Quarterly Report
Period ending 31 March 2019

Summary of the Company’s activities for the past quarter:

Poochera Halloysite-Kaolin JV (right to earn up to 75% interest)
- A 9.7Mt halloysite JORC 2012 Mineral Resource estimate was completed for the halloysite content contained within the “bright white” kaolin deposit located at Carey’s Well.
- Successful trials covering the removal of quartz sand impurities from halloysite-kaolin ore has confirmed that a dry processing method is a technically feasible option for consideration in upgrading the value of ore mined.
- A third round of HPA testing of Poochera halloysite-kaolin has confirmed that 4N (99.99%) purity is achievable with only a single purification stage, presenting significant cost savings for any future HPA manufacture.
- Ore samples are currently sitting at three Chinese kaolin plants awaiting commercial scale processing trials to be undertaken.
- Subsequent to the end of the quarter, an extensive aircore drilling program has commenced at Poochera to define the resource boundaries at Carey’s Well, perform closer infill drilling to improve confidence levels of the Mineral Resource and test some nearby high halloysite prospects.
- Results from a recent visit to China confirm there is strong demand for halloysite-kaolin material by Asian customers.
- Work on the Scoping Study is continuing as planned.

Fundraising
- A share placement was successfully completed during the quarter which saw a total of $1.762M raised before costs.

Drummond Epithermal Gold Joint Venture
- Exploration field work undertaken by Joint Venture partner Evolution Mining Limited (ASX: EVN) during the quarter continues to advance both the Bunyip and South West Limey Dam prospects.
- A diamond drilling program of up to 2,500m is to commence in early May at Bunyip to follow up on previous drilling and recent field activities.

Moonta Copper ISR Joint Venture
- Having satisfied their due diligence activities, Joint Venture partner Environmental Metals Recovery Pty Ltd (EMR) has commissioned the preparation of a Mineral Resource covering a number of copper ISR prospects across the northern part of the Moonta tenement.
The Board and management of Andromeda Metals Limited (ASX: ADN, Andromeda, the Company) is pleased to provide a summary of its activities for the quarter ended 31 March 2019 and an update on the Company’s progress.

**Poochera Halloysite-Kaolin Project**

- Halloysite JORC 2012 Mineral Resource completed
- Successful dry processing trial results
- HPA testing confirmed 99.99% (4N) purity with single stage purification
- Commencement of aircore drilling program at Carey’s Well
- Confirmation of significant market demand for halloysite-kaolin

The Halloysite-Kaolin Project covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 1). 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 2).

The ports of Thevenard at Ceduna and at Lucky Bay Port potentially offer bulk export facilities suitable for early DSO business. High quality halloysite-kaolin occurrences exist extensively across the Poochera Project area (Figure 2) 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 JORC 2012 Mineral Resource Estimate**

A JORC 2012 Mineral Resource estimate was completed by independent geological consultancy group H&S Consultants Pty Ltd, based on the halloysite content within the Carey’s Well kaolin deposit at Poochera. This estimate of 9.7 million tonnes of halloysite kaolin, is contained within a broader, previously defined, “bright white” kaolinised granite deposit. The 9.7 million tonnes of halloysite kaolinised granite would yield 5.3 million tonnes of minus 45 micron halloysite-kaolin product containing 18.4% halloysite. Full documentation of the resource estimates for the broader kaolin deposit, and for the contained halloysite, are found in Andromeda Metals ASX releases dated 22 August 2018 and 12 February 2019 respectively. 92% of the halloysite-kaolin Mineral Resource is categorised as Measured and Indicated providing a sound foundation for the Scoping Study currently underway. Potential to increase the halloysite-kaolin Mineral Resource was identified with the mineralised zone open to the north east and south beyond the limit of existing drilling.
Successful Dry Processing Trials

Testing in Australia performed by WA Kaolin using commercial state-of-the-art dry process technology showed that the quartz sand impurities contained within the Carey’s Well resource could be reduced from an approximate 50% content down to less than 1%. The results exceeded expectations, proving that a dry processing method is a technically feasible option for consideration in studies to upgrade the value of the halloysite-kaolin material and are a key step forward in the development of the Poochera Halloysite-Kaolin Project.

In addition, bulk samples have been sent to a number of process plant sites in China for additional wet and dry processing trials.

The dry processing option was utilised first as the much lower cost and faster turnaround option. The main goals of this work were to determine how the halloysite-kaolin material would respond to a conventional dry processing technique, and what level of purity could be achieved. All of the data on recoveries and throughput was collected for use in the Scoping and Feasibility Studies.

Approximately 40 wet tonnes of the halloysite-kaolin material was processed through the Kwinana plant in Western Australia over a two-day period, yielding approximately 6 dry tonnes of refined product, which confirmed dry processing as a potential commercial method to produce a refined product. Refined product recovery can be further optimised with allowance for moisture content, crushing and processing of oversize material and plant optimisation for Carey’s Well material.

The Carey’s Well resource contains approximately 50% of sand as a natural impurity and the aim of this work was to determine how much of this could effectively be removed to give either a semi-processed product (>1wt% quartz remaining), or a fully processed product (<1wt% quartz remaining).

The refined product was bagged off into bulka bags of approximately 500kg each with samples taken and sent to Bureau Veritas for detailed mineralogical and chemical testing.

Analysis results showed that the dry processing technique was successful in removing virtually all of the quartz sand to give a final product with less than 1wt% remaining. This is the global standard requirement for customers of kaolin products and being able to meet that criteria without having to use any water represents significant capital and operating cost savings. Conductivity testing also showed that the processed material had salt levels within drinking water levels, which is important for a number of end applications and represents additional process savings.

Samples of refined product have been sent to targeted customers for application testing, including laboratory, pilot and commercial scale trials.

HPA Testwork Results

A third round of HPA testing on Poochera halloysite-kaolin confirmed that 4N (99.99%) purity is achievable with only a single purification stage. This result represents the potential to significantly reduce capital requirements and operating costs for any HPA processing plant.

Previously the first round of testing carried out by Bureau Veritas, UniSA and the University of Newcastle had achieved a purity of 99.9855% from an over-refined sample where impurities had been introduced. Second-Round testing was conducted by Perth based BHM Process Consultants using a more suitable halloysite-kaolin sample, which gave an Al₂O₃ purity of 99.9946% with only a single stage of purification.

The third round of testing was recommended to confirm that the single stage purification result was repeatable, and to also determine if even higher levels of purity were possible. This was completed and proved that producing 4N HPA from a single stage purification process is fully achievable and repeatable when using Carey’s Well halloysite-kaolin as a feed. The use of a single stage of purification could be expected to result in a notably simpler flowsheet giving significant reductions in both capital and operating expenditures compared to processes developed and announced by other prospective HPA producers. The replication of this result by the Round Three testing established a high level of confidence in proving up the reproducibility and has led to discussions with a Chinese company that currently
supplies material to LG for battery manufacturing who are interested in utilising the halloysite-kaolin as a premium feedstock for HPA production.

**Commencement of Aircore Drilling Program**

An extensive aircore drilling program commenced and is underway at the Poochera Halloysite-Kaolin Project with the key objectives of defining the resource boundaries of the Carey’s Well deposit which is currently open to the north-east and south-east as well as drilling some historical high halloysite intercepts at surrounding exploration prospects exploring for areas of high purity halloysite. The program also includes closer spaced infill drilling within the currently defined Mineral Resource to gain improved confidence of the halloysite-kaolin mineralisation while also providing a better understanding of the ore horizon contours to assist with planning for eventual mining.

The aircore drilling program comprises of a total of approximately 110 holes for up to 4,000 metres targeting the shallow (less than 45 metres) kaolinised weathered granite. The majority of the drillholes will be at the Carey’s Well deposit, with a small number of exploration holes to be drilled at the nearby Condooringie Well, Tomney East and Tomney West prospects to follow up on historical high halloysite intercepts encountered from previous drilling. Some of these historical holes reported grades of up to 85% halloysite.

Results from the drilling program will provide an updated Mineral Resource at Carey’s Well and be used in Scoping and Feasibility Studies.

**Confirmation of market demand for Halloysite-Kaolin**

A recent visit to China by ADN executives 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.

The meetings proved beneficial in providing indicative market pricing for both Carey’s Well halloysite-kaolin direct shipping ore (DSO) and dry-processed material from genuine potential customers, while also building business relationships. 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.

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.

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.

It was clear that the closure of numerous mines by the Chinese Government due to anti-pollution measures and competing 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.

**Drummond Epithermal Gold Joint Venture**

Evolution Mining Limited (ASX: EVN) continued to undertake considerable field work and data interpretation during the March quarter at the Company’s Drummond Gold Project in North Queensland. Although experiencing some significant rainfall events at times during the period, soil and rock chip sampling at both Bunyip and South West Limey Dam continued to advance the geological understanding at these prospects.
At Bunyip, an IP survey has identified a steep-sided strongly resistive trend that extends for 400m over Bunyip Hill while a recently completed drone magnetic survey has significantly enhanced the regional magnetic data now available for structural framework evaluation. Soil geochemistry conducted at Bunyip has extended the anomaly further to the east suggesting that the system could be bigger than first thought.

At South West Limey Dam, an IP survey is currently being completed at the prospect where a new quartz vein zone named ‘Queen B’ has also been identified.

Regional soil geochemistry and a desktop review has commenced looking at other targets across the Drummond Project tenement package.

EVR is now planning a rigorous drilling campaign of up to 2,500m of diamond drilling at Bunyip commencing early May with potentially follow-up RC or diamond drilling to occur pending results achieved from this initial drilling.

**Moonta Copper Gold Project**

Following the announcement in December 2018 that ADN had agreed commercial terms under a binding Heads of Agreement with Environmental Metals Recovery Pty Ltd (EMR) to form the Moonta ISR Joint Venture covering the northern part of the 100% owned Moonta tenement in South Australia, EMR has now formally advised that it has completed its due diligence and wishes to proceed under the agreed terms. The formalisation of a Earn-in and Joint Venture Agreement with EMR, which is an Australian private company comprising a team of senior mining professionals with extensive experience in mine development and operations, including in-situ recovery (ISR) production in South Australia, will see the potential for extracting significant copper mineralisation via ISR application being trialled at Moonta.

EMR has now commissioned work to be undertaken in order to quantify a Mineral Resource estimate for a number of copper prospects over the area of interest covered by the joint venture that are considered favourable for ISR application.

**Wudinna Gold Farm-in and Joint Venture**

The Company has been advised that Lady Alice Mines Pty Ltd, the joint venture partner to the Wudinna Gold Project located on the Eyre Peninsula in South Australia, has been acquired during the quarter by listed London Stock Exchange entity Cobra Resources PLC. Cobra comprises a Board of highly regarded mining executives with significant resource company experience both in Australia and overseas. Cobra is to promote their interest in the joint venture as a key project which will see considerable funds sourced from investors in the UK directed towards advancing the Eyre Peninsula Gold Project. Following considerable desktop study work undertaken by the previous owners of Lady Alice Mines, an updated resource for the project is anticipated to be received shortly by the Company.

**Pilbara Gold Project**

Final adjustments to proposed native title agreements with respective native title groups holding claim to the three Pilbara tenement applications acquired by ADN in late 2017 that comprise the Company’s Pilbara Gold Project are being made that once executed should see the tenements being granted by the WA Mines Department.

**Rover Copper Gold Project**

The Company is seeking third party interest to advance the Rover Copper Gold Project.

**Finance and Corporate**

On 28 February 2019 the Company completed an oversubscribed share placement made to new institutional and sophisticated investors which raised a total of $1.762M before costs. A total of 271,076,923 ordinary shares were issued at a price of $0.0065 per share utilising the Company’s issue capacity under listing rules 7.1 and 7.1A. Under the terms of the share placement, three (3) attaching ADNOB listed options were also offered for every four (4) new shares subscribed by participants, with each option having an exercise price of $0.012 and an expiry date of 30
November 2020. The options required shareholder approval to be obtained prior to being issued, for which subsequent approval was received from shareholders at a General Meeting of Shareholders held on 17 April 2019 and hence saw 218,307,712 ADNOB listed options issued on 24 April 2019, which was inclusive of 15,000,000 options issued to PAC Partners Securities Pty Ltd as part of their fee in arranging the fundraising.

A total of 2,476,507 unlisted options that were exercisable at $0.015 expired on 31 March 2019.

Consequently, Andromeda Metals’ currently has on issue 1,355,499,211 ordinary shares, 704,588,163 listed options and 20,000,000 unlisted options.

The Company’s available cash position stood at $2.396 million at 31 March 2019.

**Competent Persons Statement**

Information in this announcement has been assessed and compiled from previous ADN ASX releases by Mr James Marsh and Mr Rhoderick Grivas, both members of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Marsh and Mr Grivas are employees of the Andromeda Metals Limited and have sufficient experience, which is relevant to the style of mineralisation, type of deposits and their ore recovery under consideration and to the activity being undertaken to qualify as a Competent Persons under the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (JORC Code). This includes Mr Marsh attaining over 30 years of experience in kaolin processing and applications. Mr Marsh and Mr Grivas consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.