

NEWS RELEASE

June 14, 2012

Symbol: MMS: TSX, OTCQX: MMSDF

For Immediate Dissemination

MACARTHUR MINERALS SUBSTANTIALLY INCREASES ITS HEMATITE RESOURCE INVENTORY, SUPPORTED BY METALLURGICAL TESTWORK

Macarthur Minerals Limited (TSX: MMS, OTCQX: MMSDF) (the “Company” or “Macarthur”) is pleased to announce a substantial increase in the hematite/goethite Mineral Resource inventory at the Ularring Hematite Project.

Highlights

- Results of two metallurgical test work programs indicate that it is technically possible to beneficiate lower grade hematite/goethite material and thereby reduce the cut-off grade.
- Indicated Mineral Resource inventory has increased from a total of 13.01 Mt @ 55.2% Fe¹ at a cut-off grade of 50% Fe to 54.46Mt @ 47.2% Fe at a cut-off grade of 40% Fe.
- Inferred Mineral Resource inventory has increased from a total of 16.95 Mt @ 55.6% Fe¹ at a cut-off grade of 50% Fe to 25.39Mt @ 45.2% Fe at a cut-off grade of 40% Fe (excluding 0.6Mt at Moonshine).

Macarthur’s President, Chairman and CEO, Alan Phillips commented that, “*The completion of the infill drilling campaign for conversion of Inferred Mineral Resources to Indicated Mineral Resources coupled with the encouraging results of metallurgical test work programs prompted Mineral Resource estimation based on lower cut-off grades. The release of the new Mineral Resource estimate is a further positive step towards demonstrating the potential of the Company’s hematite Mineral Resource. Macarthur has again exceeded its stated resource goals and the Company is now moving rapidly ahead with project approvals for the development of the Ularring Hematite Project.*”

Metallurgical Test Results

The previous Mineral Resource estimation used a 50% Fe cut-off grade to define Mineral Resource volumes. Phase one metallurgical testing (News Release November 21, 2011) conducted in late 2011 indicated that it is technically possible to recover material with a grade greater than 60% Fe with a recovery of over 63% using conventional gravity beneficiation from comparatively high grade starting materials. The results of the recently completed second phase of metallurgical testing provided evidence for the processability of a range of material types and grades and prompted re-evaluation of the Mineral Resource inventory at a 40% Fe cut-off grade (News Release June 1, 2012).

Further Mineral Resource Definition

The current Mineral Resource estimate also incorporates all the results from the Company’s latest resource definition reverse circulation (“RC”) drilling program at its Snark, Drabble Downs, Banjo and Central deposits. The total number of holes drilled in these deposits to date this calendar year was 290 holes for a 19,411 metre advance.

June 2012 Mineral Resource Estimation

Independent mining consultancy group CSA Global Pty Ltd (“CSA”) was commissioned by Macarthur to

¹Technical Report filed March 9, 2012

generate a new National Instrument 43-101 (“NI43-101”) Mineral Resource estimate for the Ularring Hematite Project, presently comprised of five separate deposits being Snark, Drabble Downs, Central, Banjo (previously called Banjo-Lost World) and Moonshine.

The previous Mineral Resource estimate was based upon a nominal 50% Fe cut-off grade. As a consequence of the positive metallurgical test work (News Release June 1, 2012) which has demonstrated that the lower grade mineralisation in the Ularring Hematite Project is amenable to beneficiation, Macarthur and CSA have utilised a geological model which encapsulates the host Banded Iron Formation (“BIF”) strata. The new Mineral Resource estimate has been constrained by the BIF envelope and is reported from all blocks above a 40% Fe cut-off grade and incorporates all of the drill results to date. The exception to this is the Moonshine deposit’s Mineral Resource, which was modelled using a 50% Fe envelope and is reported for blocks > 50% Fe. This is discussed in the Technical Report filed March 9, 2012.

Table 1. Ularring Hematite Project Mineral Resource at June 2012

Category	Tonnes Mt	Fe %	P %	SiO2 %	Al2O3 %	LOI %	S %
Indicated	54.46	47.2	0.06	16.9	6.5	7.9	0.16
Inferred	25.99	45.4	0.06	20.6	6.0	7.2	0.09

Note: The CSA mineral resource was estimated within constraining wireframe solids encapsulating BIF strata. The resource is quoted from blocks above 40 Fe % cut-off grade, except Moonshine where resource is quoted from blocks above 50 % Fe. Differences may occur due to rounding.

The previous published Mineral Resource for the Ularring Hematite Project is presented in Table 2 (Technical Report filed March 9, 2012). The current Mineral Resource is reported by deposit in Table 3.

Table 2. Ularring Hematite Project Mineral Resource published in January 2012

Category	Tonnes Mt	Fe %	P %	SiO2 %	Al2O3 %	LOI %	S %
Indicated	13.01	55.2	0.07	8.0	4.4	7.8	0.17
Inferred	16.95	55.6	0.07	8.1	4.4	7.4	0.15

Note: The CSA Mineral Resource (January 2012) was estimated within constraining wireframe solids based on a nominal lower cut-off grade of 50% Fe. The resource is quoted from blocks above 50Fe % cut-off grade. Differences may occur due to rounding.

Table 3. June 2012 Ularring Hematite Project Mineral Resource by Deposit

Deposit	Reporting cut-off grade (Fe%)	Category	Tonnes Mt	Fe %	P %	SiO2 %	Al2O3 %	LOI %	S %
Snark	40	Indicated	21.83	47.2	0.07	17.5	6.1	7.7	0.15
	40	Inferred	10.96	45.2	0.07	21.8	5.1	6.8	0.09
Drabble Downs	40	Indicated	11.07	47.2	0.06	16.6	6.4	8.3	0.26
	40	Inferred	0.36	43.6	0.05	24.0	4.8	7.8	0.09
Central	40	Indicated	15.09	47.0	0.05	16.2	7.2	8.1	0.12
	40	Inferred	10.19	45.3	0.06	20.3	6.3	7.5	0.08
Banjo	40	Indicated	6.47	47.8	0.06	16.7	6.6	7.4	0.14
	40	Inferred	3.88	45.4	0.06	18.7	7.6	7.9	0.09
Moonshine	50	Inferred	0.60	53.0	0.06	13.4	6.7	6.1	0.15

The Mineral Resource estimate completed by CSA for all deposits is based on the following:

- Macarthur supplied geological and sampling data and geological support to CSA during the mineral resource modelling process.
- Macarthur interpreted the BIF strata and supplied CSA with 3-D solid wireframes encapsulating the BIF.
- CSA prepared a validated drill hole database to support the current Mineral Resource estimate.
- CSA carried out grade estimation and Mineral Resource reporting using Datamine software.
- Density data was collected by downhole geophysical probe, which measured the width of the hole and the corresponding density of the wall rock. These results were correlated with the corresponding sample assay (Fe %), and an algorithm delineated to calculate block density according to estimated iron grade.
- No diamond drill core was sampled and therefore not used in the grade interpolation. The RC holes are sampled at 1m intervals.
- No top cuts were applied to any grade variable.
- Variograms were modelled for Fe and P. The variograms gave reasonable structures along strike but poorly defined structures with limited ranges in the down dip direction.
- Three Datamine block models were constructed for each of the deposits, with blocks based on the modelled wireframed BIF zones. The models used a parent cell size of 10m x 25m x 10m (X x Y x Z) with subcells down to 1.0m x 2.5m x 1.0m to model the steeply dipping narrow lenses.
- Ordinary Kriging (“OK”) was used to estimate the grades into the parent blocks for Fe, P, SiO₂, Al₂O₃, S and LOI.
- Search radii were 100 m along strike, 100 m across strike and 15 m vertically. Each BIF domain was estimated individually, using only those samples located within the individual domains. The large radii width across strike did therefore not source sample data from adjacent domains. The limited vertical radii were used to control the vertical spread of grade, in order to prevent known mineralisation into the low grade (Fe %) BIF and vice versa.
- A minimum of 8 samples and a maximum of 24 samples were used to estimate the sample grades into each block for the first search pass. The minimum number of samples was reduced to 2 for the third search pass.
- A maximum of 5 samples from any one drill hole were used per block estimate, with cell discretisation of 3 x 3 x 3 (X x Y x Z). Octant based searching was not used.
- The results of the grade estimation were validated by means of visual comparison along sections, statistical analysis and trend plots comparing the estimated block grades and the drill hole sampling grades.
- A light detection and ranging (“LIDAR”) topographic survey was flown in June 2011 and the data derived from this was re-sampled to 2 m contours. A digital terrain model (“DTM”) was produced and used in the Mineral Resource estimate.
- The Mineral Resource was classified as Indicated and Inferred according to the reporting guidelines of NI43-101. The classification is based upon an assessment of the drill sample data at time of publication, using long section plots of each domain to determine Indicated classification perimeters. The geological interpretation was guided by surface fact mapping of hematite / BIF ridges. Indicated classification generally extended from surface to a depth of between 30 m and 60 m below surface. Each mineralisation domain was classified independently, with some domains being set wholly to Inferred due to limited drill hole support. A minimum of 5 drill holes per domain was required for a domain to be considered for Indicated classification. Deep seated blocks were not classified where there was no drill hole support at those depths to support the geological interpretation and grade estimation. The classification level is based upon an assessment of geological and mineralisation continually, quality control results and an analysis of available density information.
- The Moonshine hematite resource was not remodelled and is reported herein at a 50% Fe grade cut-off, as discussed in the Technical Report filed March 9, 2012.

- Intersections reported have been verified by the Company's quality assurance and quality control protocols. All samples collected from drill holes were prepared by independent laboratories, Ultra Trace and ALS Laboratories in Perth, WA and pulverised to 90% passing 75 microns and then analysed for the iron suite using XRF.

Moving Forward

A significant proportion of the Company's tenements remain to be explored. The Company is moving ahead to follow-up the results of regional airborne geophysical surveys with geological mapping and ground magnetic surveys with a view to identifying additional hematite/goethite mineralisation exploration targets in new areas and prioritising such additional targets for drill testing to further increase the Company's hematite/goethite resource inventory.

Several previously unmapped and undrilled areas of strong hematite/goethite mineralisation have already been identified east of the Banjo deposit and south of Cody's Ridge. This mineralisation has been observed from surface expressions to occur over several kilometres of strike.

There are no known material legal, political, environmental or other risks that could affect the potential development of the resources. Non-material risks the Company has identified are set out in the Management Discussion and Analysis that was filed on February 9, 2012. A NI43-101 Technical Report for the project will be lodged with SEDAR within the required time.

QUALIFIED PERSONS

The information in this release that relates to in-situ Mineral Resources is based on information compiled by Mr David Williams, BSc (Hons), of CSA Global. Mr Williams takes overall responsibility for the Mineral Resource. He is a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as an Independent Qualified Person within the meaning of NI 43-101. Mr Williams consents to the inclusion of such information in this news release in the form and context in which it appears.

Mr David Larsen, BSc (Geology), a member of the Australian Institute of Geoscientists, is a full-time employee of Macarthur and is a Qualified Person as defined in NI 43-101. Mr Larsen is in charge of Macarthur's exploration programs and has reviewed and approved the technical information contained in this news release.

Both Mr Williams and Mr Larsen are satisfied that the processes used are standard industry operating procedures and methodologies. They have verified the results and data disclosed in this release, including sampling, analytical, and test data underlying the information or opinions contained in the release.

ABOUT MACARTHUR MINERALS LIMITED (TSX: MMS, OTCQX: MMSDF)

Macarthur Minerals Limited is an Australian based resource development company currently focused on developing its Ularring Hematite Project, located in the Yilgarn iron ore district in Western Australia. The Ularring Hematite Project is located 110 km from rail infrastructure with a direct connection to the iron ore exporting Port of Esperance, Western Australia.

In addition to the Ularring Hematite Project, Macarthur's Moonshine Magnetite Project has an inferred resource of 1.3 Bt at 30.1% Fe (press release dated December 15, 2010; NI43-101 Technical Report dated March 25, 2011).

Positive Preliminary Economic Assessments were released to the market on the Ularring Hematite Project in November 2011 (press release dated November 21, 2011) and the Moonshine Magnetite Project in February 2011 (press release dated February 7, 2011).

On behalf of the Board of Directors,

MACARTHUR MINERALS LIMITED

"Alan Phillips"

Alan Phillips, President, Chairman & CEO

Company Contact

Alan Phillips:
aphillips@macarthurminerals.com

Tel: +61 418 726 230
www.macarthurminerals.com

Institutional Investor Relations

Investor Cubed
Alan Huycke: ahuycke@investor3.ca

Tel: 416-366-0010
www.investor3.ca

Retail Broker Promotion

Renmark Financial Communications Inc.
Erica Lomonaco: elomonaco@renmarkfinancial.com

Tel: (514) 939-3989 or (416) 644-2020
www.renmarkfinancial.com

THIS NEWS RELEASE IS NOT FOR DISTRIBUTION TO UNITED STATES SERVICES OR FOR DISSEMINATION IN THE UNITED STATES**Caution Regarding Forward Looking Statements**

Certain of the statements made and information contained in this press release may constitute forward-looking information and forward-looking statements (collectively, "forward-looking statements") within the meaning of applicable securities laws. Such forward looking statements include our belief as to the extent and timing of exploration programs and various studies, the results of the preliminary economic assessments of the Company, the potential tonnage, grade and cut-off of deposits, mineral resource estimates, results of beneficiation and the viability of the Company's Projects.

The forward-looking statements in this press release reflect the current expectations, assumptions or beliefs of the Company based upon information currently available to the Company. With respect to forward-looking statements contained in this press release, assumptions have been made regarding, among other things, the reliability of information prepared and/or published by third parties that are referenced in this press release or was otherwise relied upon by the Company in preparing this press release. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include unforeseen technology changes that results in a reduction in iron or magnetite demand or substitution by other metals or materials, the discovery of new large low cost deposits of iron magnetite and the general level of global economic activity. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. The forward-looking statements contained in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not assume any obligation to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.