

## **ASX ANNOUNCEMENT**

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# JACK HILLS EXPANSION PROJECT UPDATE – KEY FEASIBILITY MILESTONE ATTAINED

### **Highlights**

- Preferred flowsheet design selected and endorsed by Murchison and Mitsubishi
- Flowsheet confirms foundation production case for Jack Hills Expansion Project
- Two module concentrate circuit
- Average foundation production rate of +20 million tonnes per annum of concentrates plus DSO
- Scope for expansion to +30mtpa via additional module
- 4 major target products: premium grade magnetite pellet feed concentrate; blended magnetite/hematite concentrate; plus DSO lump and DSO fines
- BFS on track for completion in June Quarter 2011
- Underpins customer volumes for Oakajee port and rail infrastructure project

Murchison Metals Limited ("Murchison") is pleased to provide a project update for the Jack Hills Expansion Project (JHEP), following the achievement of a key technical milestone in the Bankable Feasibility Study (BFS).

The Jack Hills iron ore project, in Western Australia's mid-west region, is owned and operated by Crosslands Resources Ltd ("Crosslands"), in which Murchison is a 50% shareholder. The remaining 50% of Crosslands is held by Mitsubishi Development Pty Ltd ("Mitsubishi"), a subsidiary of Mitsubishi Corporation of Japan.

As a result of extensive technical evaluation, Crosslands has confirmed the foundation production case for the JHEP project after identifying the optimum flowsheet design for the project. This represents a critical step in completing the BFS.

Murchison Executive Chairman Paul Kopejtka said the selection of the preferred flowsheet was a pivotal milestone for the JHEP.

"Finalisation of the flowsheet for the JHEP project represents a major step toward our planned completion of bankable feasibility studies in the June Quarter, ," he said. "It also confirms a robust foundation production case for the JHEP as a long life producer of premium quality iron ore products."

"Murchison and Mitsubishi look forward to bringing the JHEP and Oakajee infrastructure project to fruition and underpinning the development of a world-class iron ore industry in Western Australia's mid-west."



As advised in the December 2010 Quarterly Activities Report, Crosslands has been undertaking advanced metallurgical and process testwork to determine the optimum processing route, product mix and production profile for the JHEP.

The program evaluated eight different flowsheet options to match the mining method and mine plan for the Jack Hills resource with the most viable processing route for the project.

Murchison and Mitsubishi have selected and endorsed the preferred flowsheet recommended by Crosslands.

The selection process identified a two module concentration circuit, each incorporating crushing, grinding, magnetic separation, gravity and flotation stages, as the optimum processing route.

Each module will produce a premium grade magnetite pellet feed concentrate plus a blended magnetite and hematite concentrate. The magnetite concentrate is expected to average in excess of 68% Fe while the blended magnetite/hematite concentrate is expected to average in excess of 64% Fe.

The naturally low alumina content of the Jack Hills resource will put JHEP products among the lowest alumina Fe products available on the global market.

This preferred flowsheet also seeks to maximise recovery from the Jack Hills resource, with around 75% of the iron expected to be recovered from the processed ore. It will also enable high volume bulk mining methods to be employed, thereby significantly reducing unit mining costs and delivering an estimated mine strip ratio of less than 1:1.

Average annual production of the two module concentration facility is envisaged at more than 20 million tonnes, including supplementary direct shipping (DSO) lump and DSO fines production.

The development plan also envisages an expansion to more than 30 mtpa with the addition of a third concentrate module, subject to various factors including favourable market conditions.

The findings of this flowsheet selection process will now be incorporated into the BFS to finalise budget and engineering.

Importantly, the confirmation of the JHEP's foundation production profile will provide added certainty for Oakajee Port & Rail's (OPR) planned development of the Oakajee deepwater port and associated rail infrastructure. Murchison and Mitsubishi also each hold a 50% economic interest in OPR. Crosslands is expected to be the biggest of OPR's three Foundation Customers.

In addition to work associated with the flowsheet selection process, Crosslands has achieved significant progress in a number of other areas with respect to the JHEP since the start of the year. The BFS remains on track for completion as planned in the June Quarter 2011.

Finalisation of the revised plant layout and rail loop location, incorporating the preferred design options for the Integrated Waste Landform (IWL), is imminent, and is expected to result in significant cost savings, particularly with respect to reduced waste haulage costs. A cellular storage option and a steepened beach concept are both currently under consideration for the IWL.

As advised in the December 2010 Quarterly Activities Report, infill and extension resource drilling at the Brindal satellite deposit and Brindal Silver Spur Gap had identified several targets prospective for additional DSO mineralisation. Further exploration is planned for this area.



The geotechnical engineering report for the Brindal satellite project has been completed and is undergoing external review.

On the approvals front, Crosslands expects WA's Environmental Protection Authority to submit its final report on the JHEP to the WA Environment Minister in the June quarter. Crosslands submitted its responses to public and government comments on its Public Environmental Review document in December 2010.

Crosslands also referred the JHEP proposal to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities ("SEWPaC", previously DEWHA) on 22 February 2011. SEWPaC is expected to announce its referral decision in the current quarter.

Crosslands anticipates it will receive all state and federal environmental approvals necessary for financial closure for the JHEP in the September Quarter of 2011.

As reported previously, on 4 November 2010 Murchison and Mitsubishi announced they had reviewed the project schedule for both the JHEP and Oakajee projects. According to the revised schedule, completion of BFS for both projects is targeted for the June Quarter 2011. First shipments through the Oakajee port are anticipated in late 2014/early 2015.

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#### **About Murchison**

Murchison Metals Limited ("Murchison") is an Australian ASX listed company. Murchison is included in the S&P/ASX 200 Index.

Murchison is a 50% shareholder in Crosslands Resources Ltd ("Crosslands") which is the owner of the Jack Hills iron ore project located in the mid-west region of Western Australia. The remaining 50% of Crosslands is held by Mitsubishi Development Pty Ltd ("Mitsubishi"), a subsidiary of Mitsubishi Corporation, Japan's largest general trading company.

Murchison also has a 50% economic interest in an independent infrastructure business, Oakajee Port and Rail ("OPR"). OPR was established to construct new port and rail infrastructure to provide logistics services to miners (including Crosslands) and other potential customers in the mid-west region of WA. The remaining 50% economic interest in OPR is held by Mitsubishi.

In addition to its investments in Crosslands and OPR, Murchison owns the Rocklea iron ore project located in the Pilbara region of Western Australia.