



## SUCCESSFUL LEWIS TRIAL MINING RESULTS

**Kin Mining NL (ASX: KIN)** today announced positive results from the Lewis trial mining operation at its Leonora Gold Project (100%) in the Northeastern Goldfields of Western Australia (Figure 1).

The Lewis trial mine and carbon-in-leach (CIL) testwork has successfully achieved the key elements to optimise the updated pre-feasibility study at the Leonora Gold Project.

- Ounces mined exceed expectations by 26%
- 908oz of gold bullion produced
- Mine to mill grade reconciliation within 6%
- 50% improvement in pit wall angles
- Upside to increase resources through further specific gravity (SG) test work

Kin Mining's CEO, Mr Don Harper, said he was encouraged by the potential upside indicated by today's results.

"While there's further work to do, the results came in above our expectations," said Mr Harper.

"The trial mining has enabled us to further confirm the mining and processing parameters and assumptions required for the updated PFS and is an important de-risking exercise," he said. "It also adds more confidence to the resource by actually visually interpreting the deposit."

The Lewis deposit is located within the 134,500oz Bruno-Lewis-Kyte oxide resource, which is part of the Company flagship Leonora Gold Project.

The results of the trial mining program will be included in the PFS, which is on schedule for completion by the end of the calendar year.

### **Mining:**

*Actual vs Planned* - The reconciled mined production through the mill of 13,810t @ 2.25 g/t (999oz) vs diluted and recovered resource estimate of 10,359t @ 2.38 g/t (792oz)<sup>1</sup> represented an estimated **additional 26% ounces of gold**, 6% lower grade and 33% higher tonnes. The grade variance is well within the acceptable range, however, the Company believes the variance in tonnes may be primarily due to the original 2009 resource model estimation of the SG of the ore being too conservative. This may represent a significant upside potential to increase the Cardinia oxide resources through further SG testwork.

*Structural Controls* – The orebody is lithologically controlled with the ore contact between the mafic (waste) and felsic (ore bearing) units clearly visible. It is expected through the implementation of angled Reverse Circulation (RC) grade control drilling together with conventional in-pit trenching that dilution may be minimised and mining recovery maximised.

*Geotechnical Parameters* – Previous studies used pit wall angles of 50 degrees. Independent geotechnical consultants have confirmed that wall angles of up to 75 degrees may be adopted due to the shallow nature of the oxide deposits. This increase in pit wall angles is expected to significantly reduce the strip ratio and mining costs in the updated PFS.

### **Milling:**

*Bullion produced* - The total mill recovered ounces was estimated at 908oz.

*Crushing* – An estimated total of 14,919 wet tonnes was contract crushed and processed through the Lakewood Toll treating facility. Moisture content of the ore was estimated at 8%. There were no significant issues with crushing of the ore.

*Reagent and grinding media* - Grinding media usage was in line with previous study assumptions.

- Grinding Media – 0.67 kg/t
- Cyanide - 1.68 kg/t
- Lime - 1.27 kg/t

A higher than expected cyanide and lime consumption may be attributed to the water quality at Lakewood which has lower PH levels.

*Gravity Recovery* - Gravity recovery was estimated at 8% which correlated well with previous laboratory testwork of 5.8%.

*Metallurgical Recovery* – A metallurgical recovery of 90.9% was achieved; which was lower than expected due to no air or oxygen supply capability within the toll treating plant. The updated PFS process plant configuration will have an oxygen capability which is expected to maximise gold recovery. Previous laboratory testwork in the 2009 Navigator PFS indicated 98.2% gold recovery. Further laboratory testwork will be conducted.

*Materials Handling* – An excellent throughput of an estimated 2,000t per day was achieved on 100% Lewis oxide ore without blockages or hang-ups in the circuit. This positive result demonstrates that a significant ratio of Lewis oxide to fresh harder ores can be processed through a conventional crushing, grinding and milling circuit.

### **Summary**

Mining was all free digging which reduces mining costs. After a better understanding of the structural orebody controls a revised grade control methodology is to be included in the updated PFS. The Lewis pit represents a small portion of the overall Bruno-Lewis-Kyte oxide resource. The mine to mill reconciliation in terms of grade was acceptable, however, there appears significant upside to increase ounces by determining the appropriate SG of the oxide through further testwork.

While mill recovery was below expectations, independent metallurgical consultants confirm it is process plant related rather than ore type. There appears to be no metallurgical or materials handling issues with the Lewis ore.

The Lewis Trial exercise delivered a positive cash flow result, however, the small scale nature in terms of extrapolating costs into the updated PFS is not regarded as representative. The Lewis Trial mine and plant scale CIL test work is now concluded and has successfully achieved the key elements to be included towards further optimisation of the updated PFS.

Going forward additional SG testwork will be conducted to confirm the positive variance in ounces. Also additional testwork using conventional heap leaching methodology on low grade oxide ore will be evaluated.

(<sup>1</sup> modifying factors used : 10% dilution at zero grade and 95% mining recovery)

-ENDS-

**For further information, please contact:**

Don Harper  
CEO  
Kin Mining NL  
+61 8 9242 2227

Anna Staples  
Director  
AMN Corporate  
+61 (0)400 205 433

**About Kin Mining NL**

**Kin Mining (ASX: KIN)** is an emerging gold development company with a significant tenement portfolio in the Eastern Goldfields of Western Australia. Through exploration success and selective acquisition, the Company aims to become a profitable, high-margin, low cost Australian gold producer. The immediate focus of the Company is completing an updated pre-feasibility study at its flagship Leonora Gold Project (100%), containing a JORC resource of 722koz, by the end of the calendar year.

Kin's exploration is targeting near-mine and prospects within the transport corridor linking further discovery to a proposed independent processing plant located at the Leonora Gold Project. Kin aims to conduct its regional exploration programmes within its extensive and highly prospective project portfolio with an ongoing focus of limiting dilution.

**Competent Persons Statement**

The information in this report that relates to Lewis Trial Mine is based on information compiled by Mr Don Harper, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Harper 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'. Mr Harper consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Directors:**

Terry Grammer  
Chairman

Trevor Dixon  
Executive Director

Fritz Fitton  
Technical Director

Joe Graziano  
Non-Exec Director & Co. Sec.

**Contact:**

**Office**

Level 1, 342 Scarborough Beach Road  
Osborne Park, Western Australia 6017  
T: 08 9242 2227  
E: [info@kinmining.com.au](mailto:info@kinmining.com.au)  
ACN: 150 597 541

**Post**

PO Box 565  
Mt Hawthorn, Western Australia 6915

Web: [www.kinmining.com.au](http://www.kinmining.com.au)

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**Unlisted Options: 13,775,000**

Figure 1. Completed Lewis Trial Pit



Table 1 – Leonora Gold Project Mineral Resource (As of May 2016)

| Mineral Resources - Mertondale Area  |                           |                  |            |                |                  |            |               |                  |            |                |
|--|---------------------------|------------------|------------|----------------|------------------|------------|---------------|------------------|------------|----------------|
| Project Area   | Lower cut-off grade (g/t) | Indicated        |            |                | Inferred         |            |               | Total Resource   |            |                |
|  |                           | Tonnes (t)       | Au (g/t)   | Au (Ounces)    | Tonnes (t)       | Au (g/t)   | Au (Ounces)   | Tonnes (t)       | Au (g/t)   | Au (Ounces)    |
| <b>MERTONDALE</b>  |                           |                  |            |                |                  |            |               |                  |            |                |
| Mertondale 3/4   | 0.7                       | 870,000          | 2.3        | 65,000         | 660,000          | 2.1        | 45,000        | 1,530,000        | 2.2        | 110,000        |
| Merton's Reward  | 0.7                       | 1,010,000        | 2.7        | 87,000         | 70,000           | 1.7        | 4,000         | 1,080,000        | 2.6        | 91,000         |
| Tonto  | 0.7                       | 970,000          | 1.9        | 60,000         |                  |            |               | 970,000          | 1.9        | 60,000         |
| Eclipse  | 0.7                       | 620,000          | 1.8        | 35,000         | 250,000          | 1.7        | 14,000        | 870,000          | 1.8        | 49,000         |
| Mertondale 5   | 0.7                       | 320,000          | 3.2        | 33,000         | 160,000          | 2.7        | 13,000        | 480,000          | 3          | 46,000         |
| Quicksilver  | 0.7                       | 550,000          | 1.8        | 31,000         | 110,000          | 2.1        | 8,000         | 660,000          | 1.8        | 39,000         |
| <b>TOTAL</b>   |                           | <b>4,340,000</b> | <b>2.2</b> | <b>311,000</b> | <b>1,250,000</b> | <b>2.1</b> | <b>84,000</b> | <b>5,590,000</b> | <b>2.2</b> | <b>395,000</b> |
| Mineral Resources - Cardinia Area - Bruno-Lewis-Kyte                             |                           |                  |            |                |                  |            |               |                  |            |                |
| Project Area   | Lower cut-off grade (g/t) | Indicated        |            |                | Inferred         |            |               | Total Resource   |            |                |
|  |                           | Tonnes (t)       | Au (g/t)   | Au (Ounces)    | Tonnes (t)       | Au (g/t)   | Au (Ounces)   | Tonnes (t)       | Au (g/t)   | Au (Ounces)    |
| <b>BRUNO-LEWIS-KYTE</b>  |                           |                  |            |                |                  |            |               |                  |            |                |
| Oxide  | 0.7                       | 1,405,000        | 1.2        | 53,400         | 1,869,000        | 1.3        | 81,100        | 3,274,000        | 1.3        | 134,500        |
| Transition   | 0.7                       | 35,000           | 1.1        | 1,300          | 57,000           | 1.2        | 2,200         | 92,000           | 1.2        | 3,500          |
| Fresh  | 0.7                       | 1,000            | 1.5        | 100            | 31,000           | 1.3        | 1,300         | 32,000           | 1.3        | 1,400          |
| <b>TOTAL</b>   |                           | <b>1,441,000</b> | <b>1.2</b> | <b>54,800</b>  | <b>1,957,000</b> | <b>1.3</b> | <b>84,600</b> | <b>3,398,000</b> | <b>1.3</b> | <b>139,400</b> |
| Mineral Resources - Cardinia Area - Helens and Rangoon Deposit                   |                           |                  |            |                |                  |            |               |                  |            |                |
| Project Area   | Lower cut-off grade (g/t) | Indicated        |            |                | Inferred         |            |               | Total Resource   |            |                |
|  |                           | Tonnes (t)       | Au (g/t)   | Au (Ounces)    | Tonnes (t)       | Au (g/t)   | Au (Ounces)   | Tonnes (t)       | Au (g/t)   | Au (Ounces)    |
| <b>HELENS and RANGOON</b>  |                           |                  |            |                |                  |            |               |                  |            |                |
| Oxide  | 0.7                       | 382,000          | 1.3        | 15,800         | 245,000          | 1.2        | 9,200         | 627,000          | 1.2        | 24,900         |
| Transition   | 0.7                       | 455,000          | 1.4        | 20,800         | 103,000          | 1.2        | 4,100         | 558,000          | 1.4        | 24,900         |
| Fresh  | 0.7                       | 67,000           | 1.5        | 3,300          | 15,000           | 1.6        | 800           | 82,000           | 1.5        | 4,100          |
| <b>TOTAL</b>   |                           | <b>904,000</b>   | <b>1.4</b> | <b>39,900</b>  | <b>363,000</b>   | <b>1.2</b> | <b>14,100</b> | <b>1,267,000</b> | <b>1.3</b> | <b>53,900</b>  |
| Mineral Resources - Raeside Area - Leonardo, Forgotten Four and Krang Deposit    |                           |                  |            |                |                  |            |               |                  |            |                |
| Project Area   | Lower cut-off grade (g/t) | Indicated        |            |                | Inferred         |            |               | Total Resource   |            |                |
|  |                           | Tonnes (t)       | Au (g/t)   | Au (Ounces)    | Tonnes (t)       | Au (g/t)   | Au (Ounces)   | Tonnes (t)       | Au (g/t)   | Au (Ounces)    |
| <b>RAESIDE</b>   |                           |                  |            |                |                  |            |               |                  |            |                |
| Oxide  | 0.7                       | 1,280,000        | 2.7        | 111,000        |                  |            |               | 1,280,000        | 2.7        | 111,000        |
| Transition   | 0.7                       | 70,000           | 3          | 7,000          | 100,000          | 2.1        | 7,000         | 170,000          | 2.5        | 14,000         |
| Fresh  | 0.7                       | 110,000          | 2.6        | 9,000          |                  |            |               | 110,000          | 2.6        | 9,000          |
| <b>TOTAL</b>   |                           | <b>1,470,000</b> | <b>2.7</b> | <b>127,000</b> | <b>100,000</b>   | <b>2.1</b> | <b>7,000</b>  | <b>1,570,000</b> | <b>2.6</b> | <b>134,000</b> |
| Reportable Resources (0.7g/t Au cut-off inside \$2,000 per ounce pit shell)      |                           |                  |            |                |                  |            |               |                  |            |                |
| <b>Combined 2012 JORC compliant Resource 11.825Mt @ 1.9g/t Au for 722,300ozs</b> |                           |                  |            |                |                  |            |               |                  |            |                |