



Our Vision: Leading the world in the sustainable supply of superior quality industrial minerals and advancement of nanotechnologies.

**DFS UPDATE 8 APRIL 2022**

ASX:ADN

[andromet.com.au](http://andromet.com.au)

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## Mineral Resources and Ore Reserves Estimates

As an Australian company with securities listed on the Australian Securities Exchange (ASX), Andromeda is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of ore reserves and mineral resources in Australia comply with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the **JORC Code**) and that the Ore Reserve and Mineral Resource estimates underpinning the production targets in this presentation have been prepared by a Competent Person in accordance with the JORC Code.

Information that relates to Mineral Resources estimates has been previously announced to ASX on 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project", 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit" and 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project", and information that relates to Mineral Reserves estimates has previously been announced to ASX on 6 April 2022, "Great White Kaolin Project – Definitive Feasibility Study", all available at <https://www2.asx.com.au/markets/company/adn>. Andromeda confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. Andromeda confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

# Our Board



**Mick Wilkes**

Independent Non-Executive  
Chair

An experienced mining executive and company director with more than 35 years of broad international mining experience coupled with a successful track record of leading the development and operation of greenfield mines.



**Melissa Holzberger**

Non-Executive Director  
Chair, Audit & Risk Committee

Director and mining lawyer with over 20 years' experience in the international energy and resources sector. Spanning legal, risk and compliance oversight, and environment, social and governance (ESG).



**James Marsh**

Managing Director

Highly qualified kaolin specialist with more than 30 years' industrial minerals experience, including notable, senior technical and marketing roles with two global market leaders.



**Andrew Shearer**

Non-Executive Director  
Chair, Technical Advisory Committee  
Chair, Remuneration Committee

Involved in the mining and finance industries for 20 years. Coupled with geoscience and finance qualifications he has experience from exploration through to production.



**Joe Ranford**

Operations Director

Mining engineer with 25 years' senior management experience across both domestic and international mining companies, bringing mining operations into production within sensitive communities.

# Where we are today



**Market Cap**  
As at end of  
day 07.04.22



**Cash**  
As at  
31.12.21



**Debt**



Combined kaolin  
resources over  
**100Mt\*\*** and growing



Definitive Feasibility  
Study released



Great White  
Kaolin Project  
advancing  
towards  
operations



Progressing toward  
generating revenue  
in 2023



**Total  
Reserves  
(GWKP)**



**All mineral  
Tenements**



Great White  
Project - high  
quality halloysite-  
kaolin & 28 year  
Mine life



Multiple product  
opportunities



Nanotechnology  
opportunities



Gold and  
Copper assets

\*Total reserves from DFS ASX announcement 06.04.22

\*\* Taken from Annual Report to shareholders 2021

### Our purpose

Through the use of our industrial minerals and nanotechnologies we strive to enrich the lives of people by improving the environment, creating prosperity for our shareholders and delivering value for our stakeholders.

### Our vision

Lead the world in the sustainable supply of superior quality industrial minerals and advancement of nanotechnologies.



### Our mission

To mine and process industrial minerals for supply, together with advancing nanotechnologies, to our global customer base by leveraging our unique natural resources and intellectual capital.

### Our values



Innovation



Teamwork



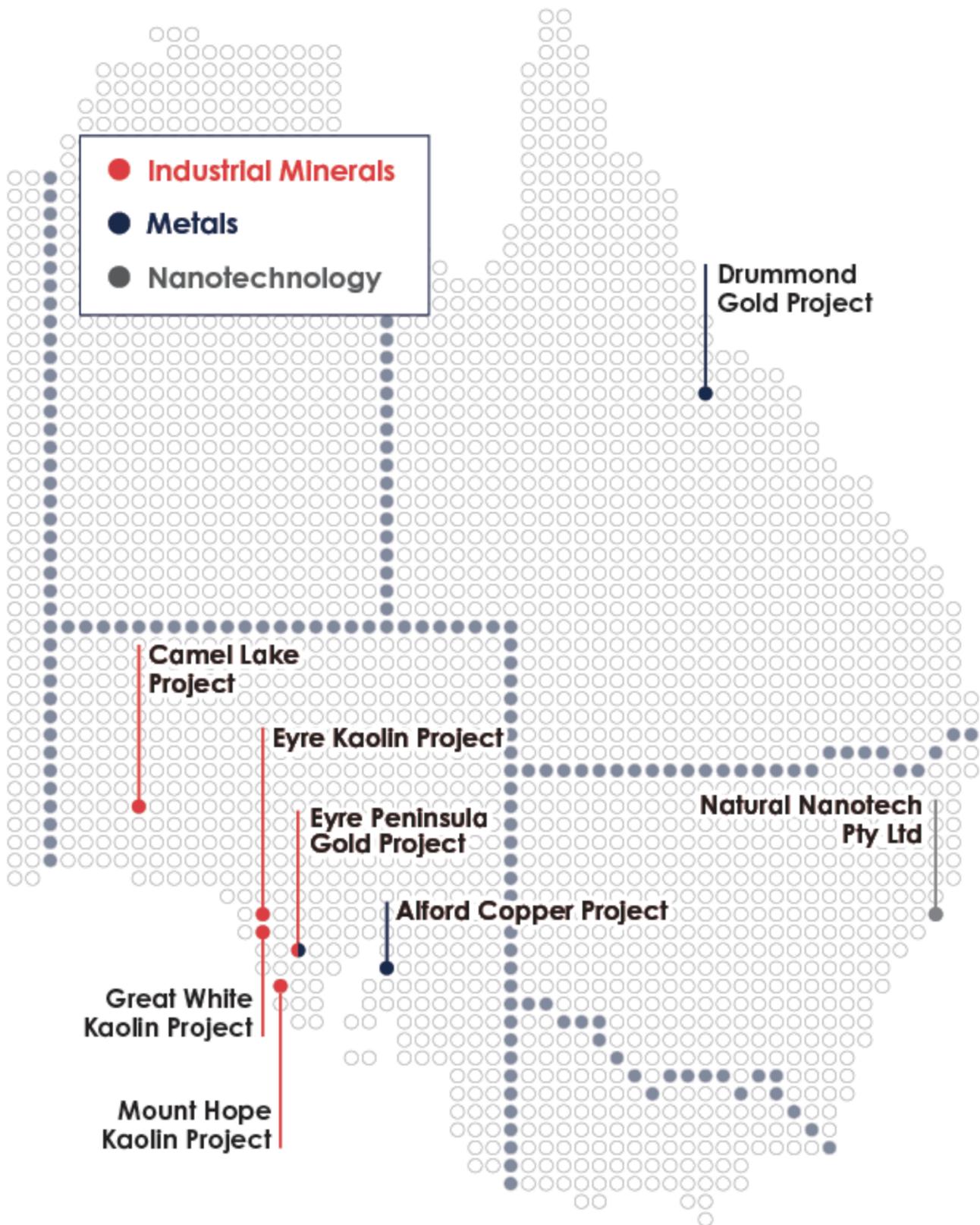
Integrity



Quality

The safety and wellbeing of our employees and our communities is our first priority.

# Our strategic focus areas

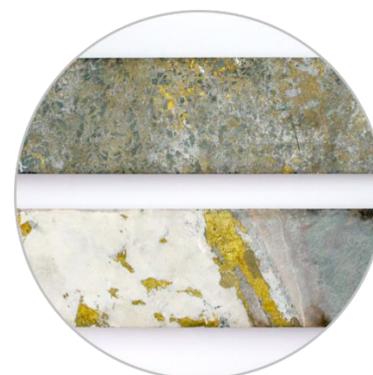


## INDUSTRIAL MINERALS - GROW



- Great White Kaolin Project
- Mount Hope Kaolin Project
- Eyre Kaolin Project
- Camel Lake Project

>100Mt of JORC Resources <sup>1,2,3,4</sup>



## METALS - HARVEST



- Alford Copper Project
- Eyre Peninsula Gold Project
- Drummond Gold Project



## NANOTECHNOLOGY - GROW



- Natural Nanotech Pty Ltd

1. ASX 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project".  
 2. ASX 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit".  
 3. ASX 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project".  
 4. "The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed."

# Great White Kaolin Project - Products



**Ceramic product  
Great White CRM™**

- Binding Offtake in place

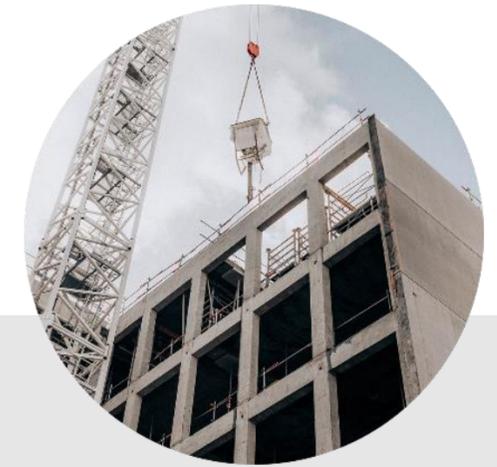


**Coatings product  
Great White PRM™**

- Binding Offtake in place



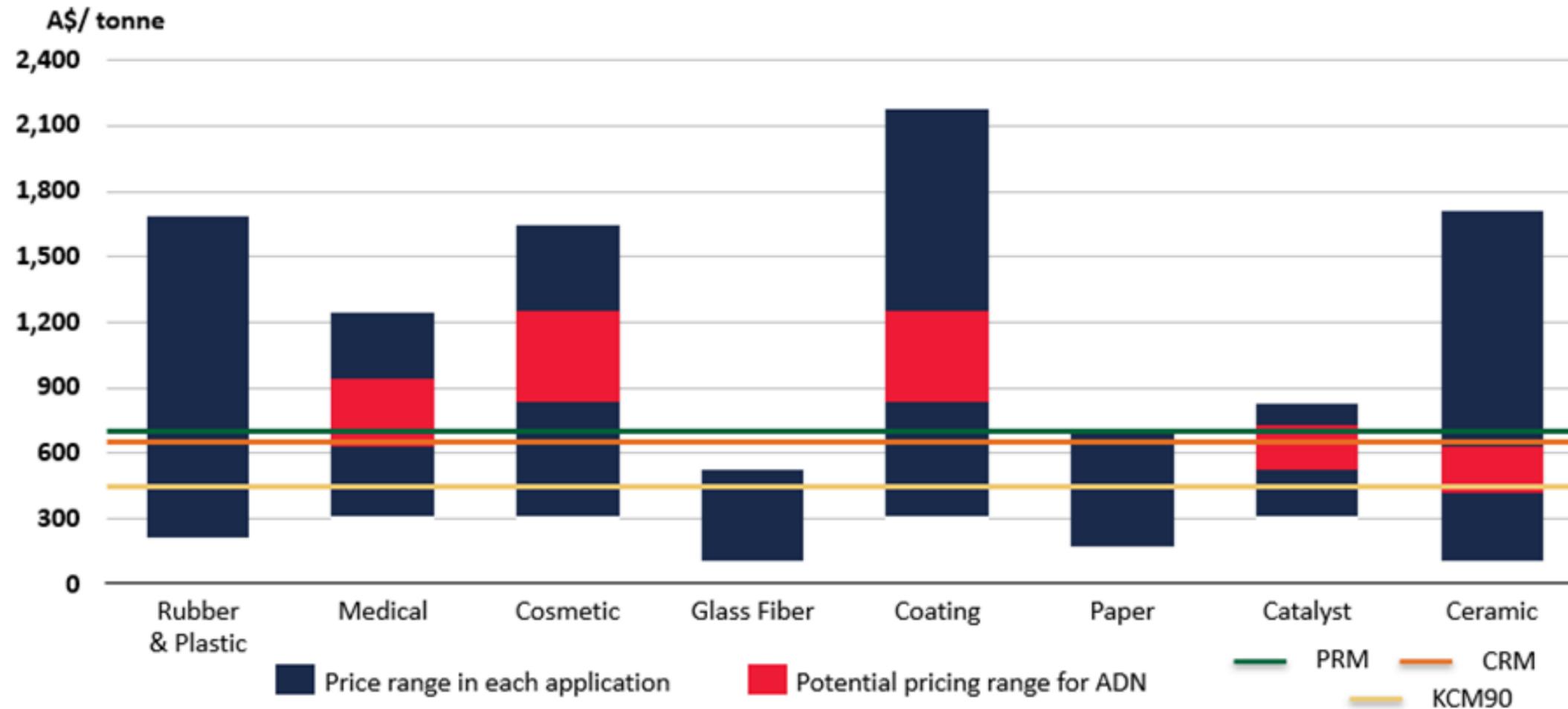
**Concentrate Product  
Great White KCM™90**



**Concrete Product  
Great White HRM™**

## Chinese kaolin market price by end-use market in 2021 (page 34 of DFS)

Potential pricing range from TMZI



### KCM Opportunity (Stage 1)

With further beneficiation by customers, enables delivery into the following market segments:

- Medical, Cosmetics, Coatings, Catalyst and Ceramics
- Establishing the Andromeda brand
- Informs strategy to maximise value

### CRM Opportunity (Stage 2)

Focussing on the Ceramics market, requiring a small incremental investment to deliver into offtake agreement

### CRM Opportunity (Stage 3)

Increased capacity of Stages 1 & 2 (from 300ktpa to 600ktpa feed tonnes)

### CRM/PRM Opportunity (Stage 4)

Diversifying into Coatings market, retaining the expanded Ceramic strategy

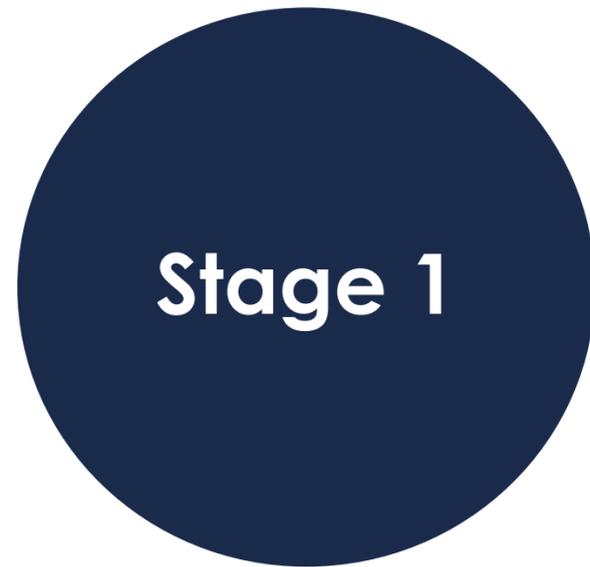
# Definitive Feasibility Study

## A considered staged strategy

- De-risked measured approach
- Minimising upfront capital requirement
- Allows for funding subsequent expansion phases via retained earnings



# Definitive Feasibility Study – 4 staged approach



**KCM™90 & HRM™  
Products –  
300kt Feed**



**CRM™ & HRM™  
Products –  
300kt Feed**



**CRM™ & HRM™  
Products –  
600kt Feed**



**CRM™, PRM™ &  
HRM™ Products –  
600kt Feed**

# Great White Kaolin Project – Summary

Building a foundation from one of the largest reserves of halloysite-kaolin in the world

PLANT FEED  
(NOMINAL)

YEARS 1 - 5  
300,000 dmt  
YEARS 6 - 28  
600,000 dmt

PRODUCTION  
GREAT WHITE HRM™

260,000 dmt

PRODUCTION  
GREAT WHITE KCM™ 90

246,000 dmt

PRODUCTION  
GREAT WHITE PRM™

336,000 dmt

PRODUCTION  
GREAT WHITE CRM™

6,400,000 dmt

Weighted average  
product sale price (dmt)

AUD \$653

MINE LIFE

28 years

STRIP RATIO

2.3

# Great White Kaolin Project –Summary

START-UP CAPITAL  
(STAGE 1)

**\$93.8 M**

SUSTAINING  
CAPITAL

**\$26 M**

REVENUE

**\$4,706 M**

EBITDA

**\$2,283 M**

PRE-TAX  
CASHFLOW

**\$2,050 M**

NPV (BEFORE TAX)

**\$613 M**

IRR  
(% BEFORE TAX)

**36%**

PAYBACK PERIOD  
(Stages 1-3)

**5.9 YEARS**

# What's next



## Finance

- ✓ Definitive Feasibility Study completed
- Additional Binding offtakes agreements
- Complete Bankable Feasibility Study
- Secure funding



## Approvals and construction

- ✓ Mining Lease granted
- Pilot plant upgrade
- PEPR and land access
- Construct and commission processing plant
- Operational start



## Value opportunities

- Carbon capture plant delivery imminent
- High Purity Halloysite
- Additional Kaolin/Halloysite/HRM Resources
- Nanotechnology commercialisations



**James Marsh**

Managing Director & CEO

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*Authorised for release by the Board of Andromeda Metals Ltd*

# JORC Resource Reference Tables 1

	Measured Resource				Indicated Resource				Inferred Resource				Total Resources			
	Tonnes	PSD	Kaolinite	Halloysite	Tonnes	PSD	Kaolinite	Halloysite	Tonnes	PSD	Kaolinite	Halloysite	Tonnes	PSD	Kaolinite	Halloysite
	(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)
<b>Great White</b> <sup>1,2,3</sup>	5.7	50.2	39.5	6.9	14.2	51.1	42.0	5.0	14.7	49.3	40.3	4.9	34.6	50.2	40.9	5.3
<b>Hammerhead</b> <sup>1,3,4</sup>									51.5	52.6	42.7	6.5	51.5	52.6	42.7	6.5
<b>Mount Hope</b> <sup>1,3,5</sup>									18	41.5	33.8	1.4	18	41.5	33.8	1.4
<b>Total</b> <sup>1</sup>	<b>5.7</b>	<b>50.2</b>	<b>39.5</b>	<b>6.9</b>	<b>14.2</b>	<b>51.1</b>	<b>42.0</b>	<b>5.0</b>	<b>84.2</b>	<b>49.7</b>	<b>40.4</b>	<b>5.1</b>	<b>104.1</b>	<b>49.9</b>	<b>40.6</b>	<b>5.2</b>

1. Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.
2. ASX 26 November 2020, Updated mineral resource for the Great White Kaolin JV Deposit
3. ISO brightness (R457) cut-off of at 75 in the <45µm size fraction
4. ASX 29 September 2020, New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit
5. ASX 11 August 2020, New mineral resource for the Mount Hope Kaolin Project

## Competent Person's Statements

### Great White and Mt Hope Projects Resources and Reserves

Information in that relates to the Great White Project and Mt Hope Project has been reviewed by Mr. James Marsh a member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Marsh is an employee of Andromeda Metals Limited who holds shares, options and performance rights in the company and is entitled to participate in Andromeda's employee incentive plan (details of which are included in Andromeda's Annual Remuneration Report) 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 Person 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 that relates to Mineral Resource Estimates for the Great White Kaolin Project (Great White and Hammerhead Deposits) and Mount Hope Kaolin Project are 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 has 30 years of experience in the mining industry. Mr Whittaker consents to the information in the form and context in which it appears. Mr Whittaker holds Performance Rights in the Company and is entitled to participate in Andromeda's employee incentive plan.

The data in this report that relates to Ore Reserve Estimates for the Great White Kaolin Resource is based on information evaluated by Mr John Millbank who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Millbank is the Director of Proactive Mining Solutions Pty Ltd, an independent mining consultancy, 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 Millbank consents to the information contained in this report being used in the form and context in which it appears. Mr Millbank, or any of the entities he directly controls, has no financial interests in Andromeda Metals Ltd or any of its subsidiaries.

# Great White Kaolin Project –Summary

## GWKP Key Indicators

Parameter		Life of mine (Total)
Plant feed (nominal)	Dry metric tonnes (dmt)	300,000 (years 1-5) 600,000 (years 6-28)
Production	Great White HRM™ (dmt)	260,000
	Great White KCM™90 (dmt)	246,000
	Great White PRM™ (dmt)	336,000
	Great White CRM™ (dmt)	6,400,000
Weighted average product sale price (AUD/dmt)		653
Life of mine (years)		28
Strip ratio		2.3
Start-up capital (AUD million)		93.8
Sustaining capital (AUD million)		26.0
Revenue (AUD million)		4,706
EBITDA <sup>1</sup> (AUD million)		2,283
Pre-tax cashflow (AUD million)		2,050
NPV (before tax) (AUD million)		613
IRR (% before tax)		36
Payback period (stages 1 – 3 in years) <sup>2</sup>		5.9

<sup>1</sup> Earnings Before Interest, Taxes, Depreciation, and Amortization

<sup>2</sup> Includes payback of initial AUD 93.8 million as well as the further plant upgrades within that time