



# ARGENT MINERALS LIMITED ASX:ARD SHAREHOLDER/INVESTOR BRIEFINGS 22 & 23 SEPTEMBER 2015

A close-up photograph of several parallel metal drill rods, showing signs of wear and rust. The rods are arranged in a slightly overlapping manner, creating a sense of depth and texture. The lighting highlights the metallic surfaces and the rough, weathered areas.

DRILL TESTING KEMPFIELD  
FOR AUSTRALIA'S NEXT  
HIGH GRADE LEAD/ZINC DISCOVERY

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- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral resources and mineral reserves and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Argent Minerals, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

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All forward-looking statements made in this Presentation are qualified by the foregoing cautionary statements. In particular, the corporate mission and strategy of the Company set forth in this Presentation represents aspirational long-term goals based on current expectations. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

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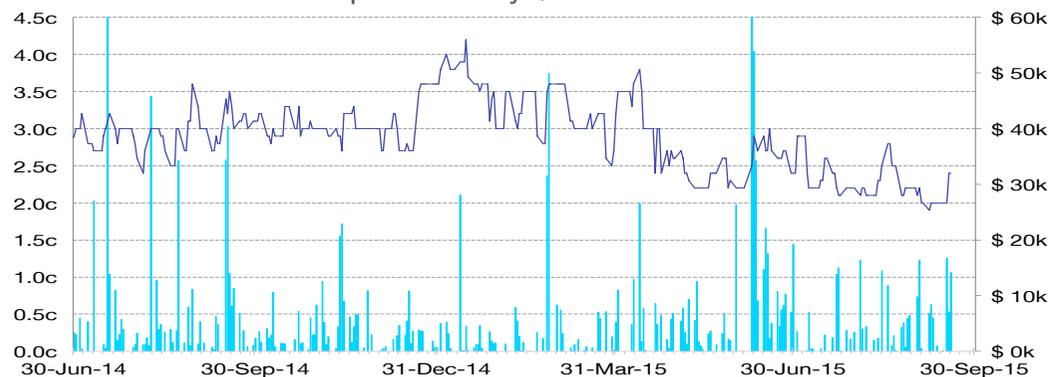
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## Capital Structure

Ordinary shares (ASX:ARD)	219.6M
Share price <sup>1</sup>	\$0.024
Market capitalisation <sup>1</sup>	\$5.27M
Cash <sup>2</sup>	\$611,678
Listed Options (ASX:ARDO) <sup>3</sup>	149M
ASX Listing	3 April 2008
Top 20 shareholders <sup>4</sup>	42%

1. As at market close 21/9/15 2. As at 30/6/15 3. \$0.175 strike, 31 March 2016 expiry  
4. As at 3/9/15 (2015 Annual Report)

ARD Share price & daily \$ volume traded



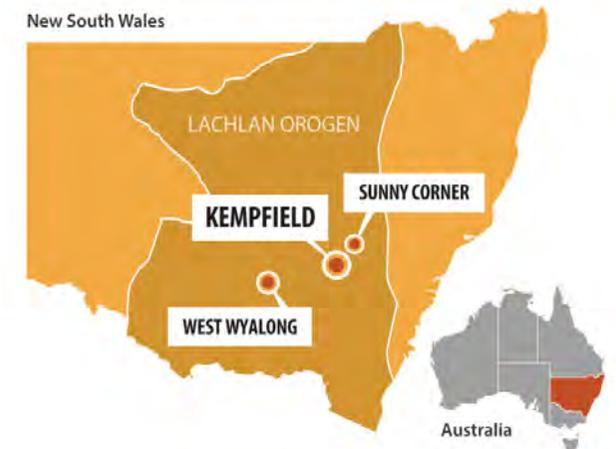
## Board & Management

Stephen Gemell	<b>Chairman (Non-exec)</b> B.Eng (Hons), FAusIMM (CP)
David Busch	<b>Managing Director</b> B.Eng, BSc, MAusIMM
*Peter Nightingale	<b>Director (Non-exec)</b> B. Econ, CA
*Peter Michael	<b>Director (Non-exec)</b>
Sarah Shipway	<b>Company Secretary</b> B. Bus, CA
*Todd McGilvray	<b>Exploration Manager</b> BSc (Hons), Economic Geology, MAusIMM MSEG, MGSA, GradCertAppFin

\* New appointments announced 17 September 2015

## ■ THREE PROJECTS IN HIGHLY PRODUCTIVE TERRANE

- Kempfield Polymetallic Project (Argent 100%)
  - High grade base and precious metals potential
  - Near term production potential (**JORC 2012 Resource**)
- West Wyalong (Argent 51%, right to earn 70%)
  - Large porphyry copper-gold target identified
  - 37 km from Lake Cowal mine taken over by Evolution Mining for \$US550M
- Sunny Corner (Argent 70%)
  - Historic silver/polymetallic mine – very high grades (direct shipped ore to London)
  - Potential feedstock for Kempfield



Significant discovery potential identified



## ■ **THREE DRIVERS FOR A POTENTIAL RERATE OF ASX:ARD SHARE PRICE**

1. A high grade base & precious metals discovery at Kempfield featuring lead/zinc
  - Preparations underway for 7 hole 3,200 metre deep diamond drilling program
2. A copper gold discovery at West Wyalong
  - Additional geophysics performed on large porphyry copper-gold target - results pending
3. Silver price breakout upward (significant leverage to silver)
  - ASX:ARD high of \$0.29 in 2011 as silver price surged toward \$US50/oz

## ■ **BOARD STRENGTH AND MANAGEMENT EXPERIENCE**

- Depth of experience: mining, finance, commodities & corporate governance
- Compelling track record in high grade base and precious metal discovery
  - Todd McGilvray: eg. 22Mt for mine life extension to 88 years at MMG's Rosebery Mine
  - Professor Ross Large/CODES (advisory role): Pre-eminent Australian authority



## Strategy

## Primary Goals/Aspirations

Exploration

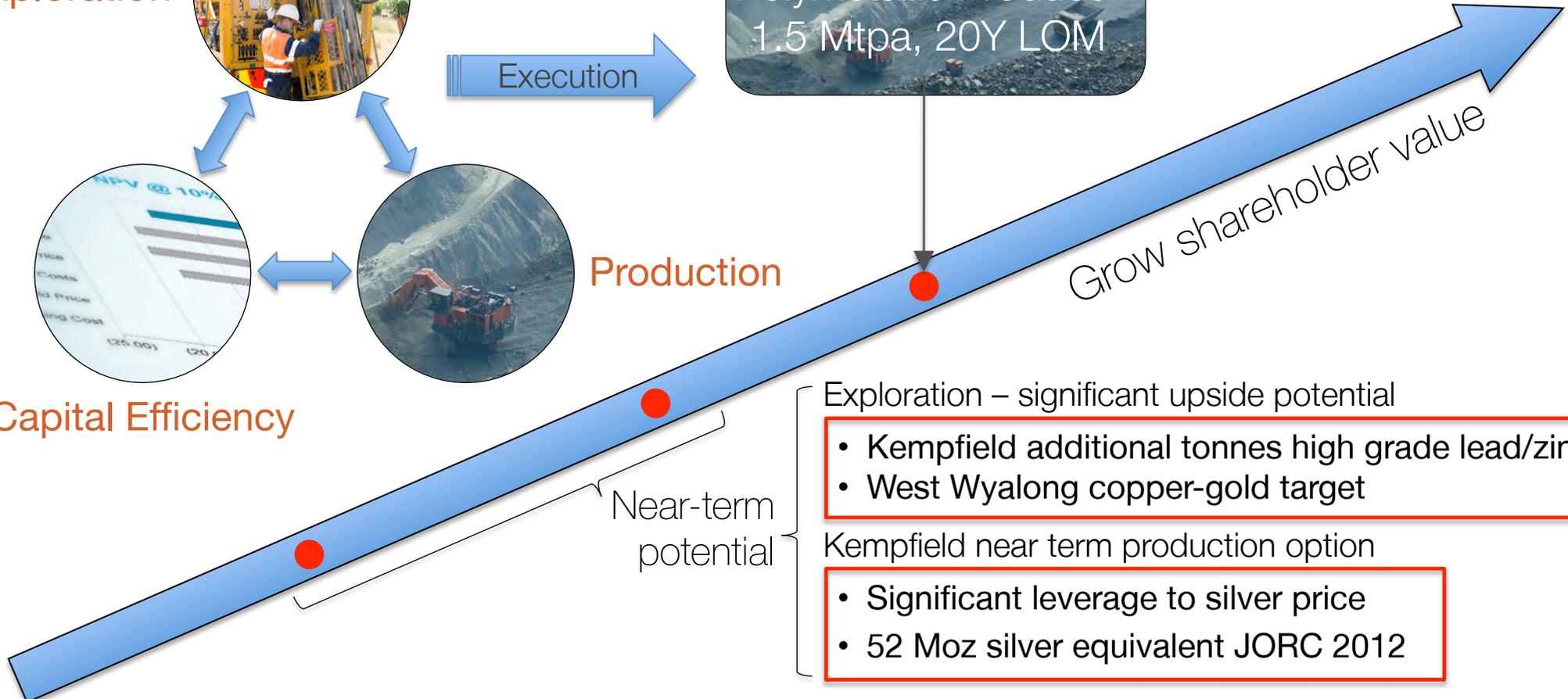


ASX:ARD premium quality market valuation



Production

Capital Efficiency



Exploration – significant upside potential

- Kempfield additional tonnes high grade lead/zinc
- West Wyalong copper-gold target

Kempfield near term production option

- Significant leverage to silver price
- 52 Moz silver equivalent JORC 2012

Solid foundation: 22 Mt JORC 2012 Resource + NSW State Significant Development

# ARGENT STRATEGY: THREE KEY ELEMENTS

## Exploration



### Initial goals/aspirations:

- Kempfield: Additional tonnes, high grade lead/zinc focus
  - Feeder zone and multiple VMS lens potential
- West Wyalong: drill large identified porphyry copper-gold target

Efficient funding

Market valuation of Argent

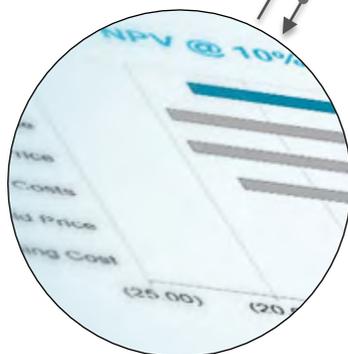
Feedstock

Funding (self-sustaining)

## Capital Efficiency

Goal: Competitive capital structure

- Approx. \$2 M in Government R&D claims since July 2013
- NSW Government drilling grant (top five drilling project)
- Non-dilutionary capital



Income

## Production

Kempfield: Key goals/aspirations

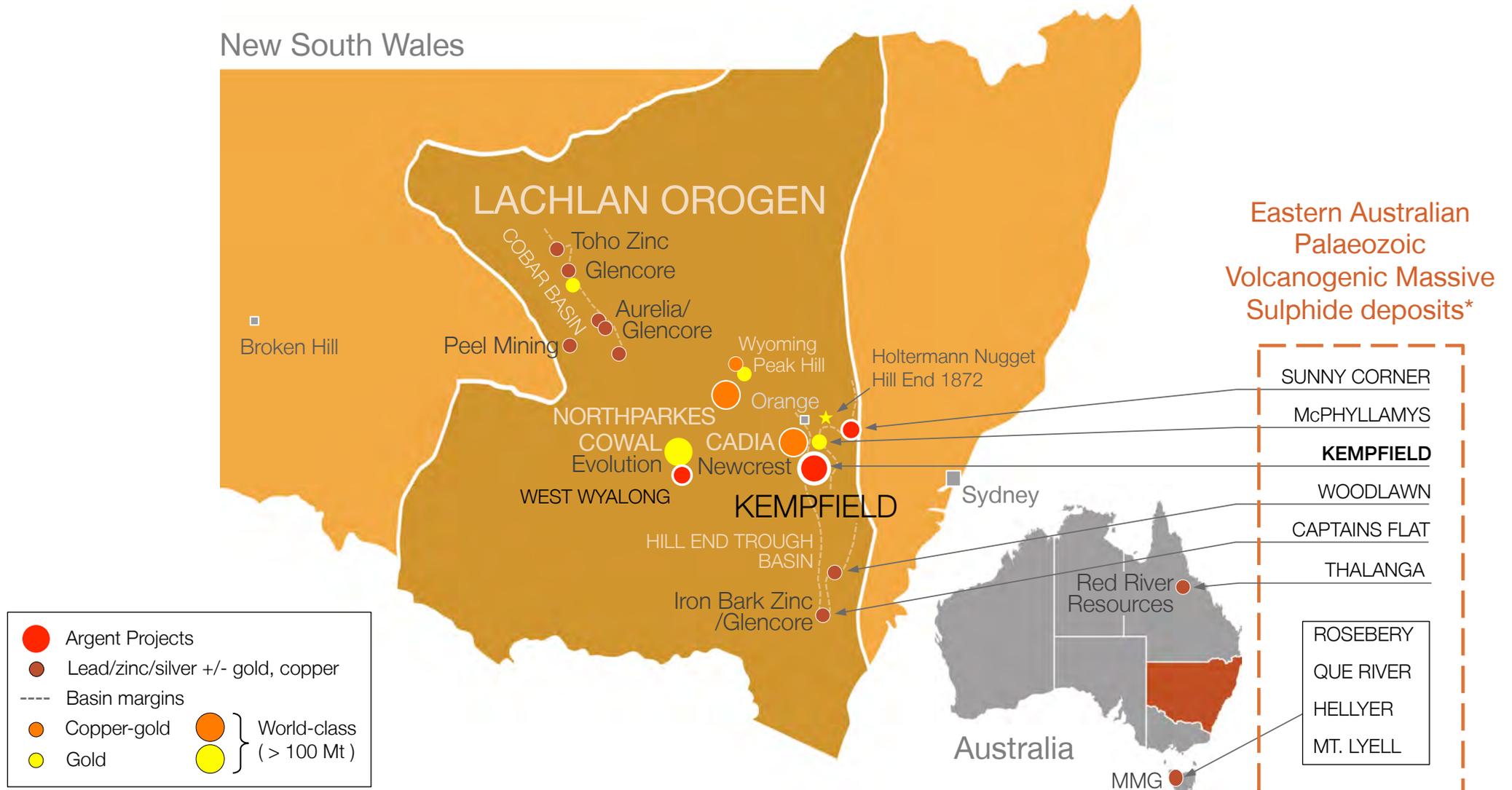
- Early start, market-ready, fast-response option
- Reduction of economic viability threshold to \$15-20/oz silver (2012 PFS based on \$30/oz)
- Progress regulatory approvals for readiness
  - Environmental Impact Statement submitted, feedback received

Expansion/maintenance capital

# KEMPFIELD POLYMETALLIC PROJECT



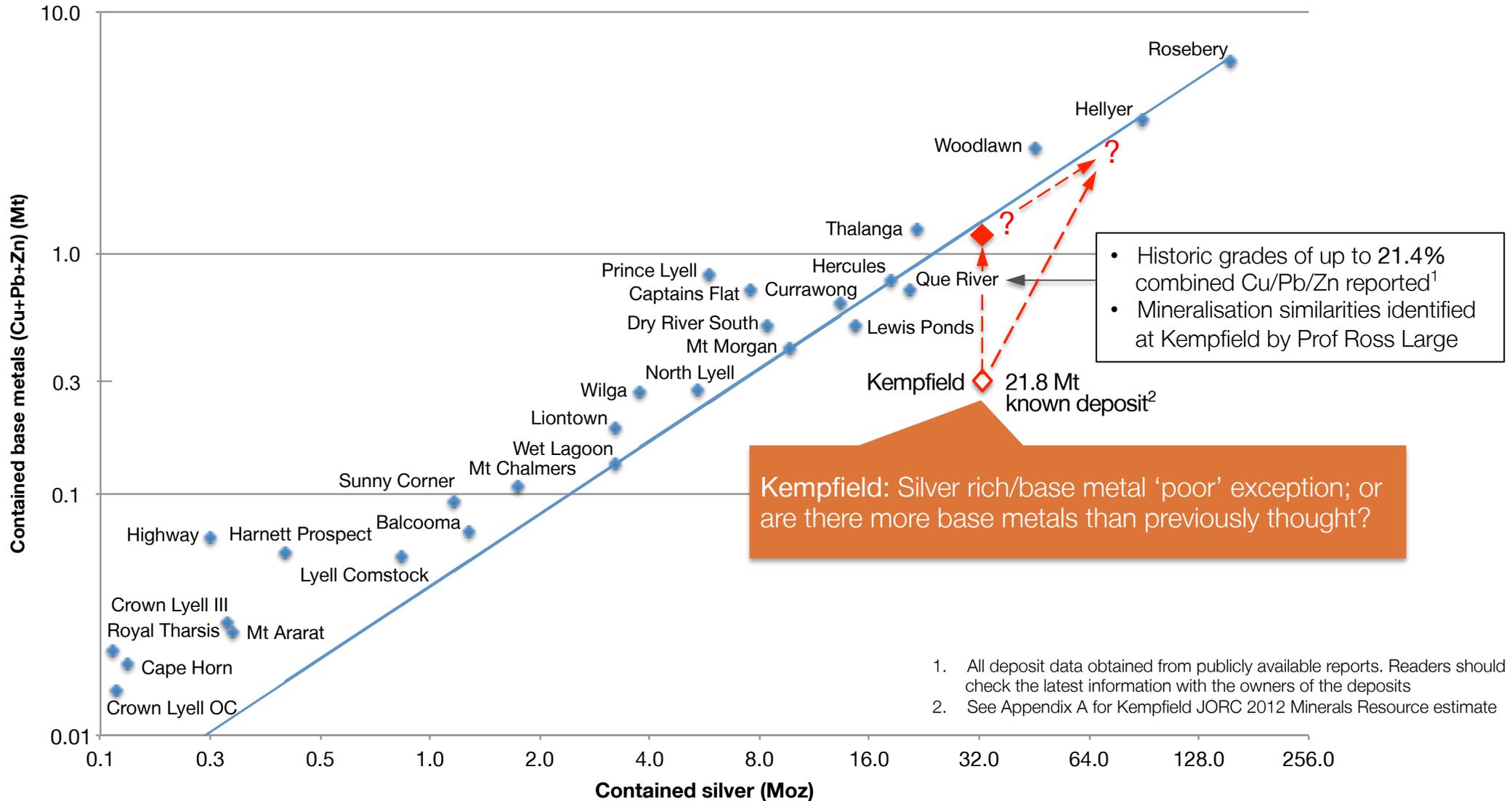
- **HIGHLY PRODUCTIVE GEOLOGICAL TERRANE**
- **COMPELLING PEER GROUP: RICH BASIN MARGIN POLYMETALLIC DEPOSITS**



Drill testing Kempfield for Australia's next high grade lead/zinc discovery

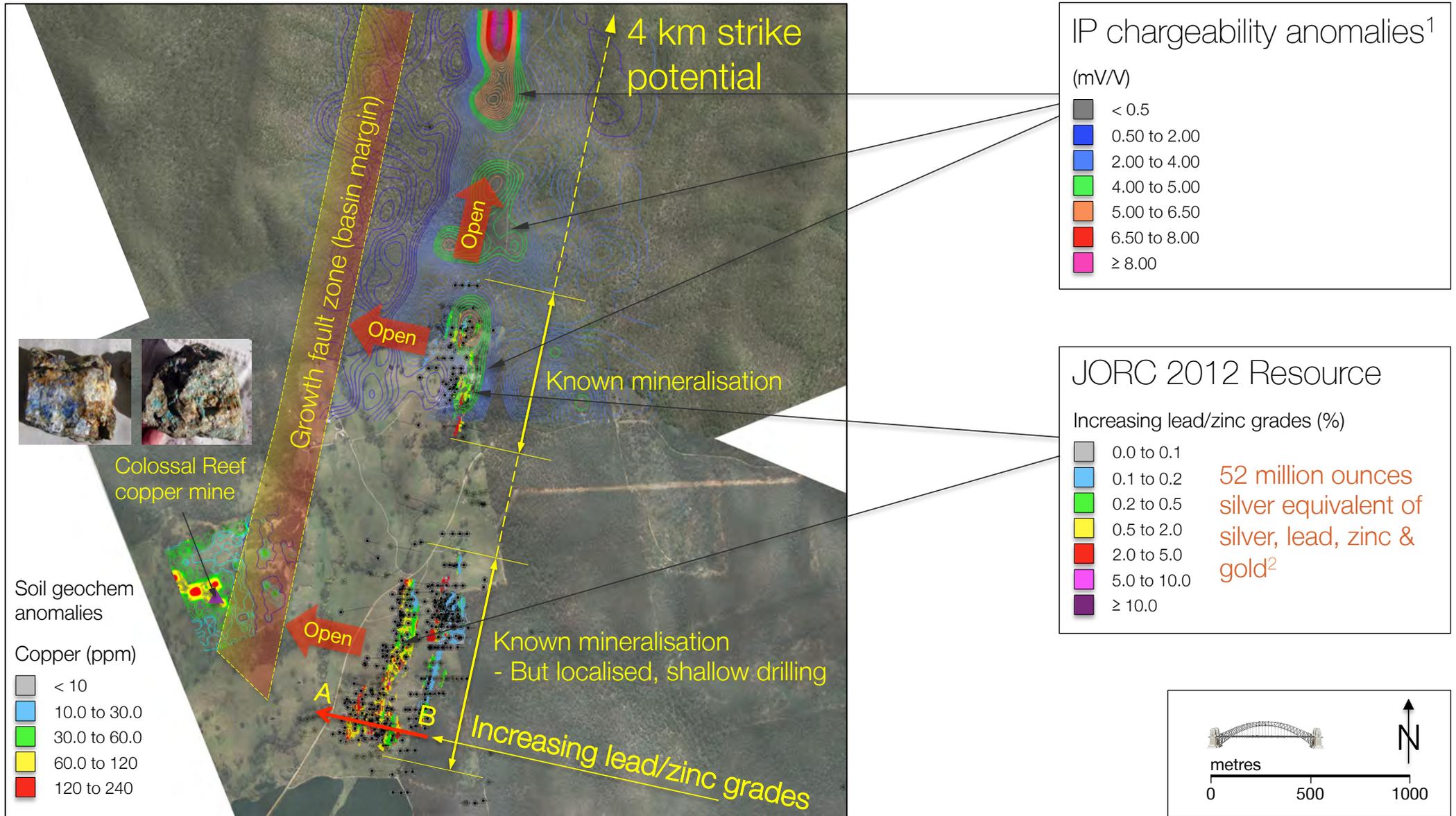
\* Prof R. Large et al, 1998

## EASTERN AUSTRALIAN PALAEOZOIC VMS DEPOSITS



1. All deposit data obtained from publicly available reports. Readers should check the latest information with the owners of the deposits  
 2. See Appendix A for Kempfield JORC 2012 Minerals Resource estimate

# SUBSTANTIAL OPEN, HIGHLY PROSPECTIVE, UNTESTED AREAS



1. See ASX Announcement 2 Sep 2009  
 2. See Appendix A for details

# BASE METAL POTENTIAL IDENTIFIED TO THE WEST AND AT DEPTH

## INTERPRETED VMS LENS AND FEEDER ZONE AREAS

(Conceptual targets shown, to be adjusted following diamond drilling program results)

Colossal Reef copper mine

Soil geochemical anomalies

FEEDER ZONE

Copper (ppm)



LENS 2 – Quarries (1.7 Mt)  
2.1% Pb/Zn & 0.05 g/t Au

LENS 2 – McCarron (5.8 Mt)  
2.2% Pb/Zn & 0.18 g/t Au

LENS 1 (6.8 Mt)  
1.4% Pb/Zn & 0.06 g/t Au

LENS 3

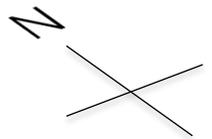
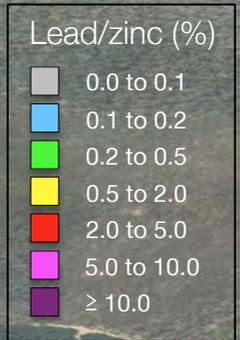
LENS 4

B

A

West McCarron (1.5 Mt)  
2.6% Pb/Zn & 0.34 Au g/t, incl.  
3.1% Pb/Zn & 0.46 g/t Inferred

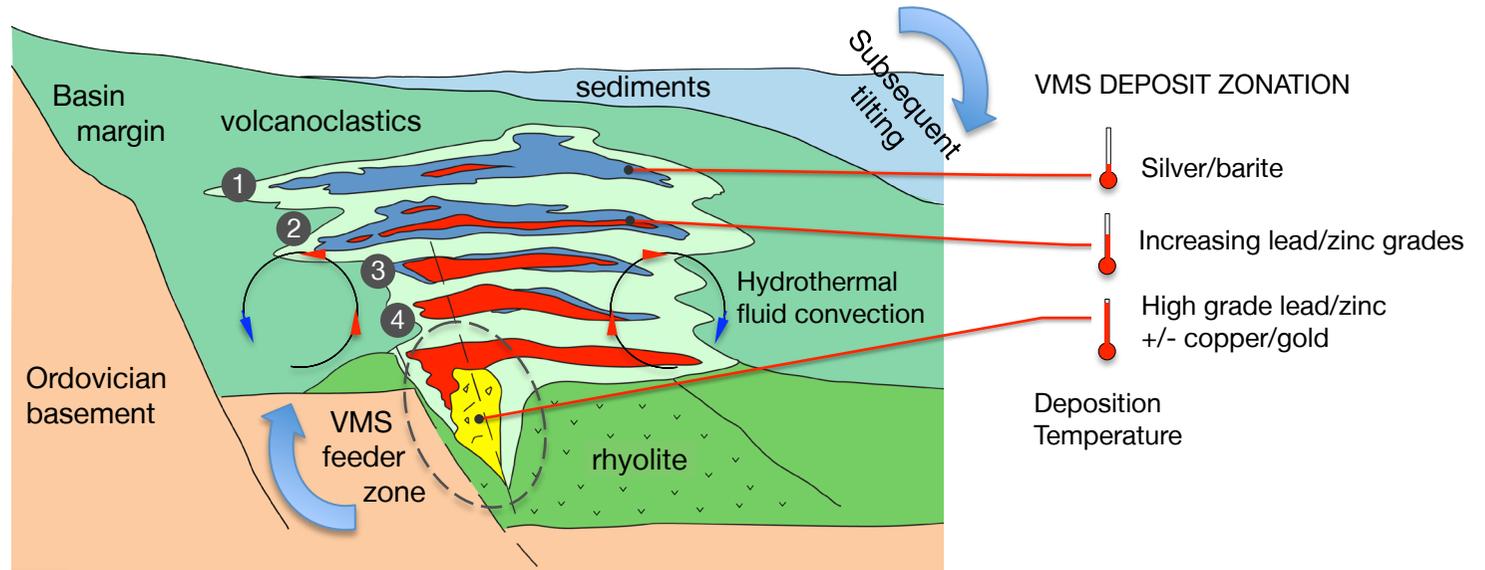
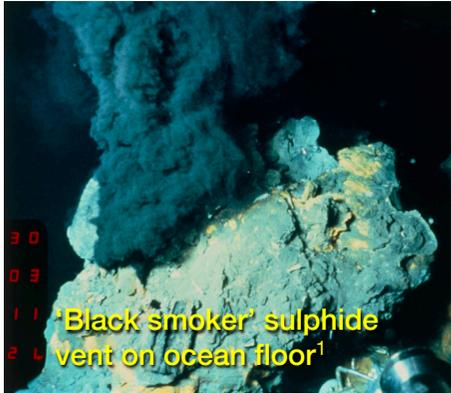
Increasing lead/zinc grade trend to the West and at depth



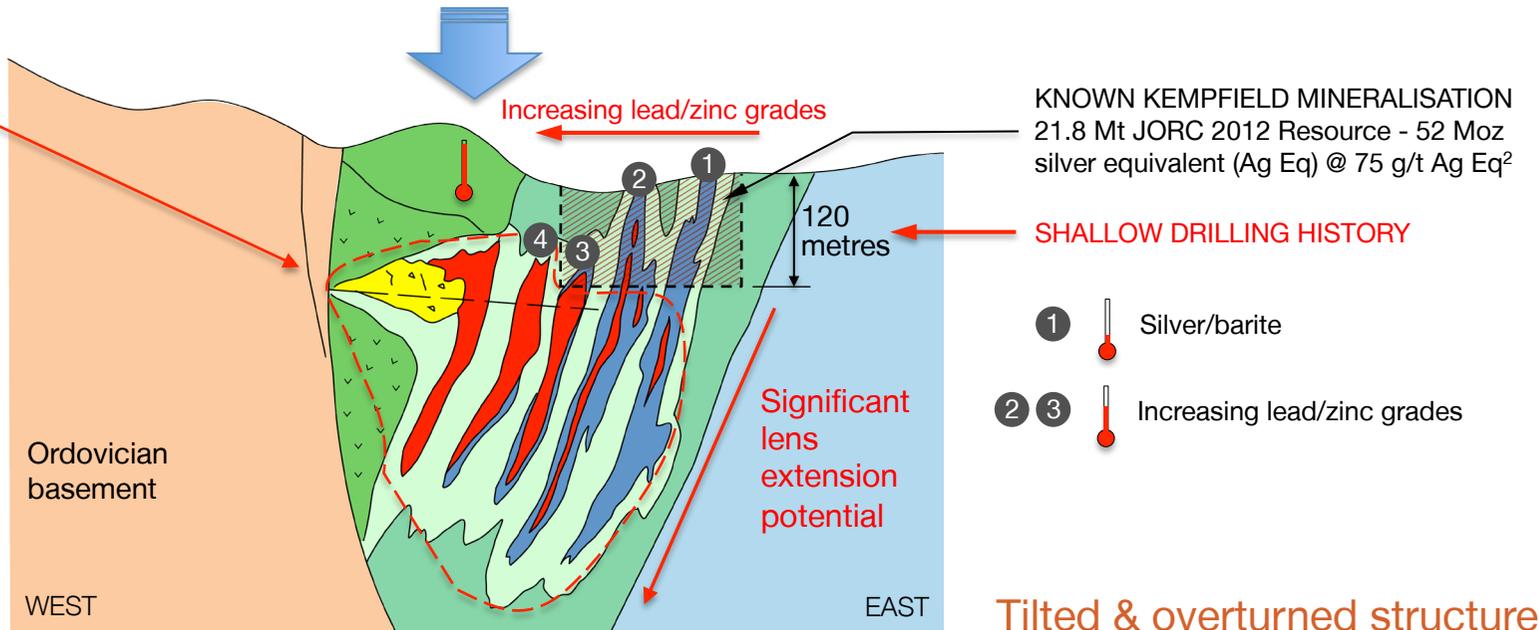
View toward the North East

# DEPOSIT MODEL VALIDATED BY DIAMOND DRILLING

Original volcanogenic massive sulphide (VMS) mound formation

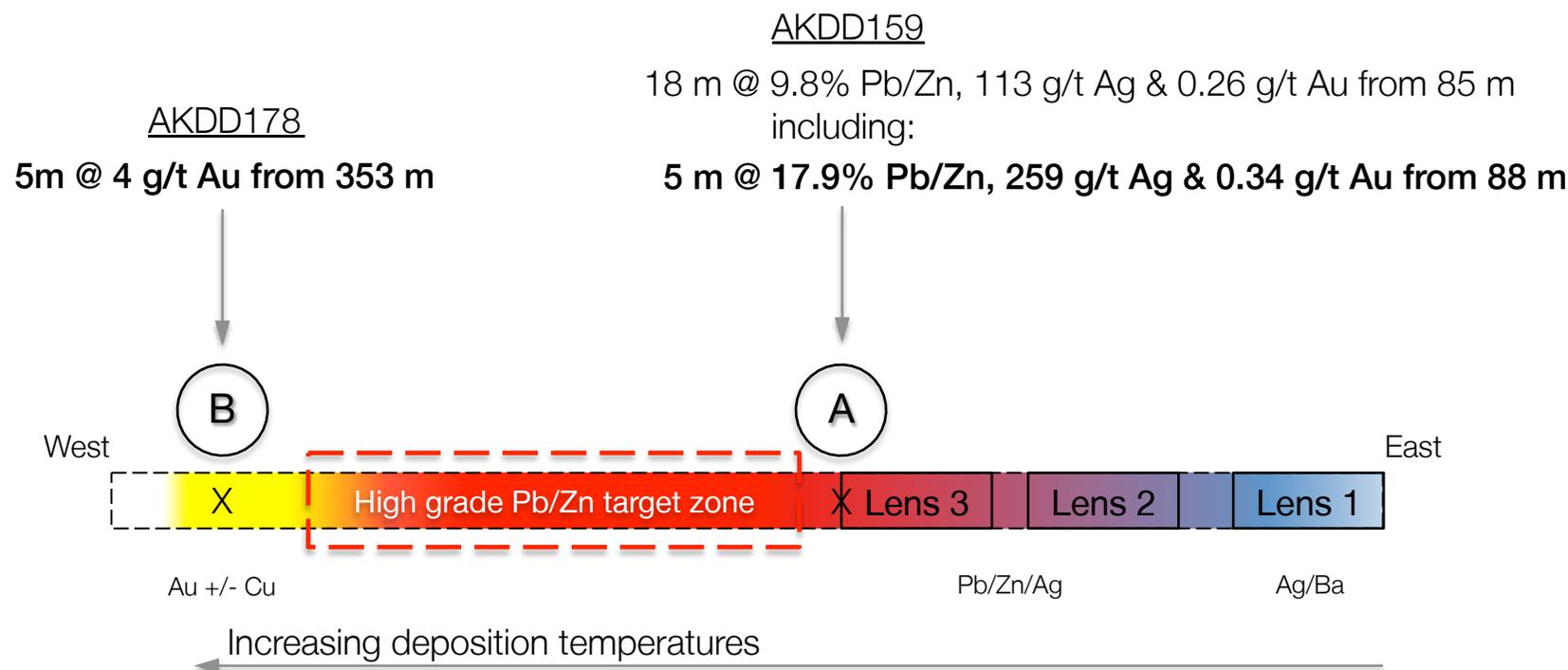


**'SIZE OF THE PRIZE' EXPLORATION POTENTIAL**  
including high grade lead/zinc +/- copper/gold



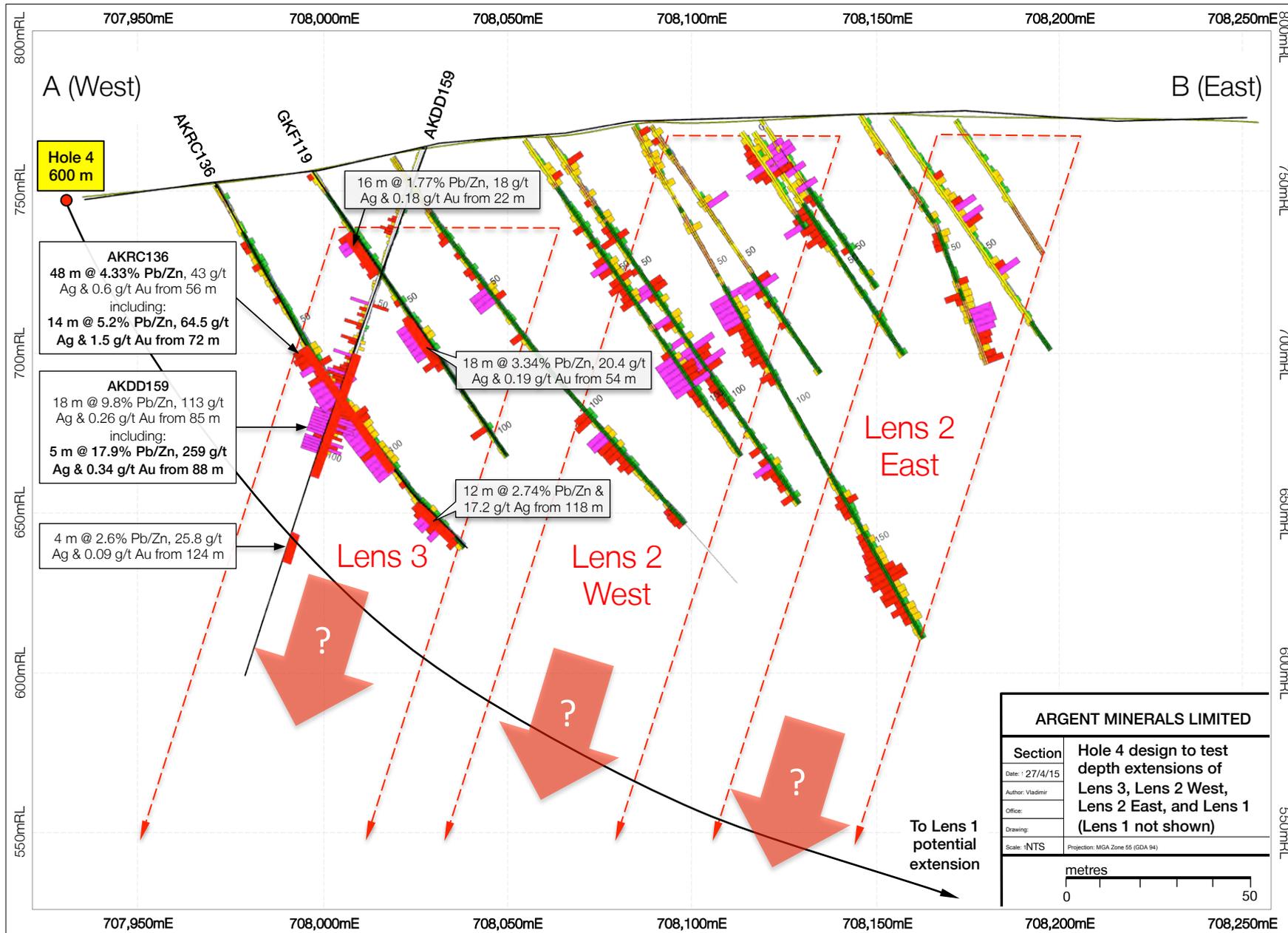
1. Current day VMS analogue. Photo reproduced with permission from Science Photo Library Ltd. London, UK  
2. See Appendix A

# HIGH GRADE LEAD/ZINC TARGET ZONE



- **Targeting high grade lead/zinc:**
  - Multiple exploration vectors indicate significant grade/tonnes potential
  - Sufficient tonnes & grade could also unlock significant silver production
  - Zinc price resurgence fuelled by compelling supply/demand outlook

# DRILL TESTING FOR LENS EXTENSIONS AT DEPTH (EXAMPLE)



## HISTOGRAM LEGEND

### Base metals grade (Pb/Zn)

Histograms on left hand side of drillholes

### Combined Pb/Zn grade (ppm)

- 0 – 1,000
- 1,000 – 5,000
- 5,000 – 20,000
- 20,000 – 100,000

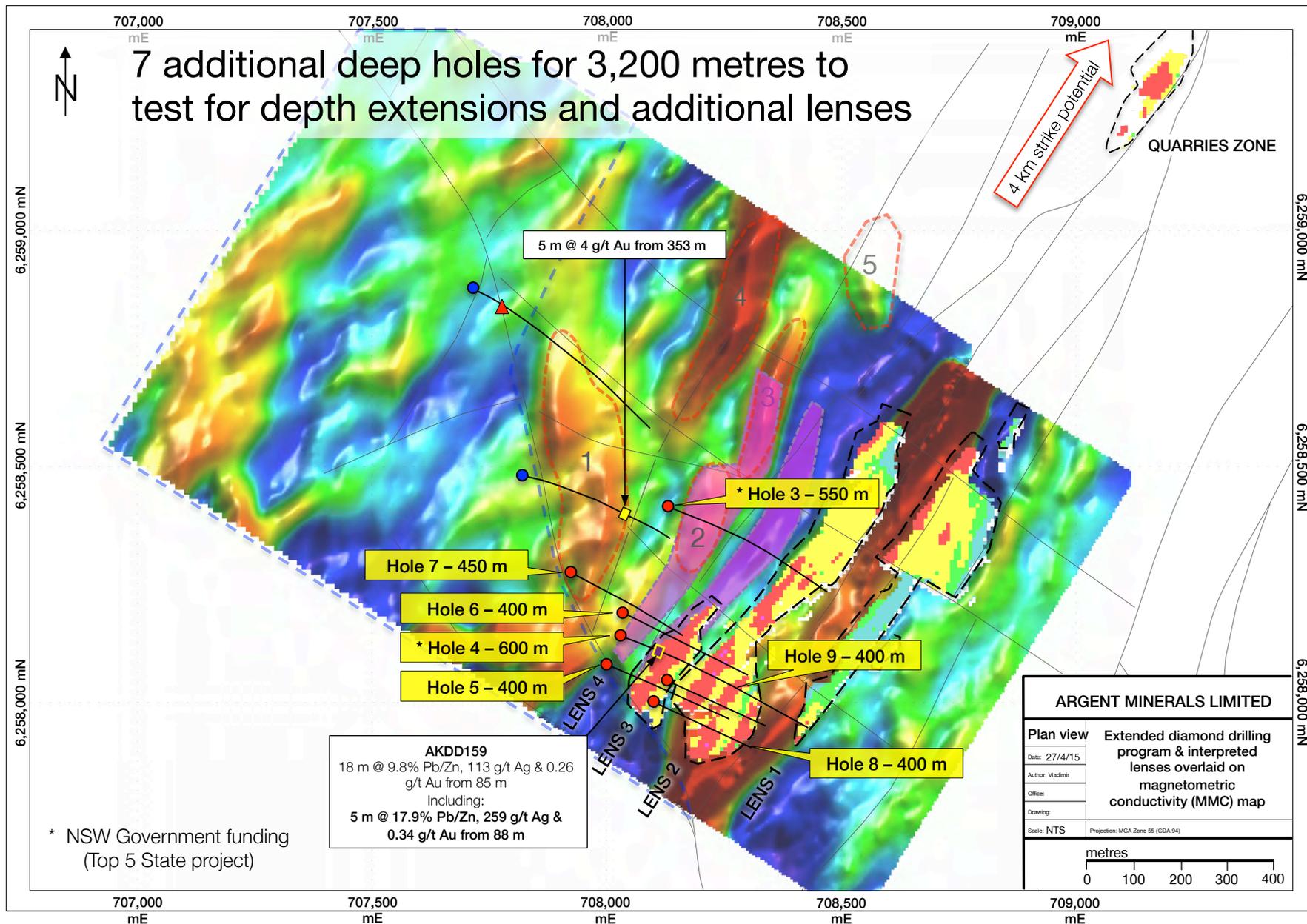
### Precious metals grade (Ag)

Histograms on right hand side of drillholes

### Ag Grade (ppm)

- 0 – 10
- 10 – 25
- 25 – 50
- 50 – 90
- 90 – 10,000

# EXTENDED REACH DEEP DIAMOND DRILL PROGRAM TO START



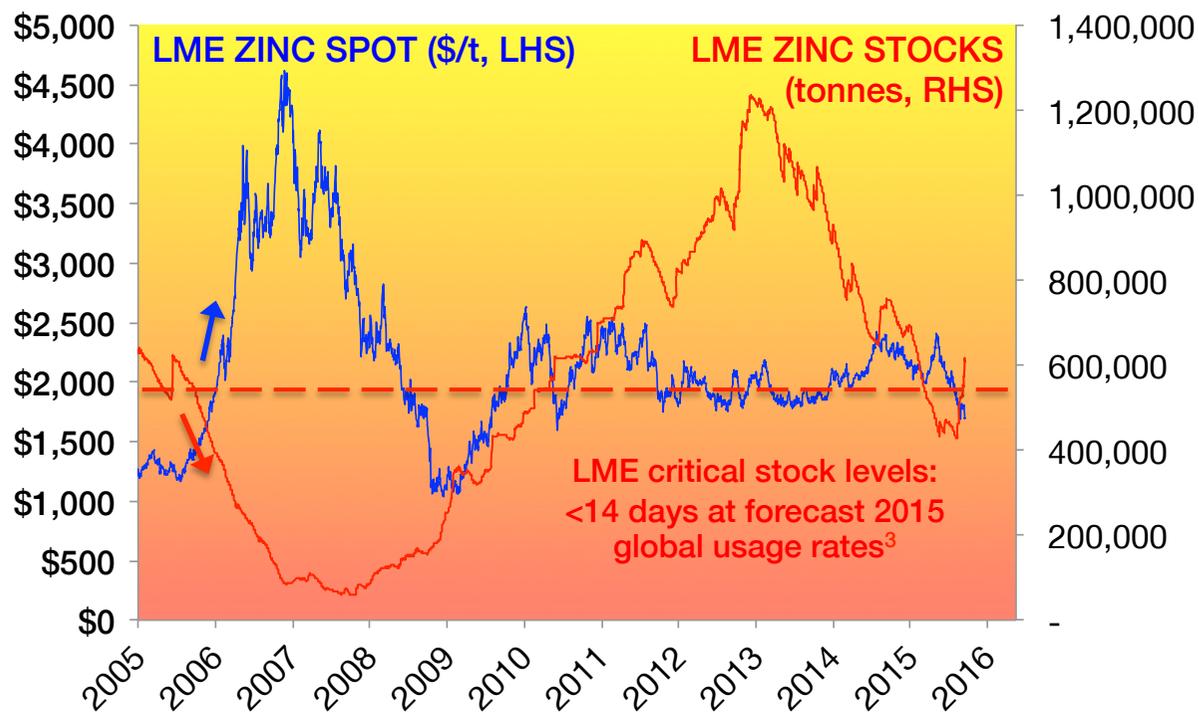
**LEGEND**

- 1 MMC conductive zones & follow up priorities
- MMC Response (pT/A)
  - 50
  - 20
  - 10
  - 0
  - 10
  - 20
  - 50
- Interpreted lenses
- Ordovician & Silurian granite basement rock
- Colossal Reef copper mine
- Fault structures
- Mineral Resource lenses - contained Pb/Zn grades (%)
  - 0.0 to 0.1
  - 0.1 to 0.2
  - 0.2 to 0.5
  - 0.5 to 2.0
  - 2.0 to 5.0
  - 5.0 to 10.0
  - ≥ 10.0

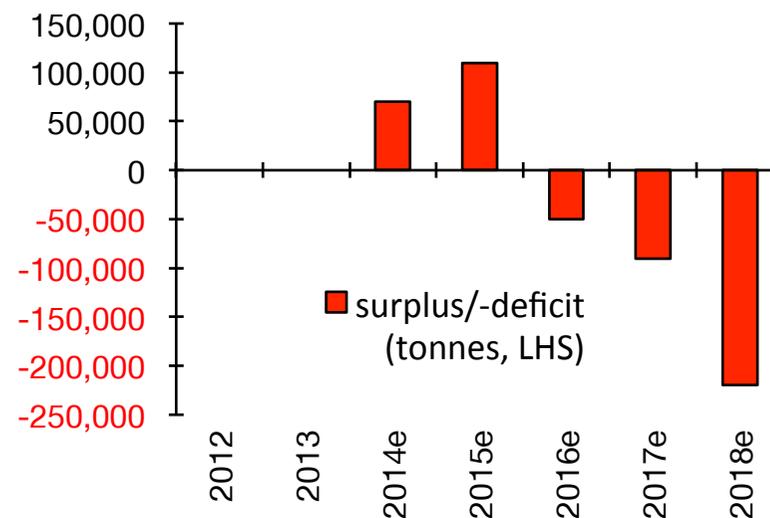
\* NSW Government funding (Top 5 State project)

## INCREASED EXPOSURE TO ZINC AS MARKETS PRICE IN SUPPLY OUTLOOK

10 YEAR HISTORICAL LME ZINC SPOT PRICE AND STOCK LEVELS



ZINC DEFICIT FORECAST<sup>1</sup>



Mine Closures	Production (ktpa) <sup>2</sup>	Closing Date <sup>2</sup>
Century*	455-470	2 <sup>nd</sup> half 2015
Lisheen	180	FY2014-15
Skorpion	125	2016-17
Tara	166	2019
Rosebery	80-85	2024

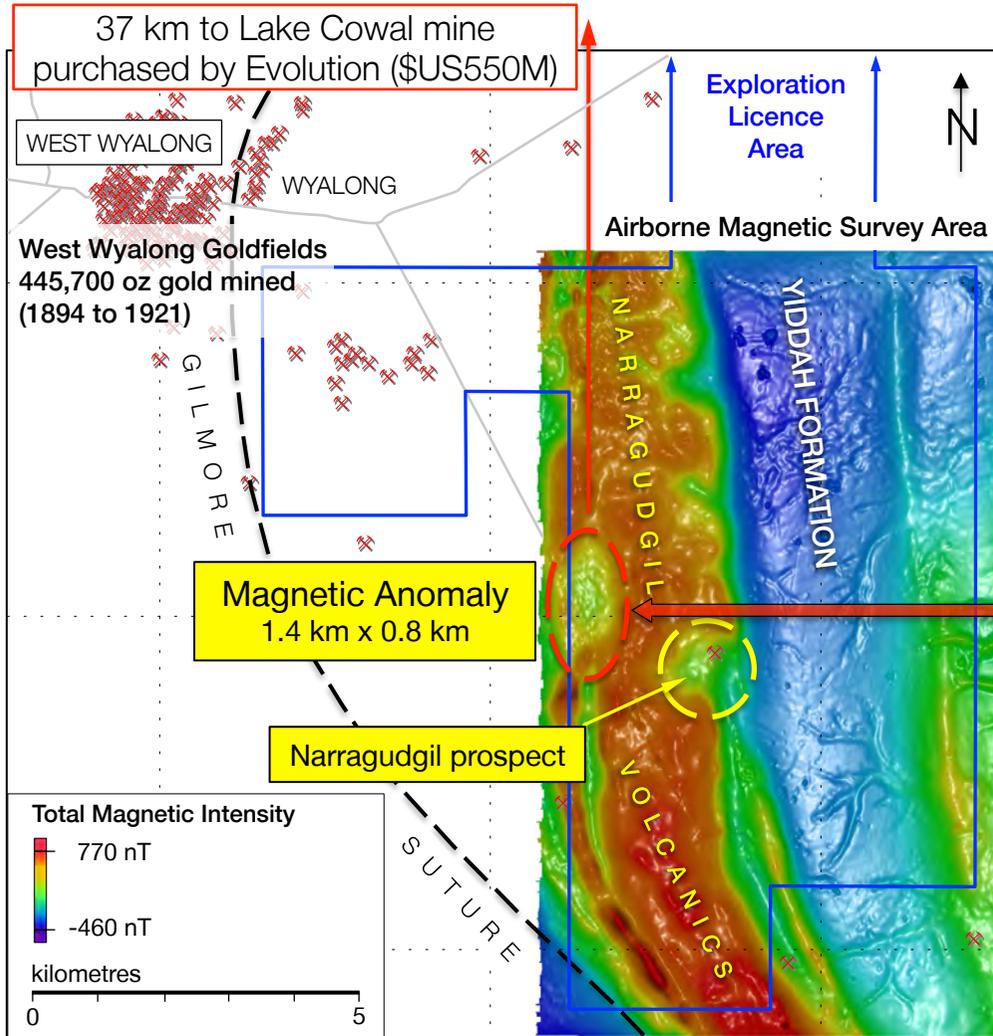
\* Century ceases open cut mining – July 2015<sup>4</sup>

1. UBS Global I/O@: Miner's Price Review 9 July 2014 (confirmed as current with UBS Nov 2014)
2. Company public reports as at the date of this presentation (most recent production). Investors must not rely on this information. Please refer directly to the individual company reports.
3. Based on global usage rate forecast of 14.14 million tonnes for 2015. Source: International Lead and Zinc Study Group (ILZSG): April 2015 ILZSG Global Forecasts.
4. See MMG 2<sup>nd</sup> Quarter Report dated 16 July 2015

# WEST WYALONG PROJECT

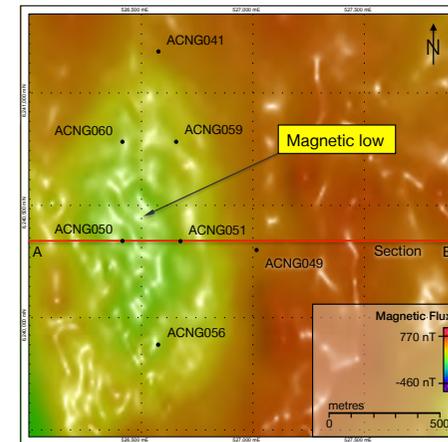


## MAGNETIC SURVEY REVEALS LARGE PORPHYRY COPPER-GOLD TARGET ARGENT PROJECT EQUITY NOW 51% WITH RIGHT TO EARN 70%

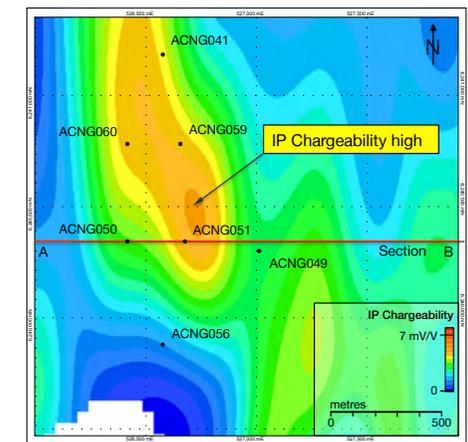


- Porphyry copper-gold signature indicated: coincident magnetic low and IP chargeability high anomalies in Ordovician volcanics
- Strong copper-gold geochemistry intersected by shallow aircore drilling
- Similarities to Northparkes system observed

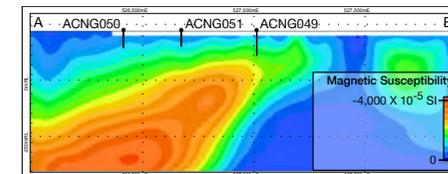
Magnetic low anomaly (plan view)



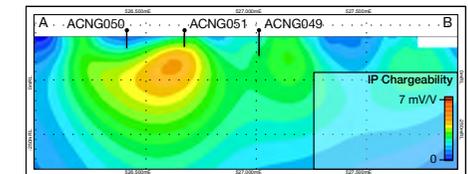
Coincident IP chargeability high



Magnetic anomaly (cross section AB)



IP chargeability (cross section AB)





## ■ **KEMPFIELD – DRILL TESTING THE HIGH GRADE VMS POTENTIAL**

- Significant (21.8 Mt) Mineral Resource – JORC 2012 compliant (upgrade-ready)
  - Significant leverage to silver price – short term production potential (EIS submitted)
- Extended reach deep diamond drilling program – 7 holes for 3,200 metres
  - Targeting high grade base and precious metals
  - Drilling activity and discovery potential -> liquidity and share price
- Resurgent interest in zinc – compelling supply/demand outlook
- Project quality has attracted:
  - Federal Government R&D funding (expected to continue)
  - NSW State Government drilling-specific grant (Top 5 project based on merit)
- Capital-efficiency optimised by Government co-funding alongside equity capital

## ■ **WEST WYALONG**

- Large porphyry copper-gold target
- Only 37 km from Lake Cowal Mine infrastructure – Evolution purchase for \$US550M

# WEALTH GENERATION POTENTIAL – MALLEE BULL EXAMPLE



Company	Project ownership	Total number of shares	Date	Share price at market close	Market capitalisation
Argent Minerals	Kempfield 100% West Wyalong 51% Sunny Corner 70%	219,631,852 <sup>i</sup>	21 September 2015	\$0.024	\$5,271,164
Peel Mining	Mallee Bull – JOGMEC farmin to 40% (Stage 1), then 50% (Stage 2) <sup>ii</sup> plus other projects	132,485,969 <sup>iii</sup>	10 March 2015 <hr/> 9 June 2015	\$0.050 <hr/> \$0.220	\$6,624,298 <hr/> \$29,416,913

Share price and market cap rerate resulting from 'spectacular' lead/zinc drill results

<sup>i</sup> As at market close Monday 21 September 2015  
<sup>ii</sup> Peel Mining Investor Presentation 27 February 2015  
<sup>iii</sup> Half-Year Consolidated Financial Report 31 December 2014, p. 10

- **WEBSITE** [www.argentminerals.com.au](http://www.argentminerals.com.au)
- **MANAGING DIRECTOR**
  - David Busch
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  - Email [david.busch@argentminerals.com.au](mailto:david.busch@argentminerals.com.au)

## KEMPFIELD JORC 2012 RESOURCE STATEMENT SUMMARY

Table 1.0 is a summary of the Kempfield mineral resource announced on 6 May, 2014. Table 2.0 shows the Resource tonnes and grades by Measured, Indicated and Inferred categories, whilst Table 3.0 provides details of tonnes and contained metal in the Measured and Indicated categories.

At cutoff grades 25 g/t Ag (Oxide/Transitional) and for 50 g/t Ag equivalent<sup>1</sup> (Primary):

Table 1.0 - Kempfield Resource Summary

	Silver (Ag)		Gold (Au)		Lead (Pb)		Zinc (Zn)		In-situ Contained Ag Equivalent <sup>2</sup>		
	Resource Tonnes (Mt)	Grade (g/t)	Contained Metal (Moz)	Grade (g/t)	Contained Metal (000 oz)	Grade (%)	Contained Metal (000 t)	Grade (%)	Contained Metal (000 t)	Grade (Ag Eq g/t)	Contained Ag Eq (Moz)
<b>Oxide/ Transitional*</b>	6.0	55	10.7	0.11	21	N/A	N/A	N/A	N/A	-	11.7
<b>Primary**</b>	15.8	44	22.3	0.13	66	0.62	97	1.3	200	-	40.5
<b>TOTAL***</b>	<b>21.8</b>	<b>47</b>	<b>33.0 M</b>	<b>0.12</b>	<b>86</b>	<b>N/A</b>	<b>97</b>	<b>N/A</b>	<b>200</b>	<b>75</b>	<b>52 M</b>

\* 90% \*\* 79% \*\*\* 82%: Percentage of Resource tonnes in Measured or Indicated Category. See Table 3.0 for details.

### Note 1 - 50 g/t Silver Equivalent Cutoff Grade

This Resource is only reported in Resource tonnes and contained metal (ounces of silver and gold, and tonnes for lead and zinc). The Resource estimation for the Primary material was based on a silver equivalent cutoff grade of 50 g/t.

A silver equivalent was not employed for the oxide/transitional material estimation and was based on a 25 g/t silver only cutoff grade.

The contained metal equivalence formula is based on the following assumptions made by Argent Minerals:

Silver price:	\$US 30/oz (\$US 0.9645/g)
Gold price:	\$US 1,500/oz
Lead & zinc price:	\$US 2,200/tonne
Silver and gold recoverable and payable:	80% of head grade
Lead & zinc recoverable & payable:	55% of head grade

Table 2.0 – Resource by Category

Category	Resource Tonnes (Mt)	Grade (g/t)		Grade (%)		In-situ Grade (Contained Ag Eq g/t)
		Silver (Ag)	Gold (Au)	Lead (Pb)	Zinc (Zn)	Silver Equivalent (Ag Eq)
<b>Oxide/Transitional</b>						
Measured	2.7	68	0.11	-	-	73
Indicated	2.7	47	0.11	-	-	52
Inferred	0.6	39	0.08	-	-	43
<b>Total Oxide/Transitional</b>	<b>6.0</b>	<b>55</b>	<b>0.11</b>	<b>-</b>	<b>-</b>	<b>60</b>
<b>Primary</b>						
Measured	4.1	57	0.12	0.66%	1.2%	93
Indicated	8.4	41	0.13	0.58%	1.2%	76
Inferred	3.2	35	0.13	0.66%	1.4%	74
<b>Total Primary</b>	<b>15.8</b>	<b>44</b>	<b>0.13</b>	<b>0.62%</b>	<b>1.3%</b>	<b>80</b>
<b>Total Resource</b>	<b>21.8</b>	<b>47</b>	<b>0.12</b>	<b>N/A</b>	<b>N/A</b>	<b>75</b>

**Note 2 - Contained Silver Equivalent ('Ag Eq') Calculation Details**

(i) A revenue figure was calculated for each metal by category and material class (r) as follows:

$r = \text{tonnes} * \text{head grade} * \text{recoverable and payable \%}$ .

Eg. For Measured Oxide/Transitional silver:  $r = 2.7\text{Mt} * 68 \text{ g/t} * 80\% / 31.1 \text{ g/oz} * \$\text{US } 30/\text{oz} = \$\text{US } 142\text{M}$ .

Eg. For Measured Primary Zinc:  $r = 4.1\text{Mt} * 1.2\% * 55\% * \$\text{US } 2,200/\text{t} = \$\text{US } 59.5\text{M}$ .

(ii) Total revenue R was calculated for each resource category and material class as the sum of all the individual (r) revenues for that category and class.

(iii) Contained silver metal equivalent ounces was then calculated as follows:

$\text{Ag Eq (oz)} = R / \text{Ag recoverable and payable \%} / \text{Ag price} = R / 80\% / \$\text{US } 30$ .

(iv) Contained silver metal grade was calculated as follows:

$\text{Grade (Contained Ag Eq g/t)} = \text{Ag Eq (oz)} * 31.1 / \text{tonnes}$ .

Table 3.0 – Kempfield Resource tonnes and contained metal in Measured and Indicated categories

	Contained Metal					
	Resource Tonnes (Mt)	Moz Silver (Ag)	000 oz Gold (Au)	000 t Lead (Pb)	000 t Zinc (Zn)	In-situ Moz Silver Equivalent (Ag Eq)
<b>Oxide/Transitional</b>						
Measured	2.7	5.8	9.3	-	-	6.3
Indicated	2.7	4.1	9.9	-	-	4.6
<b>Measured + Indicated</b>	<b>5.4</b>	<b>10</b>	<b>19</b>	-	-	<b>11</b>
<b>As % of Total Oxide/Transitional</b>	<b>90%</b>	<b>93%</b>	<b>93%</b>	-	-	<b>93%</b>
<b>Primary</b>						
Measured	4.1	7.5	16	27	51	12
Indicated	8.4	11	36	49	103	21
<b>Measured + Indicated</b>	<b>13</b>	<b>19</b>	<b>51</b>	<b>76</b>	<b>154</b>	<b>33</b>
<b>As % of Total Primary</b>	<b>79%</b>	<b>83%</b>	<b>79%</b>	<b>78%</b>	<b>77%</b>	<b>81%</b>
<b>Oxide/Transitional + Primary</b>						
Measured	6.8	13	25	27	51	19
Indicated	11	15	46	49	103	25
<b>Total Measured + Indicated</b>	<b>18</b>	<b>28</b>	<b>71</b>	<b>76</b>	<b>154</b>	<b>44</b>
<b>As % of Total Resource</b>	<b>82%</b>	<b>86%</b>	<b>82%</b>	<b>78%</b>	<b>77%</b>	<b>84%</b>

### Note 3 – Rounding and Significant Figures

Figures in the tables in this Appendix may not sum precisely due to rounding; the number of significant figures does not imply an added level of precision.



## COMPETENT PERSON STATEMENTS

### Previously Released Information

This Presentation contains information extracted from the following reports which are available for viewing on the Company's website <http://www.argentminerals.com.au> :

- 10 March 2014 Assays Confirm Third VMS Lens Group at Kempfield – Revised;
- 16 Oct 2014 Base and precious metal grade zonation in Kempfield Resource;
- 22 Oct 2014 Conductive zones detected by MMR surveys at Kempfield;
- 29 Oct 2014 Kempfield Deep Diamond Drilling Program;
- 25 February 2015 Hole 1 intersects significant gold grades at Kempfield;
- 21 April 2015 Hole 2 increases potential size of the prize at Kempfield;
- 29 April 2015 Extended reach for Kempfield Deep Diamond Drilling Program;
- 9 June 2015 Major deep diamond drilling program to commence at Kempfield; and
- 17 August 2015 Argent commences high resolution IP survey at West Wyalong.

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.