Option to Acquire High Pure Quartz Project in the Northern Territory

Highlights

- **Australasian has signed an option to acquire the Dingo Hole High-Purity Quartz project in the Northern Territory**
- **High Pure Quartz (HPQ) is defined relative to the IOTA® standard and is a key strategic raw material for global semiconductor and electronics industries**
- **HPQ resources that can be processed to meet the IOTA® standard are rare globally and growth in AI technologies is resulting in surging demand**

Dingo Hole High Pure Quartz Project Highlights:

- Significant outcropping silica mineralisation across the project area with good road access
- Historical geochemical data indicate over 30 surface samples contain greater than **99.94% SiO_2** with only minimal sample preparation prior to assay[1]
- 9 historical samples potentially meet IOTA standard with deleterious elements such as aluminium (Al) below 10 ppm and titanium (Ti) and lithium (Li) below 1 ppm

Australasian Metals Limited (**ASX: A8G**, **Australasian** or the **Company**) is pleased to advise that the Company has entered into an Option Agreement with Verdant Minerals Limited regarding the Dingo Hole High Pure Quartz Project (EL31078) (**Dingo Hole HPQ Project**). The acquisition of the highly prospective project will provide Australasian with exposure to the rapidly growing High Pure Quartz (HPQ) sector.

[1]Refer ASX announcement of Rum Jungle Resources Limited titled: "Dingo Hole Silica Chemical Analysis Results – Rock Chip Samples", dated 20 July 2015 https://announcements.asx.com.au/asxpdf/20150720/pdf/42zx8dv5t0621l.pdf

Dingo Hole High Pure Quartz Project

The Dingo Hole HPQ Project (EL31078) is located in the Georgina Basin, approximately 300km southeast of Tennant Creek (Figure 1). The project covers 35.16km^2 and was subject to limited exploration by Rum Jungle Resources Limited (**Rum Jungle,** renamed to Verdant Minerals Limited) from 2012 to 2016.

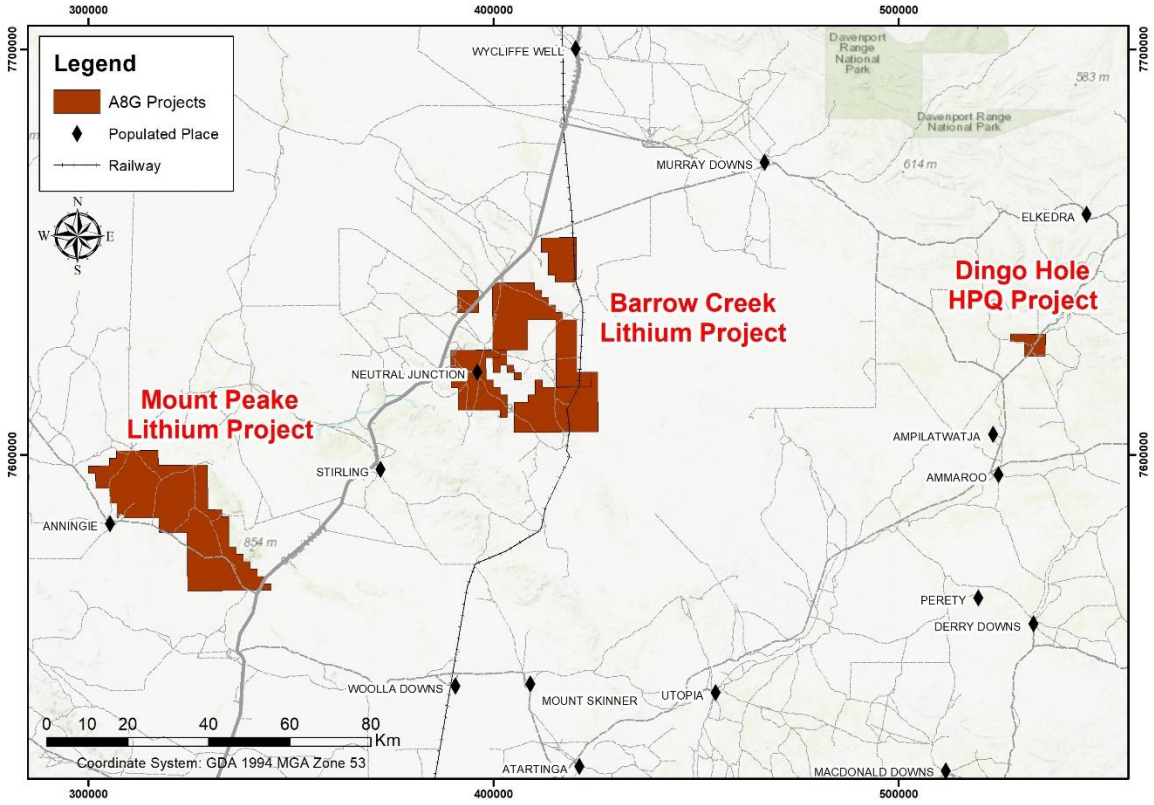

Figure 1 Dingo Hole High Pure Quartz (HPQ) project location in Central Northern Territory

In 2015, Rum Jungle conducted a mapping and rock chip sampling program across the Dingo Hole project. 30 of the Dingo Hole samples tested were found to contain greater than 99.94% SiO_2 with only minimal sample preparation prior to assay (the samples were pre-leached with 20% Hydrofluoric acid at 60˚ for 4 hours and subsequently washed in Milli-Q water). While this is highly encouraging, it is the low levels of deleterious elements such as aluminium, titanium and lithium contaminants that highlight the project's world-class potential (Figure 2). Nine of 30 ICP-SMS samples from Rum Jungle's program contained less than the IOTA® standard for deleterious elements aluminium (Al) at 16.2ppm (16,200ppb), nearly all were better than the 200ppb (0.2ppm) IOTA® level for lithium (Li) and all were well below the 1.2ppm (1,200ppb) level for titanium (Ti).

Figure 2: Preliminary products from previous testing work by Jericho Resources Pty Ltd contracted by Rum Jungle Resources Limited in 2016,99.984% SiO_2

On the basis of these widespread low levels of Al, Ti and Li detected in these rock chip samples, there is potential that a significant proportion of the Dingo Hole quartz outcrop may, with standard industry processing, meet the industry IOTA® standard for High Purity Quartz.

A8G Managing Director Dr Qingtao Zeng commented:

"The High Pure Quartz market is highly sought-after in the world given the significant demands for AI-related semiconductor applications and photovoltaic solar silica growth.

"The Dingo Hole quartz samples have unique geological characteristics with extremely low impurities of Al, Ti and Li. We believe there are sufficient indications that the material in Dingo Hole has potential to produce high pure Silica (HPQ). We are excited to test and further define the potential of this project."

High Pure Quartz industry

High Pure Quartz (HPQ) is defined as silica with a total contamination of not more than 50 ppm (99.995% SiO2) and whilst modern processing methods can remove much of the contamination, it is the substitutional elements which constrain the ultimate purity and therefore the value of the silica. Ultra-High Pure Quartz is expressed relative to an industry-standard benchmark called IOTA® which contains less than 16.2ppm aluminium and total impurities less than 20ppm, equating to 99.998% SiO_2. Aluminium is a structural element

within silica and there is no known method to remove it. As such, the natural levels determine the value of the silica. The IOTA-8® standard for titanium is less than 1.2ppm and lithium less than 200ppb. IOTA® standard ultra-High Pure Quartz material has a current market price in excess of US$5,000 per tonne and the global market for this type of product is currently around 100,000 tonnes per annum. Only a select group of ultra high-quality deposits globally are able to meet IOTA® standards.

High Pure Quartz has become one of today's key strategic raw materials for high-tech manufacturing industries. Silica glass produced from High Pure Quartz offers a wide range of exceptional optical, technical and thermal properties, which are essential for manufacturing many high-tech products in areas such as semiconductor technologies, high temperature lamp tubing, telecommunications and optics.

There is a rapidly growing demand for sources of exceptionally High Pure Quartz (SiO_2), particularly in respect to very low levels of alkali-metal impurities, such as sodium, potassium and lithium ions. Such High Pure Quartz is needed to prepare quartz frequency and timing control devices for electronic applications, as high purity raw materials for optical fibres, to prepare fused quartz optical grade glass such as for halogen vapor lamps, and to prepare crucibles and other quartz apparatus for making high purity silicon crystals for transistors, chips, and other electronic and semi-conducting devices such as photovoltaic cells.

Transaction terms

Australasian Metals Limited through its wholly owned subsidiary, Pure Mining Pty Ltd, has signed an exclusive 4-month option agreement with Verdant Minerals Pty Ltd to acquire 100% of the Dingo Hole HPQ Project on the following terms:

1) Australasian to pay a A$30,000 option fee to conduct due diligence work during option period ending 17th of Oct,2024. Fieldwork will commence after 17th of June, 2024. During the option period, Australasian will conduct a geological mapping and rock chip sampling program.

2) During the option period, Australasian can elect to exercise the option by paying a further A$270,000 cash to Verdant to acquire 100% of the Dingo Hole HPQ Project.

Next Steps

The Australasian technical team have planned a field trip to verify the historical data through further mapping and sampling in coming weeks. The team will attempt to identify the controlling factors for the presence of High Pure Quartz units with low Al, Ta and Li impurities and consider a potential exploration target for future resources. In parallel, we are actively

engaging in discussions with downstream processing plants owners to explore the suitable markets for either raw materials or processed products from the project.

Cautionary Note

Readers are encouraged to refer to ASX announcement of Rum Jungle Resources Limited titled: "Dingo Hole Silica Chemical Analysis Results – Rock Chip Samples", dated 20 July 2015 https://announcements.asx.com.au/asxpdf/20150720/pdf/42zx8dv5t0621l.pdf.

All information in this release regarding exploration results has been compiled from this ASX release. Information is considered as historical by nature, and while all care has been taken to review previous reports, ground testing and confirmation work is yet to be completed. At the time Rum Jungle released the announcement the results were reported as compliant with the JORC Code 2012 and Australasian Metals has no reason to doubt the validity of this assertation.

The historical chemical analysis was conducted on a series of visually-selected rock chips samples taken from the surface of the silica outcrop. There is no guarantee that these results are representative of the Dingo Hole deposit. Until further sampling, drilling, assaying and processing test work is conducted, there is no guarantee that a consistent IOTA standard material can be produced from the silica at Dingo Hole at this stage.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the above original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This announcement is approved for release by the Board of Directors.

ENDS

For Further Information

Dr Qingtao Zeng
Managing Director
M +61 8 6507 3082

Mr Dan Smith
Joint-Company Secretary
T +61 8 9486 4036

Competent Person Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Graeme Fraser, Non-Executive Director of Australasian Metals Limited (**A8G**). Mr Fraser is a member of the Australasian Institute of Mining and Metallurgy and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Fraser consents to the inclusion in this release of the matters based on the information in the form and context in which they appear. Mr Fraser is a shareholder of A8G.

Mr Fraser has not yet visited the site or conducted an in-depth due diligence of the data presented in this announcement. The Information in this report that relates to Exploration Results for the Dingo Hole Project is extracted from the ASX announcements of Rum Jungle Resources Limited titled: "Dingo Hole Silica Chemical Analysis Results – Rock Chip Samples", dated 20 July 2015, which is available at:
https://announcements.asx.com.au/asxpdf/20150720/pdf/42zx8dv5t0621l.pdf

Report compliant with the JORC Code (2012).

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• Rock Chip Samples Sample DH6 to 9, were taken from right beside access roads. The 30 follow up composite rock chips samples were taken randomly over 17 outcropping silica ridges to get a representative group of samples from across the target area. Sample sites were selected visually from the outcrops and 2-3 kg of material were taken from the in situ rock formation using a geological hammer and placed in a pre-numbered calico bag
Drilling techniques	• Not applicable. No Drilling Reported in this release
Drill sample recovery	• Not applicable. No Drilling Reported in this release
Logging	• Rock Chip sample locations, descriptions and sample photos were recorded in the field. Only qualitative visual field descriptions relating to the colour of the sample were made.
Sub-sampling techniques and sample preparation	• The first four samples were sent to Jericho Resources in Melbourne for pre-processing. Samples were crushed in a non-contaminating vinyl mill to nominal 5 mm then sent to EAG labs in New York for analysis by GDMS method. • The Second batch of 30 samples was washed by hose by Rum Jungle resources/Verdant Minerals prior to shipping to Jericho Resources in Melbourne where samples were crushed in a non-contaminating vinyl mill to nominal 5 mm then sent to ALS laboratories in Sweden. The sample were then pre-leached with 20% hydrofluoric acid at 60 degrees Celsius for four hours, followed by washing in Milli- Q water prior to assay. The 30 samples were analysed by ICP-SMS method. • Sample size was considered appropriate for the type of material being samples as rock chip samples.
Quality of assay data and laboratory tests	• The ICP-SMS method is suitable for analysis of Silica samples at ppb detection limits. The ALS laboratory is ISO 900a certified. The original lab certificates have been signed by the Laboratory manager. • The GDMS method is suitable for analysis of silica samples at ppm detection limits. The EAG laboratory is certified under ISO 17025 standards. The laboratory certificates were signed by the laboratory analyst. • Normal internal laboratory quality assurance was conducted.
Verification of sampling and assaying	• No significant adjustments to the assay data have been required.
Location of data points	• Rock Chip Samples: Sample location, descriptions and sample photos were recorded in the field using Hand GPS Garwin 65, using GDA 94 grid in Zone 53. Accuracy is assumed to be repeatable to within 10 m.

Criteria	Commentary
Data spacing and distribution	• The project is in the early stage of exploration. The rock chip samples were conducted based on field observation and outcrop conditions. There is no spacing or distribution considered. • The Company believes the data spacing is suitable for reconnaissance exploration.
Orientation of data in relation to geological structure	• Assuming that the silica body is almost flat-lying, based on the bedding measurements, the structural orientation is not relevant at this stage of exploration or for this type of sampling.
Sample security	• Samples were reported by Rum Jungle resources/Verdant Minerals in 20th of July 2015. The sample security was reviewed. • Samples were sent by registered courier from Darwin to Melbourne and then Melbourne to New York and Sweden.
Audits or reviews	• Two of the original four samples were analysed by the second method with difference in results explained in the original announcement by Rum Jungle 20th of July, 2015. • There has been no review of the sampling techniques and data by A8G

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	• The samples were taken on EL 31078, A8G has an exclusive option to acquire the tenement 100% from Verdant Minerals Pty Ltd. • Australasia have Warrants from Verdant Minerals Pty Ltd that the tenements are in good standing with no known impediments. • The tenement is located on the Ammaroo Pastoral Lease. • The area is located within a granted Native Title Claim. • An aboriginal areas register search has been undertaken. • An authority Certificate clearance had been granted in 2016 by the Aborignial Areas protection Authority (AAPA) to Rum Jungle Resources.
Exploration done by other parties	• Verdant Minerals Pty Ltd had conducted exploration from 2013 to 2016 and has been holding the tenement since then. Prior to this no exploration work was conducted.
Geology	• The Silica rock unit is assumed to be a flat lying silcrete which is replacing an original carbonate rock. This has yet to be confirmed.
Drill hole Information	• Not applicable. No Drilling reported in this release
Data aggregation methods	• Not applicable. No Drilling reported in this release
Relationship between mineralisation widths and intercept lengths	• As only surface rock chips were collected and assayed, there is no information yet about the thickness, orientation, or total spatial extent of the potential silica body
Diagrams	• Scaled, located maps annotated with numbered sample locations were provided in the announcement

Criteria	Commentary
Balanced reporting	• All results reported are presented. It is believed that it has a certain level of representative significance.
Other substantive exploration data	• Not applicable, other than for discussion of deleterious elements in the announcement
Further work	• Follow up work programmes will include further mapping and further rock chips sampling; • Drilling to define the quality of the silica unit; and • Further test at specialist domestic and internationally laboratory