



**Heron Resources Limited**



**Rapidly Advancing the  
High Grade Woodlawn Zinc-Copper Project  
From PEA to Production**

**May 2015**

**ASX: HRR | TSX: HER**



# Forward Looking & Compliance Statements



## Forward Looking Statements

- The information contained in this presentation has been prepared using the information available to Heron Resources Ltd (Heron or the Company) at the time of preparation. This presentation also contains forward-looking statements that were based on expectations, estimates, projections and extrapolations as of the date of this presentation. Any forward-looking statement is subject to known and unknown factors which may cause actual results and developments to materially differ from those expressed by, or implied by the forward-looking statements in this presentation.
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- This presentation includes information relating to a completed independent scoping study, completed independent resource estimate and includes "forward looking statements" which include, without limitation, estimates of potential metal in concentrate production based on mineral resources and flow-sheets that are currently being evaluated. While the Company has a reasonable basis on which to express these estimates, any forward looking statement is subject to risk. Risks include, without limitation: metal prices, foreign exchange rate movements, failure to meet project milestones, project funding capacity, concentrate off-take contracts and estimates of future capital and operating costs.
- The Company does not undertake to release publicly any revisions to forward looking statements included in this presentation to reflect events or results after the date of this presentation, except as may be required under applicable securities laws.
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## Compliance Statement (JORC 2012 and NI43-101)

This Report incorporates by reference the complete ASX announcement relating to the PEA results which were released to the market on 22 April 2015 and is entitled "Preliminary Economic Assessment Delivers Strong Business Case for the Woodlawn Zinc-Copper Project" ("PEA Announcement"). The PEA Announcement is available from the Company's website at [www.heronresources.com.au](http://www.heronresources.com.au) or from the ASX or SEDAR, and contains the JORC Table 1 relating to the Underground Mineral Resources as well as the detailed technical and financial assumptions which underpin the PEA results.

The technical information in this release relating to the exploration results and forward program at the Woodlawn Project is based on information compiled by Mr David von Perger, who is a Member of the Australian Institute of Mining and Metallurgy (Chartered Professional – Geology). Mr von Perger is a full time employee of Heron Resources Limited and has sufficient experience, which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 edition) and "qualified person" as this term is defined in Canadian National Instrument 43-101 ("NI 43-101").

The zinc equivalent ZnEq calculation takes into account, mining costs, milling costs, recoveries, payability (including transport and refining charges) and metal prices in generating a Zinc equivalent value for each block grade for Au, Ag, Cu, Pb and Zn.  $ZnEq = Zn\% + Cu\% * 3.12 + Pb\% * 0.81 + Au\text{ g/t} * 0.86 + Ag\text{ g/t} * 0.03$

Metal prices used in the calculation are: Zn US\$2,300/t, Pb US\$ 2,050/t, Cu US\$6,600/t, Au US\$1,250/oz and Ag US\$18/oz. It is Heron's view that all the metals within this formula are expected to be recovered and sold.



# Heron Resources

## Overview



### Woodlawn VMS Zinc-Copper Project

- High grade / high value deposit
- Zinc – strong supply/demand fundamentals
- Established Mineral Resources & Ore Reserves
- High grade underground and advanced tailings project
- Granted mining lease and project approvals in place
- Excellent infrastructure: road, rail, power, water

### Woodlawn Development Program – Building a New Mine

- Woodlawn PEA (April 2015) – strong business case
  - 11 year mine life
  - Post Tax IRR 46%, NPV<sub>8.3</sub> A\$300M, Payback 2 years
  - Annual Production Target 51kt Zn, 10kt Cu, 16kt Pb, 1.1Moz Ag, 9koz Au
- Feasibility Study underway (fully funded - cash \$25.6 million @ 31 Mar 2015)



# Heron Resources

## Corporate Summary



### Capital Structure

<b>TSX : HER</b>	<b>ASX : HRR</b>
<b>Shares:</b>	<b>360.9m</b>
<b>Options:</b>	<b>16m</b>
<b>Share Price:</b>	<b>\$0.13</b>
<b>Market Capitalisation:</b>	<b>\$47M</b>
<b>Cash:</b>	<b>\$25.6M (31 Mar 2015)</b>
<b>Listed Investments:</b>	<b>\$2.8M</b>

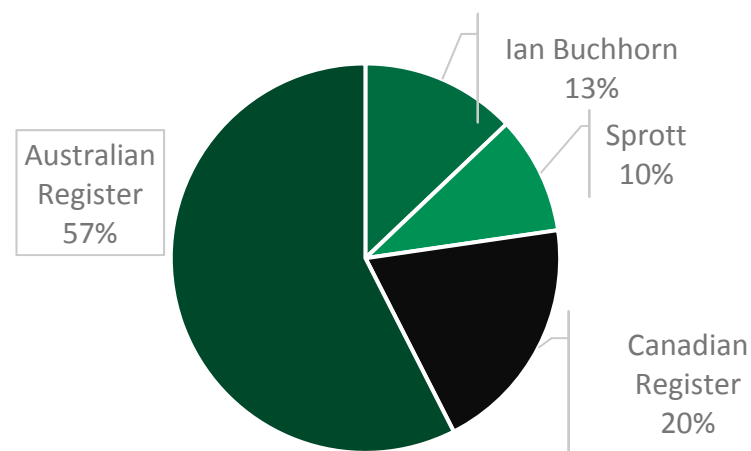
### Share Price



### Board & Management

Chairman	Stephen Dennis
Non-Executive Director	Borden Putnam III
Non-Executive Director	Fiona Robertson
Executive Director	Ian Buchhorn
Managing Director & CEO	Wayne Taylor
General Manager Exploration	Dave von Perger
General Manager Strategy	Charlie Kempson
CFO & Company Secretary	Simon Smith

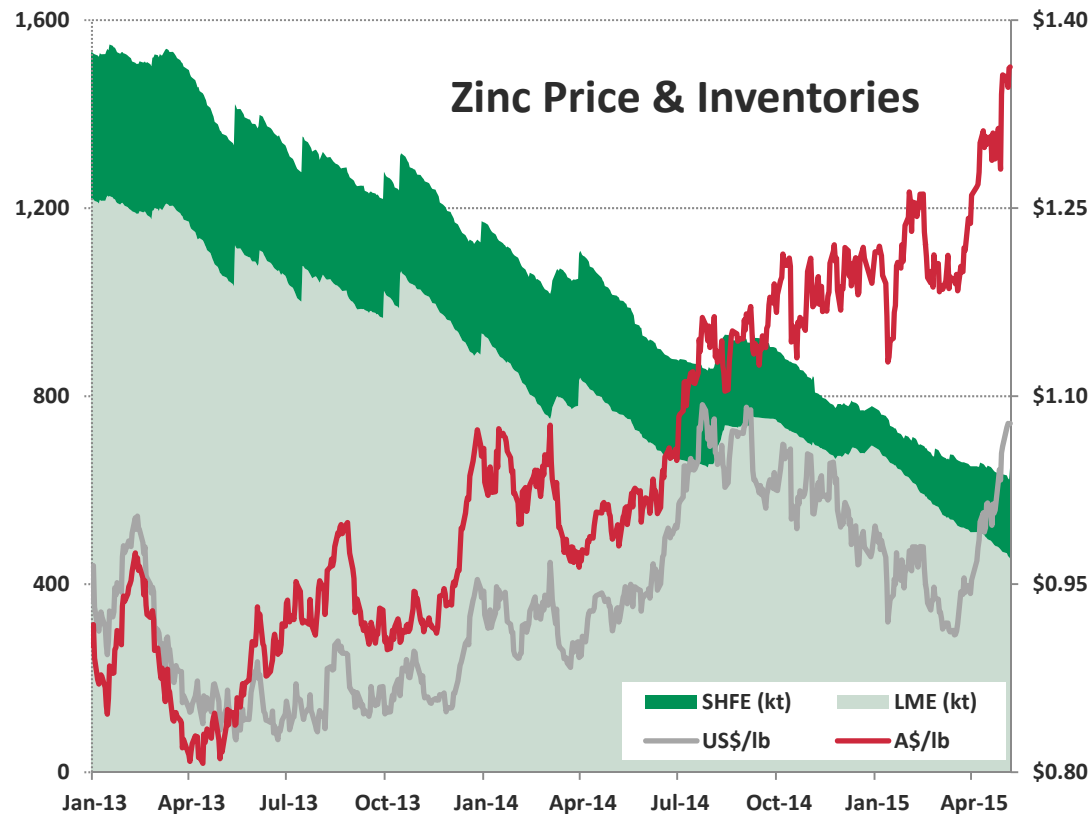
### Share Register





# Zinc Market

## A 'Fundamentals' Case



- Supply deficit exists now
- Inventory stocks are falling
- Significant mine closures in near term
- Demand continues to perform well (>50% galvanising)
- Still to incentivise new production
- Lack of quality projects
- Lead time to production for most projects is significant

**WE ARE ENTERING A PERIOD OF SUSTAINED ZINC PRICE STRENGTH**



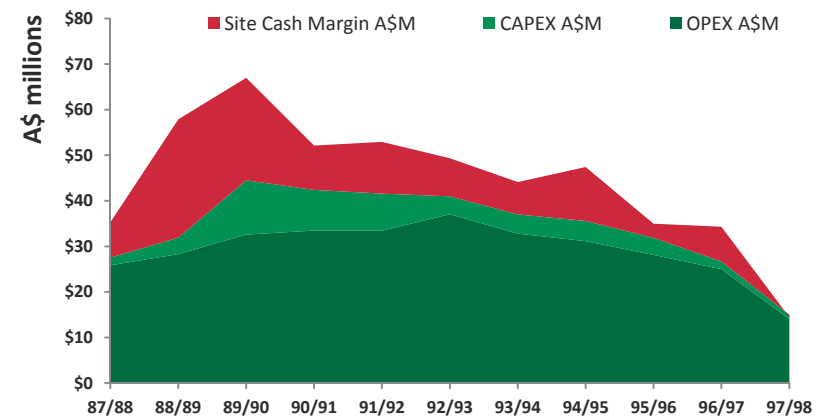
# Woodlawn

## Introducing a High Grade Deposit



- Discovered in 1970
- Operated from 1978 to 1998
- Processed 13.8Mt @ 9.1% Zn, 3.6% Pb, 1.6% Cu, 0.5g/t Au, 74g/t Ag
- Consistent performer – tonnes, grade, costs

### Strong Historic Cash Flows





# Woodlawn PEA Study Completed

## Preliminary Economic Assessment (PEA)



### PEA in 8 Months

(September 2014 to April 2015)

- **Drilling (7613m DD + 1201m RC) – multiple high grade intercepts**
  - 12.3m @ 20.0% Zn, 2.1% Cu, 6.1% Pb, 0.8g/t Au, 53g/t Ag
  - 14.4m @ 4.6% Zn, 4.6% Cu, 0.8% Pb, 1.0g/t Au, 57g/t Ag
  - 9.3m @ 6.4% Zn, 3.2% Cu, 2.8% Pb, 2.4g/t Au, 150g/t Ag
  - 4.2m @ 14.8% Zn, 2.2% Cu, 6.2% Pb, 0.7g/t Au, 37g/t Ag
  - 8.8m @ 12.6% Zn, 1.6% Cu, 7.5% Pb, 2.3g/t Au, 152g/t Ag
- **Significant New Shallow Resource**
- **New Mine Plan – Geotech, Mining Methods, Paste Fill**
- **Successful Metallurgical Test Work**
  - UG & Combined UG + Tailings
- **Process Design – Single Plant for WUP & WRP production**
- **Strong Business Case & Project Valuation**
  - Compelling Economics at Current Prices
  - Low Capital with Potential Staged Early Start
  - 11 Year Mine Life
  - Meaningful Zn/Cu/Pb Concentrate Production





# Woodlawn PEA

## Resources and Plant Feed Estimate



Type	Resource Category	Quantity (Mt)	Zn Eq. (%)	Zn (%)	Cu (%)	Pb (%)	Au (g/t)	Ag (g/t)
<b>Woodlawn Underground Project (WUP)</b>								
Polymetallic	Indicated	1.6	21	10.7	1.5	4.0	0.46	78
Polymetallic	Inferred	3.0	19	8.1	1.6	3.2	0.88	70
Copper	Indicated	0.8	10	1.0	2.8	0.3	0.07	16
Copper	Inferred	1.1	11	1.1	2.8	0.2	0.14	15
<b>Woodlawn Retreatment Project (WRP)</b>								
	Measured + Indicated	9.40	6.3	2.33	0.52	1.36	0.30	32
	Inferred	2.25	5.7	2.10	0.44	1.30	0.27	31

### Mineral Resource Estimate

WUP - Reported at a 7% ZnEq lower cut-off grade.  
WRP - Reported at a 0% ZnEq lower cut-off grade

Type	Resource Category	Quantity (Mt)	Zn Eq. (%)	Zn (%)	Cu (%)	Pb (%)	Au (g/t)	Ag (g/t)
<b>Woodlawn Underground Project (WUP)</b>								
Polymetallic	Indicated	1.0	16.1	7.9	1.3	2.9	0.32	54
Polymetallic	Inferred	2.1	15.5	6.6	1.4	2.6	0.78	59
Copper	Indicated	0.2	10.2	2.4	2.1	0.8	0.11	21
Copper	Inferred	0.5	9.1	1.1	2.4	0.3	0.05	10
<b>Woodlawn Retreatment Project (WRP)</b>								
	Measured + Indicated	9.4	6.3	2.3	0.5	1.4	0.30	32
	Inferred	1.8	4.4	1.7	0.4	1.1	0.15	26

### PEA Plant Feed Estimate

Tonnes and grades are reported post the application of mining dilution and mining recovery factors.

Notes to accompany Woodlawn PEA Plant Feed Estimate : 1) Please refer to ASX announcement relating to the PEA results which were released to the market on 22 April 2015 and is entitled "Preliminary Economic Assessment Delivers Strong Business Case for the Woodlawn Zinc-Copper Project"; 2) Zn Eq% refers to a calculated Zn equivalent grade, the formula for which is stated on page 2. Values are rounded to two significant numbers and some rounding related discrepancies may occur in the totals.



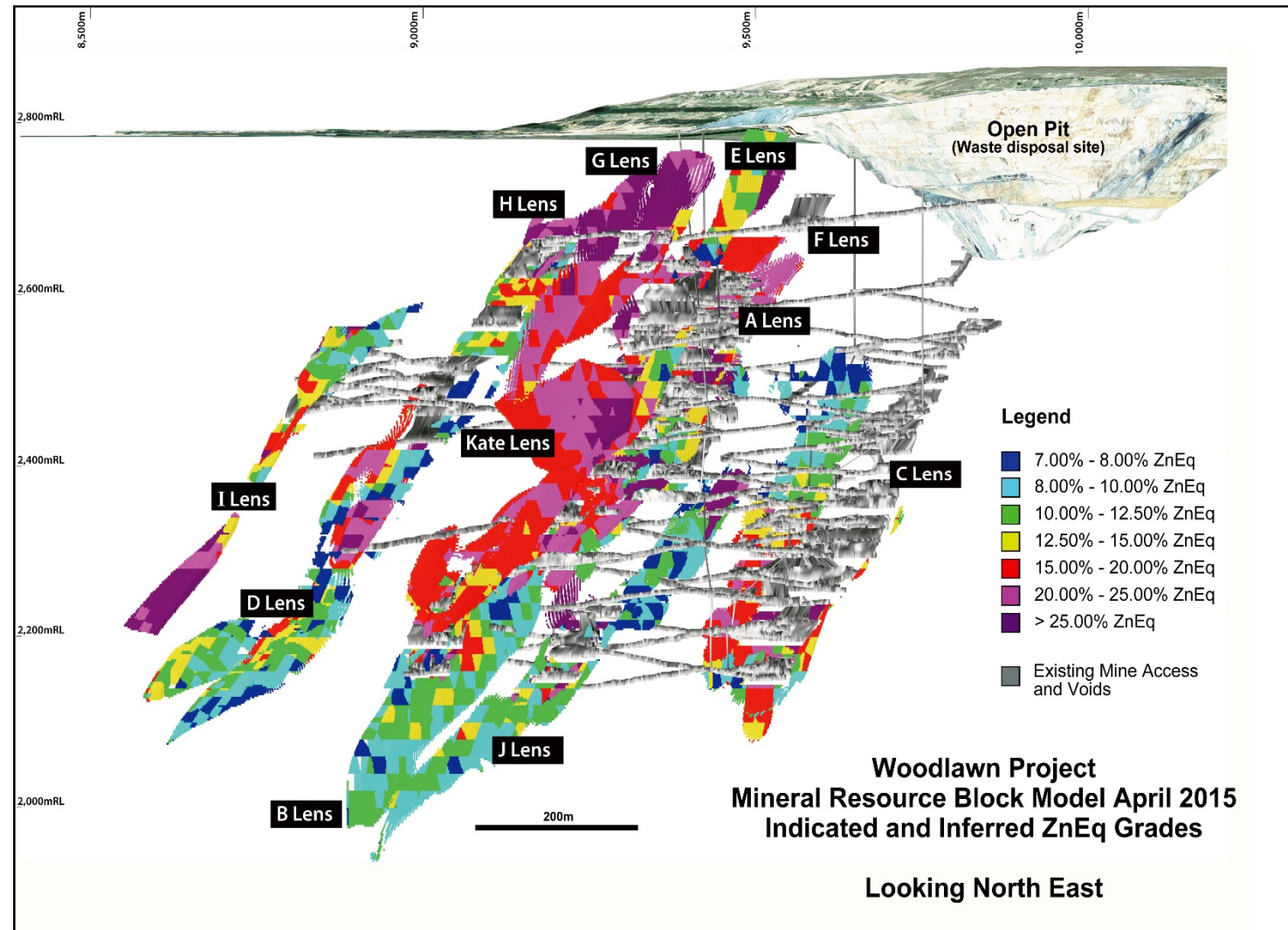
# Woodlawn PEA Resources

## WUP - Shallow / Low-Risk Positions



### PEA Results:

- Drilling focused on shallow positions for new resources
- New Kate Lens discovery added 0.5Mt @ 22% Zn eq.
- Added ~2.8Mt of new Inferred Resources
- Woodlawn Resources:
  - 36% Measured
  - 35% Indicated
  - 29% Inferred
- WUP
  - 32% Indicated
  - 68% Inferred



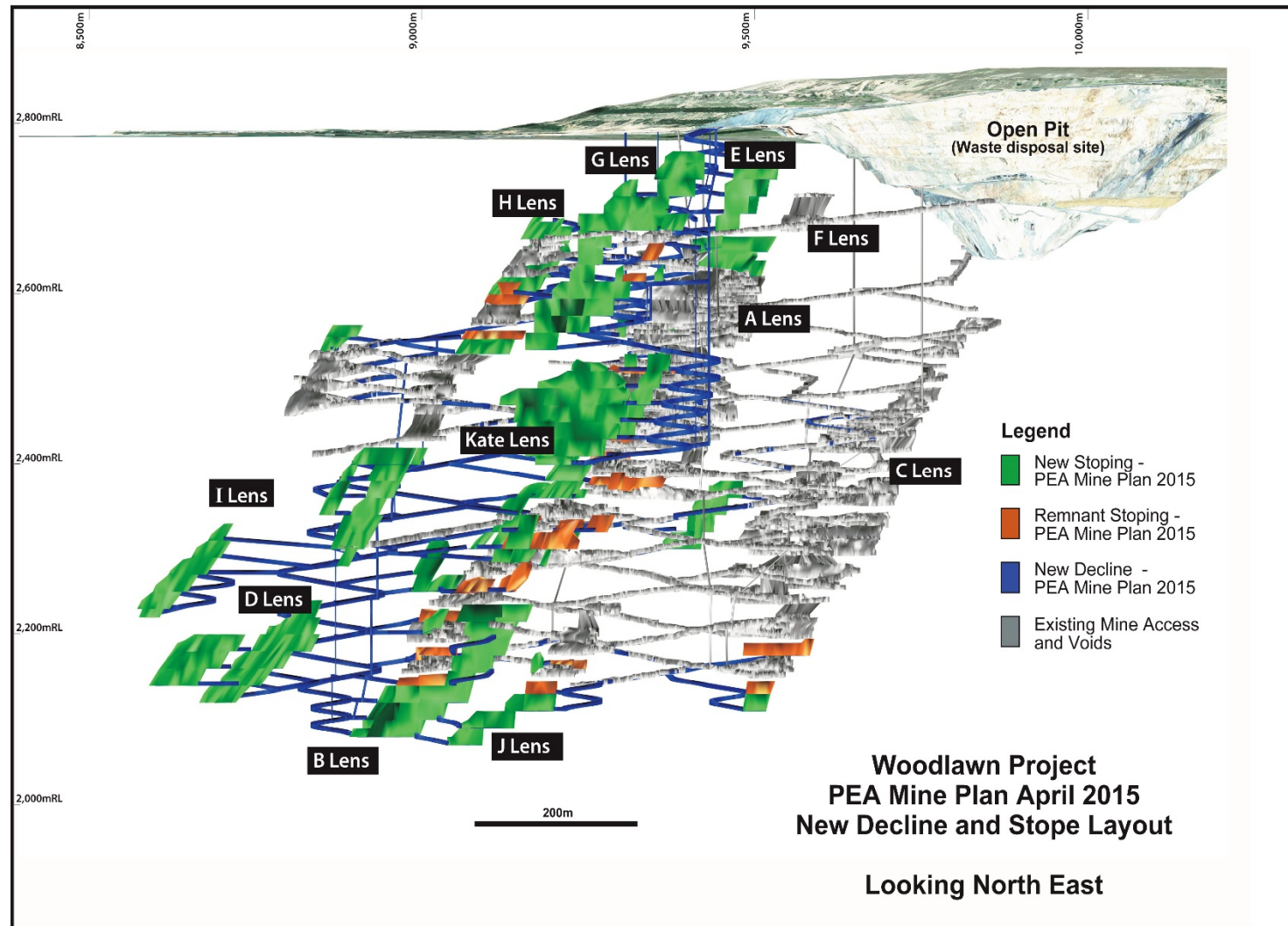


# PEA Underground Mining



## PEA Hit List:

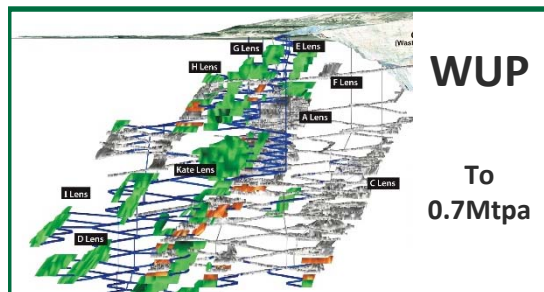
- Sufficient inventory to start underground operations “UG Starter Case”
- Combination of new and existing resources
- 80% of WUP plant feed estimate from new resources
- Mine depth extension limited to 80m
- WUP + WRP = 11 year mine life



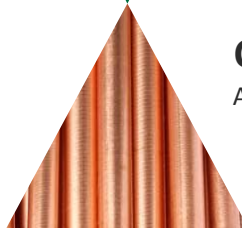


# Woodlawn PEA

## Annual Production Target



**Zn** metal in concentrate  
Annual Production Target  
**51Ktpa Zn**  
**(112Mlb)**



**Cu** metal in concentrate  
Annual Production Target  
**10Ktpa Cu**  
**(22Mlb)**  
+ Ag + Au



**Pb** metal in concentrate  
Annual Production Target  
**16Ktpa Pb**  
**(35Mlb)**  
+ Ag + Au



# Woodlawn PEA

## Project Costs



### Development Capital

	"Early Start" WRP (A\$m)	Additional WRP+WUP Components (Incremental A\$m)	Total (A\$m)
Mining Equipment & Infrastructure	1.8	6.6	8.4
Treatment Plant, Services & Infrastructure	71.6	30.8	102.4
Construction, Engineering & Owners	28.0	1.1	29.1
Total to Peak Cash Draw	101.4	38.6	140.0

### Operating Costs

	Unit (A\$)	Cost (A\$/t)
WRP – Tailings Mining	\$/t mined	1.67 - 2.14
WUP – Underground Mining	\$/t mined	48.60 - 65.20
WRP+WUP – Processing	\$/t processed	23.42
WRP+WUP - Administration	\$/t processed	2.83
Offsite Logistics & Treatment Charges*	\$/t processed	30.70

\* Average costs for life of mine



# Woodlawn PEA

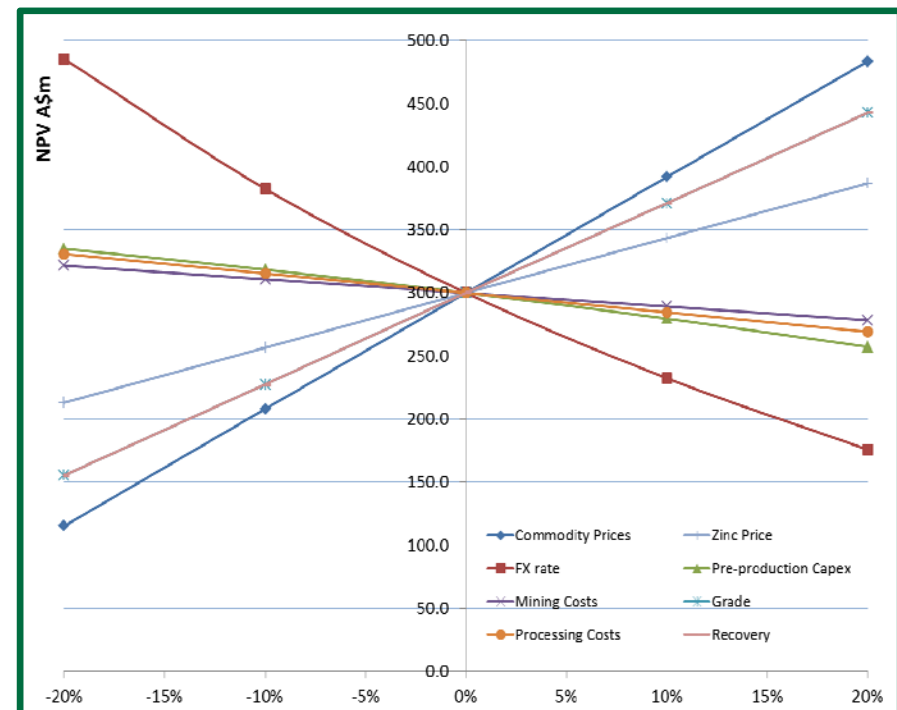
## Summary Economics



### PEA Delivers A Strong Business Case

Post-tax NPV <sub>8.3</sub> *	A\$300 million
Post-tax IRR	46%
Initial Capital	A\$140M / US\$112M
Payback Period	2 years from commissioning
Mine life	11 years
Post-tax Cash Flow	A\$594M
C1 Cash Cost	US\$(0.01)/lb Zn
C3 Total Cost	US\$0.44/lb Zn

\*Results reported using an 8.3% post tax real discount rate (approx. 10% post-tax nominal), with AUD/USD FX trending from 0.80 to 0.73 by 2021, and with flat real commodity prices of US\$1.09/lb Zn, US\$0.95/lb Pb, US\$3.00/lb Cu, US\$18.5/oz Ag and US\$1,200/oz Au.





# Woodlawn Advantages

Fully Permitted ♦ People ♦ Sealed Roads ♦ Water ♦ Power ♦ Ports



COMMUNITY



POWER



WATER



PERMITTING



ACCESS



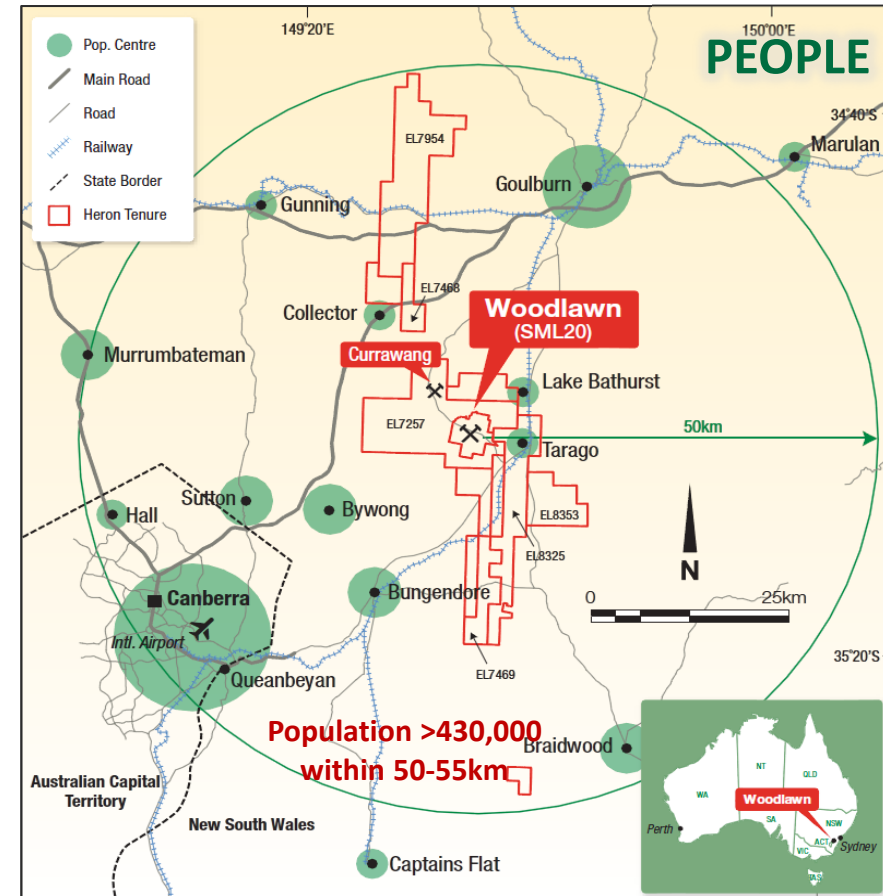
PORT



LABOUR



MINING LEASE





# Environment & Community

## Community Supportive & Engaged ♦ Management Plans Drafted



- Extensive stakeholder consultation through project approval process
- Strong community & government support
- Single immediate landowner - Veolia
- Agreements in place to purchase land over operational footprint
- Site collaboration - Provision of no-cost rehabilitation medium for final landforms

**State Government Project Approval**

**4 July 2013**

**Mining Lease – SML20**

**Renewed for 15 Years (Feb 2015)**

Advanced Management Plans – positioned to commence development



Loaded Dog Hotel, Tarago



Woodlawn – Tailings Dam South



# Forward Programme

Feasibility Study ♦ Goal is Early Production



## PEA

12  
months

- Commenced **Feasibility Study**
- Assessment of “Early Start” funding opportunities
- Continue testing priority near-mine exploration targets

18  
months

- Decision to mine
- Project funding
- Construction & commissioning



## Production

(into a supply deficit Zn market)



# In Mine & Near Mine Exploration Potential

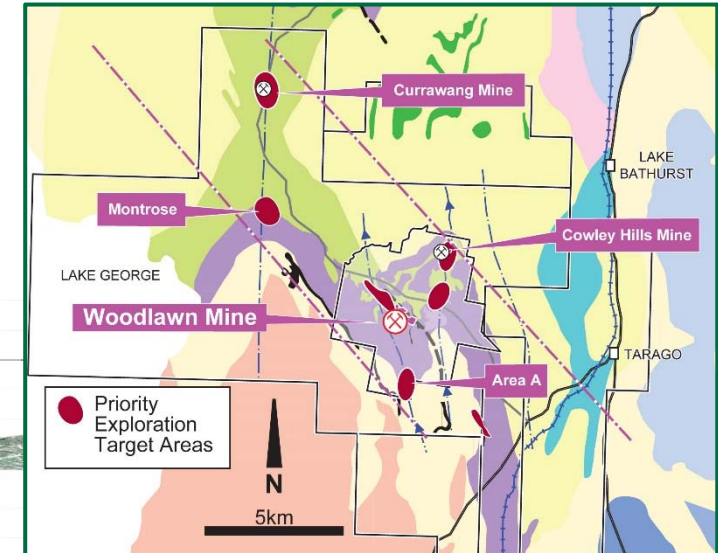
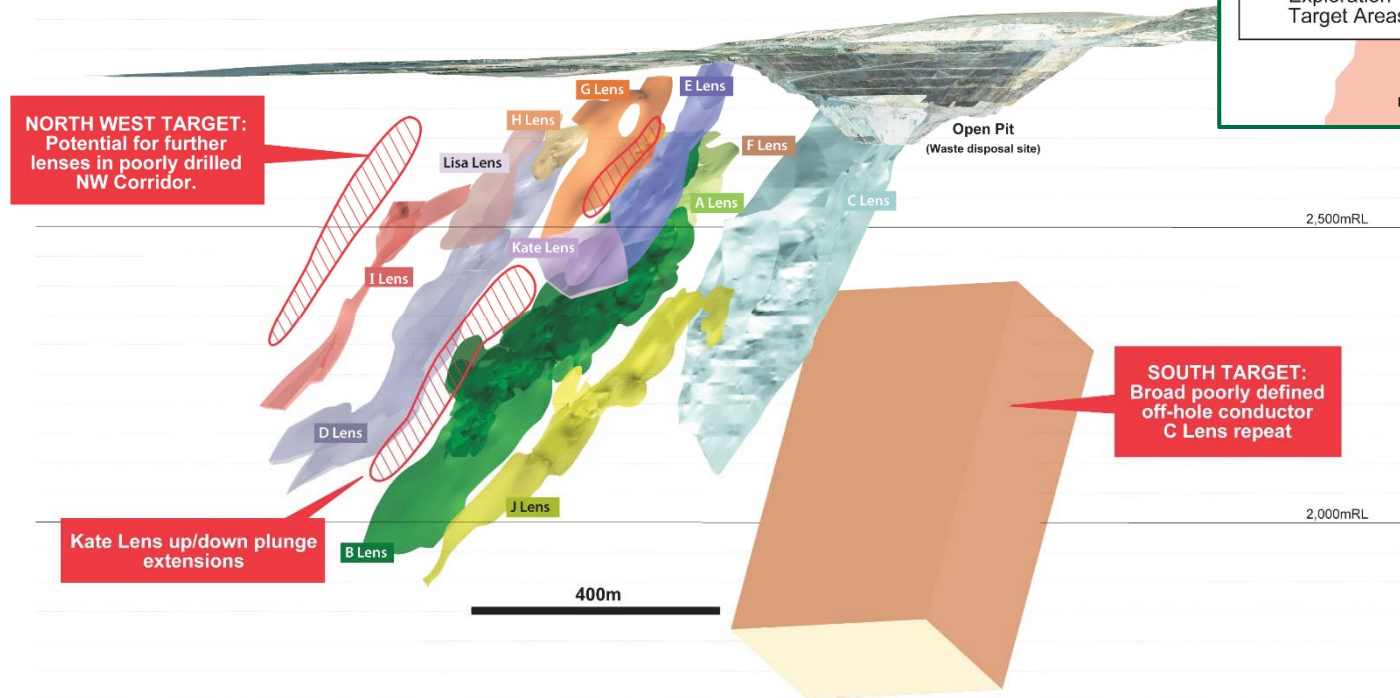
Multiple Targets ♦ Historic Production ♦ Modern EM Applied



## Feasibility Study Drilling Program:-

- 19,000 diamond drill metres
- Resource upgrade
- Lens extensions
- New Lens discovery

Woodlawn Cross Section  
Looking North  
2015 SHALLOW TARGET AREAS



Testing high priority regional targets:-

- Currawang (historical prod.)
- Cowley Hills (historical prod.)



# Heron Resources

## Key Point Summary & Investment Proposition



- ✓ Zinc – strong and transparent market
- ✓ High grade / low risk / long life asset
- ✓ PEA – finalised & delivered compelling development case
- ✓ Feasibility Study and next drill program underway
- ✓ Short lead time to production with additional early start potential
- ✓ Demonstrated discovery upside
- ✓ Favourable jurisdiction supported by excellent infrastructure
- ✓ Well capitalised and fully funded to Feasibility Study

**ASX : HRR**

**TSX : HER**



# Directory

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[heron@heronresources.com.au](mailto:heron@heronresources.com.au)

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Ian Buchhorn (Executive Director)  
David von Perger (GM Exploration)  
Charlie Kempson (GM Strategy / BD)  
Simon Smith (Chief Financial Officer)





# Appendices

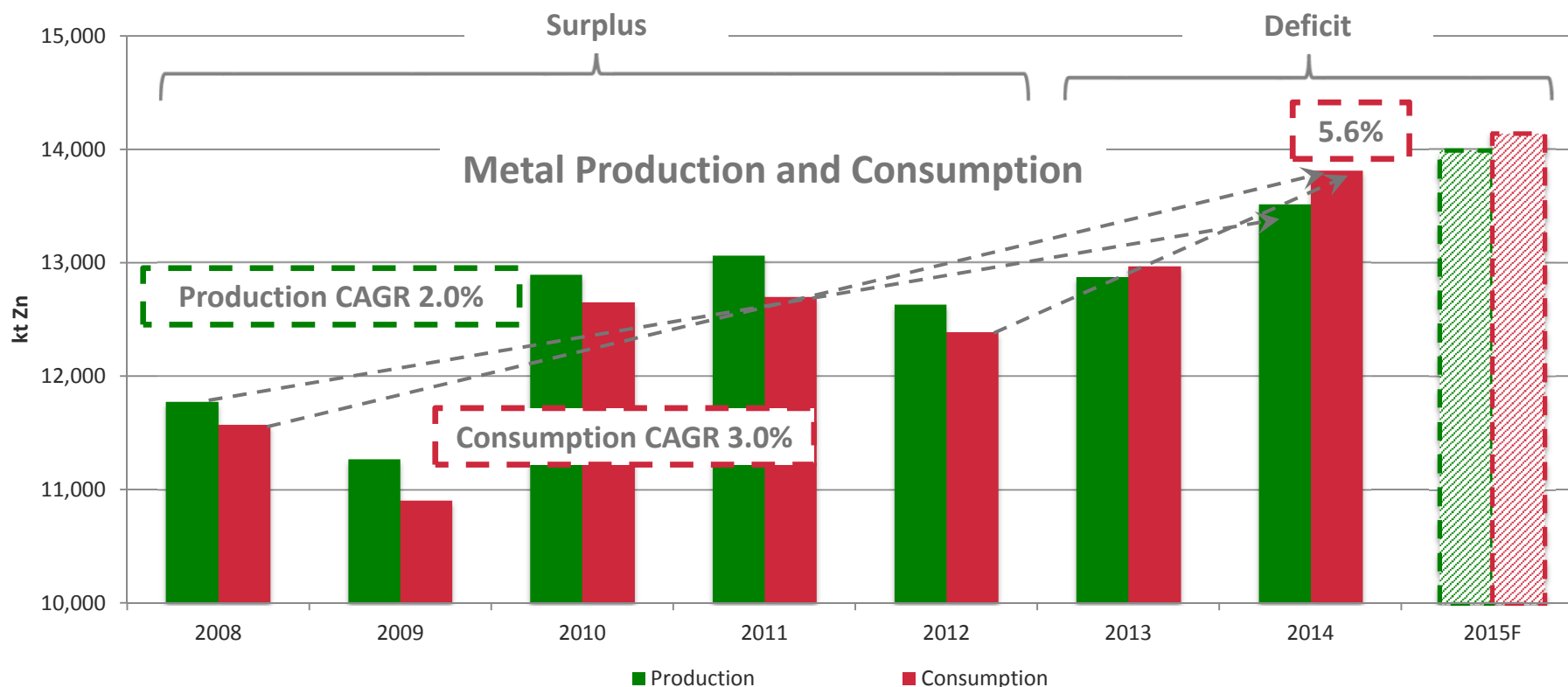




# Zinc Market Statistics



- The consumption CAGR<sub>2008-14</sub> [3.0%] is higher than the production CAGR<sub>2008-14</sub> [2.0%] and has increased significantly over the last few years: CAGR<sub>2012-14</sub> [5.6%] is more than twice faster than the production increase over the same period
- A consumption CAGR of 3.0% translates into incremental metal demand of 550 kt of zinc per year
- For 2015, ILZSG forecasts mine production to increase by 3.5%, while consumption should increase by 2.4%. Nevertheless, this should result in another deficit in the order of 150 kt



CAGR – Compound Annual Growth Rate

Source: ILZSG, Terra Studio

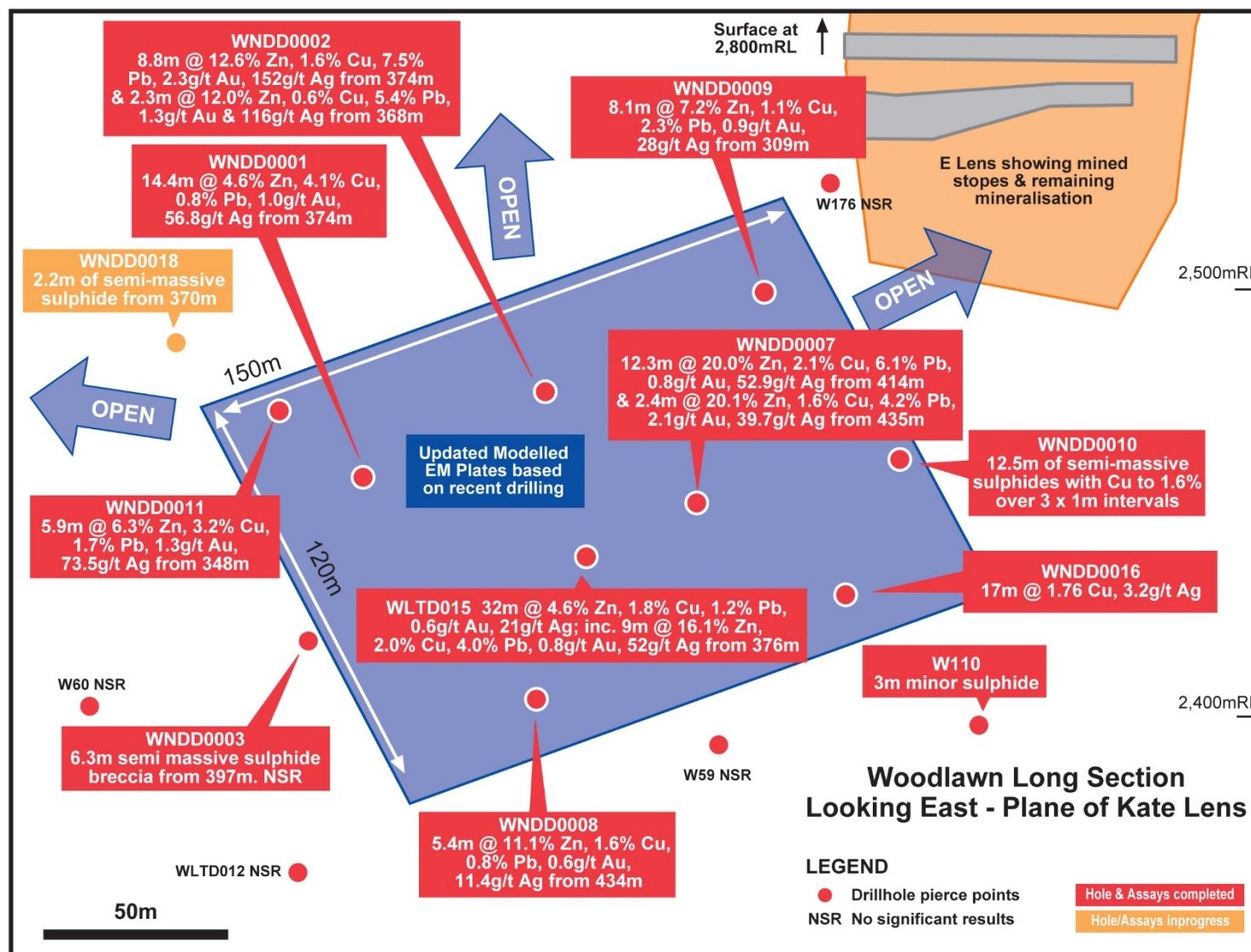


# Kate Lens – A Major Success Story

10 Holes ♦ Significant Tonnes into PEA

## PEA Hit List:

- 10 diamond holes during PEA
- DHEM plate confirmed
- Grades typical Woodlawn (Zn-Pb-Cu)
- Shallow and near existing drive (90m)
- Contributes to PEA mining inventory
- Still open for expansion





# G Lens – Exceeding Expectations

## 9 Holes ♦ Significant Tonnes into PEA

### PEA Hit List:

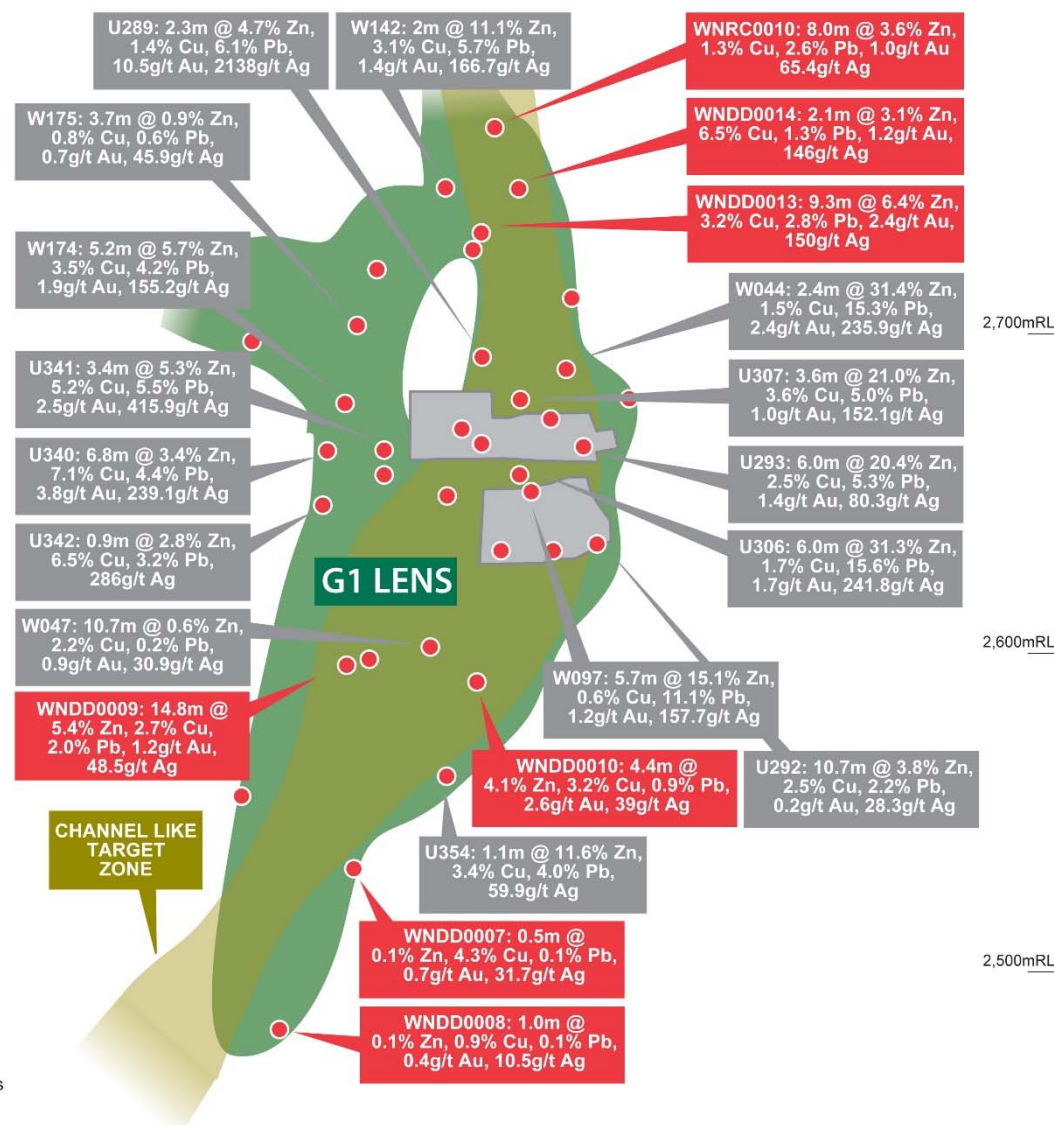
- 7 diamond and 2 RC intersections during PEA
- New geological model confirmed
- Grades typical Woodlawn (Zn-Pb-Cu)
- Shallow and near existing drives
- Contributes to PEA mining inventory
- Noted for spectacular Zn/Cu/Pb/Au/Ag grades
- Still open for expansion

Woodlawn  
Long Section  
Looking East  
Plane of G  
Lens

#### LEGEND

- Drillhole pierce points
- Stopped areas
- Selected Pre-2014 intercepts
- Selected Recent drilling intercepts

50m



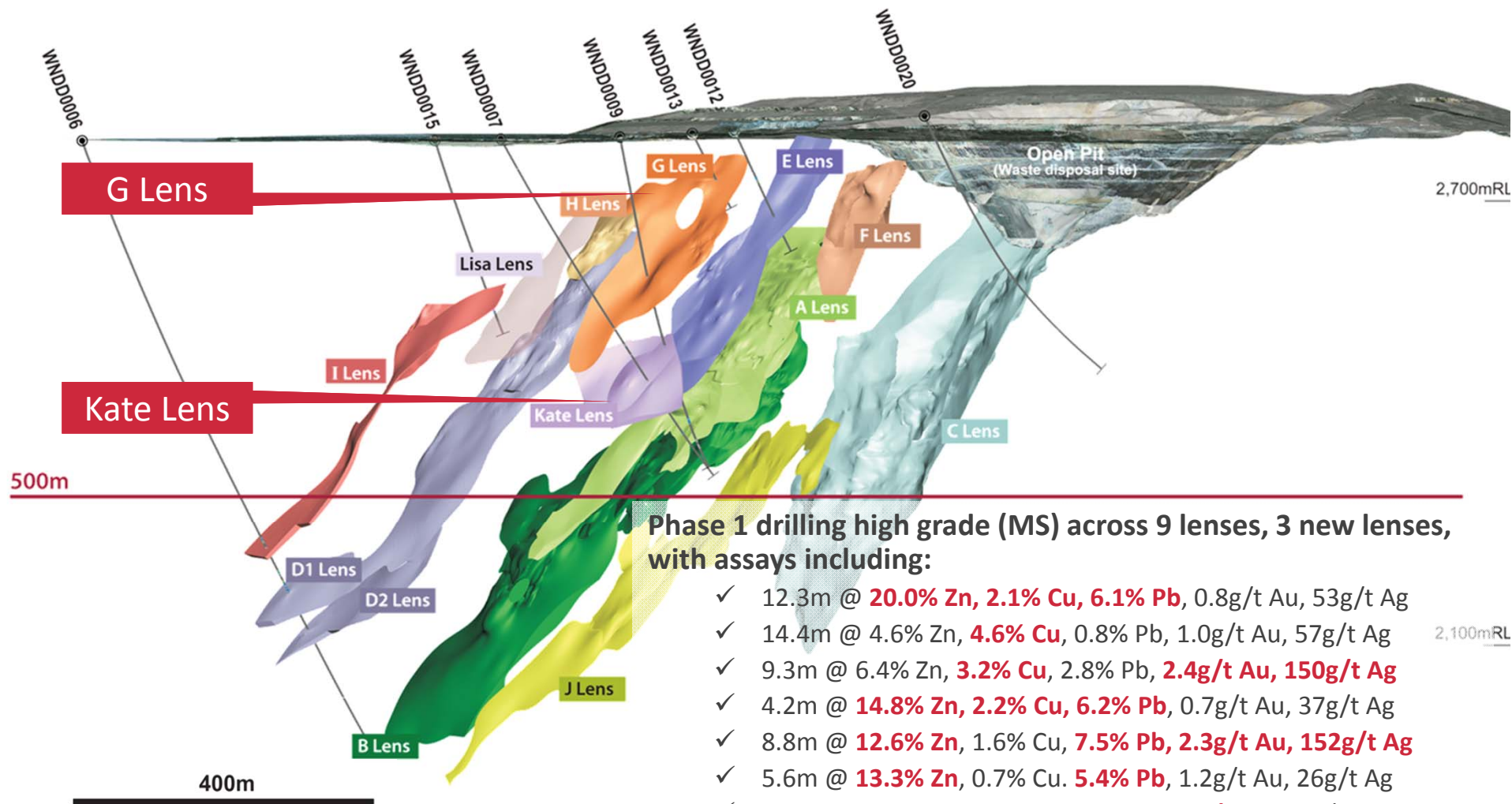


# Woodlawn Drilling

Confirms Potential ♦ New Lenses ♦ High Grade Intersections



Exploration success in shallow positions



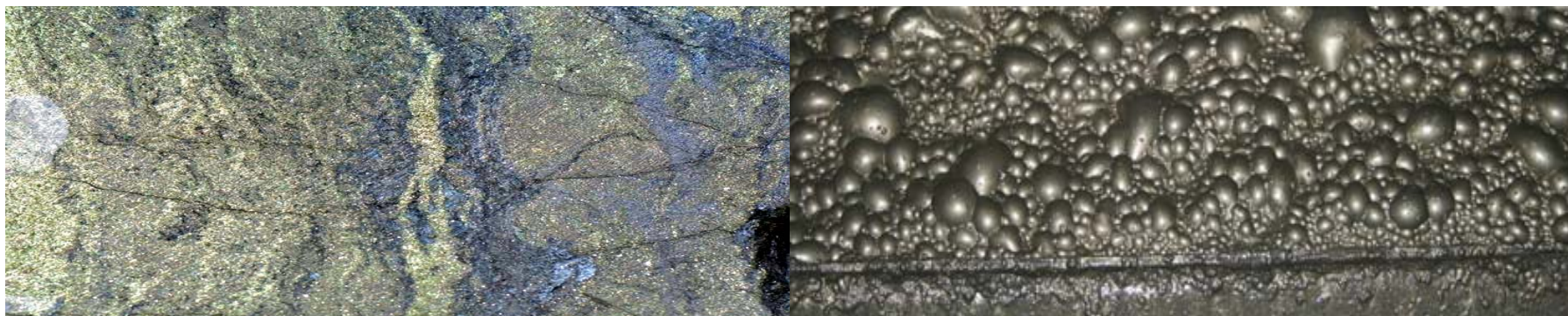


# Metallurgical Testwork Successful

Exceeding Historic Performance ♦ Co-treatment Option Confirmed



- PEA - first independent testwork undertaken on the WUP since mine closure in 1998
- Extensive historic dataset for tailings flotation providing the basis for design framework



## Testwork Confirmation

Results reflect advancements in flotation / fine grinding

Zinc-Copper (Zn-Cu-Pb-Au-Ag)	<ul style="list-style-type: none"><li>✓ Higher recovery to higher grade concentrates</li><li>✓ Produces readily saleable <b>zinc</b>, and high precious metals <b>copper</b> and <b>lead</b> concentrates</li></ul>
Copper (Cu-Ag)	<ul style="list-style-type: none"><li>✓ Little historical data on separation flotation performance</li><li>✓ Good recovery to high grade concentrate</li></ul>
Tailings + Zinc-Copper	<ul style="list-style-type: none"><li>✓ Combined tailings and zinc-copper samples produce readily saleable <b>zinc</b> and high precious metals <b>copper</b> and <b>lead</b> concentrates</li><li>✓ No loss in recoveries versus separate treatment performance</li><li>✓ <b>Confirmed co-treatment</b></li></ul>

Refer to TSX/ASX release: Woodlawn Zinc Copper Project – Successful Metallurgical Test Work, 11 February 2015.