

## Karinga Lakes Sulphate of Potash Project – Earn-In Agreement

### Highlights

- Australian water technology company, Aqua Guardian Group Limited (AGG) has entered into a A\$3 million earn-in agreement with Verdant Minerals Ltd (Verdant) to earn up to 40% of the Karinga Lakes Sulphate of Potash Project
- The agreement is based on the staged commercialisation of aMES™ - a novel mineral processing technology developed for the more efficient and cost effective production of valuable minerals from salt lake brines than traditional production methodologies
- AGG have agreed to fund a staged evaluation of the technology including an assessment of the feasibility of producing SOP from the Karinga Lakes
- AGG will fund a lab-scale aMES™ pilot plant, extensive test work utilising salts sourced from Karinga Lakes and a scoping study based on the application of the technology within 18 months (stage 1) and subject to satisfactory progress, a feasibility study and approvals within 36 months (stage 2)
- Verdant Minerals has also secured the exclusive rights to the aMES™ technology for brine projects in the Northern Territory and South Australia
- Verdant Minerals may also elect to participate in two additional brine projects proposed by AGG over the next 6 years, anywhere in the world, which may include other brine hosted mineral projects including those focused on the production of lithium, as well as other SOP projects

Verdant Minerals Managing Director, Chris Tziolis said *“the earn-in agreement with AGG is an exciting juncture in the evolution of the Verdant Minerals’ longer term vision to produce both phosphate and sulphate of potash fertiliser minerals in Australia. The ability to advance the Karinga Lakes SOP project, with the potential of lower capital intensity and operating costs than a traditional salt lake SOP project, should underpin the realisation of value from Verdant Minerals’ SOP projects, in addition to its global scale Ammaroo phosphate project.*

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**MAJOR PROJECTS** – Ammaroo Phosphate | Karinga Lakes Sulphate of Potash

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*Furthermore, exclusive rights to utilise this technology in future brine projects in the Northern Territory and South Australia, as well as the opportunity to participate in two other brine hosted minerals projects, particularly in the recovery of lithium where the technology is also being evaluated, are exciting prospects. The initial stage 1 work on developing and commercialising the aMES™ technology will be managed by AGG which will enable Verdant Minerals to continue its primary focus of developing its flagship Ammaroo Phosphate Project.”*

### **Transaction Structure**

Aqua Guardian Group has agreed to fund a staged evaluation of the technology, including the development of a scoping study. In Stage 1, AGG has agreed to fund \$1 million of expenditure over 18 months, with the primary focus being the development of a lab-scale aMES™ pilot plant and extensive test work utilising salts sourced from Karinga Lakes and a scoping study.

At the satisfactory conclusion of Stage 1, AGG will have earned a 15% interest in the project; a Joint Venture will be formed and will have the right to proceed to Stage 2 by agreeing to contribute an additional \$1 to \$2 million, to acquire an additional 15% or 25% interest, respectively, in the project. A total interest of 40% can be earned by AGG in the Karinga Lakes Project with expenditure of \$3 million.

### **Background**

In recent years, advances in mineral processing technologies have supported the development of new mineral projects with improved financial performance and increased consideration of the environment. Since late 2015, Verdant has been evaluating aMES™- a novel mineral processing technology, for producing SOP from the Karinga Lakes project and has been encouraged by the progress to date.

Bench scale testing of the aMES™ technology with brine and salts sourced from Karinga Lakes, has demonstrated the potential to efficiently concentrate potassium salts and remove impurities. These two steps are critical in designing and successfully operating an efficient SOP production operation.

In order further evaluate the technology, Verdant and Aqua Guardian Group (AGG) have entered into a \$3 million earn-in agreement, which will enable the phased commercialisation of the technology, and support the development of a commercial SOP operation at the Karinga Lakes, subject to satisfactory progress.

### Advantages being pursued through the aMES™ technology

Production of high-purity mineral salts (primarily SOP) is targeted, as well magnesium containing by-products and potable water. It should be noted that fresh water is a substantial constraint in the production of SOP using conventional techniques, however the aMES™ technology produces fresh water as a valuable by-product.

Improved project economics is possible through, capex/opex savings and higher product recoveries. Improved energy efficiency and reduced reagent use may also improve not only project economics, but the environmental footprint as well.

### ADDITIONAL INFORMATION

#### The Technology

The activated Mineral Extraction System (aMES™) is an innovative technology developed by Activated Water Technologies (AWT) to more efficiently and sustainably recover minerals, reagents & water from aqueous solutions. The technology is based on a novel integration of proven technologies, combined with proprietary process IP consisting of patents, expertise and knowhow, developed over many years.

#### Activated Water Technologies Pty Ltd (AWT)

AWT is a private Australian company, focused on the commercialisation of the aMES™ technology. AWT has secured cornerstone IP from the inventors of the technology, and has entered into subsequent technology licensing and strategic collaboration agreements with AWT's primary research partner, a major Australian university. The innovative research being performed by AWT and its partners has recently been recognised through the successful award of several substantial research grants, including from the Australian Research Council.

#### Aqua Guardian Group Limited (AGG)

AGG is an unlisted Australian public company focused on the commercialisation of its patented AquaArmour™ product, which has been installed in a range of commercial applications, including in the mining industry in Australia and Chile. AGG is in the process of acquiring Activated Water Technologies, with AGG itself in the process of being acquired by a Canadian company (subject to regulatory approval).



**Chris Tziolis**  
Managing Director

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## About Verdant Minerals

*Verdant Minerals Ltd's (ASX: VRM) strategic intent is to create shareholder value through the discovery, development and operation of fertiliser and industrial mineral projects, located in close proximity to existing transport infrastructure, focused on the Northern Territory of Australia.*

*The Company is currently developing its 100% owned world class Ammaroo Phosphate Project which has commenced a bankable feasibility study and environmental approvals processes. In addition the Company is the proponent of a number of sulphate of potash projects in the Northern Territory and South Australia and the Dingo Hole Silica project, which has the potential to produce a high purity quartz product, located in the Northern Territory.*

## Forward Looking Statements

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