

NEWS RELEASE October 12, 2016 Symbol: TSX-V: MMS
For Immediate Dissemination

# MACARTHUR MINERALS COMPLETES PURCHASE OF WESTERN AUSTRALIAN YALGOO LITHIUM PROJECT WITH ROCK CHIP ASSAYS UP TO 3.75% Li<sub>2</sub>O

**Macarthur Minerals Limited (TSX-V: MMS)** (the "Company" or "Macarthur Minerals") is pleased to announce that it has completed due diligence and executed a Mineral Rights Deed to complete aquisition of the Yalgoo Lithium Project, located in Western Australia.

Assays received from rock chip sampling, as part of due diligence, returned results of up to 3.75% lithium (Li<sub>2</sub>O), confirming the presence of at least two lithium bearing pegmatites, one of these a new lithium occurrence. Five rock chip samples from two pegmatites returned geochemical results between 1.68% Li<sub>2</sub>O and 3.75% Li<sub>2</sub>O. Technical information was reviewed and approved by the Company's independent geologist, CSA Global Pty Ltd.

David Taplin, President, CEO and Director of Macarthur commented:

"Macarthur Minerals is excited about the results of the rock chip sampling up to 3.75% Li<sub>2</sub>O, showing excellent potential for lithium at the Yalgoo Lithium Project. Completion of purchase of the Yalgoo Lithium Project is an excellent addition to Macarthur's quality portfolio of lithium assets in Western Australia and Nevada."

## **Analytical Results**

Initial rock chip samples collected as part of a due diligence site visit to the Yalgoo Lithium Project ("Project") has confirmed the presence of at least two lithium bearing pegmatites, one of which is a newly identified occurrence. Five rock chip samples from two pegmatites returned geochemical results between 1.68% Li<sub>2</sub>O and 3.75% Li<sub>2</sub>O. The Company also submitted several rock chip samples for X-ray Diffraction Analysis ("XRD"). The XRD results indicate the highest grade sample is lepidolite with the other four samples, which returned grades of 1.68% Li<sub>2</sub>O to 2.05% Li<sub>2</sub>O, as lithium muscovite. Figure 1 shows the lithium results of the rock chip sampling and sample locations. A number of new pegmatites were identified during the site visit and these are aligned along a general NNW-SSE trending corridor some 1.5km wide and at least 5km in strike length hosting several beryl and lithium bearing pegmatites, as shown on Figure 1.

The results of the due diligence site visit are highly encouraging and indicate that the Project has excellent potential to host additional lithium bearing pegmatites. The lithium muscovite and lepidolite bearing pegmatite samples, in conjunction with the rubidium (Rb) and caesium (Cs) values indicate the sampled pegmatites are extremely fractionated and that the exploration licences warrant further exploration to locate additional lithium bearing pegmatites, particularly of the spodumene sub-type.

#### Yalgoo Lithium Project

The Project comprises of rights for lithium and other rare earth minerals over two granted exploration licences (E59/2140 and E59/2077) covering an area of 191 square kilometres (47,161 acres). The Project is close to the Company's existing Edah Hill exploration licence application, well serviced by existing infrastructure and only 230 kilometres from the Geraldton Port.

The Project covers predominantly mafic rocks at the northern extremity of the Youanmi Terrane greenstone belt. The northerly trending greenstone belt is bound to the north, east and west by granitic rocks, with a biotite monzogranite, the interpreted; although unconfirmed, source granite for the pegmatites, located along the eastern portion of the exploration licences. The northern part of the Project covers portions of a south plunging anticline containing mafic rocks, which have been extensively invaded by pegmatites, a



number of which have been prospected or mined in the past for beryl (Figure 1).

# **Mineral Rights Deed**

The Company (through its 100% owned subsidiary Macarthur Lithium Pty Ltd ("MLi")) has entered into a Mineral Rights Deed ("Rights Deed") with a private gold company to purchase exclusive rights for lithium and other rare earth minerals at the Project, with the following key terms:

- MLi will pay the private company:
  - A\$30,000 upon execution of the Rights Deed, which has been paid;
  - A\$50,000 upon the first anniversary of the commencement of the Rights Deed;
  - o A\$250,000 upon defining a 5 million tonne JORC resource of >1.2% Li<sub>2</sub>O; and
  - A\$500,000 upon defining a 15 million tonne JORC resource of >1.2% Li<sub>2</sub>O.
- Net smelter royalty of:
  - o 2.5% for lithium concentrate produced on the Project; and
  - 50% of Western Australian Department of Minerals and Petroleum royalty rate for other rare earth minerals,

produced on the Project.

#### Company's Strategy for Yalgoo Lithium Project

The Company now holds 21 Exploration Licence Applications and prospective interest in rights to lithium covering a total area of 2,029 square kilometres (501,376 acres) in the Pilbara, Ravensthorpe and the Yalgoo/Edah regions of Western Australia. In addition, the Company has also entered into an agreement to acquire the Stonewall Project in Nevada, which covers an area of approximately 5,700 acres (23 km²).

The underlying licences on which the rights of lithium are acquired on the Project comprise granted exploration licences, allowing for immediate exploration for lithium, including drilling.

The Company will conduct a more extensive sampling program on the Project to confirm the extent of lithium mineralisation and identify drill targets.

### **QUALIFIED PERSONS**

Mr Porter, a member of the Australian Institute of Geoscientists, is a full-time employee of CSA Global Pty Ltd and is a Qualified Person as defined in National Instrument 43-101. Mr Porter has reviewed and approved the technical information pertaining to the Project contained in this news release.

#### ABOUT MACARTHUR MINERALS LIMITED (TSX-V: MMS)

Macarthur Minerals Limited is an exploration and development company that is focused on identifying and developing high grade lithium and counter cyclical investments, with significant lithium exploration interest in Australia and Nevada. In addition, Macarthur has two iron ore projects in Western Australia; the Ularring hematite project and the Moonshine magnetite project.

On behalf of the Board of Directors,

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#### MACARTHUR MINERALS LIMITED

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"Cameron McCall"
Cameron McCall, Chairman

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Figure 1 – Rock Chip Sampling and Locations at the Yalgoo Lithium Project

