



# **MACPHERSONS**

MacPhersons Corporate Presentation  
What's Down The Track Forum – 23<sup>rd</sup> October 2014

**Ashok Parekh, Chairman  
Nimbus Silver-Zinc Project, Kalgoorlie  
and Boorara Gold Project, Kalgoorlie**

The information contained in this presentation has been prepared by MacPhersons Resources Ltd (MRP). This presentation is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any securities in MRP. This presentation has been made available for information purposes only and does not constitute a prospectus, short form prospectus, profile statement or offer information statement. This presentation is not subject to the disclosure requirements affecting disclosure documents under Chapter 6D of the Corporations Act.

While the information contained in this presentation has been prepared in good faith, neither MRP nor any of its directors, officers, employees, agents or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. Accordingly, to the maximum extent permitted by law, none of MRP, its directors, officers, employees, agents, advisers, nor any other person accepts any liability whether direct or indirect, express or limited, contractual, tortious, statutory or otherwise, in respect of the accuracy or completeness of the information or for any of the opinions contained in this presentation or for any errors, omissions or misstatements or for any loss, howsoever arising, from the use of this presentation.

## **Forward looking Statements**

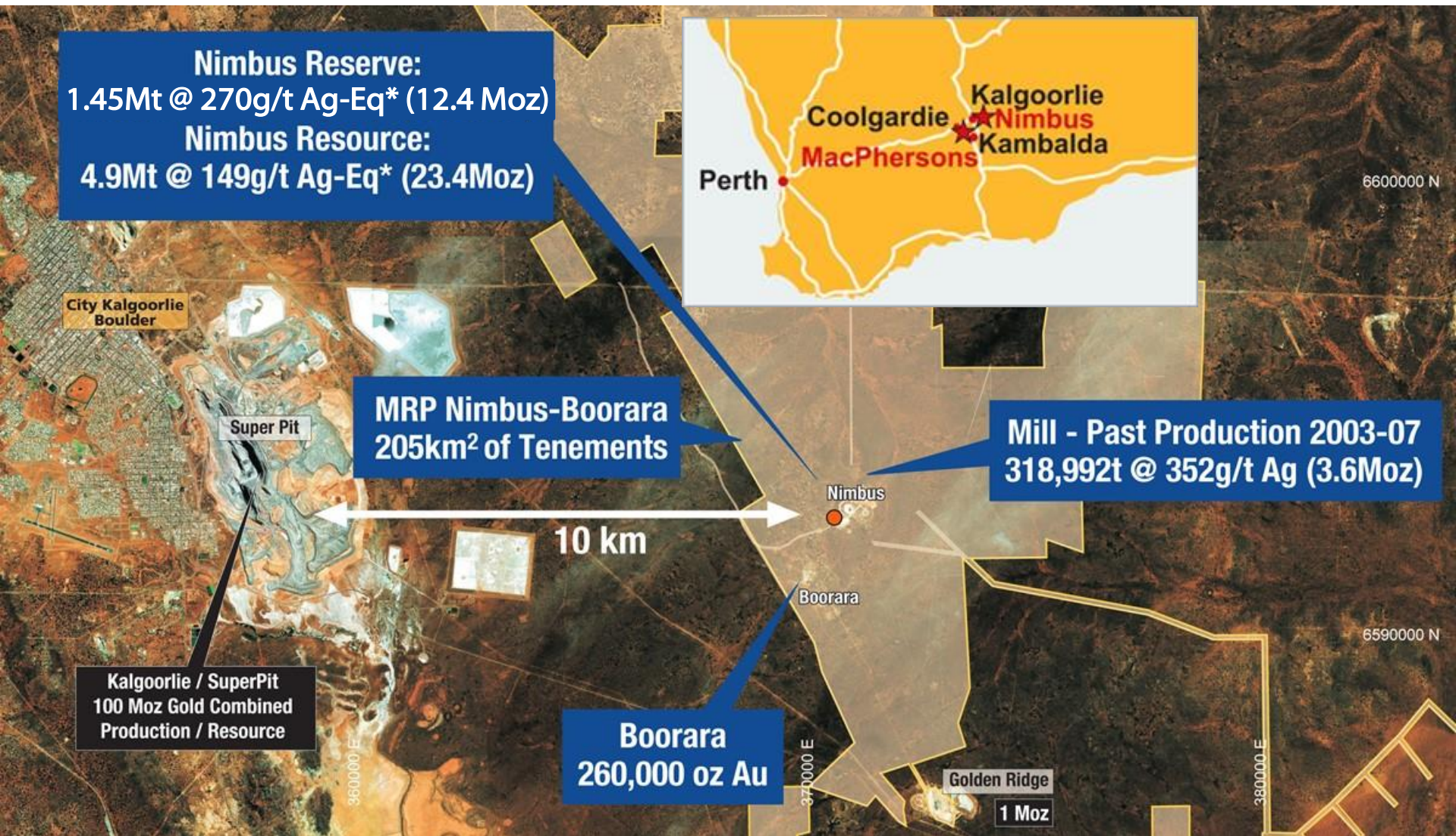
This presentation may contain statements that may be deemed 'forward looking statements'. Forward risks, uncertainties and other factors, many of which are outside the control of MRP, can cause actual results to differ materially from such statements. Such risks and uncertainties include, but are not limited to, commodity price volatility, increased production costs and variances in ore grade recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. MRP makes no undertaking to update or revise such statements, but has made every endeavour to ensure that they are fair and reasonable at the time of making the presentation.

Investors are cautioned that any forward looking statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in any forward looking statements made.

Exploration targets are conceptual in nature and drilling may not convert these to resources.

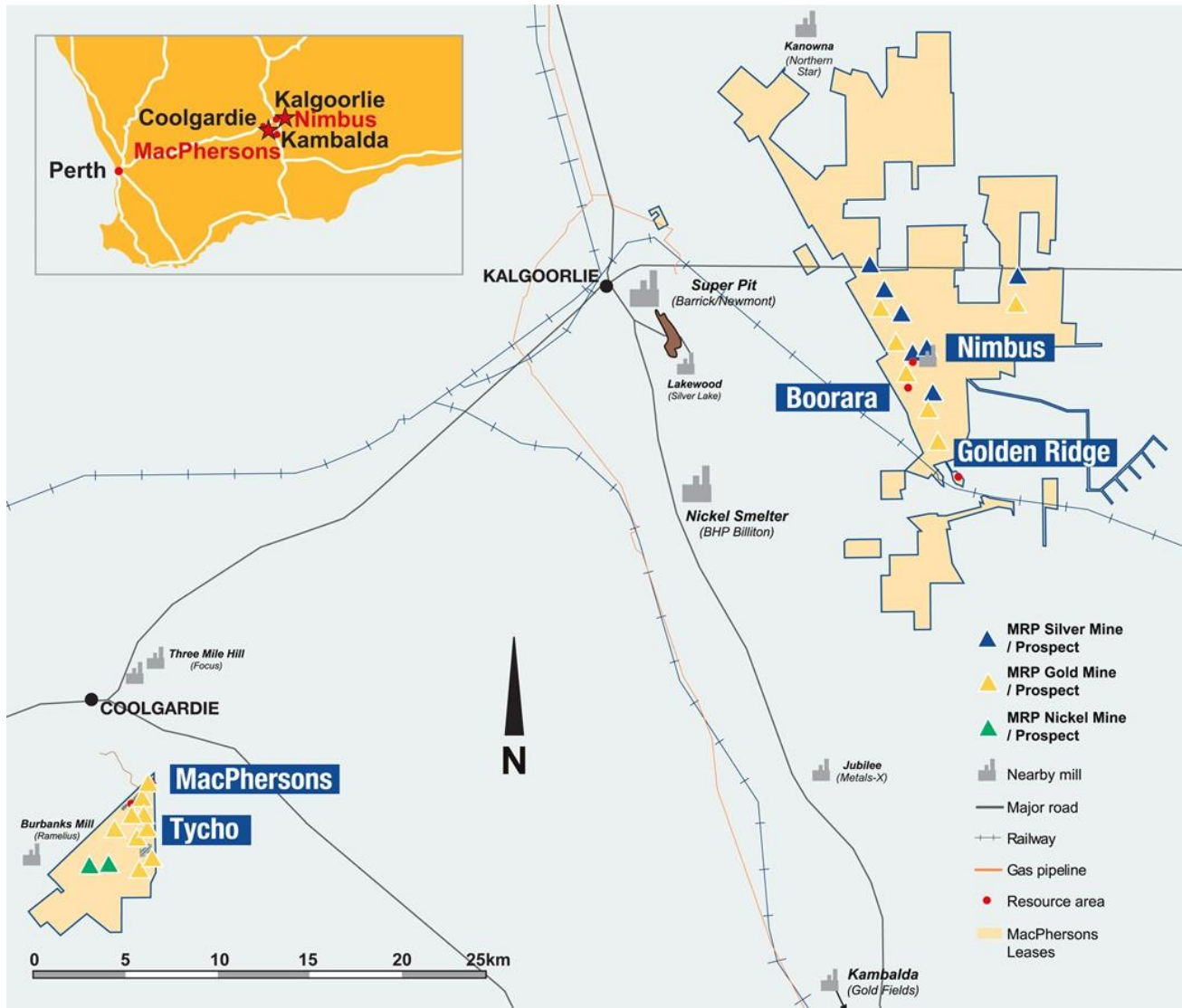


# Prime Location, Recognised Production Area



- Ag-Eq\* is calculated using metal credits:  $\text{Ag Eq}^* = \text{Ag} + \text{Zn} \times 26.65 + \text{Au} \times 38.43 + \text{Hg} \times 0.17$
- Full details of Ag Eq\* calculations and input parameters detailed in the Appendices.

# Prime Location, Extensive Infrastructure



- ▶ Strategic tenement holding
- ▶ Readily available infrastructure: gas, power, rail, water
- ▶ Mining engineering services and workforce
- ▶ Kanowna – Boorara shear zone



# Project – Management – Strategy



- ▶ High-grade Nimbus Silver-Zinc-Gold VHMS project in Kalgoorlie
- ▶ BFS fully-funded and on track for completion in June Quarter 2015
- ▶ First production scheduled for as early as September Quarter, 2016
- ▶ Studies to date point to high-grade, low-cost operation with potential for rapid pay-back
- ▶ Extensive drilling campaign underway in preparation for significant reserve-resource update
- ▶ Outstanding exploration upside both along strike and at depth
- ▶ Additional regional copper, nickel and gold targets
- ▶ Strategic location with infrastructure, residential workforce and proven geological endowment



# Corporate Overview



ASX Code: MRP

ASX Listed: December 2010

Ordinary Shares: 302 million

Options: Nil

Market Cap: A\$42m (at 14 cents Oct 7<sup>th</sup>)

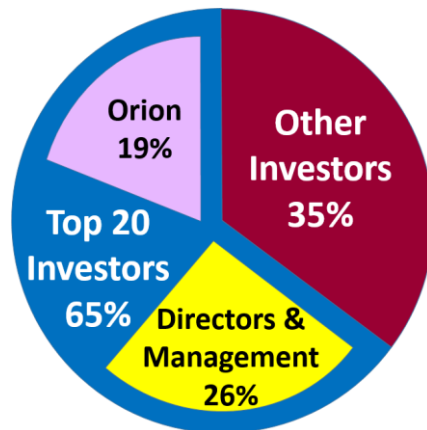
Cash: A\$7m (September 2014)

Debt: Nil

## Projects

- ▶ 100% Nimbus Silver-Zinc-Gold VHMS
- ▶ 100% Boorara/Coolgardie gold assets

## Substantial Shareholders



## Board of Directors & Management

Ashok Parekh, Chairman

*Accounting & Mining Company Management*

Morrie Goodz, Managing Director

*Geology, Chemistry, Mine Development & Management*

Jeff Williams, Non-Executive Director

*Mining Engineering, Mine Planning, Development & Operation*

Peter Rozenauers, Non-Executive Director

*Mine Finance, Commodities Distribution & Mining Engineering*

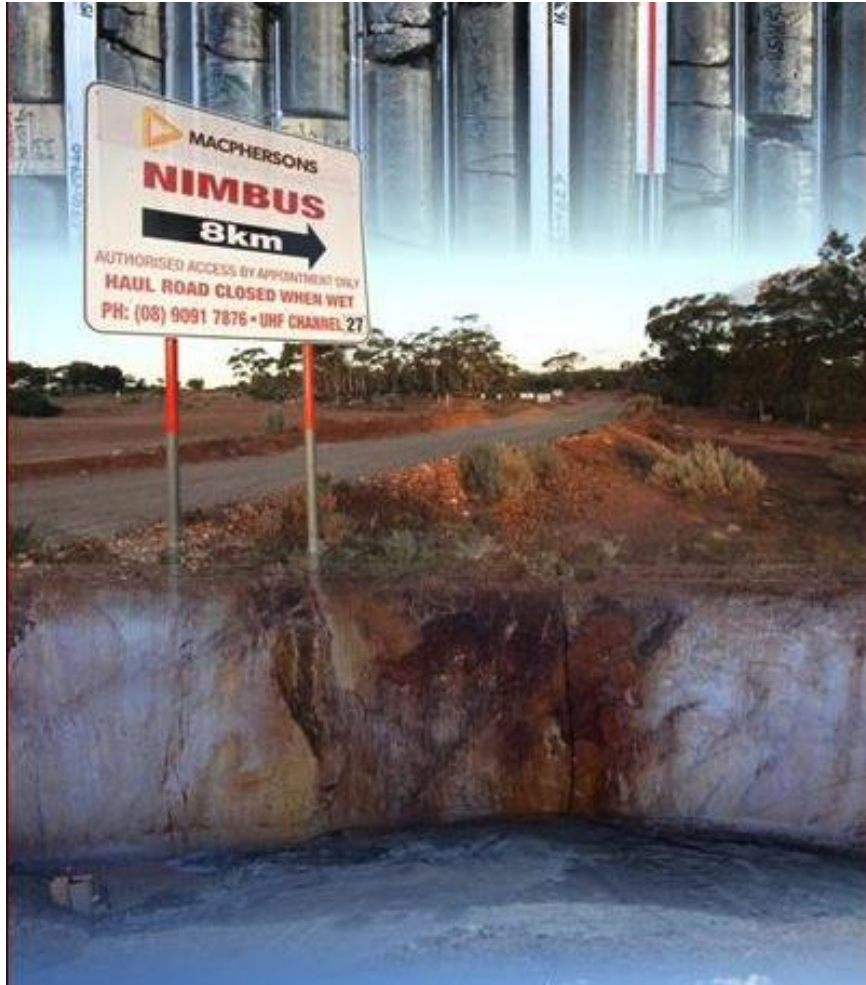
Randell Ford, Operations Manager

*Mining Engineering, Processing & Operational Management*

Andrew Lawry, Group Project Manager

*Metallurgy, Plant Design, Construction & Commissioning*

# Strategic Achievements



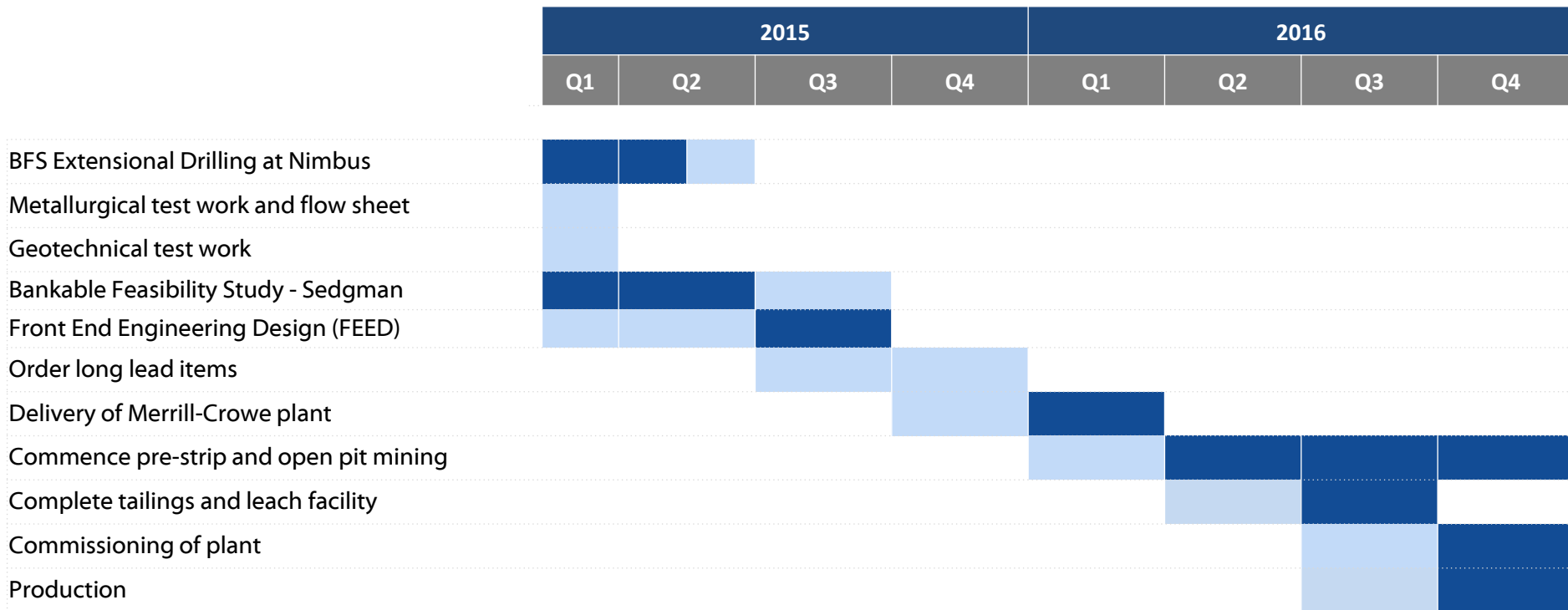
- ▶ Successful Capital Raise
- ▶ 60% Increase in Nimbus Underground ore reserves
- ▶ Permitting process advanced with Mining Proposal to recommence mining and processing at Nimbus
- ▶ 40,000m (processed 75 drillcore holes)
- ▶ Mine design and Ore Reserve statements on two projects
- ▶ Defined high-grade ore reserve at Nimbus: 1.45 Mt @ 270 g/t Ag Eq\* recoverable grade
- ▶ Significant increase in Mineral Resource Statements for both Nimbus & Boorara
- ▶ Drilling confirmed 600m down plunge extension of sulphide mineralisation
- ▶ Project independent technical review (SRK) identified no fatal flaws
- ▶ Progressed to Bankable Feasibility Study (Appointment of Sedgman)

• \* = Ag Eq is calculated using metal credits:  $\text{Ag Eq.} = \text{Ag} + \text{Zn} \times 26.65 + \text{Au} \times 38.43 + \text{Hg} \times 0.17$   
Full details of Ag Eq calculations and input parameters detailed in the Appendices.

# Timeline to Production



## Production Target Q3 2016







## Plant

- ▶ Operated from 2003 to 2007
- ▶ Processed 319,000 t at a head grade of 352 g/t Ag to produce 3.6 Moz silver
- ▶ Larger resource needs larger mill capacity
- ▶ Conventional plant
  - ▶ Grind / Gravity
  - ▶ Leach / Flotation
  - ▶ Flowsheet in Appendix

### Key Parameter

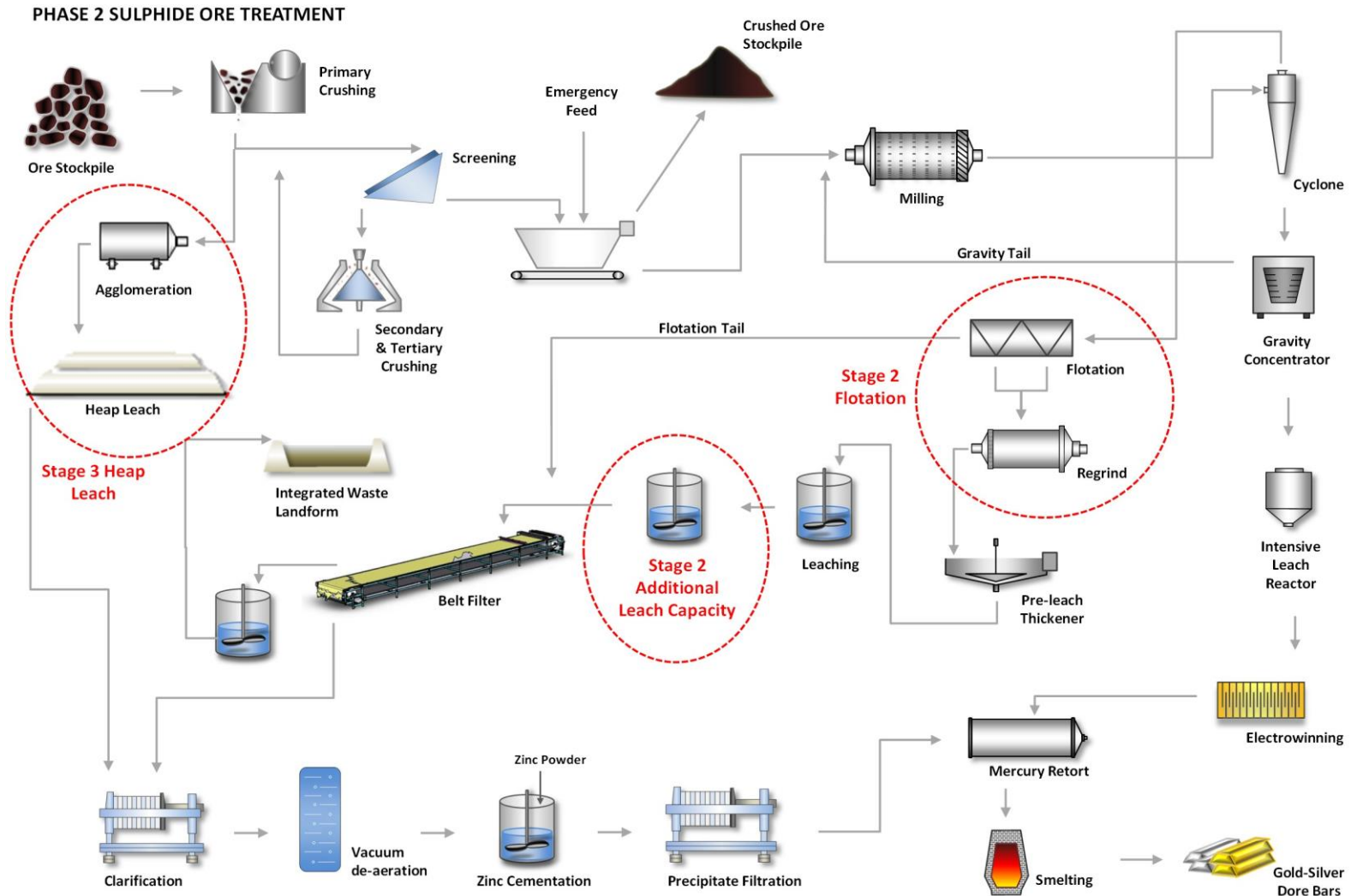
### Input

Stope design	2 to 20m wide
Expanded Plant capacity (from 160,000 tpa to 480,000 tpa)	480,000 tpa
New Heap Leach Plant	1,000,000 tpa

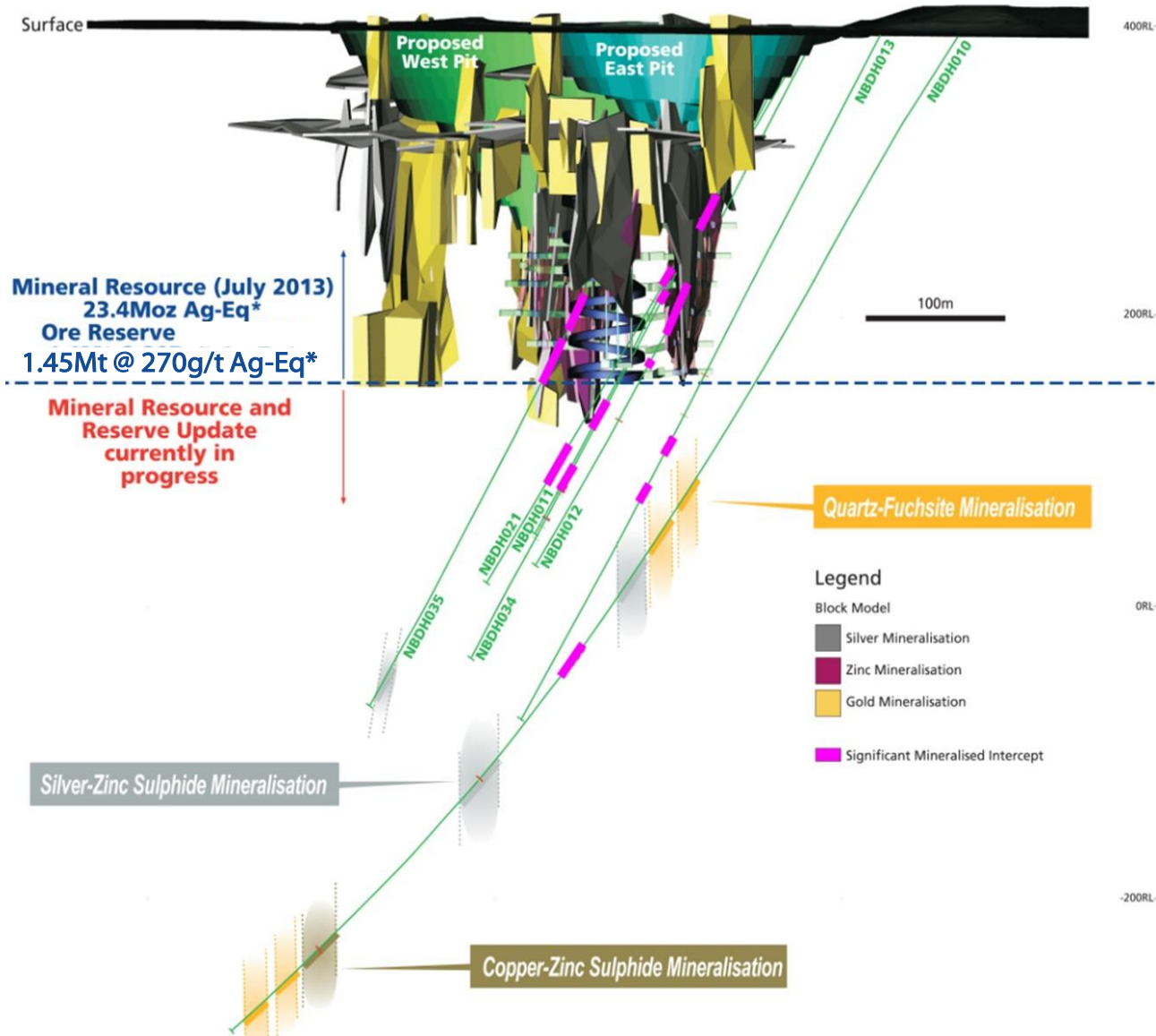
# Indicative Processing Flowsheet

## Conventional processing route

- ▶ Crushing, grinding, gravimetric separation, leaching and flotation



# Nimbus Silver-Gold-Zinc Project – 500m Deep



## VHMS deposit

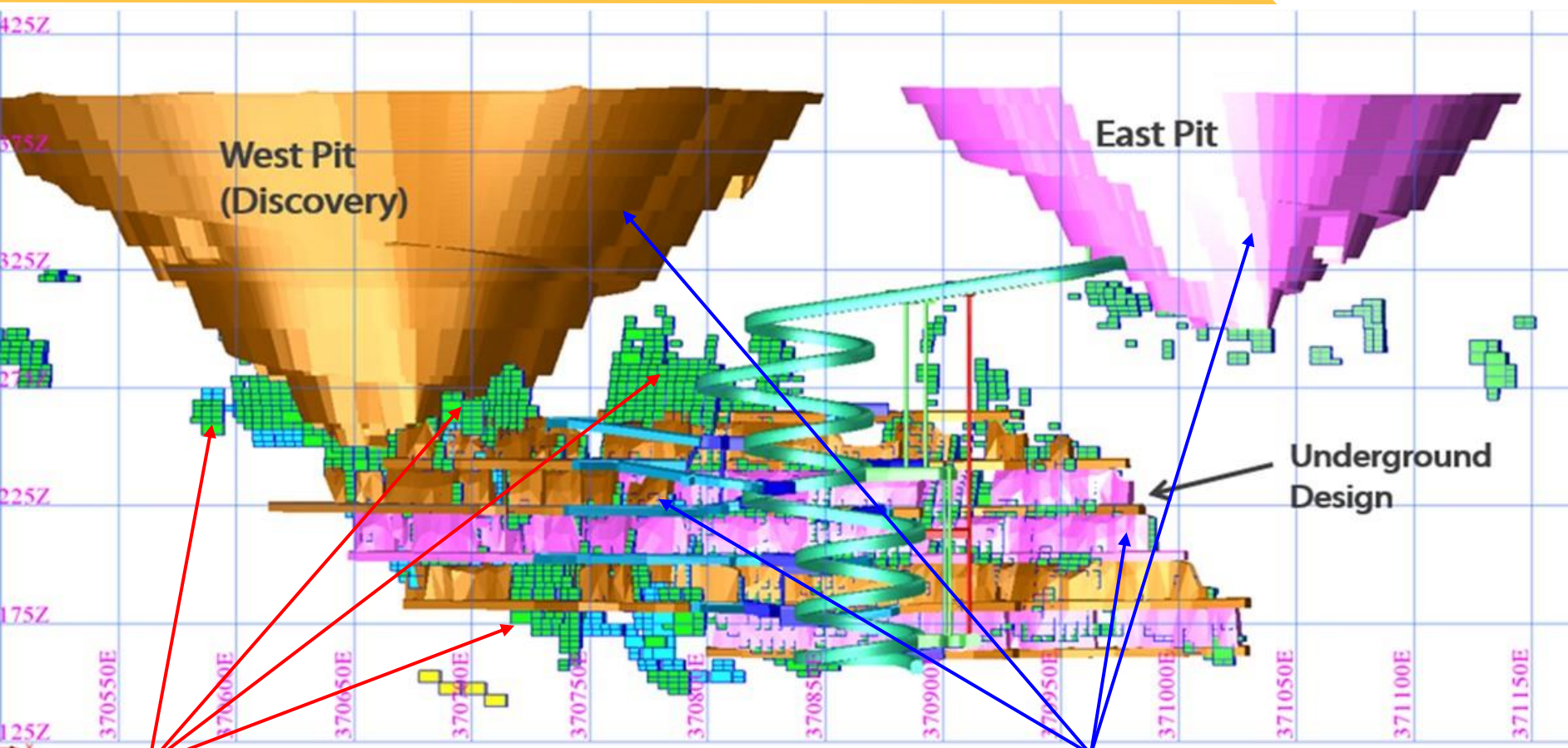
- ▶ +500m deep intercept
- ▶ Analogous to other VMS deposits in Western Australia
- ▶ 30+ lenses identified to date
- ▶ Zinc massive sulphide mineralisation consists mainly of sphalerite, pyrite and silver bearing minerals with byproduct quantities of gold, copper & lead-bearing sulphides



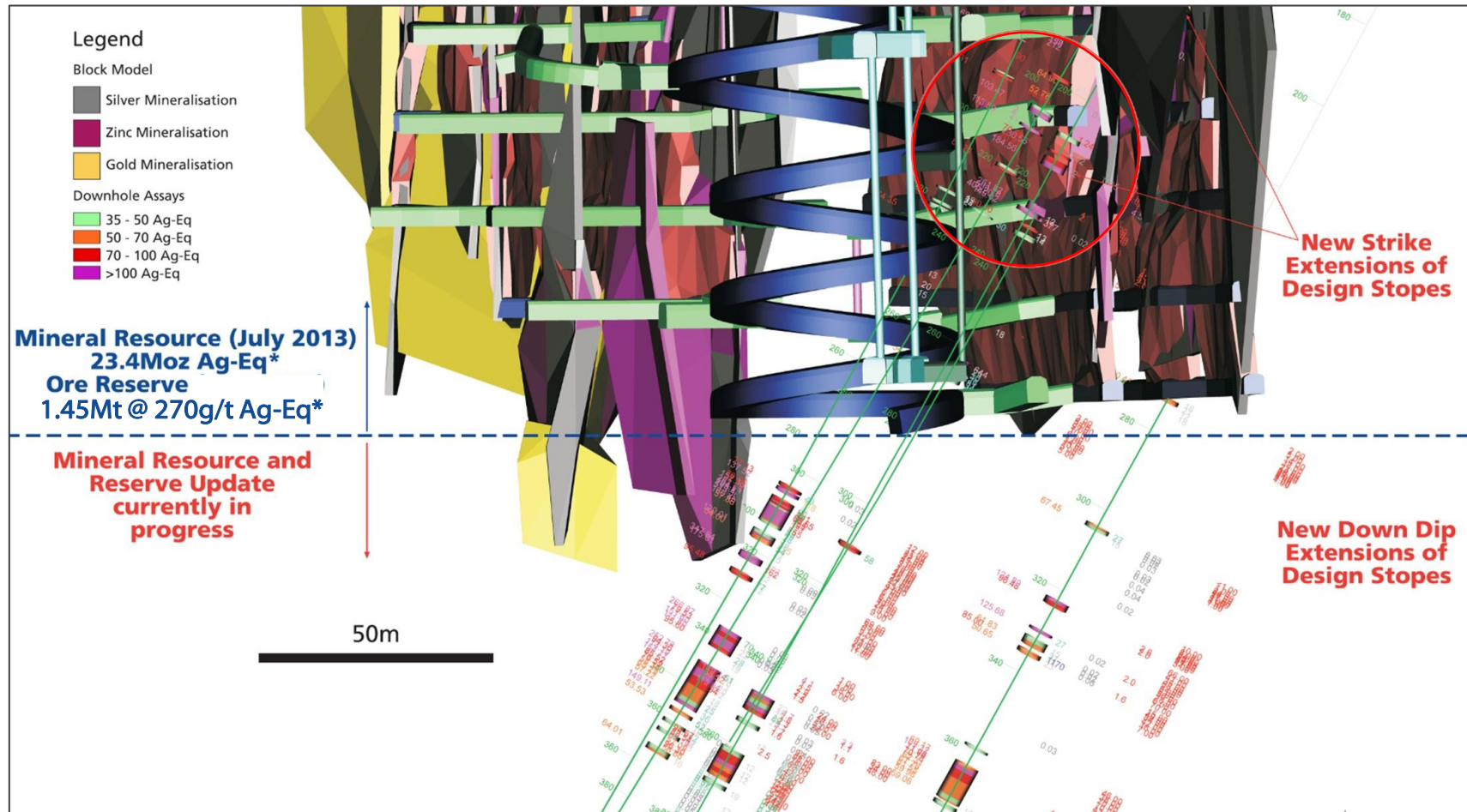
# Underground Ore Reserves Increased by 60%



MACPHERSONS



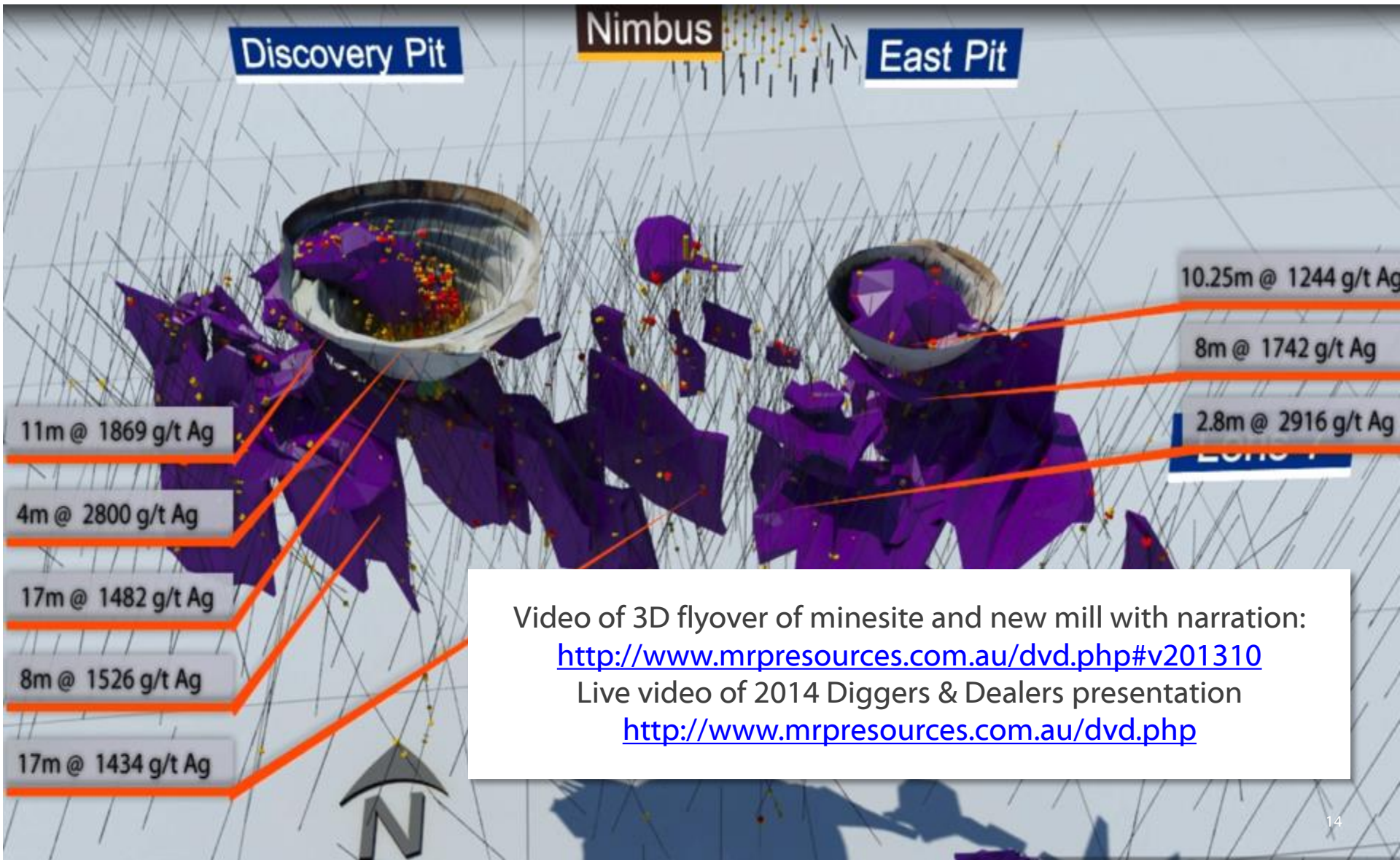
# Proposed U/ground Mine with New Extensions



- ▶ All lenses remain open along strike
- ▶ All lenses remain open at depth; sulphide mineralisation to 850m depth



# Video Flyover



Video of 3D flyover of minesite and new mill with narration:  
<http://www.mrpresources.com.au/dvd.php#v201310>  
Live video of 2014 Diggers & Dealers presentation  
<http://www.mrpresources.com.au/dvd.php>



# Grade is King = Low Operating Costs

## VHMS deposit

- ▶ Mineral resource limited by drilling
- ▶ Mineralisation remains open in multiple lenses

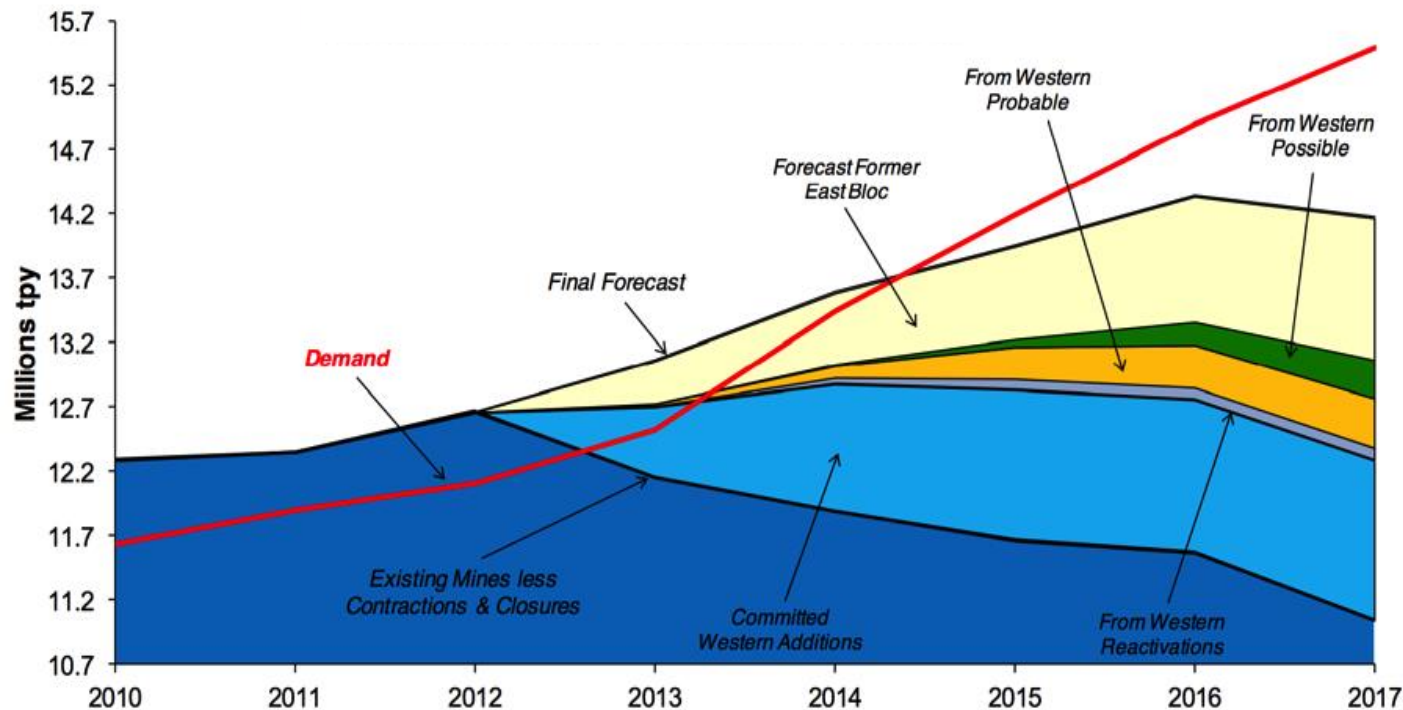
## Polymetallic

- ▶ Silver
- ▶ Zinc
- ▶ Gold



# Zinc Market Supply - Demand Curves

▶ Zinc Price has ranged up 20 – 30% in 2014



- ▶ Zinc has compelling market fundamentals among the base metals
- ▶ Significant mine closures are expected to result in a deficit in excess of 1 mt in 2017
- ▶ China is a growing net importer since 2008

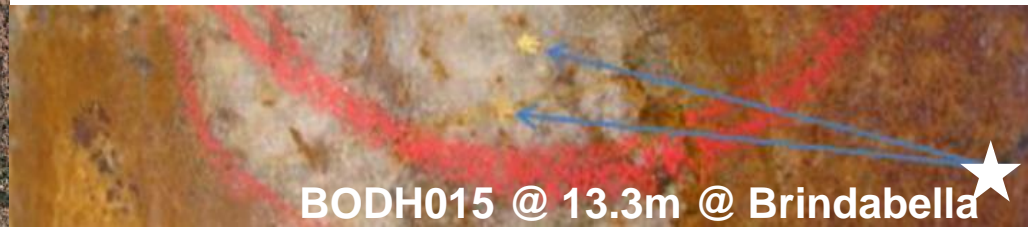
Source: CRU





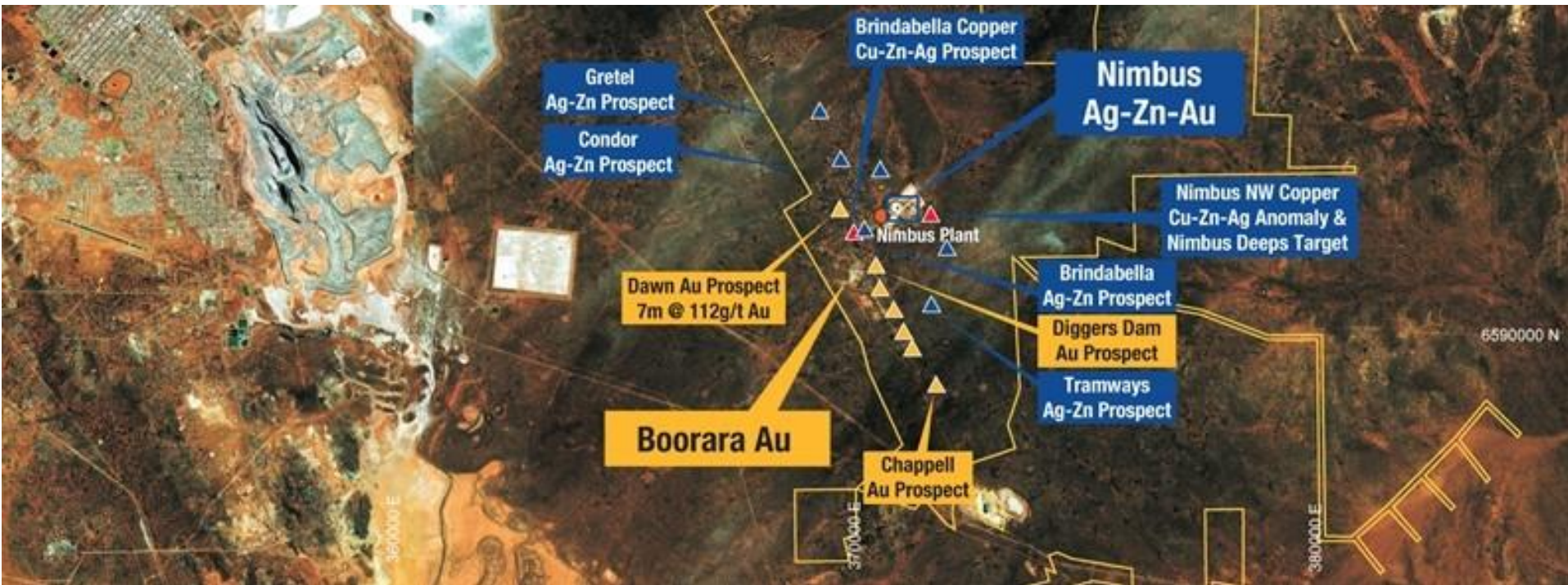
## Single Fleet

- ▶ 2 Nimbus Pits start with East Pit (blue) moving to underground after 8 months
- ▶ West Pit (green) moves underground after 20 months
- ▶ As Nimbus mining fleet becomes available mining commences at Boorara (< 2km away) and runs in parallel with Nimbus
- ▶ Coolgardie gold ore will be fed into the Nimbus mill schedule later in the mine schedule
- ▶ Brindabella – first hole drilled – Visible Gold in the drillcore



BODH015 @ 13.3m @ Brindabella





- ▶ Copper potential : analogies with the geology of nearby VMS mines support the high likelihood of copper-zinc-silver-gold feeder lenses being identified nearby
- ▶ Nickel potential: both the Coolgardie and Golden Ridge tenements are at the northern extension of the Kambalda Nickel Dome and have known nickel occurrences where helicopter EM has detected 3 EM conductors – drilling of these will be undertaken in future exploration

- ▶ Employment – during construction / commission      200 – 250 people (2015)
- ▶ Employment – during production      150 – 200 people (2016)
- ▶ Preference for local contractors
- ▶ Preference for local suppliers and service providers
- ▶ Residential workforce
- ▶ Supporting regional and community initiatives
- ▶ Participation within community and local organisations
- ▶ Corporate Office – both Chairman and Managing Director live in Kalgoorlie

- ▶ Drilling continues to extend Resources
- ▶ Conversion of Resources to Reserves
- ▶ Grade is king (270g/t Ag-Eq\*)
- ▶ Moving to Production
- ▶ Polymetallic
- ▶ Silver – Gold – Zinc
- ▶ Copper – Nickel
- ▶ Experienced operational mine managers
- ▶ ASX Code: MRP

Historical silver doré bars  
produced at Nimbus





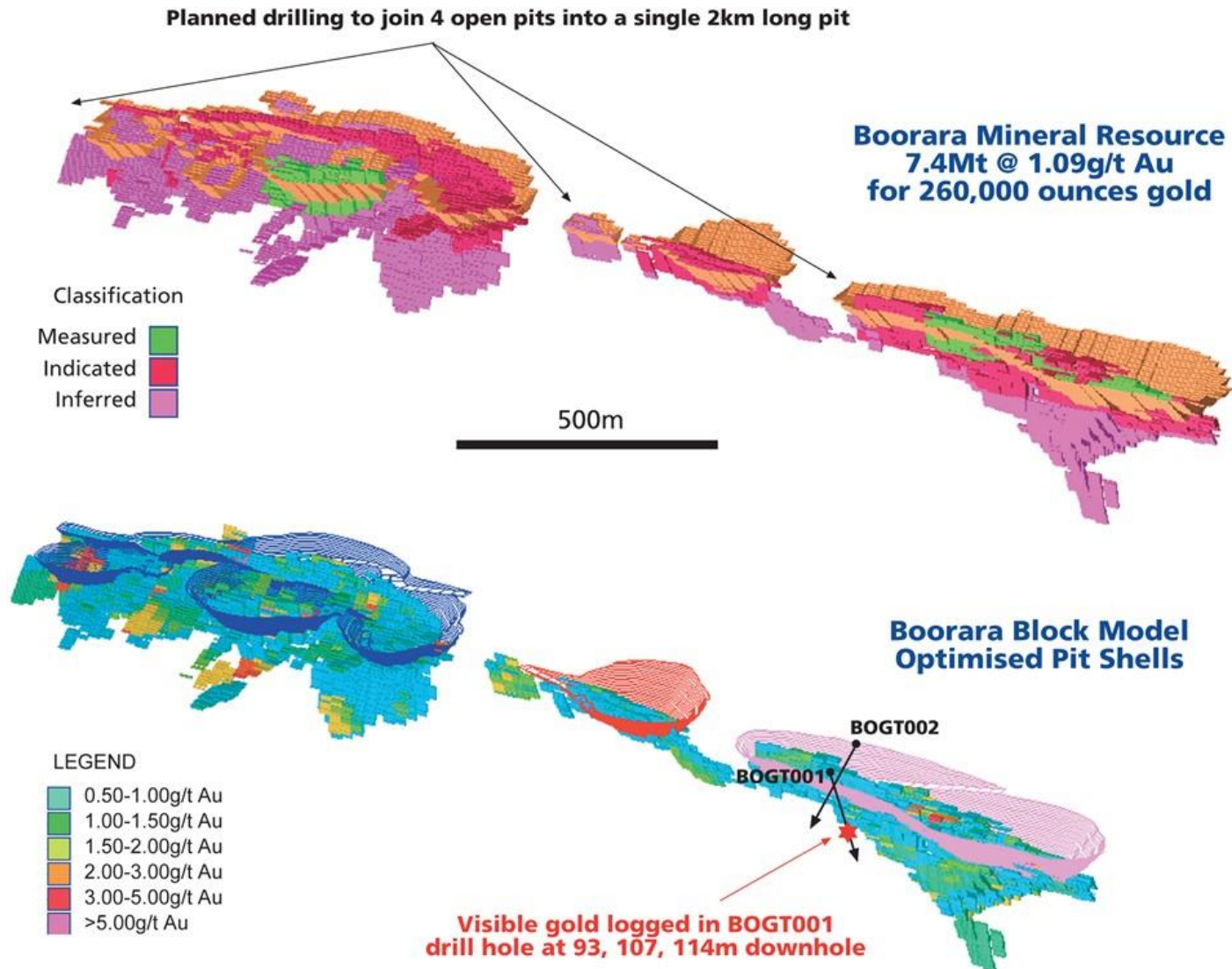
The information in this presentation that relates to ore reserves, mineral resources and exploration results is based on information compiled by Mr Morrie Goodz, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Morrie Goodz is a full time officer of MacPhersons Resources Ltd and has sufficient experience which is 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 Goodz has given his consent to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

- ▶ Table 1 Sections 1 thru 4 as per JORC Code 2012 for Reporting of Ore Reserves and Mineral Resources is included in the ASX Announcement dated 8<sup>th</sup> August 2014 on the MacPhersons Resources Limited website.

## Further Information

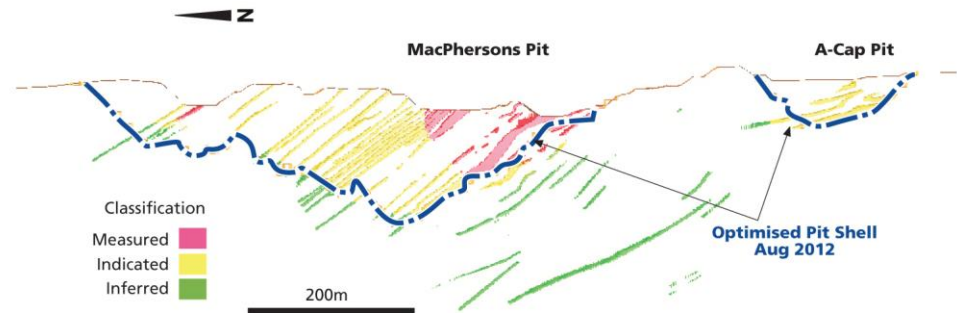
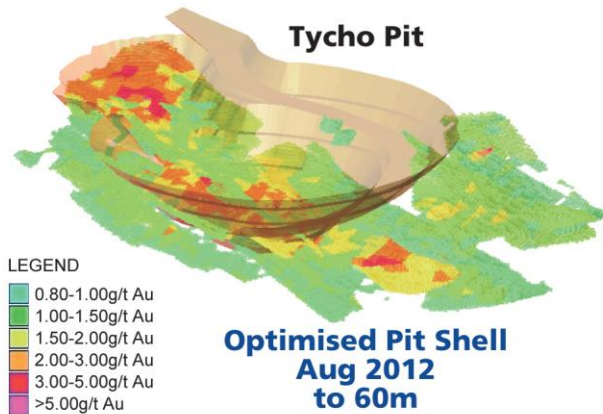
- ▶ For further information on MacPhersons and its projects or to subscribe for regular updates, please visit our website at [www.mrpresources.com.au](http://www.mrpresources.com.au) or contact our Kalgoorlie office.
- ▶ MacPhersons Resources Managing Director, Morrie Goodz, is available for comment and can be contacted on +61 429 834 912

# Boorara Resource, Block Model & Mine Design





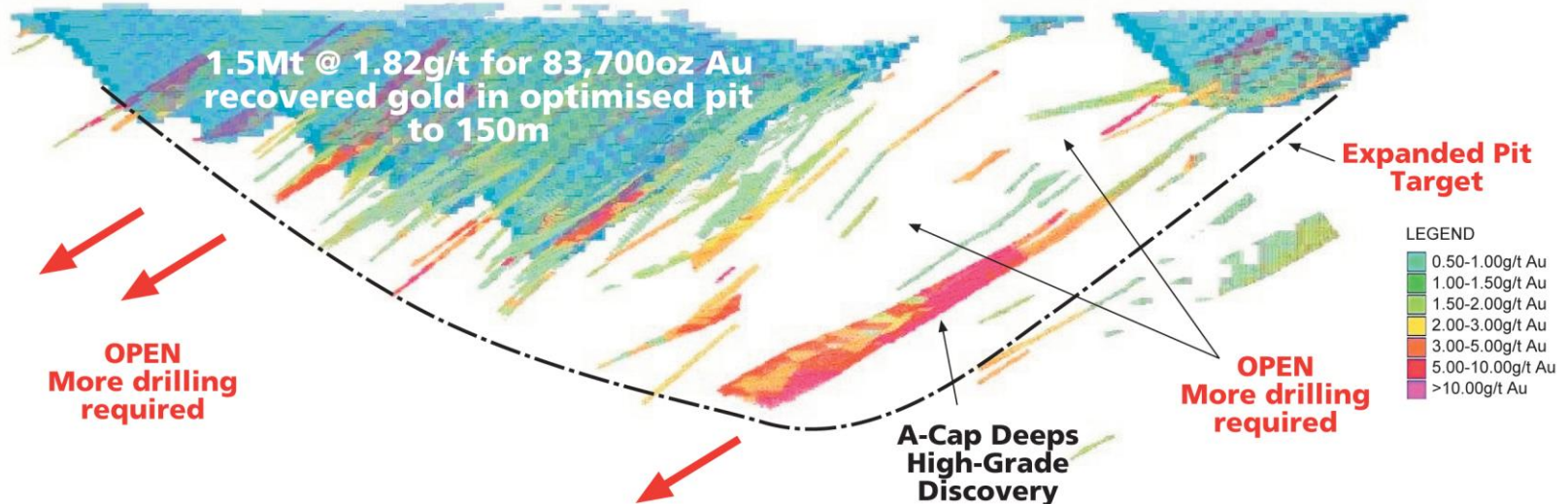
# Coolgardie Resource, Block Model & Mine Design



## Blue - Optimised Pit Shell Aug 2012

## MacPhersons Pit

## A-Cap Pit



# Nimbus Ore Reserve Statement



Open Pit							Ag Metal	Au Metal	Zn metal	Hg metal	Ag Eq. metal
Class	Tonnes	Ag	Au	Zn	Hg	Ag_equ	Moz	koz	kt	t	Moz
Proved	426,052	169	0.10	2.73%	296	251	2.32	1.36	11.61	126	3.44
Probable	279,329	215	0.19	2.04%	107	279	1.93	1.69	5.71	30	2.50
Total	705,381	187	0.13	2.46%	221	262	4.25	3.06	17.32	156	5.94
Underground											
Class	Tonnes	Ag	Au	Zn	Hg	Ag_equ	Moz	koz	kt	t	t
Proved	242,801	111	0.10	2.85%	249	195	0.86	0.78	6.92	60	1.52
Probable	498,854	197	0.06	3.92%	126	306	3.17	0.96	19.56	63	4.91
Total	741,655	169	0.07	3.57%	166	270	4.03	1.74	26.47	123	6.43
Nimbus Total											
Class	Tonnes	Ag	Au	Zn	Hg	Ag_equ	Moz	koz	kt	t	t
Proved	668,853	148	0.10	2.77%	279	231	3.18	2.14	18.53	187	4.96
Probable	778,183	204	0.11	3.25%	119	296	5.10	2.66	25.27	92	7.42
Total	1,447,036	178	0.10	3.03%	193	266	8.28	4.80	43.80	279	12.37

Reported according to the 2012 JORC Code (8<sup>th</sup> August 2014).

Mineral resource reported using Ag  $\geq$  25 g/t or Au  $\geq$  0.5 g/t or Zn  $\geq$  1.0%

Ore reserve estimated using a gold price of USD\$1250/oz, a silver price of USD\$20/oz and a zinc price of USD\$2220/t



# Nimbus Mineral Resource & Ore Reserve



Zone	Category	Tonnes	Ag Grade	Au Grade	Zn Grade	Hg Grade	Ag Eq.	Ag Metal	Au Metal	Zn metal	Hg metal	Ag Eq. metal
		<i>Mt</i>	<i>g/t</i>	<i>g/t</i>	<i>%</i>	<i>g/t</i>	<i>g/t</i>	<i>Moz</i>	<i>koz</i>	<i>kt</i>	<i>t</i>	<i>Moz</i>
Mineral Resource as at 25th July 2013 (update in progress for release Q4 2014)												
Silver Zone	Measured	1.041	112	0.11	2.32	224	219	3.7	3.8	24	233	7.3
	Indicated	2.502	103	0.17	1.54	70	168	8.3	13.8	38	175	13.6
	Sub-total	3.543	105	0.15	1.77	115	183	12	17.5	63	408	20.9
Gold Zone	Inferred	1.333	10	0.67	0.16	17	59	0.4	28.5	2	23	2.6
	<b>Total</b>	<b>4.876</b>	<b>79</b>	<b>0.29</b>	<b>1.33</b>	<b>88</b>	<b>149</b>	<b>12.4</b>	<b>46</b>	<b>65</b>	<b>431</b>	<b>23.4</b>
Ore Reserve as at 8th August 2014												
	Proved	0.669	148	0.10	2.77	279	231	3.18	2.14	18.53	187	4.96
	Probable	0.778	204	0.11	3.25	119	296	5.10	2.66	25.27	92	7.42
	<b>Total</b>	<b>1.447</b>	<b>178</b>	<b>0.10</b>	<b>3.03</b>	<b>193</b>	<b>266</b>	<b>8.28</b>	<b>4.80</b>	<b>43.80</b>	<b>279</b>	<b>12.37</b>

Reported according to the 2012 JORC Code (mineral resource and ore reserve on the 8<sup>th</sup> August 2014 and 3<sup>rd</sup> December 2013).

Mineral resource reported using Ag ≥ 25 g/t or Au ≥ 0.5 g/t or Zn ≥ 1.0%

Ore reserve estimated using a gold price of USD\$1250/oz, a silver price of USD\$20/oz and a zinc price of USD\$2220/t

# Silver equivalent (Ag-Eq) Parameters



**Note\*** - Silver equivalent (Ag-Eq) is calculated using metal credits only in blocks carrying economic grades of silver and/or zinc and/or gold. The formula is:

$$\text{Ag-Eq} = \text{Ag} + (\text{Zn} \times 26.65) + (\text{Aux} \times 38.43) + (\text{Hg} \times 0.17)$$

The model is based on prices set as of July 2014 (both spot market prices and price ratios have averaged higher than these price levels over the past 18 months, thereby providing a buffer to these calculations).

**Note\*:** For Ore Reserves the reported grade is Ag-Eq recovered grade, meaning that reporting has taken into consideration mining dilution, mining losses, mining recoveries and pillar allocation, metallurgical recoveries, refining and smelting losses and charges, marketing costs, and royalties.

In the Company's opinion, all metals included in the equivalent calculation have reasonable potential to be recovered and sold.

Full details of the Nimbus reserve and resource calculations including parameters for silver equivalent calculations as per JORC Code (2012) are contained in the Company's announcement dated 8<sup>th</sup> August 2014 and 3<sup>rd</sup> December 2013.



# Boorara Mineral Resource



Category	Oxidation	Tonnes	Au (g/t)	Au (oz)
Measured	oxide	640,000	1.13	23,000
	transitional	390,000	1.07	14,000
	fresh	90,000	1.02	3,000
	sub total	1,120,000	1.10	40,000
Indicated	oxide	1,030,000	1.06	35,000
	transitional	1,140,000	1.08	40,000
	fresh	1,450,000	1.07	50,000
	sub total	3,630,000	1.07	125,000
Inferred	oxide	170,000	1.39	7,000
	transitional	310,000	1.14	11,000
	fresh	2,150,000	1.10	76,000
	sub total	2,620,000	1.13	95,000
<b>Grand total</b>		<b>7,370,000</b>	<b>1.09</b>	<b>260,000</b>

As at 12<sup>th</sup> July 2013. Mineral resource reported at a cut-off of 0.5 g/t Au.

The Boorara Mineral Resource Estimate and Ore Reserve Statement is under review.

There is currently a drilling program in progress and an update of these inventories will be made in early 2015.

Category	Tonnes Mt	Grade Au (g/t)	Ounces Au
Proved	1.128	0.98	35,500
Probable	2.175	1.01	70,600
TOTAL	3.303	0.99	106,100

As at 07<sup>th</sup> August 2013. Mineral resource reported at a cut-off of 0.5 g/t Au. Heap leach recoveries at 80/75/70. The Boorara Mineral Resource Estimate and Ore Reserve Statement is under review. There is currently a drilling program in progress and an update of these inventories will be made in early 2015.

Category	Tonnes	Au g/t	Ounces
Measured	690,000	1.36	30,200
Indicated	1,816,000	1.61	94,000
Inferred	1,304,000	1.8	75,500
Total	3,810,000	1.64	199,700

As at 06<sup>th</sup> August 2012. In accordance with Paragraph 15 of the JORC 2012 Code, we have reviewed this MRE and find no material change to report.

Mineral resource reported at a cut-off of 0.5 g/t Au

Differences may occur due to rounding.