

# JERVOIS MINING LIMITED

A.B.N. 52 007 626 575



30 June, 2008

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Company Announcements,  
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## **QUARTERLY REPORT TO 30 JUNE 2008**

Nickel/Cobalt in Laterite Project  
Young, N.S.W.  
Exploration Licences 5527, 5571 and 5152

Jervois Mining Ltd (ASX: JRV) has entered into a Frame Agreement for the cooperative development of the Young nickel laterite resource in NSW, Australia.

Jervois Mining has agreed to the project development deal with the China Railway Group Limited ([www.crec.cn](http://www.crec.cn)), Resource Development Branch; a company registered in Beijing China (China Railway Resource) and Yunnan Jiaming Technology and Industry Company, a company registered in Kunming, Yunnan, China (Jiaming).

Under the terms of the Agreement:

Due diligence and feasibility studies by China Railway Resource/Jiaming must be completed with Board approvals by 31 October, 2008;

A formal Cooperation/Development Agreement satisfactory to all three parties must be entered into prior to 31 October, 2008; [The frame agreement will terminate automatically if a formal Cooperation Agreement cannot be signed within this time frame]

The Agreement is subject to approvals from the Chinese Government and the Australian Government including under the Foreign Acquisitions and Takeover Act 1975 (CTH);

A joint venture company will be established to which the parties will make the following contributions – JRV will contribute its 3 (three) Exploration Licences (EL's 5152, 5527 and 5571), China Railway Resource will contribute the funding and Jiaming will contribute the authority to use, at no cost, its patented and non-patented technology for recovery of nickel and cobalt. China Railway Resource/Jiaming may earn 70% of the joint venture company with JRV retaining 30%;

The Board of the new joint venture company will comprise 4 (four) representatives from China Railway Resource/Jiaming and 2 (two) representatives from JRV;  
JRV will be reimbursed ultimately US\$3.0 million as compensation for exploration license expenditure of which US\$1.0 million has already been paid as an advance payment within 21 working days of the signing of the Agreement;  
China Railway Resource/Jiaming will invest AUD\$45 million in one payment directly into the joint venture company to fund and build a plant at Young to produce 3,000 tonnes of nickel metal annually;

Within 10 (ten) working days after the formal Cooperation Agreement becomes effective, China Railway Resource/Jiaming will be issued with 19.9% of the then total issued capital in JRV at 2 cents (\$0.02) per share. Initially only 50% of the 19.9% shares issued to China Railway Resource/Jiaming will be voting shares. A further 30% of the 19.9% shares issued to China Railway Resource/Jiaming will attract voting power when the pilot plant is operating and the remaining 20% of the 19.9% shares issued to China Railway Resource/Jiaming will likewise be voting shares following any decision to expand production to 50,000 tonnes of nickel metal per annum;

China Railway Resource/Jiaming will be entitled to appoint one director to the Board of JRV;

Following any decision to expand production to at least 50,000 tonnes of contained nickel metal – per annum – the three parties will each raise their pro-rata share of the funding (i.e. JRV 30%) or JRV can elect to drop down to 20%, at which stage China Railway Resource/Jiaming will fund the entire development expansion between them without further contribution from JRV; and

China Railway Resource/Jiaming has been given a priority entitlement to participate in any other JRV projects. JRV will receive preference from the China Railway Resource/Jiaming for any future investment in Australia.

The negotiation of the Frame Agreement is regarded as an important initiative for JRV and has the full support of the Board. Shareholders will be advised further in due course.

**The above agreement required all three parties to expedite, where possible, the formal Cooperation/Development Agreement satisfactory to all these parties. This is in progress.**

### **Exploration Drilling at Ardnaree (Young) Ni/Co Laterite**

In-fill drilling was carried out during the March and June Quarters. In total 53 holes were completed for a cumulative 2284 metres mostly in or near the Ardnaree resources. The programme was interrupted by wet weather but has finally been completed.

Intervals of interest were sampled and sent for assay. The main objective of the drilling was to recover sample for metallurgical work in China and in Australia.

Some of the early assay results are tabulated below:-

**SIGNIFICANT INTERSECTIONS**  
**MARCH/APRIL 2008, YOUNG, NSW.**

| Hole Number | Northing m MGA | Easting m MGA | From (m) | To (m) | Width (m) | Nickel % | Cobalt % |
|-------------|----------------|---------------|----------|--------|-----------|----------|----------|
| YA 327      | 6220560.67     | 599485.63     | 12       | 39     | 27        | 0.90     | 0.056    |
| YA 328      | 6220511.86     | 599781.17     | 25       | 30     | 5         | 0.63     | 0.0706   |
| YA 329      | 6215689.33     | 596981.69     | 6        | 8      | 2         | 0.83     | 0.0175   |
| YA 330      | 6215704.09     | 596891.62     | 6        | 19     | 13        | 1.06     | 0.0700   |
| YA 331      | 6215721.37     | 596793.66     | 10       | 16     | 6         | 0.86     | 0.0220   |
| YA 341      | 6214892.36     | 596856.33     | 5        | 10     | 5         | 1.04     | 0.1764   |
| and         |                |               | 16       | 29     | 13        | 1.10     | 0.0521   |
| YA344       | 6214508.99     | 596691.26     | 0        | 11     | 12        | 1.19     | 0.0179   |
| YA 345      | 6214492.34     | 596789.20     | 4        | 13     | 9         | 0.87     | 0.0570   |
| YA 346      | 6214475.18     | 596886.63     | 3        | 5      | 2         | 0.87     | 0.0270   |
| YA 350      | 6213723.50     | 596543.85     | 27       | 34     | 8         | 0.94     | 0.0823   |
| YA 353      | 6213713.21     | 596633.73     | 22       | 30     | 8         | 0.94     | 0.0570   |
| YA 355      | 6212939.39     | 596408.64     | 19       | 22     | 3         | 0.64     | 0.0530   |
| YA 357      | 6212186.55     | 596063.61     | 12       | 17     | 5         | 0.66     | 0.0334   |
| YA 358      | 6212154.77     | 596259.73     | 7        | 11     | 4         | 0.49     | 0.1485   |
| and         |                |               | 13       | 20     | 7         | 0.80     | 0.0286   |
| YA 359      | 6212121.71     | 596455.62     | 7        | 11     | 4         | 0.74     | 0.1360   |
| and         |                |               | 14       | 16     | 2         | 0.78     | 0.0273   |

**Ongoing Metallurgical Testwork by Jervois Mining Limited, Young, N.S.W.**

Laboratory leach and hydrolysis testwork is ongoing at Metcon Laboratories, Brookvale, N.S.W. Confirmatory hydrolysis testwork is also continuing at CSIRO, Perth.

Atmospheric agitation leaching of nickel/cobalt laterites using hydrochloric acid in hot chloride brine has been shown to be quick and effective, requiring of the order of 30 to 60 minutes leaching time at 105<sup>0</sup>C to give recoveries of nickel and cobalt generally in excess of 90%. Due to the cost and consumption of hydrochloric acid, the re-generation and recovery for re-use of the acid is an essential part of the process flow sheet. The development of a low cost solution to the iron hydrolysis and acid recovery step has been more complex and challenging than anticipated but now seems to have been potentially resolved. Further laboratory tests and flow sheet modelling are required for confirmation of key hydrolysis conditions.

All this testwork on acid hydrolysis is happening against a background of incredible increases in the cost of elemental sulphur and sulphuric acid to a level which seems very likely to continue. If this happens, HPAL processes and 'vat' or 'heap' leach processes using sulphuric acid will

potentially become uneconomic for a very simple reason: the acid cost may equal or exceed the value of nickel and cobalt in the ore.

Jervois shareholders should hopefully feel justified that the Company chose to look for a better solution for laterite processing than HPAL processing – a solution “outside the box”.

Implementation was slow, as we all know, but the Company now feels much more optimistic that a commercially viable solution may finally be in sight!

In this regard it is interesting to note that China Railways Resource/Yunnan Jiaming have proposed their own hydrochloric acid leach process in which they, in turn, have substantial confidence. For the moment the chloride leach process seems to be their preferred route for development of the Young resource.

### **Testwork for Nyngan Scandium (Sc), N.S.W.**

Leach testwork on a limonite sample is ongoing at Metcon Laboratories in Brookvale, N.S.W. and CSIRO in Melbourne. This work is covering a wide range of direct acid leach options as well as combined salt and heat pre-treatment options followed by water and/or acid leaching. By end August, 2008 it is expected that one process will be selected as the preferred option for production of 99.9% pure scandium oxide.

The farmland underlying the resource has been purchased, a house has been purchased in Nyngan itself, and an open pit mine has been designed to a 30 metre depth to yield 138,676 tonnes of ‘limonite’ ore at 365.6 g/t scandium and 210,347 tonnes at 344.9 g/t scandium. The waste/ore ratio would be 2:1. The resource area will be ‘flown’ and photographed on 1<sup>st</sup> August, 2008. This will be followed by applications to all various regulatory bodies (Local and State) for approval to mine and operate a ‘pilot plant’ to produce about 10 tonnes of Sc<sub>2</sub>O<sub>3</sub> (scandium oxide) per annum. There is evidence, based on Jervois research, that demand for this metal would grow quickly if a reliable supply was available at reasonable cost. Future Fuel Cell components and aerospace applications appear the most likely market.

### **General**

#### **New Prospects**

The Company is often offered new mineral prospects or identifies them through research. In recent months, various possible properties for diamond exploration/discovery have been examined. A decision will be made in August, 2008 and various tenement applications in 3 or possibly 4 States will follow. In terms of diamond mine discovery, there has been a long ‘drought’ but more diamond mines will ultimately be discovered in Australia.

#### **Bullabulling Gold Mine W.A.**

#### **Mining Leases 15/282, 483, 503, 529 and 554 and 1414**

#### **Explorations licence 15/841, Prospecting Licences 15/4820 and 4822**

During the Quarter gold production of 533.802 fine oz was sold for \$498,355. The average sale price per fine oz was \$933.00.

Another 60,000 tonnes was mined from CKGM tailings, Dixon’s South and the Eileen laterite pit and placed on the leach pad. That will end mining operations this calendar year.

Rising diesel costs are now a major factor with even the 'super-pit' in Kalgoorlie reportedly struggling even at record gold prices.

The build-up of 'scale' on the carbon in the columns was eventually resolved satisfactorily. The problem was solved internally by the writer and mine management with some external input from both Jervois metallurgical consultant Dr. Mal Jansen and specialist QED Occtech water consultant.

**Bullabulling South, W.A.**  
**Prospecting Licences 15/4742-48 and 15/4798-99**  
**Prospecting licence 15/4887**

**New Age Exploration Limited earning 60% equity over 3 years**

No field work to report for the Quarter. A hydrogeologic survey is still planned for this calendar year.

**Uranium Exploration Joint Venture – W.A.**  
**Nalbarra Exploration Licence E59/1264**  
**Lake Barlee West – Exploration Licences 77/1332 – 3**  
**Lake Giles Exploration Licence 77/1345**

**Nalbarra Project E59/1264**

No work was done on this tenement as a number of W.A. Departments are still considering approval for drilling. These include the Department of Industry and Resources, the Department of Aboriginal Affairs, the Department of Consumer and Employment Protection and the Environmental Protection Authority. At this stage, we are expecting approvals for drilling by the end of June 2008, but with staff shortages in some of the Departments this may take longer. We are in constant communication with the Departments to facilitate the progress of the approvals.

**Barlee Project E77/1333 & E77/1332**

Approvals for the drilling program are also awaited by the same government departments as above, plus further approval to disturb environmentally sensitive areas. At this stage approval to drill is expected in the same time frame as the Nalbarra Project.

**Lake Giles Project E77/1345**

This tenement also has outstanding approvals waiting before the drilling program can commence.

The sale of the 'Kintyre' uranium deposit (undeveloped) in W.A. for a substantial sum seems to suggest that ultimately uranium will be mined in all states of Australia just like any other metal.

**Forest Reef Joint Venture N.S.W.**  
**Exploration Licence 4620**  
Newcrest Operations Limited (NoI) 80%  
Jervois Mining Limited 20%

Nol have reported no field work on the licence and expenditure for the Quarter of \$1,095 excluding any management fee.

### **Ore Resources at Young N.S.W. (nickel/cobalt in laterite)**

As a consequence of the entry of China Railway Group Limited Resource Development Branch (CRG) to the Young project, as outlined earlier in this Quarterly, Jervois decided to carry out a review of the geology and all previous exploration. This review included such items as; the reason for drilling the holes, the thickness (depth) and consistency of the mineralisation, the width of the resource (typically up to 600 metres wide), sampling techniques employed in the past and most importantly comparisons between actual bulk sample assays and the calculated grade of the many bulk samples based on compilation grades of each individual sample used to make up the bulk sample. This work was carried out by Dr. Van Huet, Exploration Manager, and the writer. A total 412 holes have been drilled in Young to date. This includes 30 holes recently completed in the Ardnaree area, assay results pending. Some minor changes in sampling techniques have been implemented.

It was concluded that despite the relatively long distances between drill traverses (300-400 metres) the strike consistency of the resource was such that we could be totally confident of the integrity of the resource as stated. We considered that probably excessive scrutiny of past work was appropriate for China Railways Resource Group's first venture into Australia. As an extra precaution 2 of the older drill holes have been twinned in a recent programme making a total of 5 twinned holes over the years. Ten more twinned holes are planned in future months.

As the project proceeds perhaps 10,000 to 20,000 holes will ultimately be drilled on at least 50 metre centres (and possibly 25 metre centres).

Resource from the proposed test-pit will be subject to grade control based on patterned drill holes on 50 metre centres. This should provide guidance to the ultimate grade control pattern for any expanded operation as envisaged in the 'Frame Agreement'.

Expenditure on Exploration for the Quarter was \$340,906.

By Order of the Board



Duncan Pursell  
Managing Director

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by D.C Pursell. D.C Pursell 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. D.C Pursell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.