

NEWS RELEASE

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For Immediate Dissemination

Update MMS – 2010 Geological Program

VANCOUVER, BRITISH COLUMBIA – (Marketwire – August 20, 2010), Macarthur Minerals Limited (MMS – TSXV) (“the Company”) is pleased to announce interim details of its 2010 geological field season for the hematite and magnetite resource definition campaigns.

All exploration activities have been focused on its Lake Giles project located in the Yilgarn region of Western Australia.

Overall, the Company has completed 189 RC drill holes for a total of 16,300 metres. In addition to this, 4 hematite and 2 magnetite diamond holes totaling 755.5 metres were completed for metallurgical testing. At the time of this release 3,200 samples remain with the assay laboratory for testing.

MMS has now undertaken 9 separate stages of drilling with the Stage 8 Magnetite Program nearing completion after 24 RC holes totaling 2070 metres focused on the Moonshine resource corridor.

Stage 9 Hematite program has been the primary focus for the 2010 geological campaign with 165 RC holes completed for 14,230 metres. In addition, 4 diamond holes have also been completed.

Throughout 2010, the Company has been reporting the results of:

1. Moonshine and Banjo hematite rock chip and drilling results on the 8 December 2009 and 18 January 2010, and 3 March 2010.
2. On 11 May 2010, significant drill intersections along with 6 new prospective hematite/goethite mineralised zones were announced.
3. On 22 June 2010, the Company released its maiden inferred hematite resource estimate of 4.4 million tonnes at 54.2%Fe. This independent resource report was based on the first 39 RC holes completed in the Banjo and Moonshine deposits.

Since that time addition step off drilling has occurred at Banjo and Moonshine to confirm the extent of the hematite/goethite mineralisation and bulk metallurgical testing is currently being undertaken.

Furthermore, the Company has been actively RC drilling targets in the Central, North Central and South Central target zones, along with Snark, Sandlewood and Lost World prospects.

At this time the Company is waiting on approximately 3,200 samples for assay results from Amdel Laboratory in Perth to better understand the extent of this hematite/goethite mineralisation.

Macarthur considers that the Lake Giles project has the potential for further tonnage increase in both the magnetite and hematite mineralised zones.

QUALIFIED PERSON

Mr. Andrew Spinks B.App.Sc, Grad.Dip (Mining), a member of AusIMM, and a consultant geologist, is a Qualified Person as defined in National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"), in charge of the exploration on the Lake Giles project.

Further information on Macarthur Minerals Limited and technical reports on the Lake Giles project can be found on the company's website www.macarthurminerals.com or www.sedar.com

On behalf of the Board of Directors,
MACARTHUR MINERALS LIMITED

"Alan Phillips"

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