

## ASX Announcement

29 April 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 Strong Demand for Halloysite-Kaolin

### Summary

- A recent visit to China by ADN executives has confirmed a strong demand for halloysite-kaolin ore by Chinese and Japanese customers.
- Ore samples are now at three Chinese plants ready for commercial scale processing trials to be undertaken prior to the end of the quarter.
- One of these Chinese groups will visit Australia in May to progress potential business opportunities with ADN.
- Pilot scale trials with a world leader in dry-processing technology have now been undertaken with initial positive results achieved. Further testing with detailed report and costings to be available over coming weeks.
- The current aircore drilling program at Poochera is progressing well while the Scoping Study is continuing as planned.

### Discussion

As part of the marketing effort for the Poochera Halloysite-Kaolin Project, Andromeda Metals (ASX: ADN) executives recently visited China to determine the current market for halloysite-kaolin direct shipping ore (DSO) product in meetings held with a number of key potential customers.

Three Chinese companies have expressed interest in sourcing halloysite-kaolin ore or dry processed kaolin from the Carey's Well deposit at Poochera to replace unreliable and limited domestic supply. All of these companies have committed to commercial scale processing trials of the Carey's Well halloysite-kaolin ore, with a total of 160 tonnes delivered to their respective processing plants.

The meetings proved beneficial in providing indicative market pricing for both Carey's Well halloysite-kaolin DSO and dry-processed material from genuine potential customers, while also building business relationships. As a result of discussions one of the Chinese companies will visit Australia in May to progress a potential supply relationship with the Company.



**Fig 1 – ADN Management Visiting Chinese Factory**

**Fig 2 – Carey's Well Ore awaiting Wet-Processing trials**



One potential Japanese customer also travelled to China for a meeting during the visit after obtaining positive results from laboratory scale testing of Carey's Well ore in Japan. They have a processing plant in Japan and a ceramics factory in China and have now been sent larger samples to scale up their product and application testing.

**Fig 3 – ADN Managing Director James Marsh meets the President of Japanese Company in China**

Three tonnes of Carey's Well ore was also sent to Zhengyuan Power Engineering Co, one of the world's largest mineral dry-processing research and plant construction facilities in China, for production trials. Initial testing was completed with ADN executives present with further testing due for completion early in May. Testing results will enable detailed plant and process costings to be determined for production of between 200,000 to 250,000t/pa of dry-processed products.



**Fig 4 – Carey's Well ore being processed by Zhengyuan Power Engineering Co in China**

Samples of both raw ore from Carey's Well and refined product obtained following the successful WA Kaolin trials have been forwarded to selected companies located in the USA and Europe for consideration of dry-processing plant designs and costings that will be incorporated into the Scoping Study for an on-site semi-processing scenario.

The closure of numerous mines by the Chinese Government due to anti-pollution measures and completing land use has resulted in limited global availability of high quality halloysite-kaolin, leading Chinese kaolin processors and end application porcelain producers concerned for supply security to seek alternative sources. They view Australia as a supplier of high-quality minerals and are keen to lock in long-term reliable quality assured supply of halloysite-kaolin. Consequently, there is considerable interest in Andromeda Metals' Carey's Well halloysite-kaolin from many parts of the world.

### Scoping Study Progress

An initial optimal mine design based upon the current halloysite-kaolin Mineral Resource has been produced with various mining production schedules currently being considered. Early discussions have been held with a number of mining contractors to consider various mining options and to source current mining unit cost rates for inclusion in the Scoping Study.

A high-level transport and logistics study is currently being finalised that considers the various road haulage and port facilities available for shipping of product to market. The results from this report will be reflected in the financial modelling scenarios to be considered in the Scoping Study.

### 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 5). The main area of focus, the Poochera Kaolin-Halloysite Project on the Eyre Peninsula comprises three tenements and is located approximately 635kms west by road from Adelaide and 130kms east from Ceduna (Figure 6).



Fig 5 - Project location plan

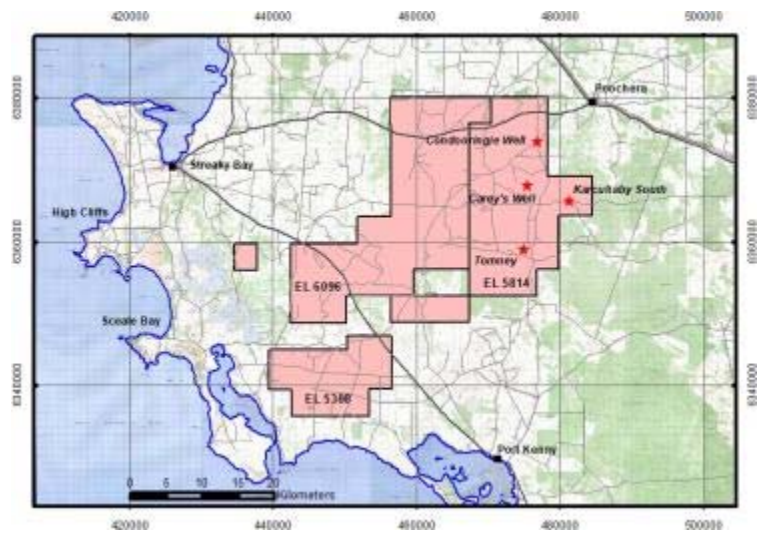


Fig 6 - Poochera Tenements

High quality kaolin-halloysite 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 contains 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 very 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.

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***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.*