

NEWS RELEASE

August 23, 2010

Symbol: MMS-TSXV

For Immediate Dissemination

HIGH GRADE MAGNETITE INTERSECTED.

VANCOUVER, BRITISH COLUMBIA – (Marketwire – August 23, 2010), Macarthur Minerals Limited (MMS – TSXV) (“the Company”) is pleased to release that it has intersected high grade magnetite within Diamond drill hole LGDD005 at its moonshine project.

Key points:

- A 12.5 metre interval of high grade magnetite has been intersected in LGDD005
- Innov-X Systems portable XRF analyser (see disclaimer) has recorded the following interval.

<u>From</u>	<u>Width</u>	<u>%Fe</u>	<u>%Al</u>	<u>%Si</u>
217m	12.5m	59.30	0.81	4.45

The results are of similar grade to some of the iron ores being mined elsewhere in Australia and indicate that there is potential for the identification of direct shipping ore (DSO) Magnetite in the Lake Giles Project.

LGDD005 was drilled to provide magnetite banded iron formation for metallurgical testwork as part of the scoping study the company is completing (refer news release dated 18 August 2010). The diamond core is currently being processed and prepared for shipment to Amdel Laboratory (Perth, Western Australia) for metallurgical testwork. The metallurgical testwork will assess the mineralogy and potential saleable product specifications.

Reverse circulation (“RC”) drill holes from the 2009 and 2010 drill programmes have been drilled along strike from LGDD005. One of these holes (LGRC203) recorded 10m at 55% Fe (in-situ grade) from 135m from XRF analysis. Results for the 2010 RC holes are part of the 3,200 assays pending (refer news release dated 20 August). The sampling and subsequent analysis of these RC holes has been carried out on 5m intervals. Based on the geological logging and down-hole magnetic readings the following table outlines the 1m intervals that are being resubmitted for XRF analysis. This analysis is expected to better define the high grade boundaries.

Hole	North	East	Dip (deg)	Azimuth (deg)	Interval (m)	
	(m)	(m)			From	To
LGRC_202	6674573	788034	-60	250	68	80
LGRC_203	6674758	787980	-60	250	115	144
LGRC_269	6674940	787908	-60	250	93	133
LGRC_270	6675114	787827	-60	250	107	117

To date, the RC holes are largely drilled on 200 metre section spacing's, which delineates the potential high grade magnetite occurs over at least 600 metre strike length. It is too early to determine the potential size or commercial merits of this occurrence; however the company plans to commence RC drilling on a closer spacing for the following purposes:

- Better understand the geological setting, geometry and limits.
- Demonstrate grade and width continuity.

The results from the pending assays and drilling will be released when they become available.

DISCLAIMER: (Innov-X Systems XRF)

The iron grade estimates referred to in this release are based on multiple readings of the magnetite intersection using a Innov-X Systems portable XRF analyser. While MMS believes the Innov-X Systems estimates are indicative of the grades of the intersection, the Company makes it clear that the Innov-X Systems results are not based on formal assays and are an estimate of Iron grades only. Formal assay for the intersections will be released when they are available.

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,
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