

# HERON RESOURCES LIMITED AN AUSTRALIAN ZINC PRODUCER

EUROZ ROTTNEST ISLAND CONFERENCE 13 March 2019





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#### Compliance Statement (JORC 2012)

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). Mr von Perger has reviewed and approved the technical information this presentation.

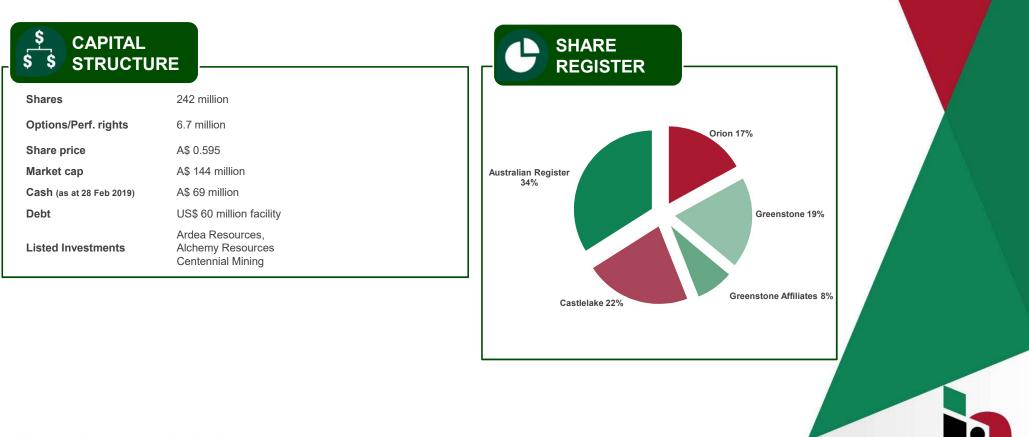
An Exploration Target is term used within the JORC 2012 Code for an estimate of the exploration potential of a mineral deposit, however the potential quantity and grade is conceptual in nature and there is insufficient information to estimate a Mineral Resource and it remains uncertain if further exploration will result in the estimation of a Mineral Resource.

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 Au, Ag, Cu, Pb and Zn. ZnEq = Zn%+Cu%\*3.12+Pb%\*0.81+\*Au g/t\*0.86+Ag 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. These metal prices are based on Heron's long term view on average metal prices. It is Heron's view that all the metals within this formula are expected to be recovered and sold. Metallurgical metal recoveries used for the formula are: 88% Zn, 70% Pb, 70% Cu, 33% Au and 82% Ag; these are based on historical recoveries at Woodlawn and supported by metallurgical test work undertaken during the 2015-16 feasibility study.

March 13, 2019

### HERON RESOURCES OVERVIEW

Company snapshot



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# HERON RESOURCES TEAM

Experienced Board & Management team



Stephen Dennis Chairman (Non-Executive)

Wayne Taylor Managing Director & CEO



Mark Sawyer Director (Non-Executive)



BOARD



Borden Putnam III Director (Non-Executive)



Peter Rozenauers Director (Non-Executive)

Ricardo De Armas

Director (Non-Executive)



Fiona Robertson Director (Non-Executive)



lan Pattison Director (Non-Executive)



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MANAGEM

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Brian Hearne General Manager, Woodlawn Mine

General Manager, Exploration & Geology

Andrew Lawry

Simon Smith

David von Perger

Charlie Kempson

Chief Operating Officer





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### HERON RESOURCES INVESTMENT PROPOSITION

Production and first shipment of concentrate

### FOCUS

- 100% Woodlawn
- Imminent producer
- Growth through strong regional position and exploration strategy

### ASSET - WOODLAWN PROJECT

- High quality deposit
- Favourable jurisdiction and exceptional infrastructure
- Two production sources (underground and tailings) reduced risk, operational flexibility and low cost
- Longevity through resource conversion & discovery

### HERON RESOURCES LTD

- Experienced Board & Management team
- AU\$69 million cash
- Three supportive cornerstone
   investors
- Offtake agreements in place

### - BASE METALS

- Exposure to commodities with positive supply / demand fundamentals
- Global inventories remain at low levels
- Woodlawn production timed to meet tight physical market



### **ASSET** WOODLAWN ZINC-COPPER PROJECT

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Key Project Physicals – 2016 Feasibility Study

1.5Mtpa Production Rate
9.3 year LOM (Reserves only)

Significant potential for upside

Reserves

Underground 2.8Mt @ 14% ZnEq<sup>1</sup>
Reprocessing 9.5Mt @ 6% ZnEq<sup>1</sup>

Steady State Gross Production

40ktpa Zn (88Mlbs)
10ktpa Cu (20Mlbs)
12ktpa Pb (15Mlbs)
+Ag/+Au

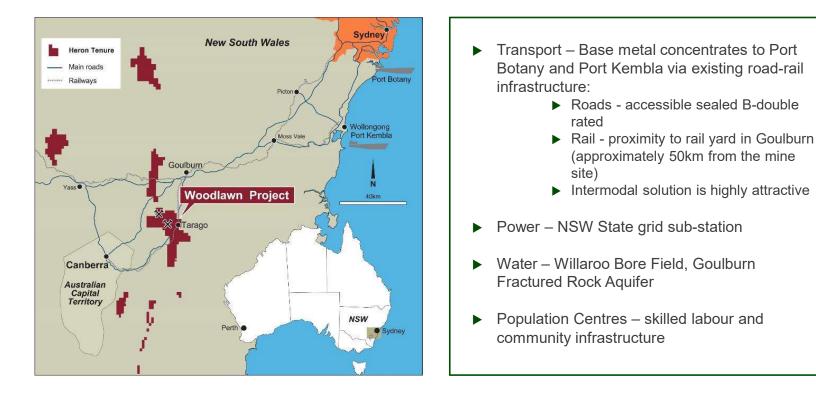
<sup>1.</sup> Refer to slide 3 for ZnEq definition and slides 26-27 for Reserves table

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Sydney Woodlawn Canberra March 13, 2019

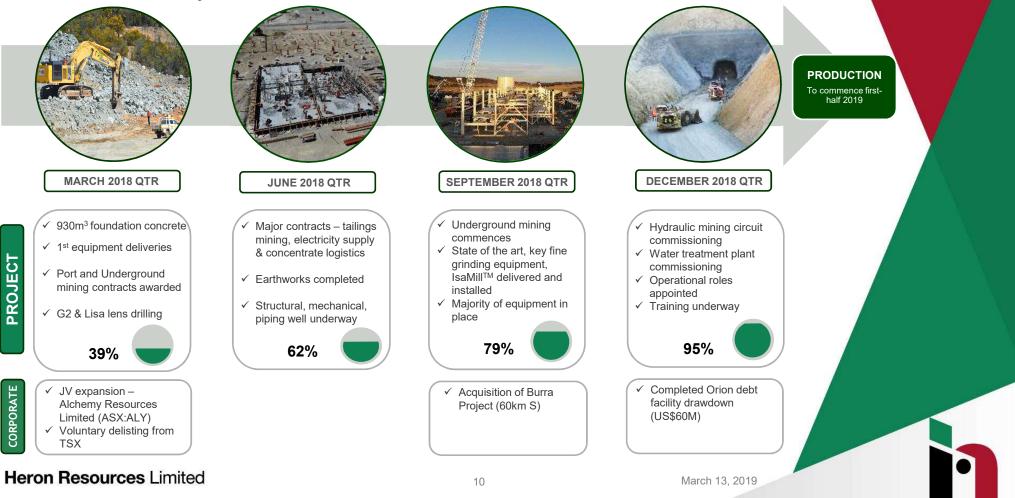
# WOODLAWN ZINC-COPPER PROJECT

*Premier location in favorable jurisdiction with existing infrastructure – cost effective solutions* 



### **HERON** PATH TO PRODUCTION

The focused delivery of Woodlawn



## FOCUS WOODLAWN OPERATIONAL READINESS

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Heron Resource

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Production and first shipment of concentrate

- Operational and commissioning personnel in place
- First fills and maintenance spares sourced
- Operational and support mobile plant on site
- Hydraulic mining in advanced commissioning
- Underground mining in steady state development cycle
- Process plant commissioning underway
- Concentrate containers stored in Goulburn



# FOCUS HYDRO MINING

- Hydraulic mining circuit commissioning commenced during the December quarter
- ► Final hand-over of the plant is expected to occur in the first quarter 2019
- Ramp-up continues under the guidance of Paragon Tailings - commissioning and operator training scope
- Clinical removal of tailings from base of dam
- ► Training area to set-up first production slot
- Removal of a thin low-grade cap on Tailing Dam South has commenced – expected to improve the processing performance and recoveries



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# **FOCUS** UNDERGROUND MINING

- Underground operation commenced September 2018 quarter
- ▶ Increasing monthly advance rates 913m to date
- G2 lens is the first ore source
- Primary ventilation raise from surface underway

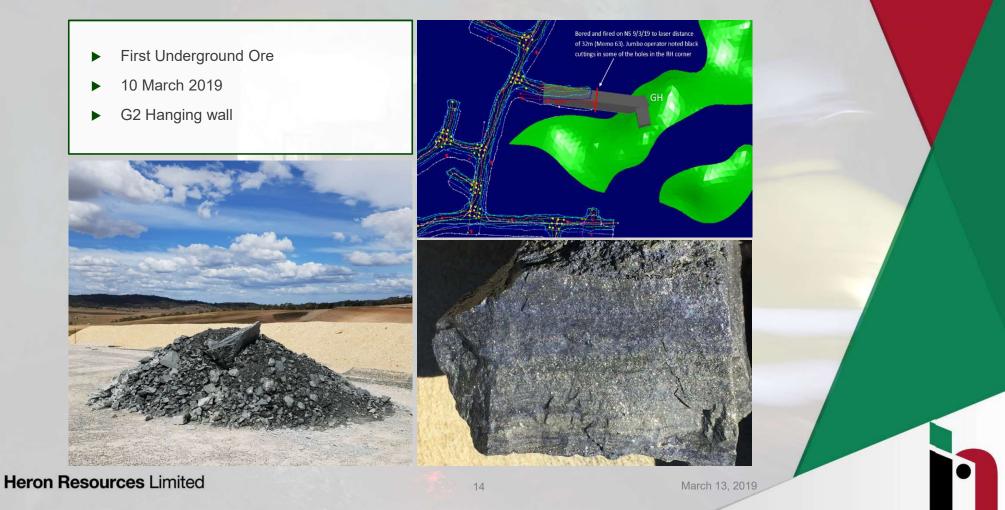


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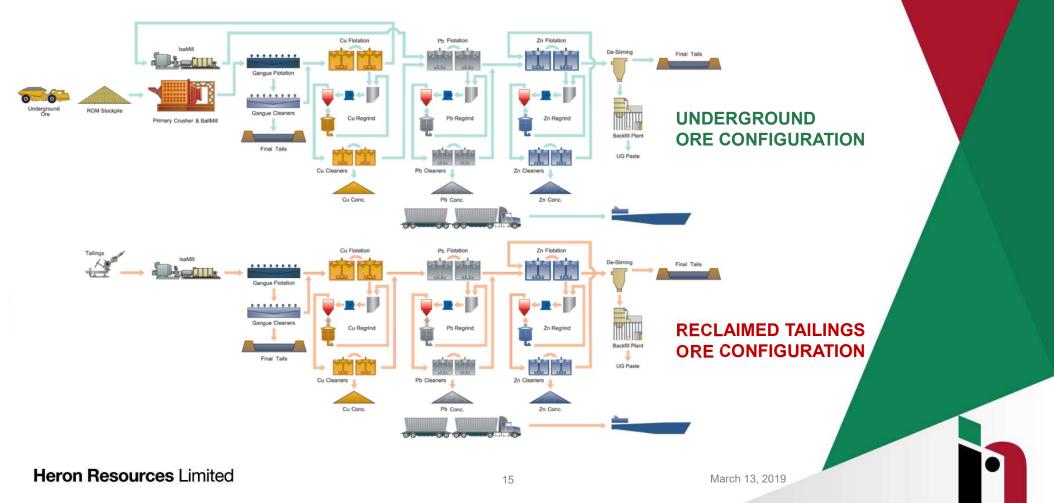
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# **FOCUS** UNDERGOUND MINING



### FOCUS PROCESS PLANT

Two ore sources (underground and tailings) reduce risk and increase operational flexibility.



# **FOCUS** PROCESS PLANT

- ► Ramping down construction crews
- Plant on mains power
- ► Wet commissioning underway
- Specialist vendors onsite assisting with their equipment
- ► Water Treatment Plant commissioning well advanced

COMMISSIONING

63%

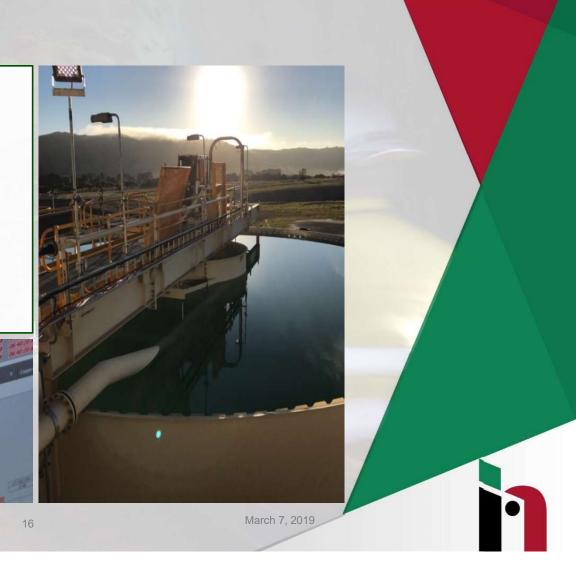
OVERALL PROJECT

**98**%

loodlawn Mine

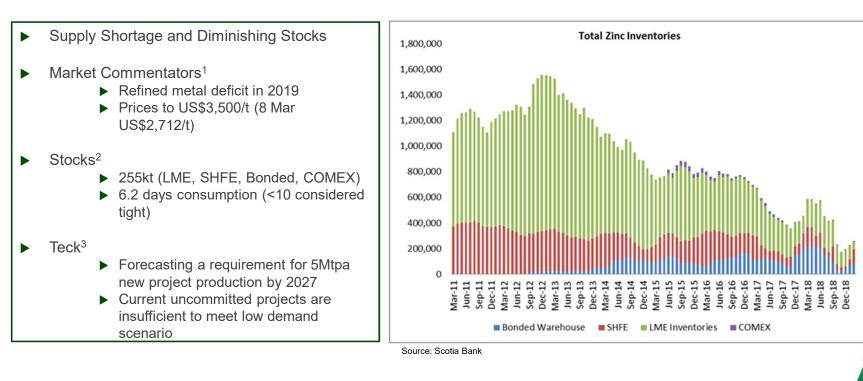






### MARKET ZINC FUNDAMENTALS

Current prices remain above both feasibility study and financing case levels.



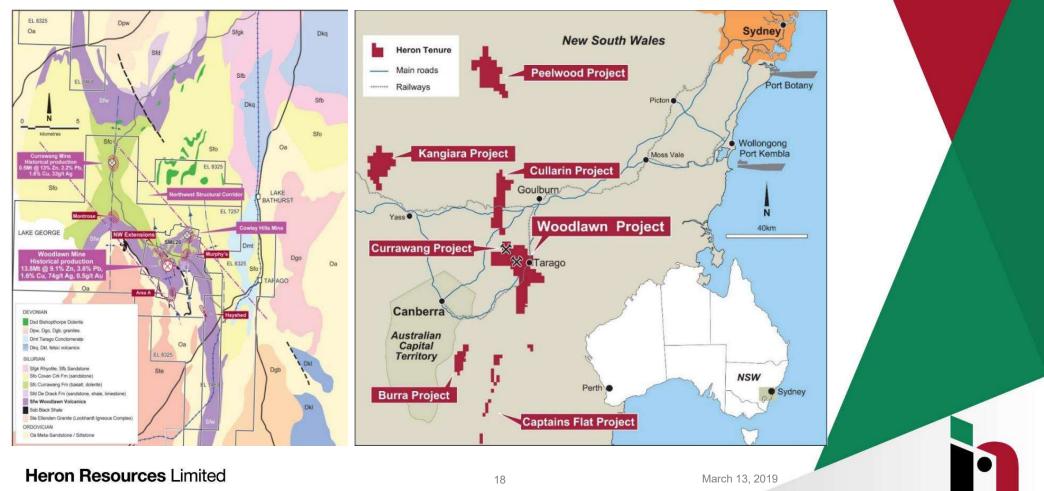
1. Reuters, 5 March 2019. Shortages, shrinking stocks to energize zinc bulls.

- 2. The Daily Mining Scoop, Scotia Bank 8 March 2019.
- 3. Teck BMO presentation 25 February 2019

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### **FOCUS** EXPLORATION STRATEGY

Targeted additions to the mine plan with immediate value-add



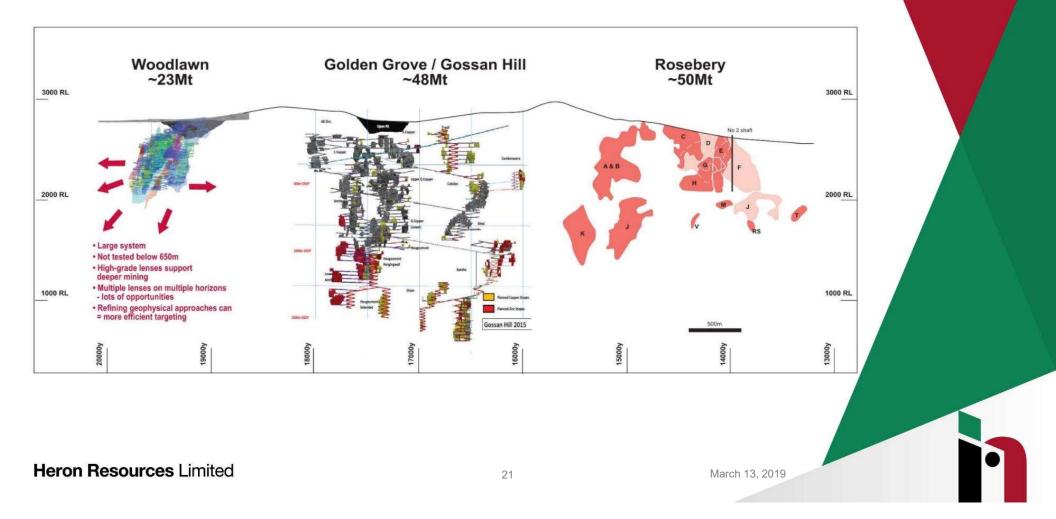


# POLYMETALLIC ORE Layered sphalerite, galena, chalcopyrite with pyrite

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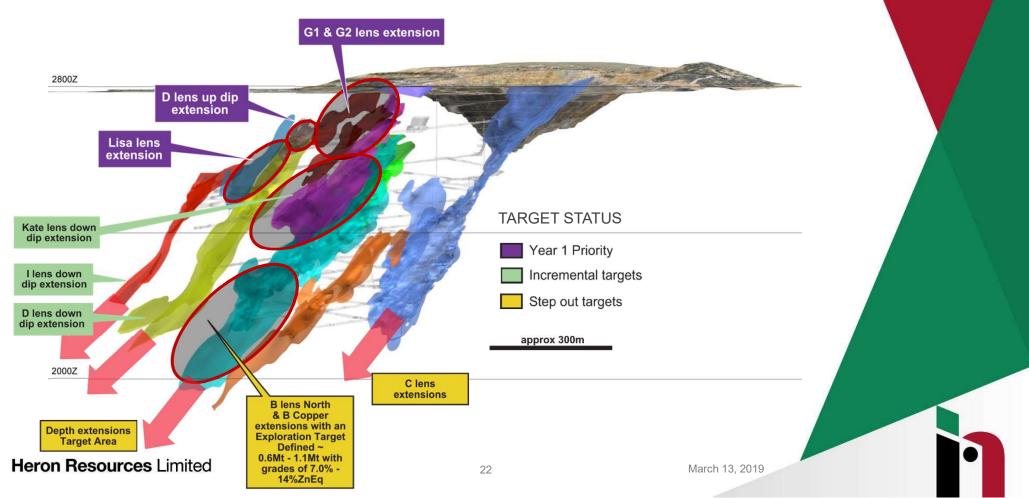
### **GROWTH** WOODLAWN IN-MINE EXPLORATION

Limited Testing – Comparison with more extensively tested Australian VMS deposits.



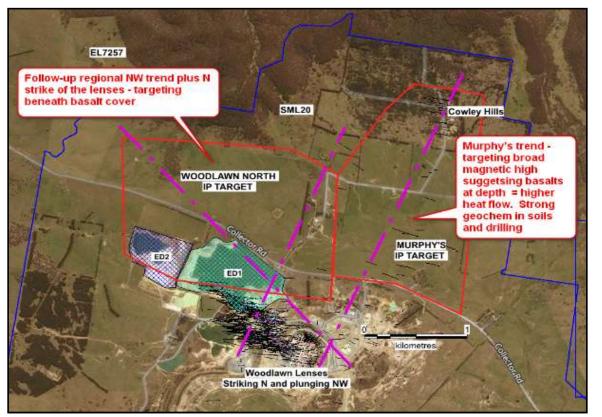
# **GROWTH** WOODLAWN IN-MINE EXPLORATION

*Targeted additions to the mine plan with immediate value-add – significant untapped potential remains 'in-mine'* 



### **GROWTH** WOODLAWN REGIONAL POTENTIAL

Modern Deep IP Survey Planned for north of Woodlawn

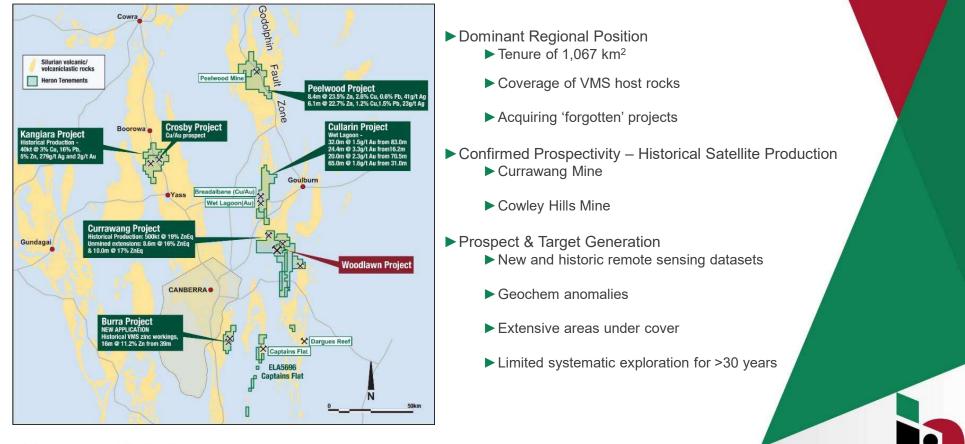


- Seeking a Woodlawn repeat beneath mafic (basalt/dolerite) cover sequences
- Ability to map broad scale alteration to 300-400m depth
- Evidence of mineralisation (surface geochem and historical drilling) extending to Cowley Hills deposit
- On existing Mining lease (blue line)
- One landowner (Veolia) no access issues or impediments
- Commenced March 2019

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# **GROWTH** WOODLAWN REGIONAL POTENTIAL

Growth potential across a number of Heron tenements in high quality VMS district



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### HERON RESOURCES ASX:HRR

Contact Us



SUITE 702/191 CLARENCE STREET SYDNEY NSW 2000



+61 2 9119 8111



WWW.HERONRESOURCES.COM



HERON@HERONRESOURCES.COM.AU

@HERON\_RESOURCES

# **UNDERGROUND** – MINERAL RESOURCES AND ORE RESERVES

#### Woodlawn Total Underground Mineral Resource 2017 (ASX Release 13 Nov 2017) (7% ZnEq cog for Polymetallic and 1% Cu cog for Copper)

#### Indicated + Measured Mineral Resource

All Lenses	Polymetallic	Ind+Mea	2.7	21.6	10.9	1.5	4.0	0.7	79
All Lenses	Copper	Ind+Mea	1.9	9.7	0.7	2.6	0.1	0.2	14
Total	Combined	Ind+Mea	4.6	16.7	6.7	1.9	2.4	0.5	52

#### Inferred Mineral Resource

			Tonnes Mt	ZnEq %	Zn %	Cu %	Pb %	Au g/t	Ag g/t
All Lenses	Polymetallic	Inf	1.9	16.9	7.3	1.5	3.0	0.8	61
All Lenses	Copper	Inf	0.7	9.2	0.7	2.5	0.1	0.2	12
Total	Combined	Inf	2.6	14.9	5.6	1.8	2.2	0.6	48

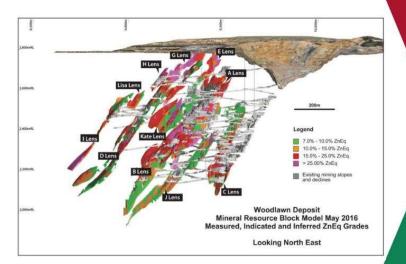
#### **Total Mineral Resource**

			Tonnes Mt	ZnEq %	Zn %	Cu %	Pb %	Au g/t	Ag g/t
All Lenses	Polymetallic	Ind+Mea+Inf	4.6	19.7	9.4	1.5	3.6	0.7	71.6
All Lenses	Copper	Ind+Mea+Inf	2.6	9.6	0.7	2.6	0.1	0.2	13.5
Total	Combined	Ind+Mea+Inf	7.2	16.0	6.3	1.9	2.3	0.5	50.6

#### Woodlawn Underground Mineral Reserve Estimate 2016

Туре	Reserve Category	Quantity (Mt)	ZnEq(%)	Zn(%)	Cu(%)	Pb(%)	Au(g/t)	Ag(g/t)
Polymetallic	Proven	0						
Polymetallic	Probable	1.8	16	8.1	1.2	2.9	0.56	57
Copper	Proven	0						
Copper	Probable	0.96	8.8	0.61	2.4	0.13	0.23	14
Total	Probable	2.8	14	5.5	1.6	1.9	0.45	42

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# TAILINGS – MINERAL RESOURCES AND ORE RESERVES

#### Mineral Resource Estimate - Woodlawn Retreatment Project (2016)

				Gra	des		
Resource Category	Quantity (Mt)	ZnEq (%)	Zn	Cu	Pb (%)	Au (g/t)	Ag (g/t)
			(%)	(%)			
Measure	d + Indicated I	Mineral Resour	ces				
North Dam	2.7	6.0	2.40	0.42	1.30	0.27	34
South Dam	3.3	6.0	2.50	0.46	1.20	0.25	27
West Dam	3.8	6.5	2.0	0.62	1.40	0.40	35
Total Mea+ Ind	9.8	6.2	2.30	0.51	1.3	0.31	32
Inferred I	Mineral Resou	rces					
North Dam	0.2	6.2	2.40	0.42	1.30	0.27	34
South Dam	0.9	5.6	2.30	0.48	1.20	0.25	24
West Dam	0.0	-	-	-	-	-	-
Total Inferred	1.1	5.8	2.30	0.47	1.20	0.25	27
Total Mea+Ind+Inf	10.9	6.2	2.30	0.51	1.29	0.30	32



#### Woodlawn Tailings Mineral Reserve Estimate 2016

#### Reported with no cut-off grade applied

Reserve Category	Quantity (Mt)	ZnEq(%)	Zn(%)	Cu(%)	Pb(%)	Au(g/t)	Ag(g/t)
Proven	6.4	6.0	2.2	0.5	1.3	0.29	31
Probable	3.2	6.0	2.1	0.5	1.3	0.33	32
Total (Proven + Probable)	9.5	6.0	2.2	0.5	1.3	0.31	31

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