ASX ANNOUNCEMENT

ANDROMEDA METALS LTD (Andromeda, ASX: ADN)

Andromeda

Andromeda Metals Limited
ABN: 75 061 503 375

Corporate details:
ASX Code: ADN
Cash (21 Sept 2021): $46.41m
Issued Capital:
2,461,552,016 ordinary shares
85,495,000 unlisted options
23,139475 performance rights

Directors:
Rhod Grivas
Non-Executive Chairman
James Marsh
Managing Director
Joe Ranford
Operations Director
Andrew Shearer
Non-Executive Director
Melissa Holzberger
Non-Executive Director

Andrea Betti
Company Secretary

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27 September 2021

Great White Bulk Sample Program in Progress Targeting High-Value Products

Highlights

- A bulk sample program has commenced at the Great White Deposit, located on the Eyre Peninsula of South Australia
- A large sample will be extracted from the high-purity halloysite area to provide material for the Natural Nanotech's prototype carbon capture and conversion pilot plant
- The Streaky Bay kaolin refining pilot plant has been upgraded and arranged to replicate the proposed Great White wet processing plant to meet all requirements for the Definitive Feasibility Study
- A large amount of ultrabright, high-purity Great White PRM™ product of over 90% ISO powdered brightness has been produced at the Streaky Bay pilot plant for delivery to our offtake partners
- High grade halloysite-kaolin will also be produced and used for approval testing in cosmetic market applications
- Tonne amounts of the HRM™ concrete additive will be extracted to be used to progress commercialisation of this product
- A large amount of regional calcrete has been collected and sent for testing for use in upgrading and safety improvements to local roads in preparation for mining activities

Discussion

Andromeda Metals Limited (ASX Code: ADN, Andromeda, the Company) is pleased to announce that a bulk sample drilling program has commenced at the Great White Deposit, located on the Eyre Peninsula of South Australia which is in joint venture between ADN (75%) and Minotaur Exploration Limited (ASX Code: MEP, 25%). The drilling will provide material for multiple projects aimed at developing new markets that will be in addition to the current Definitive Feasibility Study's (DFS) Great White CRM™ (for ceramics) and Great White PRM™ (coatings) products.

The drilling will provide about 1.5 tonnes of high purity halloysite kaolin to ADN and MEP's 50:50 JV Company, Natural Nanotech Ltd, which in partnership with University of Newcastle's Global Innovative Centre for Advanced Nanomaterials (GICAN), are undertaking R&D into new technology applications of halloysite nanotubes. Andromeda is in the process of installing a large pilot-scale kaolin processing centrifuge at the Streaky Bay pilot plant which will be used to upgrade halloysite purity.

Great White halloysite-kaolin has previously been successfully synthesized by GICAN to create advanced nanomaterials to specifically adsorb CO_2 from a mixture of gases, up to 1.1 tonne of CO_2 per tonne of material has been achieved, and work is ongoing to target the capture of 2 tonnes of CO_2 per tonne of material.

The Great White JV's Streaky Bay pilot plant has been upgraded to replicate the proposed wet processing production plant flow sheet with new screening and hydro-cyclones to achieve the Great White PRM™ product in line with the product specifications for the MSI Binding Offtake Agreement. This has finalised the testing required for the Definitive Feasibility Study and 70 kilograms of ultrabright, high purity product of greater than 90% powdered brightness has been produced as marketing samples for delivery to our offtake partners.

Figure 1– *Kaolin Refining at the Great White Project's Fully Equipped Pilot Plant*

Material from the current drilling program will be refined at the JV's Streaky Bay pilot plant before being sent to GICAN. There the halloysite will be used for the production and functionalisation of nanotubes that will be used in a direct air and direct emissions capture carbon capture pilot plant. The carbon capture pilot plant has been designed to be able to continuously capture and discharge this CO_2 and convert it into a clean fuel such as methanol, which will effectively close the carbon loop.

Great White halloysite nanotubes (HNT) have remarkable selective adsorptive and differentially chargeable properties and can be functionalised and/or engineered to create advanced nanomaterial frameworks for a range of new technology uses. Kaolin from the 34Mt Great White Resource containing about 40% halloysite has been specifically functionalised to adsorb CO_2 at over 25 mmol/gm at O°C/30 bar. It is anticipated that the material currently being extracted will achieve a much higher halloysite purity and increase the carbon capture ability significantly.

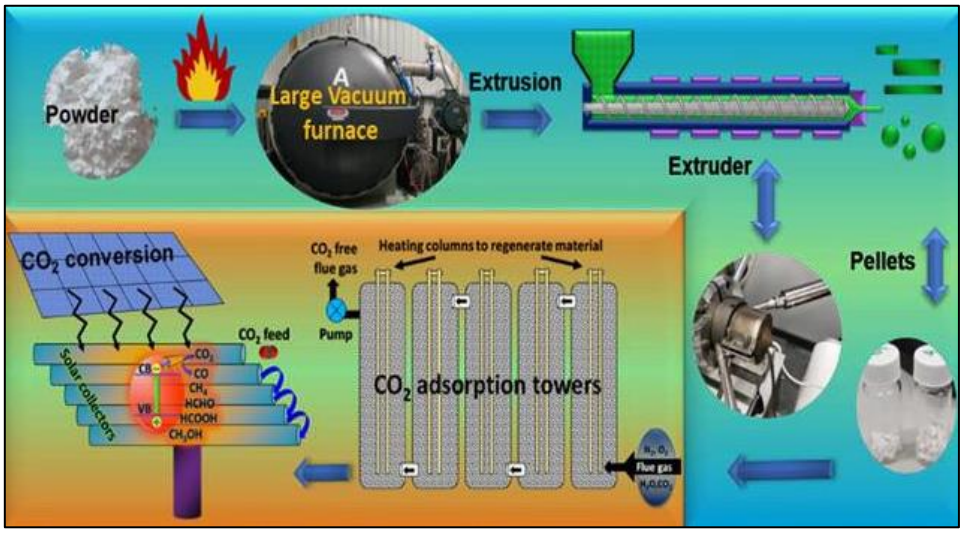

Figure 2 *- Flow diagram showing preparation and functionalisation of nanotubes, direct air and direct emissions capture carbon capture pilot plant, and captured CO_2 conversion facility*

The bulk sample holes used for the carbon capture pilot plant will also provide material for a large-scale cosmetic marketing exercise. Previous smaller samples have shown excellent results in this high-value potential market where high-purity halloysite-kaolin is highly valued and can sell for US$1000 – 3000/t. Approx. 40,000t/pa of potential business has been identified in the Chinese cosmetic market alone and a large sample will be supplied for approval testing.

These bulk sample holes are twins of previous holes which intercepted 20m @ 35.75% halloysite from 8m depth with an ISO Brightness 84.4%, including 7m @ 48.29% halloysite from 14m depth with an ISO Brightness of 88.5% (*refer ADN ASX announcement dated 12 November 2020 titled "Positive Results from Concrete and Coatings Application Testing"*). Although this area of the deposit doesn't have the highest grade halloysite seen at Great White, the kaolin intercepted in this area has certain important other properties that suggest halloysite beneficiation will be greatest. These crucial properties have been identified from several years of detailed research on thousands of samples and match that of Andromeda's Bronze Whaler prospect from where CSIRO sourced the 92% halloysite standard now used as a reference standard in their analytical work.

Following the ADN ASX announcement dated 12 November 2020 titled "*Positive Results from Concrete and Coatings Application Testing*" several requests have been made by concrete manufacturers for large amounts of the Concrete Rheology Modifier (HRM™) to undertake commercial scale trials. HRM™ gives several important handling and performance improvements to concrete with addition levels of only 1kg – 2kg per m^3 of concrete. By significantly improving the concrete rheology it allows optimisation of the mix design leading to performance improvements and reductions in cost and carbon footprint. The current drilling program will produce bulk samples to progress commercial trials with the intention of leading to commercial supply agreements.

Figure 3 *- Great White Bulk Sample Collection*

Calcrete for Road Building and Safety Upgrades

As part of the proposed Great White development, the company has committed to upgrading the access road to a safe standard, with reconstruction to suit the proposed haulage requirements. Local roads intended to be used to support the Great White Project will have in the region of $9M of upgrades to bring them up to Australian standards (Austroads). Horizontal and vertical alignments have been redesigned, including circular curves; superelevation; grades; vertical curves; procedures for the grading of a road alignment; and determination of sight distances across vertical curves. While this will result is a safer travel way suitable for haulage vehicles, it will also improve the safe travel along the section for all road users. In a step towards the reconstruction of the road, a large sample of regional calcrete has been obtained and crushed in a local crushing plant for sample collecting and understanding of the road building material performance. Andromeda is planning to utilise waste calcrete rock from the mine to construct the road upgrade.

Figure 4 – *Calcrete Sample for Testing*

Great White Kaolin Project

The Great White Kaolin Project covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 4). The current main area of focus for the Project is on the Eyre Peninsula which comprises four tenements and is located approximately 635km west by road from Adelaide and 130 kms south-east from Ceduna (Figure 5). The Project is a joint venture between Andromeda Metals and Minotaur Exploration Limited (ASX: MEP) in which ADN holds a 75% equity interest.

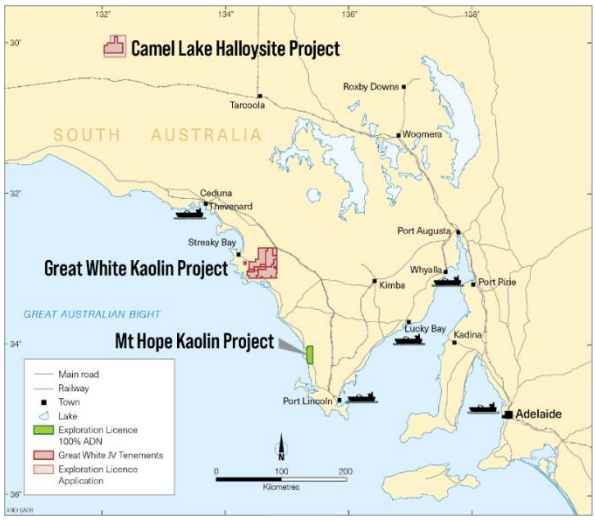

Figure 5 *- Project Location Plan*

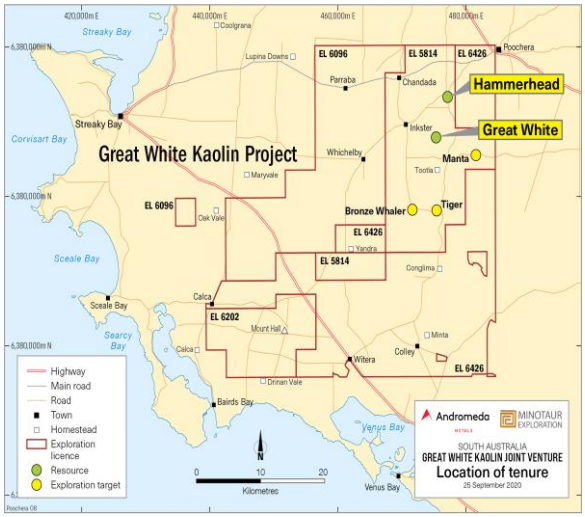

Figure 6 *- Great White JV Tenements*

High quality halloysite-kaolin occurrences exist extensively across the Great White Project area making this a region of global significance for the mineral and capable of supporting a considerable long-life mining operation.

Andromeda also holds a 100% interest in the Mount Hope Kaolin Project which is located approximately 160 kms southeast of the Great White Kaolin Project.

This announcement has been approved for release by the Board of Andromeda Metals Ltd.

For more information about the Company and its projects, please visit our website www.andromet.com.au or contact:

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Competent Person's Statements

Information in this announcement has been compiled by Mr. James Marsh a member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr. Marsh is an employee of Andromeda Metals Limited who holds shares and options in the company and has sufficient experience, which is relevant to the style of mineralisation, type of deposits and their ore recovery under consideration and to the activity being undertaking to qualify as 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 consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The data in this announcement that relates to the Exploration Results for the Great White Kaolin Project is based on information evaluated by Mr Eric Whittaker who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Whittaker is the Chief Geologist of Andromeda Metals Limited and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 (the "JORC Code"). Mr Whittaker consents to inclusion in this document of the information in the form and context in which it appears.

Forward Looking Statements

This release contains certain forward-looking statements and forecasts. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate"," continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position, and performance are also forward-looking statements.

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements involve unknown risks and uncertainties and may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Company's projects. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.