

## ASX ANNOUNCEMENT

29 JANUARY 2016

**ASX Code: HOR**

### Management

**Mr Michael Fotios**  
*Non-Executive Chairman*

**Mr Brian Rear**  
*Non-Executive Director*

**Mr Alan Still**  
*Non-Executive Director*

### Issued Capital

**Shares: 169.7 Million**

**Share Price: \$0.016**

**Market Capitalisation:**  
**\$2.7 Million**



**HORSESHOE METALS**  
LIMITED

## QUARTERLY REPORT PERIOD ENDED 31 DECEMBER 2015

### SUMMARY

#### Horseshoe Lights Copper-Gold Project

##### **Oxide Copper Project Scoping Study**

- SMART (Surface Material Re-Treatment) Project ongoing, includes shallow in-situ oxide copper mineralisation and mineralised dump material. The Project aims to provide a route to low cost copper production.

##### **Resource Drilling**

- Current round of resource drilling completed and reported.

#### Kumarina Copper Project

- No resources were allocated to the project other than provision made for statutory requirements.

#### Corporate

- Placement and Rights Issue to raise up to \$1.45M in progress.
- \$500,000 of Placement Application Funds received and to be allotted in coming days.
- Mr Brian Rear, who is highly experienced in copper extraction at every level, appointed as a Non-Executive Director.
- Neil Marston, former Managing Director, resigned on 23 October 2015

## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

### OVERVIEW

Horseshoe Metals Limited (ASX: HOR) (“Horseshoe” or “the Company”), through its wholly owned subsidiary, Murchison Copper Mines Pty Ltd, holds a 100% interest in the Horseshoe Lights and Kumarina Projects located in the Peak Hill Mineral Field, north of Meekatharra in Western Australia (see Figure 2). Appendix 1 contains the summary of mining tenement interests of the Company.

### EXPLORATION AND EVALUATION

#### **Horseshoe Lights Copper/Gold Project (HOR: 100%)** *(GRR: 3% NSR Royalty – refer to Appendix 1)*

The Horseshoe Lights Project covers an area of approximately 60 km<sup>2</sup> including the previously mined Horseshoe Lights copper-gold mine, which is located 75km west of Sandfire Resources NL’s (ASX:SFR) DeGrussa copper-gold mine (see Figure 2).

#### ***Oxide Copper Project Scoping Study***

The Company has previously announced (*refer ASX announcement 20 August 2015*) the commencement of Scoping Study work within an expanded SMART (Surface Material Re-Treatment) project, expanding on previous work undertaken by the Company in 2014, but specifically evaluating the viability of a low-capex oxide copper treatment process.

Historical leaching test work demonstrated that oxide copper material present at Horseshoe Lights is very amenable to acid leaching with copper recoveries of over 80% achieved. The oxide resources to be considered in the Scoping Study include:

1. shallow in-situ oxide copper resources which occur from surface to a depth of 100 metres;
2. surface stockpile material (M15 and sub-grade);
3. flotation tailings, and
4. mineralised dumps.

The conceptual production rate for the study is 5,000 tonnes per annum of contained copper metal for a period at least five years. The Scoping Study will establish the technical and economic parameters that will be required to recommence copper production at the mine. The Scoping Study is ongoing, and likely to be completed in the first half of 2016.

#### ***Resource Drilling***

Reverse Circulation (“RC”) drilling was completed and reported during the previous quarter, with 4,576 metres advance from 39 holes completed (*refer ASX announcements 27 May 2015, 5 and 22 June 2015, 27 July 2015, 11 and 19 August 2015 and 3 September 2015*). The location of significant copper intersections for holes RC1102 – RC1141 are highlighted in Figure 1. The drilling programme objective was to add copper tonnes and grade to the existing mineral resource block model within and adjacent to the most recent optimised pit shell, where drill hole density was low or reliant upon, older historical drilling. The results from the drill holes in the North West Stringer Zone in particular are considered very positive, as they appear to both confirm and expand the extent of copper mineralisation when compared with earlier drilling results. The data is currently being reviewed and validated to Company requirements before resource estimation can commence.

QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

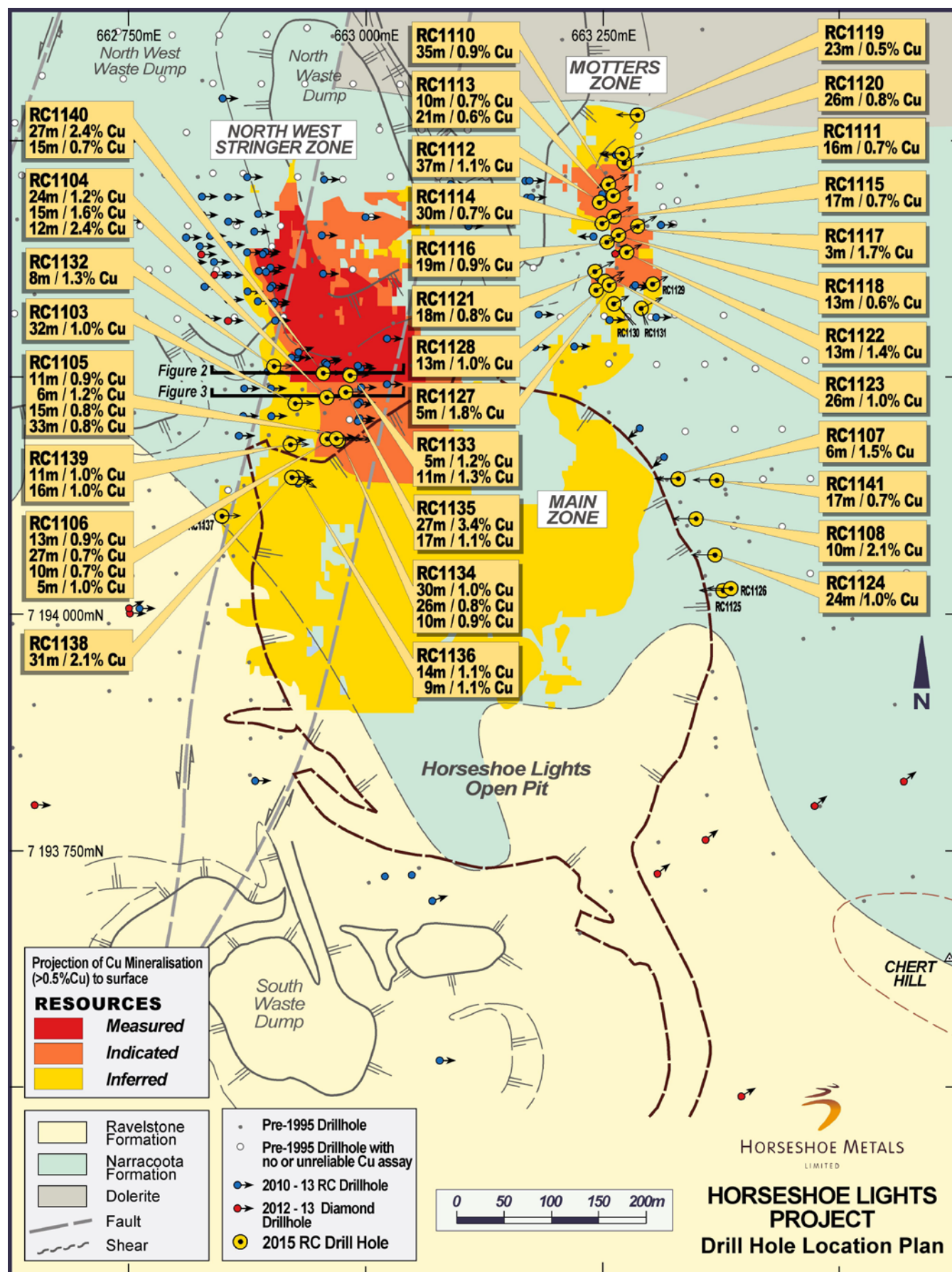


Figure 1 - Horseshoe Lights Project Drilling Results

## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

### Kumarina Copper Project (HOR: 100%)

The Kumarina Project consists of two exploration licences and one mining lease covering approximately 433km<sup>2</sup>. The project is located 95km north of Sandfire Resources NL's DeGrussa copper-gold mine, in the Gascoyne region of Western Australia (see Figure 2).

No activity was undertaken by the Company during the quarter.

### CORPORATE

The Company announced during the previous quarter (*refer to ASX announcement dated 22 September 2015*) a proposed placement and rights issue to raise up to \$1.45M. \$500,000 of placement funds were received in the December quarter.

### Board Changes

During the quarter, the Company announced (*refer to ASX announcement dated 16 October 2015*) the following changes to the board:

- Mr Brian Rear was appointed to the Board as a Non-Executive Director. Mr Rear's immediate focus will be the Oxide Copper project at Horseshoe Lights.
- Mr Neil Marston resigned as Managing Director and Company Secretary, and
- Mr Michael Fotios assumed the role of Non-Executive Chairman.

On 23 October 2015, Ms Shannon Coates was appointed as Company Secretary.

### ENDS

#### For further information please contact:

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## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

### About Horseshoe Metals Limited

Horseshoe Metals Limited (ASX:HOR) is a copper and gold focused company with a package of tenements covering approximately 500km<sup>2</sup> in the highly prospective Peak Hill Mineral Field, located north of Meekatharra in Western Australia. The Company's projects are the Horseshoe Lights Project and the Kumarina Project (see Figure 4).

### About the Horseshoe Lights Project

The Horseshoe Lights Project includes the old open pit of the Horseshoe Lights copper-gold mine which operated up until 1994, producing over 300,000 ounces of gold and 54,000 tonnes of contained copper including over 110,000 tonnes of Direct Shipping Ore (DSO) which graded between 20-30% copper.

The Horseshoe Lights ore body is interpreted as a deformed Volcanogenic Hosted Massive Sulphide (VMS) deposit that has undergone supergene alteration to generate the gold-enriched and copper-depleted cap that was the target of initial mining. The deposit is hosted by quartz-sericite and quartz-chlorite schists of the Lower Proterozoic Narracoota Formation, which also host Sandfire Resources' DeGrussa copper/gold mine.

Past mining was focused on the Main Zone, a series of lensoid ore zones which passed with depth from a gold-rich oxide zone through zones of high-grade chalcocite mineralisation into massive pyrite-chalcocopyrite. To the west and east of the Main Zone, copper mineralisation in the Northwest Stringer Zone and Motters Zone consists of veins and disseminations of chalcocopyrite and pyrite and their upper oxide copper extensions.

Table 1 below summarises the total Mineral Resources for the Horseshoe Lights Project as at 31 December 2014.

<b>TABLE 1</b> <b>HORSESHOE LIGHTS PROJECT</b> <b>SUMMARY OF MINERAL RESOURCES</b> <b>AS AT 31 DECEMBER 2014</b>								
Location	Category	Tonnes (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Cu metal (tonnes)	Au metal (oz)	Ag metal (k oz)
<b>In-situ Deposit</b> (0.5% Cu cut-off grade)	<i>Measured</i>	1.73	1.04	0.0	0.5	18,000	1,900	28.8
	<i>Indicated</i>	2.43	0.95	0.0	0.7	23,200	3,400	52.2
	<i>Inferred</i>	8.69	1.01	0.1	2.6	87,400	30,700	712.4
	<b>Total</b>	<b>12.85</b>	<b>1.00</b>	<b>0.1</b>	<b>1.9</b>	<b>128,600</b>	<b>36,000</b>	<b>793.4</b>
<b>Flotation Tailings</b>	<b>Inferred</b>	<b>1.421</b>	<b>0.48</b>	<b>0.34</b>	<b>6.5</b>	<b>6,800</b>	<b>15,300</b>	<b>294.8</b>
<b>M15 Stockpiles</b>	<b>Inferred</b>	<b>0.243</b>	<b>1.10</b>	<b>0.17</b>	<b>4.7</b>	<b>2,650</b>	<b>1,300</b>	<b>36.7</b>
Note: At 0% Cu cut-off grade unless otherwise stated						<b>TOTAL</b>	<b>138,050</b>	<b>52,600</b>
							<b>1,124.9</b>	

## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

The above Mineral Resource Estimates all meet the reporting requirements of the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”.

### **About the Kumarina Project**

*The copper deposits at the Kumarina Project were discovered in 1913 and worked intermittently until 1973. The workings extend over nearly 5km as a series of pits, shafts and shallow open cuts. At the main Kumarina Copper Mine, the workings are entirely underground with drives from the main shaft extending for some 200m in the upper levels and for about 100m in the lower levels at a depth of 49m below surface.*

*Incomplete records post-1960s make it difficult to estimate the total copper production from the workings. However, indications are that the Kumarina Copper mine was the second largest producer in the Bangemall Basin group of copper mines. Recorded production to the late 1960s is 481t of copper ore at a high-grade of 37.0% Cu and 2,340t at a grade of 17.51% Cu.*

*An initial Mineral Resource Estimate for the Rinaldi deposit was completed by the Company in 2013 (see 30 June 2013 Quarterly Report announced on 31 July 2013).*

*The total Measured, Indicated and Inferred Mineral Resource Estimate as at 31 December 2014 is shown in Table 2 below.*

<b>TABLE 2</b> <b>KUMARINA PROJECT</b> <b>SUMMARY OF MINERAL RESOURCES</b> <b>AS AT 31 DECEMBER 2014</b>				
<b>Location</b>	<b>Category</b>	<b>Tonnes (t)</b>	<b>Cu (%)</b>	<b>Cu metal (tonnes)</b>
<b>Rinaldi Prospect</b> (0.5% Cu cut-off)	<i>Measured</i>	<i>415,000</i>	<i>1.46</i>	<i>6,100</i>
	<i>Indicated</i>	<i>307,000</i>	<i>1.16</i>	<i>3,500</i>
	<i>Inferred</i>	<i>114,000</i>	<i>0.9</i>	<i>1,000</i>
	<b>Total</b>	<b>835,000</b>	<b>1.3</b>	<b>10,600</b>

The Mineral Resource Estimate meets the reporting requirements of the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”



QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

<b>APPENDIX 1</b> <b>Summary of Mining Tenement Interests</b> <b>as at 31 December 2015</b>					
Location	Tenement	Interest At Beginning Of Quarter (%)	Interests relinquished, reduced or lapsed (%)	Interests acquired or increased (%)	Interest At End Of Quarter (%)
Horseshoe Lights	M52/743	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	P52/1203	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	P52/1204	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	P52/1205	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	P52/1206	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	P52/1207	100%	-	-	100%
Horseshoe Lights	P52/1208	100%	-	-	100%
Horseshoe Lights	P52/1209	100%	-	-	100%
Horseshoe Lights	P52/1210	100%	-	-	100%
Horseshoe Lights	P52/1211	100%	-	-	100%
Horseshoe Lights	E52/2042	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	L52/42	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	L52/43	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	L52/44	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	L52/45	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	L52/66	100% <sup>1</sup>	-	-	100% <sup>1</sup>
Horseshoe Lights	E52/2569	0% <sup>2</sup>	-	-	0% <sup>2</sup>
Horseshoe Lights	M52/600	0% <sup>3</sup>	-	-	0% <sup>3</sup>
Kumarina	M52/27	100%	-	-	100%
Kumarina	E52/1998	100%	-	-	100%
Kumarina	E52/2930	100%	-	-	100%

Notes:

1. Horseshoe Gold Mine Pty Ltd (a wholly owned subsidiary of Grange Resources Limited) retains a 3% net smelter return royalty in respect to all production derived from some of the Horseshoe Lights tenements being M52/743, P52/1203 – 1206, E52/2042 (portion only) L52/42 – 45 and L52/66.
2. Horseshoe Metals Limited has a two year option-to-purchase agreement with Elysium Resources Limited in respect to E52/2569.
3. Horseshoe Metals Limited has entered into a two year option-to-purchase agreement with private interests in respect to M52/600.

QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

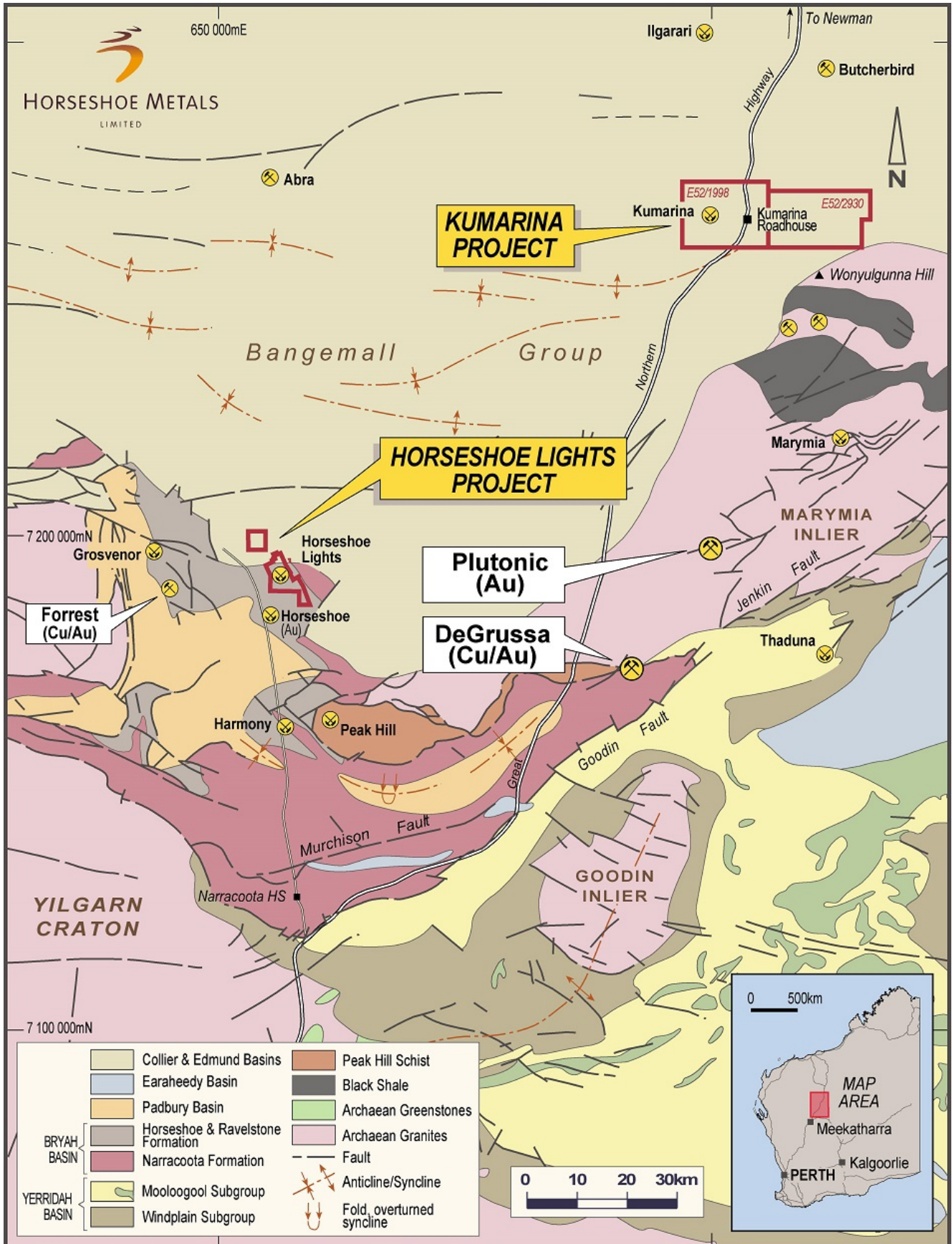


Figure 2 - Projects Location Plan



## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2015

### Competent Persons Statement

The information in the report to which this statement is attached that relates to Exploration Results released to ASX from 27 May 2015 to 11 August 2015 is based on information compiled by Mr Geoff Willetts BSc (Hon)s MSc, who is a Member of the Australian Institute of Geoscientists. Mr Willetts was an employee of Horseshoe Metals Limited at the time. Mr Willetts 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'. The Company confirms that:

- (a) the form and context in which Mr Willetts findings are presented have not been materially modified.
- (b) it is not aware of any new information or data that materially affects the information included in the applicable ASX announcements.

The information in the report to which this statement is attached that relates to Exploration Results released to ASX on 19 August 2015 and 13 September 2015 is based on information compiled by Mr Bruce Armstrong, BSc, who is a Member of the Australian Institute of Geoscientists. Mr Armstrong is a consultant to Horseshoe Metals Limited. Mr Armstrong 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'. The Company confirms that:

- (a) the form and context in which Mr Armstrongs findings are presented have not been materially modified.
- (b) it is not aware of any new information or data that materially affects the information included in the applicable ASX announcements.

The information in this report that relates to the Horseshoe Lights Project Mineral Resources is based on information compiled by Mr. Dmitry Pertel, who is a member of the Australian Institute of Geoscientists. Mr Pertel 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'. The information was previously issued with the written consent of Mr Dmitry Pertel in the Company's 30 June 2013 Quarterly Report released to the ASX on 31 July 2013. Mr. Pertel was an employee of CSA Global Pty Ltd at the time. The Company confirms that:

- (a) the form and context in which Mr. Dmitry Pertel's findings are presented have not been materially modified.
- (b) it is not aware of any new information or data that materially affects the information included in the 31 July 2013 ASX announcement and that all the material assumptions and technical parameters underpinning the estimate in the 31 July 2013 ASX announcement continue to apply and have not materially changed.
- (c) it is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code.

The information in this report that relates to the Horseshoe Lights Project flotation tailings and surface stockpiles Mineral Resources is based on information compiled by Mr Geoff Willetts, BSc. (Hons) MSc, who is a Member of the Australian Institute of Geoscientists. Mr Willetts 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'. The information was previously issued with the written consent of Mr Geoff Willetts in announcements released to the ASX on 26 February 2015 and 9 March 2015. Geoff Willetts was an employee of Horseshoe Metals Limited at the time. The Company confirms that:

- (a) the form and context in which Mr Geoff Willetts' findings are presented have not been materially modified.
- (b) it is not aware of any new information or data that materially affects the information included in the 26 February 2015 and 9 March 2015 ASX announcements and that all the material assumptions and technical parameters underpinning the estimates in the 26 February 2015 and 9 March 2015 ASX announcements continue to apply and have not materially changed.
- (c) it is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code.

The information in this report that relates to the Kumarina Project Mineral Resources is based on information compiled by or under the supervision of Mr Robert Spiers, who is a member of the Australian Institute of Geoscientists. The information was previously issued with the written consent of Mr Spiers in the Company's 30 June 2013 Quarterly Report released to the ASX on 31 July 2013. Mr Spiers was an independent consultant and full time employee and Director of H&S Consultants Pty Ltd (previously Hellman and Schofield Pty Ltd) at the time. The Company confirms that:

- (a) the form and context in which Mr Spiers findings are presented have not been materially modified.
- (b) it is not aware of any new information or data that materially affects the information included in the 31 July 2013 ASX announcement and that all the material assumptions and technical parameters underpinning the estimate in the 31 July 2013 ASX announcement continue to apply and have not materially changed.
- (c) it is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code.