

## ASX Announcement

24<sup>th</sup> February 2017

### Excellent metallurgical results for Eagles Nest gold ore

#### HIGHLIGHTS

- Metallurgical testing of Eagles Nest ore produces excellent gold recovery results
- Significant gravity gold recovery rates
- Total gravity and cyanide recoverable gold up to 94%
- Ore intended for processing through Maximus' recently acquired Burbanks gold treatment plant
- Further metallurgical test work to optimise grind size and increase gold recovery
- Next phase is pit optimisation and feasibility study

#### SUMMARY

Maximus Resources Limited (ASX:MXR) is pleased to update shareholders on initial metallurgical test work results undertaken on Eagles Nest ore samples via a process emulating the Burbanks gold treatment plant flow sheet. The samples were collected from the company's Eagles Nest project, part of its high grade Spargoville gold project south of Kalgoorlie in Western Australia.

Metallurgical testing for gold recovery was undertaken on Reverse Circulation (RC) drill chip samples collected from the recent drill program at the Eagles Nest deposit. The Metallurgical testing was completed by Bureau Veritas in Kalgoorlie to determine gold recovery rates and examine the suitability for processing Eagles Nest ore through the company's Burbanks gold processing plant.

Composite samples from 3 RC drill holes, two representing transitional ore and one primary (fresh rock) mineralisation, were crushed and ground to 106µm and passed through a gravity gold recovery circuit. The gravity concentrate and the gravity tail were subjected to cyanide leaching for 24 hours.

Variable results of 36-68% of the gold was recovered in the gravity circuit, where it was leached to greater than 98% recovery in 24 hours from all three composites. The gravity tail leach resulted in 89-91% gold recovery from the two transition holes but only 57% recovery from the primary mineralisation.

Total gold recovery was 93-94% for the two transition holes and 86% for the primary mineralisation.

## BACKGROUND

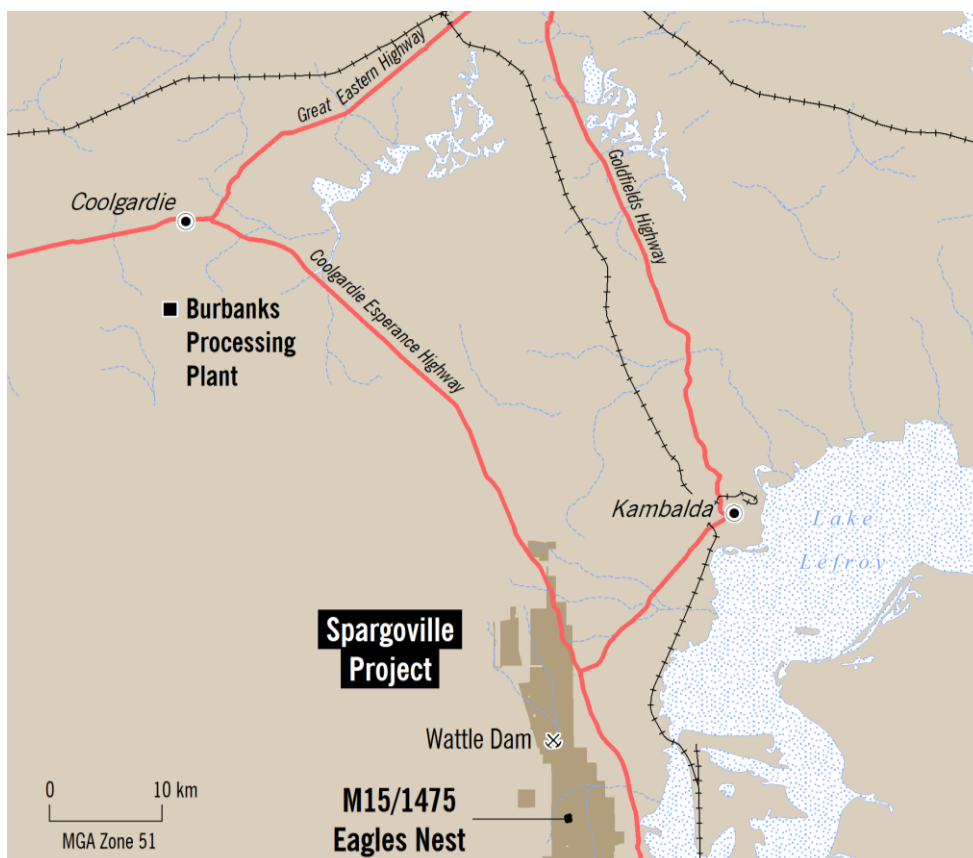
The Eagles Nest deposit is situated on the Spargoville shear approximately 7km south of Maximus' previously mined high grade Wattle Dam gold mine and 60km from the Company's recently acquired Burbanks gold treatment plant.

Burbanks has a capacity of 180,000 tonnes per annum and is currently being refurbished with completion scheduled in Q1 2017. The company intends utilising the Burbanks treatment plant to Toll treat 3<sup>rd</sup> party ore whilst it defines and progresses its own gold resources through the feasibility, approval and production processes.

A Updated JORC 2012 compliant Mineral Resource estimate of 42,600 ounces at the Eagles Nest deposit was announced on the 21<sup>st</sup> February 2017 (See Table 1).

Classification	Tonnes	Au g/t	Ozs
<b>Main Zone</b>			
Inferred	512,400	1.98	32,650
Indicated	150,000	1.84	8,900
<b>Footwall Zone</b>			
Inferred	17,500	1.89	1,050
Indicated	-	-	-
<b>Total</b>	<b>679,900</b>	<b>1.95</b>	<b>42,600</b>

**Table 1:** Eagle's Nest Mineral Resource estimate by Classification (Au > 0g/t with a top cut at 6 g/t) dated 21/02/2017



**Figure 1:** Location Map

## SAMPLE PREPARATION

Three composite samples were prepared from RC chips from continuous intersections in recent drill holes. The samples were collected from the following holes;

Composite Sample A: Hole MXENRC23 from 16m to 18m.

Composite Sample B: Hole MXENRC27 from 18m to 22m.

Composite Sample C: Hole MXENRC29 from 61m to 64m.

Composites A and B are considered to be transition material whereas Composite C is classified as primary mineralisation.

Table 2 shows the comparison of the expected head assays, based on drill core intersections compared to those obtained in the laboratory.

## METALLURGICAL TEST WORK

Metallurgical test work was conducted by Bureau Veritas and consisted of grinding each sample to 80% passing 106µm, in line with operations at the Burbanks treatment plant. Knelson gravity separation was conducted on a 4kg sub-sample of each composite and a gravity concentrate produced. Table 3 shows the mass and gold recovery from the Knelson concentrator process. Recovery of gold to the gravity concentrate was high at 36-51% for the transition samples and 68% for the primary composite sample (composite C).

**Table 2:** Composite Sample Analysis

Element	Unit	Composite A		Composite B		Composite C	
		Assay	Calc	Assay	Calc	Assay	Calc
Gold	ppm	1.64	2.16	2.85	2.40	3.01	3.49

**Table 3:** Gravity Test Work

Composite A			Composite B			Composite C		
Conc Mass %	Conc Grade ppm Au	Gravity Rec %	Conc Mass %	Conc Grade ppm Au	Gravity Rec %	Conc Mass %	Conc Grade ppm Au	Gravity Rec %
6.0	18.5	51.4	5.5	15.8	36.2	6.9	34.4	68.0

The gravity concentrate was leached as a bottle roll for 24 hours at 50% solids density in Kalgoorlie tap water. Sodium hydroxide was added to achieve a pH >12 and a 4% NaCN concentration was used. Leach Aid was added at 0.1% addition rate. After 24 hours, the solutions and residue were assayed to determine leach recovery from a calculated head grade.

The gravity tail was leached as an agitated leach for 24 hours at 45% solids density in Burbanks site water. Lime was added to achieve a pH of >9 and Sodium cyanide was added at 350ppm and maintained at >300ppm whilst intermediate samples were taken at 2, 4 and 8 hours. Intermediate solution assays were used to monitor the leaching progress and both solution and residue analyses were taken to determine gold recoveries from a calculated head basis.

Table 4 shows the leaching performance of the three composite samples. The cyanide and lime recovery shown is only for the gravity tailings. The gravity concentrates leached exceptionally well, with 98-99%

recovery from all 3 composites. The gravity tail leaching was slightly lower at 89-91% gold recovery from the two intermediate composites, but only 57% recovery from the primary composite.

The lime and cyanide consumptions for all 3 composites were moderate, in line with the nature of the mineralisation.

**Table 4:** Gravity concentrate and gravity tails cyanide leach tests

Composite	Reagent (kg/t)		Gold assay (g/t)		Gold extraction (%)		
	Lime	Cyanide	Calc Head	Residue	Gravity	Leach	Total
Transition A	1.49	1.04	2.16	0.12	50.9	43.3	<b>94.2</b>
Transition B	1.71	0.94	3.14	0.21	27.4	65.9	<b>93.3</b>
Primary C	1.46	1.17	3.49	0.51	67.5	18.1	<b>85.6</b>

Total gold recovery was 93-94% for the two transition samples and 86% for the primary mineralisation. The Burbanks flowsheet would appear to be suitable for processing of the transition mineralisation, with some refinement of the flowsheet required to increase the leach recovery from the gravity concentrate tails when processing primary mineralisation.

#### **FURTHER TEST WORK**

The results of this preliminary test work, based upon the Burbanks processing plant flowsheet and using processing water sourced from Burbanks, bodes very well for the treatment of the Eagles Nest Ore through the company's Burbanks Processing Facility.

The next phase of metallurgical test work on Eagles Nest ore will involve grind size sensitivity analysis and optimising cyanide leach kinetics to increase gold recoveries.

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#### **Competent Person Statement-Metallurgy**

The information in this report that relates to Metallurgical Processing has been reviewed by Dr Nigel Ricketts, Competent Person, who is a member of the Australasian Institute of Mining and Metallurgy and a Chartered Professional in Metallurgy. Dr Ricketts is employed as Technical Director of Altrius Engineering Services and consults to the Company on a part time basis. Dr Ricketts has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Dr Ricketts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Competent Person Statement-Exploration Targets and Exploration Results, Mineral Resource Estimate**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Stephen Hogan who is a Member of the Australasian Institute of Mining and Metallurgy. The information that relates to the Mineral Resource Estimate has been compiled by Dr Graeme McDonald who is a Member of the Australasian Institute of Mining and Metallurgy. Both Mr Hogan and Dr McDonald have sufficient experience relevant to the style of mineralisation, the type of deposit under consideration, and the activities being undertaken, to qualify as a Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves (the JORC Code). This report is issued in the form and context in which it appears with the written consent of the Competent Persons.