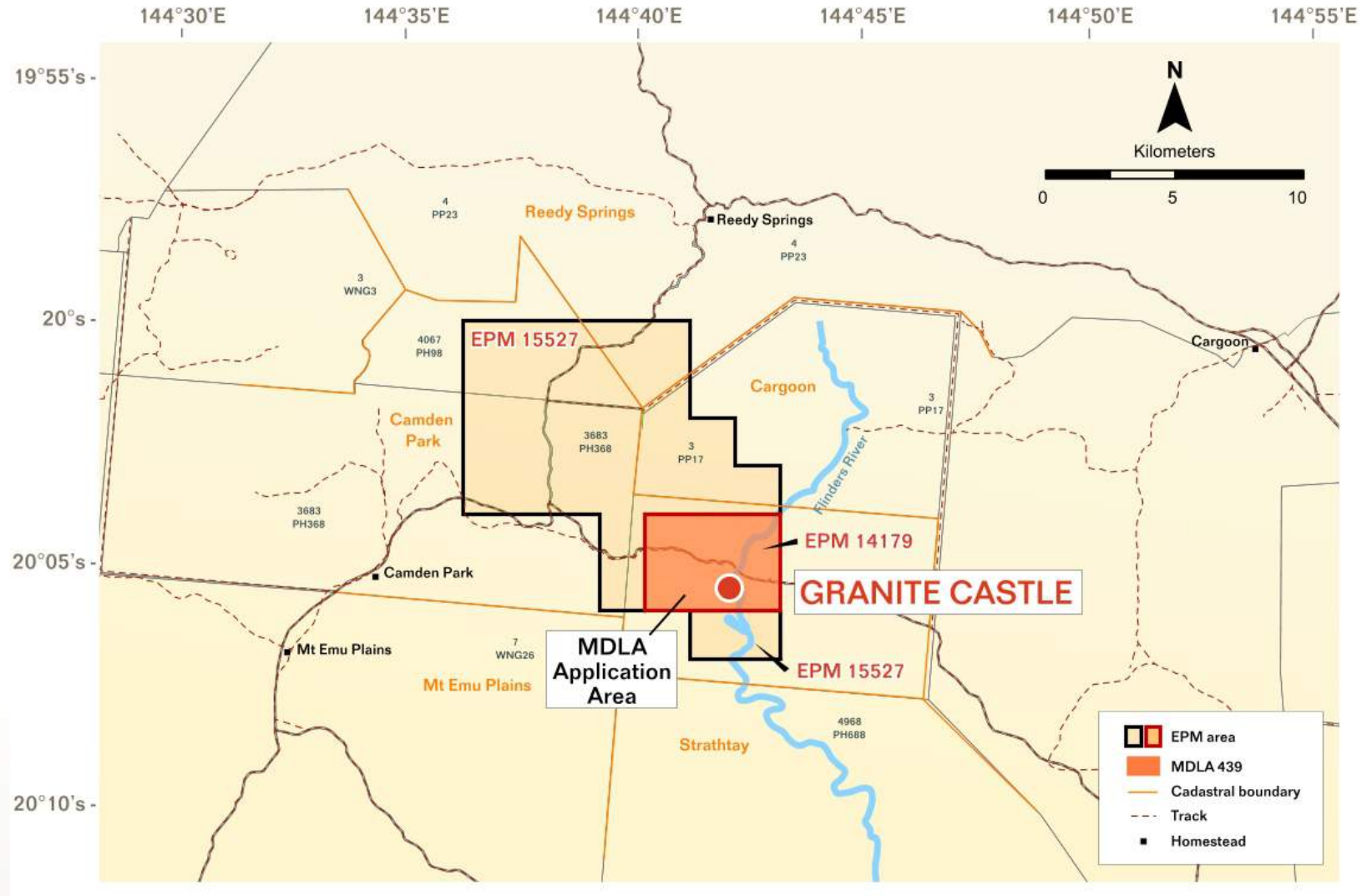
~ 92 Sq km's of Tenements

## Granite Castle Resource Base

- ~ 765,000t @ 3.1 g/t Au for 77,000oz Au (See Appendix)

Mineral Development Licence (MDL 493 lodged ~ 19 Sq Km)

Scoping Study to commence





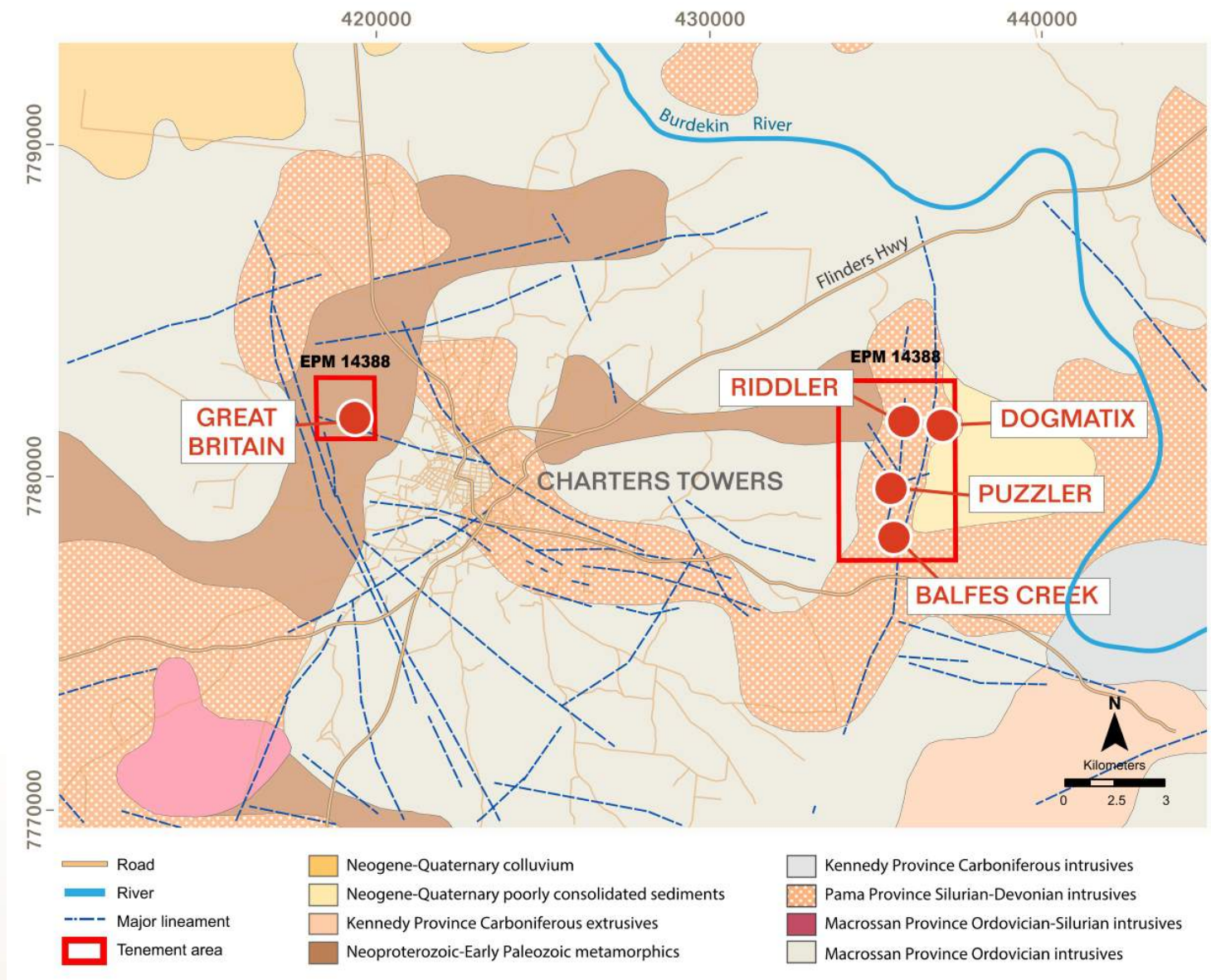
# Charters Towers Gold Project

## Great Britain Deposit

- Resource Base:  
1.535 MT @ 2.2g/t Au for 109 Koz Au (See App)
- Scoping Study being defined

## Balfes Creek Prospect

- Best Intercepts:
  - 9m @ 3.0g/t Au from 12 m Hole 96PZR013
  - 6m @ 8.0g/t Au from 3m Hole 96PZR032
  - 7m @ 18.3g/t Au from 2m Hole 97PZB064
- Follow up work programme being designed



# MANTLE MINING CORPORATION LTD



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# JORC Code Re-Issue Statement

With regard to information on Exploration Results or estimates of Mineral Resources or Ore Reserves for the following projects as discussed in this presentation, the information is extracted from the following reports and is available to view on [www.mantlemining.com](http://www.mantlemining.com).

<b>Norton Gold Mine:</b>	22 July 2015	Norton Gold Mine scoping Study.
	15 May 2015	Norton Gold Mine Mineral Resource Estimate.
	24 Feb 2015	Substantial Geological Upside at Norton Gold Mine.
<b>Granite Castle:</b>	29 Aug 2013	New Gold Deposit Modelling at Granite Castle.
	28 May 2008	Improved Confidence Levels for Granite Castle Resource.
<b>Charters Towers:</b>	3 Jun 2013	Significant Gold in Historic Holes at Great Britain.
	28 Feb 2013	High Grade Gold Confirmed at Charters Towers.
	2 Oct 2006	Disclosure Document.

As relates these projects, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

# Resource Base (assumes Morning Star acquisition)

**Table 1: Morning Star Gold Mine Mineral Resource**

Deposit	Measured			Indicated			Inferred			Total		
	Tonnes (Kt)	Grade (g/t)	Au (Koz)	Tonnes (Kt)	Grade (g/t)	Au (Koz)	Tonnes (Kt)	Grade (g/t)	Au (Koz)	Tonnes (Kt)	Grade (g/t)	Au (Koz)
Morning Star Underground	22	20.9	15	259	15.6	130	1734	10.4	582	2015	11.2	726
Morning Star Surface	736	2.0	47	793	2.2	56	1079	2.3	80	2608	2.2	184

"The information in this report is extracted from the report entitled "910,000 Ounces Gold JORC Resource" created on 30 July 2008 and is available to view at [www.asx.com.au](http://www.asx.com.au) under ASX code MCO. The Mineral Resource estimate is not Mantle's estimate and Mantle has not done sufficient work to report the estimate in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mantle is not aware of anything to suggest that the assumptions underpinning the estimate have materially changed and will commence work to validate the Mineral Resource and disclose it in accordance with the 2012 edition of the JORC Code. Investors should treat the estimate with caution until validated."

**Table 2: Norton Mineral Resource, above 2 g/t Au cut-off.**

Class	Tonnes	Gold (g/t)	Gold (oz)	Silver (g/t)	Silver (oz)
Indicated	107,000	6.2	21,100	15	50,300
Inferred	141,000	3.9	17,700	12	52,600
<b>Total</b>	<b>248,000</b>	<b>4.9</b>	<b>38,800</b>	<b>13</b>	<b>103,000</b>

The information in Table 2 is extracted from the report entitled "Norton Gold Mine Resource Estimate" created on 15 May 2015 and available to view on [www.mantlemining.com](http://www.mantlemining.com). The report contained the following Competent Person's statement: "The information in this report that relates to Mineral Resources is based on information compiled by John Horton, Principal Geologist of ResEval Pty Ltd, who is a Fellow of the Australasian Institute of Mining and Metallurgy, a Member of the Australian Institute of Geoscientists. Mr Horton 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 the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Horton consents to the inclusion in the report of matters based on his information in the form and context in which it appears."

**Table 3:** Granite Castle Mineral Resource, above 1 g/t Au cut-off.

Class	Tonnes	Gold (g/t)	Gold (oz)	Silver (g/t)	Silver (oz)
Measured	111,000	4.3	15,500	58	205,800
Indicated	250,000	3.6	28,800	71	567,900
Inferred	403,000	2.5	32,900	56	727,200
<b>Total</b>	<b>765,000</b>	<b>3.1</b>	<b>77,200</b>	<b>61</b>	<b>1,500,900</b>

The information in Table 3 is extracted from the report entitled “Improved Confidence Levels for Granite Castle Resource” created on 28 May 2008 and available to view on [www.mantlemining.com](http://www.mantlemining.com). The report contained the following Competent Person’s statement: “The information in this report that relates to Mineral Resources is based on information compiled by Dr William Yeo, a full time employee of Hellman and Schofield Pty Ltd. Dr Yeo is a Member of the 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 as defined in the 2004 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Dr Yeo consents to the inclusion of the matters based on his information in the form and context in which it appears in this report.”

**Table 4:** Charters Towers (Great Britain) Mineral Resource, above 1 g/t Au cut-off.

Class	Tonnes	Gold (g/t)	Gold (oz)		
Inferred	1,535,000	2.2	109,000		
<b>Total</b>	<b>1,535,000</b>	<b>2.2</b>	<b>109,000</b>		

The information in Table 4 is extracted from the report entitled “Disclosure Document” created on 2 October 2006 and available to view on [www.mantlemining.com](http://www.mantlemining.com). Information in this report is based on information from a report provided by Resource Evaluations Pty Ltd that contained the following Competent Persons statement: “This report was completed under the overall supervision and direction of Gerry Fahey and the 3-D modeling and Mineral Resource estimation was carried out by Mark Drabble both of whom are Competent Persons as defined in the Australasian Code for the Reporting of Mineral Resources and Ore Reserves (JORC Code) 1999 Edition and who consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.”



**Table 5:** Bacchus Marsh Mineral Resource, below 30% Ash cut-off.

Class	Tonnes (Bt)	TM (%)	Ash (% db)	VM (% db)	FC (% db)	TS (% db)	GDSE (MJ/kg)
Inferred	1.6	52.9	10.4	47.2	42.4	3.4	24.5
<b>Total</b>	<b>1.6</b>	<b>52.9</b>	<b>10.4</b>	<b>47.2</b>	<b>42.4</b>	<b>3.4</b>	<b>24.5</b>

The information in Table 5 is extracted from the report entitled “Mantle Reports Maiden JORC Resource” created on 15 August 2012 and available to view on [www.mantlemining.com](http://www.mantlemining.com) The report contained the following Competent Person’s statement: “Information in this report that relates to Coal Resource estimates prepared by AMC Consultants Pty Ltd is based on information compiled by Ms K Zunica, who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of AMC Consultants Pty Ltd. The estimates are based on exploration data provided by Mantle Mining Corporation Ltd. Ms Zunica has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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”. Ms Zunica has provided written consent to the inclusion in the report of the matters based on her information in the form and context in which it appears.”

**Table 6:** Latrobe Valley (Yarragon) Inferred Mineral Resource.

Region	Grid Mean Thickness (m)	Area (km <sup>2</sup> )	Density (g/cc)	Tonnage (Mt)
Yarragon A seam	7.73	5.51	1.25	53
Yarragon B seam north	11.33	3.39	1.25	48
Yarragon B seam south	17.06	8.84	1.25	188
<b>Total</b>				<b>289</b>

The information in Table 6 is extracted from the report entitled “Mantle Acquires 289M Tonne JORC Inferred Coal Resource” created on 23 August 2013 and available to view on [www.mantlemining.com](http://www.mantlemining.com) The report contained the following Competent Person’s statement: “The information compiled in this report relating to resources is based on information compiled by Gordon Saul, who is a member of the Australian Institute of Geoscientists and who is employed by Resolve Geo Pty Ltd. Gordon 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 as defined in the 2004 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Gordon Saul consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.”