News release

For Immediate Dissemination

LAKE GILES FEASIBILITY STUDY UPDATE: Geotechnical Drill Programme advancing

Macarthur Minerals Limited (ASX: MIO) (TSX-V: MMS) (OTCQB: MMSDF) (the Company or Macarthur) is pleased to announce that a geotechnical diamond core drilling programme is presently underway at Lake Giles to support the current Feasibility Study for Macarthur's high grade magnetite Lake Giles Iron Project, located approximately 115km west of Menzies in Western Australia.

The drilling programme (announced on 6 July 2021 – see announcement here) includes a series of drill holes of between 175 to 220m in depth for a total of 1,560 metres for the purposes of supporting the mine planning work which is necessary for the delivery of the Feasibility Study. The drilling will focus on areas necessary to define the foot wall and the hanging wall parameters of the Moonshine and Moonshine North magnetite pit shells being designed by Orelogy Mine Consulting and Pells Sullivan Meynink.

The Company has engaged iDrilling and Drillwest to undertake the drilling works at locations across Moonshine and Moonshine North. Drill rigs have been mobilised to site and have commenced drilling. The drill programme is expected to take approximately 8 weeks to complete.

Highlights

12 August 2021

- Geotechnical drilling campaign commences on site at Moonshine and Moonshine North.
- Diamond drill rigs mobilised to site in July, and drilling works presently underway.
- Programme of work will support necessary mine planning work for the delivery of the Feasibility Study for Macarthur's high grade magnetite Lake Giles Iron Project.
- Drill programme anticipated to complete by the end of September.



Figure 1: Pictures of Macarthur light vehicle on site at twighlight, and mobilisation of diamond core drill rig at Moonshine.



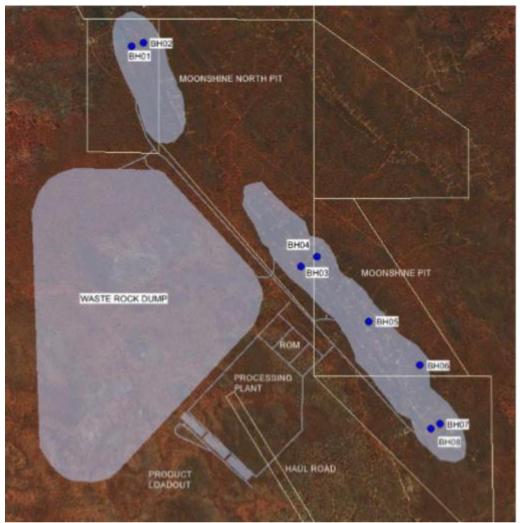


Figure 2: Lake Giles Iron Project preliminary layout showing planned geotechnical dill hole targets (shown in blue).

Andrew Bruton, CEO of Macarthur Minerals commented:

"The geotechnical drilling work is an important component of the current Feasibility Study for Macarthur's high grade magnetite Lake Giles Iron Project. The Feasibility Study remains on track and this programme of works is another example of the consistent work that is being undertaken by the Company to deliver improved value outcomes for shareholders.

We are pleased to be working with iDrilling and Drillwest and look forward to the completion of an efficient and successful programme of works over the coming weeks.

Walk with us and discover something big."

On behalf of the Board of Directors, Mr Cameron McCall, Chairman



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Company profile

Macarthur is an iron ore development, gold and lithium exploration company that is focused on bringing to production its Western Australia iron ore projects. The Lake Giles Iron Project mineral resources include the Ularring hematite resource (approved for development) comprising Indicated resources of 54.5 million tonnes at 47.2% Fe and Inferred resources of 26 million tonnes at 45.4% Fe; and the Lake Giles magnetite resource of 53.9 million tonnes (Measured), 218.7 million tonnes (Indicated) and 997 million tonnes (Inferred). The JORC reporting tables and Competent Person statement for the magnetite and hematite mineral resources have previously been disclosed in ASX market announcements dated 12 August 2020 and 5 December 2019. Macarthur has prominent (~721 square kilometre tenement area) gold, lithium and copper exploration interests in Pilbara region of Western Australia. In addition, Macarthur has lithium brine Claims in the emerging Railroad Valley region in Nevada, USA.

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Certain of the statements made and information contained in this press release may constitute forward-looking information and forwardlooking statements (collectively, "forward-looking statements") within the meaning of applicable securities laws. All statements herein, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future, including but not limited to statements regarding expected completion of the Feasibility Study; conversion of Mineral Resources to Mineral Reserves or the eventual mining of the Project, are forward-looking statements. 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. 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 but are not limited to: 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; the general level of global economic activity; failure to complete the FS; inability to demonstrate economic viability of Mineral Resources; and failure to obtain mining approvals. 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.