



NEWS RELEASE

September 21, 2009

Symbol: TSX-MMSV

For Immediate Dissemination

LAKE GILES MAGNETITE RESOURCE ESTIMATE INCREASED TO 542 Mt

Vancouver, British Columbia – **Macarthur Minerals Limited** (TSXV-MMS) today advised that an updated independent estimate had increased the Inferred Mineral Resource Estimate for its Clark Hill North magnetite iron ore project in Western Australia to 130 million tonnes at 25.8% Fe which is a 350 % tonnage increase, based on the previous resource estimate of 37.1 million tonnes. The total Inferred Mineral Resource for Clark Hill North shown in Table 1.

The new Clark Hill North Inferred Mineral Resource estimate increases the company's total Inferred Mineral Resource estimate for the Lake Giles project to 542 million tonnes at 26.3 % Fe (refer Table 2).

Table 1 – Clark Inferred Mineral Resource

	Tonnes (Mt)	Grade % Fe	% Mass Recovery
In-Situ	130.0	25.8	
Davis Tube Concentrate	43.2	62.1	33.2

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 Mineral Resource estimate has been updated by CSA Global ("CSA") with the addition of estimate for the Clark Hill North deposit. The Clark Hill North deposit is located in the north of the Lake Giles Project (refer Figure 1). No new estimates were completed for the companies four other deposits. However, Moonshine, Clark Hill North, Snark and Sandlewood will have their current mineral resource estimates updated by CSA prior to the end of this field season, being December 2009. It is expected that these mineral resource estimate updates will further increase the in-situ tonnage of magnetite iron ore.

The resource estimate is based on a new geological interpretation and mapping over the last 4 months. During the Stage 7 drilling program a total of 6 reverse circulation drill holes were completed at Clark Hill North and it is expected that when these are incorporated into the

resource a further update will be required. Given the significant increase in tonnes, the company is now carrying out mapping at its other prospects and will re-interpret them in the following order Sandlewood, Snark and Clark Hill South.

The updated Mineral Resource estimate is shown in Table 2. The Lake Giles project is at an early stage of evaluation. Macarthur has not established the economic viability of the Mineral Resources, and no Ore Reserve estimates have been produced for the deposit. The extent to which mining, metallurgical, marketing, infrastructure, permitting, marketing and other financial factors may affect Mineral Resource Estimates is not well defined.

Drilling has not yet defined the extents of the Clark Hill North magnetite mineralization. There is potential for substantial additional mineralization from further drilling.

Table 2: Lake Giles Inferred Mineral Resource Estimate

Deposit	Million Tonnes	Fe %
Snark	26.3	27.5
Clark Hill North	130.0	25.8
Sandlewood	84.7	28.3
Clark Hill South	48.5	21.9
Moonshine	253.0	26.4
Total	542	26.3

(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 Clark Hill North is interpreted to comprise several sub-vertical northwest trending zones associated with banded iron formation (BIF) and 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 Clark Hill North mineralized drill intersection at approximately 230 metres below surface.
- The Clark Hill North deposit has been sampled by 36 RC holes drilled. Drill hole coverage of the Clark Hill North area is irregularly spaced with spacing between drill holes varying from less than 100 metres to approximately 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 mineralized 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 Macarthur'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 Macarthur deposits at Lake Giles, 296 of which were for BIF. A fixed average density of 3.3 g/cm³ was applied.

New variograms were produced for head grades, DTR and concentrate grades for each element including Fe, SiO₂, Al₂O₃, P, S, and LOI. The data were split into two domains for the west and east lodes. The variograms demonstrate the mineralization has high spatial continuity within the stratigraphic boundaries.

The Clark Hill resources were estimated by Ordinary Kriging. Interpolating the grades a single search ellipse was used to ensure the same set of samples was used for each cell, but each element was interpolated using its own variogram models. A minimum of 12 samples and a maximum of 30 samples were used, and grades were interpolated into 25 x 25 x 10m parent cells.

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 Clark Hill North and Moonshine Mineral Resource estimate contained in this release.

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

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"

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