

Andromeda Metals Limited  
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18 July 2019

Company Announcements Office  
Australian Securities Exchange Limited  
PO Box H224, Australia Square  
Sydney, NSW 1215

### **AMENDED ANNOUNCEMENT**

With reference to our release earlier today titled "China Visit Confirms Significant Demand for Halloysite-Kaolin DSO and Dry-Processed Product", we provide a revised version which names the party who has signed the non-binding Letter of Intent for offtake as requested by ASX.

A handwritten signature in black ink, appearing to read "Nick Harding", with a stylized flourish at the end.

Nick Harding  
Executive Director and Company Secretary

## ASX Announcement

18 July 2019



**Andromeda Metals Limited**  
ABN: 75 061 503 375

### Corporate details:

ASX Code: ADN

Cash: \$2.40 million  
(as at 31 March 2019)

### Issued Capital:

1,355,499,211 ordinary shares  
704,588,163 ADNOB options  
20,000,000 unlisted options

### Directors:

#### Rhod Grivas

Non-Executive Chairman

#### James Marsh

Managing Director

#### Nick Harding

Executive Director and  
Company Secretary

#### Andrew Shearer

Non-Executive Director

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## China Visit Confirms Significant Demand for Halloysite-Kaolin DSO and Dry-Processed Product

### Summary

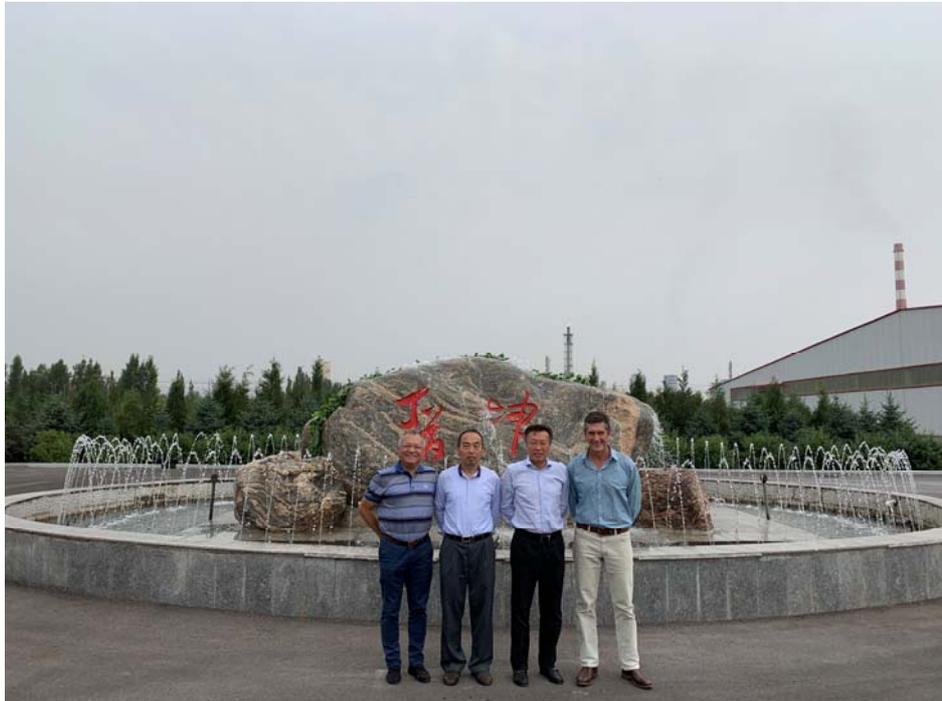
- A visit to China in late June by ADN representatives has confirmed a significant demand for both halloysite-kaolin ore and dry-processed product by a number of Chinese customers.
- Three potential DSO customers confirmed a strong and growing requirement for raw ore to feed their processing plants due to a large gap in market supply.
- Testing of a number of dry-processed samples in the UK\*, China and Japan has confirmed the potential for Carey's Well dry-processed material as a final product for ceramic applications.
- A 100,000tpa non-binding offtake Letter of Intent for dry-processed product has been signed by one potential Chinese customer, China Mineral Processing Group, with others anticipated to be received.
- Pilot scale wet-process testing of Poochera ore in China has shown world class properties for a kaolin product.
- Testing of samples from the recent drilling program at Poochera is still in progress with results anticipated to be finalised next month.

### Discussion

Continuing the marketing effort for the Poochera Halloysite-Kaolin Project, Andromeda Metals (ASX:ADN) representatives recently visited China to determine the current market demand for halloysite-kaolin direct shipping ore (DSO) and dry-processed products with a number of key potential customers.

Three large Chinese companies have expressed interest in sourcing halloysite-kaolin ore and a number of others have approved the dry-processed kaolin from the Carey's Well deposit at Poochera. The domestic supply of high quality halloysite-kaolin has become extremely unreliable in quality and also limited in volume. A number of wet-processing trials conducted on the Carey's Well halloysite-kaolin ore in China has proved that it can be used to produce a high-quality product with the greatest possible market value.

Dry-processed samples produced from Australian trials have also been provided to a range of potential ceramic customers to determine its potential as a 'market-ready' product. Technical approval was given in sanitaryware, tile and glaze applications, as well as use as a feed for high value calcined kaolin products. One customer, China Mineral Processing Group (CMP), has now signed a non-binding Letter of Intent for offtake of 100,000tpa with several other Chinese customers expected to follow. CMP is a leading Chinese producer of refractory materials, metallurgical products, ceramics and construction materials in China.



**Figure 1 – ADN representatives with Chinese officials during a factory visit**

Additional ceramic industry application testing of DSO and dry-processed material is also in progress with a number of significant companies located in Japan and India, while evaluation of the material as a cracking catalyst for the petrochemical industry is being conducted by a large Chinese company.



**Figure 2 – Chinese kaolin mine requiring Carey's Well ore for production consistency**

Following a successful dry-processing trial in China by Zhengyuan Power Engineering Co in May, a further trial has been performed by Luoyang Venus Powder Co. for comparative purposes. The data from both of these trials, along with similar trials undertaken by two US companies, will be used by process engineering consultants to determine the best Scoping Study options for a dry-processed product.

A meeting was also held with a leading Chinese kaolin producer which is struggling with consistency of product and output volumes. They view Australia as a supplier of high-quality minerals and are keen to lock in a long-term and reliable supply of quality assured halloysite-kaolin ore to blend with their current kaolin ore to enable them to meet their required output and quality specifications. The Company is now running extensive large-scale testing of Carey's Well ore with a view to signing a supply agreement should results prove to be positive.

### Scoping Study Progress

Continued progress is being made on the Scoping Study with the emphasis on DSO versus dry-processed product options. Experienced mining engineer and project manager Paul Griffin has been engaged to manage the finalisation of the Scoping Study and following Feasibility Study process. He most recently acted as Feasibility Manager for a significant gold project in Western Australia. Prior to that Paul acted as Senior Projects Manager for CopperChem and Exco Resources where he managed Scoping and Feasibility Studies which included geotechnical, geohydrology, environmental, mining and processing activities.

In other Scoping Study news, a process engineering consulting firm has recently commenced, the mine design is being further optimised and landholder discussions are continuing. In addition, a high-level independent logistics study has been completed for the DSO option, with the dry-processed option details to now be incorporated into the final report.

### The Poochera Project

The Poochera Kaolin-Halloysite Project covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 3). The main area of focus, the Poochera Halloysite-Kaolin Project on the Eyre Peninsula comprises three tenements and is located approximately 635kms west by road from Adelaide and 130kms east from Ceduna (Figure 4).



Figure 3 -Project location plan

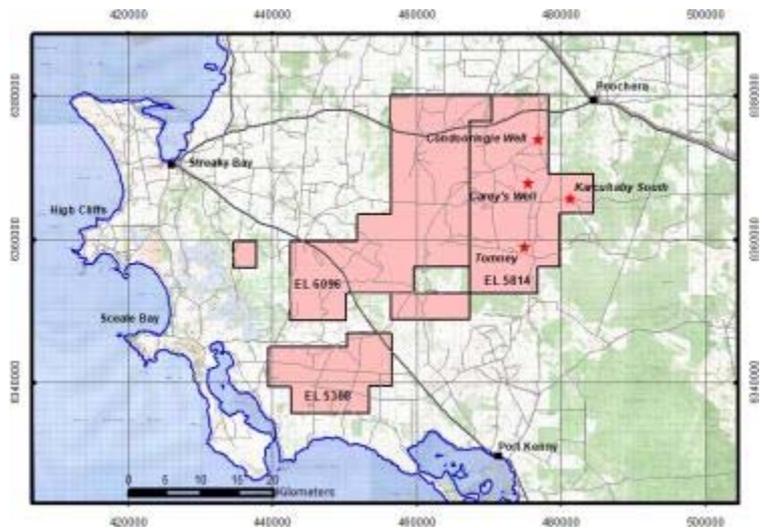


Figure 4 - Poochera Tenements

High quality halloysite-kaolin deposits occur extensively across the Poochera Project area making this a region of global significance for the mineral and capable of supporting a considerable long-life mining

operation should final feasibility studies determine the Project to be economically viable. Halloysite is a rare derivative of kaolin where the mineral occurs as nanotubes. Halloysite has a wide variety of industrial uses beyond simple kaolin and commands a significant premium above the average kaolin price. The Poochera kaolin deposits contain a variable natural halloysite-kaolin blend that is in demand for the ceramic and petrochemical refining markets, as well as developments in new high-tech and nanotechnology applications.

The northern project area includes the near pure halloysite Camel Lake deposit on EL6128 (Figure 3) that could potentially be processed to provide a substantially high value pure product for the development of halloysite nanotubes technology in the areas of energy storage and carbon-hydrogen capture and storage.

Extensive test work has been completed on the Carey's Well deposit, including resource drilling, bulk sampling, pilot test trials and marketing, and ADN is working towards a Mining Lease application as part of feasibility evaluations.

Under the terms of the Poochera Halloysite-Kaolin Project Joint Venture, ADN can acquire up to 75% of the Project by either sole funding \$6.0M over 5 years or alternatively a decision to mine is made by the Joint Venture partners, with an initial 51% interest earned by the Company through the expenditure of \$3.0M on advancing the Project within the first 2 years.

**Contact:**

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Investor Relations

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\*Andromeda Metals Halloysite/Kaolin Marketing Report

Ian Wilson Consultancy Ltd, Frank Hart, First Test Minerals Ltd - June 15<sup>th</sup> 2019

**Competent Person's Statements**

*Information in this announcement has been assessed and compiled by Mr James Marsh, a member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Marsh an employee of the Andromeda Metals Limited has sufficient experience, which is relevant to metal recovery from the style of mineralisation and type of deposits under consideration and to the activity being undertaking to qualify as a Competent Persons under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves'. This includes over 30 years of experience in kaolin processing and applications.*