



**NEWS RELEASE**  
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**Symbol: MMS-TSXV**  
For Immediate Dissemination

## **LAKE GILES RESOURCE UPDATE**

VANCOUVER, BRITISH COLUMBIA – (Marketwire – November 5, 2009, **Macarthur Minerals Limited (MMS-TSXV) (“MMS”)** today advised that the following significant milestones and events have been achieved:

- Stage 7 drilling programme completed.
- New resource estimate for Sandalwood project.
- Total Inferred Resource increased to 790 Mt.
- Higher grade magnetite over a 25m interval was recorded at Moonshine prospect.
- New haematite targets identified.

### **Stage 7 - Completed**

The Stage 7 drilling programme was successfully completed at the Lake Giles Magnetite project. A total of 47 holes for an advance of 9,028 metres was drilled at its Moonshine and Clark Hill North projects. The programme was successful on several fronts and the following summarises the key points:

- Moonshine deposit strike length was doubled from 3km to over 7km in length.
- BIF widths of +100m were intersected frequently at both the Moonshine and Clark Hill North project.

The Company is now finalising the geological interpretations and compiling drilling data in preparation for both the Moonshine and Clark Hill North updated resource estimate when all assays are received. To date, over 70% of the assays have been received and it is anticipated that the Moonshine resource will be significantly increased as a result of the Stage 7 drilling.

### **Resource Estimate**

Based on new geological interpretations the Company has received an Independent Inferred Mineral Resource Estimate for its Sandalwood project. The Inferred Mineral

Resource Estimate for Sandalwood is 335 million tonnes at 31.1% Fe which is a fourfold tonnage increase, based on the previous resource estimate of 84.7 million tonnes. The Inferred Mineral Resource for Sandalwood is shown in table 1.

The new estimate increases the Company's total Inferred Mineral Resource Estimate for the Lake Giles project to 790 million tonnes at 28.1% Fe (refer Table 2).

Macarthur Minerals Limited President, Chairman & CEO, Mr Alan Phillips said a NI43-101 Technical Report for the project will be filed with Sedar within 45 days.

Table 1 – Sandalwood Inferred Mineral Resource

	Tonnes (Mt)	Grade % Fe	% Mass Recovery
In-Situ	335	31.1	
Davis Tube Concentrate	110	64.6	33.1

**Notes for table 1**

- Figures contained within Table 1 have been rounded. % Fe grades % Mass Recovery are rounded to 1 decimal figure.
- Davis Tube concentrate results is the proportion of sample extractable by magnetic separation.

Lake Giles project area's Mineral Resource Estimate has been updated by CSA Global ("CSA") with the addition of a new estimate for the Sandalwood deposit. The updated Mineral Resource Estimate is shown in Table 2. As the Lake Giles project is at an early stage of evaluation, MMS has not established the economic viability of the Mineral Resources, and no Mineral Reserve estimates have been produced for the deposit. The extent to which mining, metallurgical, infrastructure, permitting, marketing and other financial factors may affect Mineral Resource Estimates is not well defined.

Drilling has not yet defined the extent of the Sandalwood magnetite mineralization and there is potential for substantial additional mineralization from further drilling.

<b>Table 2: Lake Giles Inferred Mineral Resource Estimate</b>		
<b>Deposit</b>	<b>Million Tonnes</b>	<b>Fe %</b>
Snark	26.3	27.5
Clark Hill North	130.0	25.8
Sandlewood	335.0	31.1
Clark Hill South	48.5	21.9
Moonshine	253.0	26.4
<b>Total</b>	<b>790</b>	<b>28.1</b>

(rounding errors may occur)

**Notes for table 2:**

- Figures contained within Table 2 have been rounded. % Fe grades are rounded to 1 decimal figure.
- Davis Tube concentrate results is the proportion of sample extractable by magnetic separation.
- Magnetite mineralization at Sandalwood is interpreted to comprise several sub-vertical northwest trending zones of banded iron formation (BIF) alternating with ultramafic rocks. The mineralized interpretation used for the estimates extends from the base of oxidation at an average of approximately 60 metres below surface to the depth of the deepest Sandalwood mineralized drill intersection at approximately 200 metres below surface.
- The Sandalwood deposit has been drilled with 22 RC holes. Drill hole coverage of the Sandalwood area is irregularly spaced with spacing between drill holes varying from approximately 100 metres to 350 metres.

For the new resource update, the Company supplied CSA with a new geological interpretation based on new surface mapping of contacts, re-logging of drill holes and re-interpretation of the dip of the banded iron formation (BIF) contacts together with the drill hole database comprising collar location, downhole survey and geology logs.

Analytical data for mineralised portions of these holes include Davis Tube concentrate results which measure the proportion of sample extractable by magnetic separation. Material concentrated by the Davis Tube test was assayed by X-ray fluorescence (XRF) for iron and other elements of interest.

A cut-off of 15% Davis Tube Recovery (DTR) was applied. The oxide boundary was revised based on MMS's new logging of weathering and magnetism of drill chips, the DTR % recovery and the calculated % Fe recovered.

A block model was constructed using the three dimensional geological wireframes. Density estimates were based on 533 density values from nearby MMS deposits at Lake Giles, 296 of which were for BIF. A fixed average density of 3.3 g/cm<sup>3</sup> was applied.

Mr. Chris Allen, MAusIMM, who is a full-time employee of CSA and is an Independent Qualified Person, has reviewed and approved the above technical information relating to the Sandalwood, Clark Hill North and Moonshine Mineral Resource estimate contained in this release.

Mr. Jonathon Abbott, MAusIMM, who is a full-time employee of Hellman & Schoefield and is an Independent Qualified Person, has reviewed and approved the above technical information relating to resource estimates for Snark and Clark Hill South contained in table 1.

**High Grade Magnetite and New Haematite Targets Identified**

The Company is encouraged by a 25m intercept of high grade magnetite in drill hole LGRC203. This intersection remains open for over 500m along strike, and outcrop sampling is currently in progress to define its limits and plan step-out drilling.

A 10m interval of this intercept averaged 55% Fe (*in-situ* grade). If the Company can delineate sufficient quantities of this premium magnetite material, it would substantially improve the potential cash flow of the development period of the Lake Giles project.

As a result of a recent regional targeting exercise, the Company has identified 24 new haematite targets. These targets will be systematically evaluated by mapping and sampling over the next 2 months.

## **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.

On behalf of the Board of Directors,  
**MACARTHUR MINERALS LIMITED**

*"Alan Phillips"*

Alan Phillips, President, Chairman & CEO

### **Corporate Relations**

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