

## ASX ANNOUNCEMENT

23 March 2022

### Presentation to the Brisbane Mining and Energy Conference

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Great Northern Minerals Limited (“Great Northern Minerals” or the “Company”) (ASX: GNM) is pleased to announce that it will be presenting at the Brisbane Mining and Energy Conference on Thursday 24<sup>th</sup> March 2022 at the Royal on the Park Conference Centre.

When: Thursday 24<sup>th</sup> March 2022

Time: 10.30am AEDT

Register at: [https://us06web.zoom.us/meeting/register/tZEkde-uqzgpGtXgRHA-oX0Y0G92fkq\\_WnJg](https://us06web.zoom.us/meeting/register/tZEkde-uqzgpGtXgRHA-oX0Y0G92fkq_WnJg)

This announcement has been authorised for release to the market by the Board of Great Northern Minerals Limited.

\*\*\*ENDS\*\*\*

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#### ***About Great Northern Minerals Limited***

*Great Northern Minerals Limited is an ASX-listed gold focused explorer. The Company’s key North Queensland Gold Projects include the Golden Cup, Camel Creek and Big Rush Gold Mines in North Queensland. The historic mines ceased operation in the 1990’s after production of over 150,000 oz at an average grade of 1.91g/t Au. Great Northern Minerals aims to extend known mineralisation and develop a new gold camp in North Queensland.*



Great Northern Minerals

A photograph of a mining site. In the foreground, there is a large, dark, layered rock face. In the middle ground, a red drilling rig is positioned on a dirt road, with a white car parked nearby. The background shows a line of trees under a clear blue sky.

**BRISBANE MINING CONFERENCE**  
**24 March 2022**

## Disclaimer

### Preparation

This Presentation has been prepared to provide prospective investors in Great Northern Minerals Limited, ACN 000 002 111, (“The Company” or “Great Northern Minerals”), with general information to assist them in deciding whether they wish to undertake their own investigation and/ or consider a possible investment in the Company or the Company’s projects.

This Presentation has not been independently verified for reliability, completeness or accuracy. No representation is made that such information and materials are reliable, complete or accurate. This Presentation is not a prospectus and does not constitute an offer or invitation or recommendation to any person and has been prepared solely for use by persons who are deemed to be “sophisticated investors” as described in the Corporations Act.

### Projections and Assumptions

The projections and assumptions in this Presentation are indicative only and are not and should not be relied upon as representations as to future matters. The projections are based on assumptions that may or may not prove to be correct. The recipient must make their own independent assessment and investigation of those projections and assumptions. Investors will be required to undertake at their cost, any additional works needed for an investment decision.

### Disclaimer

The Company and its respective shareholders, directors, partners, employees, officers, agents, consultants or advisors disclaim (to the maximum extent permitted by law) all duties and liabilities, including liability for negligence, for any loss or damage which is suffered or incurred by any person acting on any information provided or omitted to be provided by any of them in connection with an investment in The Company or any statements, opinions or matters (expressed or implied) arising out of, or contained in, or derived from, such information

### No Offer, Invitation, Recommendation /Advice

The information set out in this Presentation does not constitute an offer or invitation to subscribe for securities in The Company or investment in the assets of the Company, or a recommendation by The Company to any person in respect of any matter.

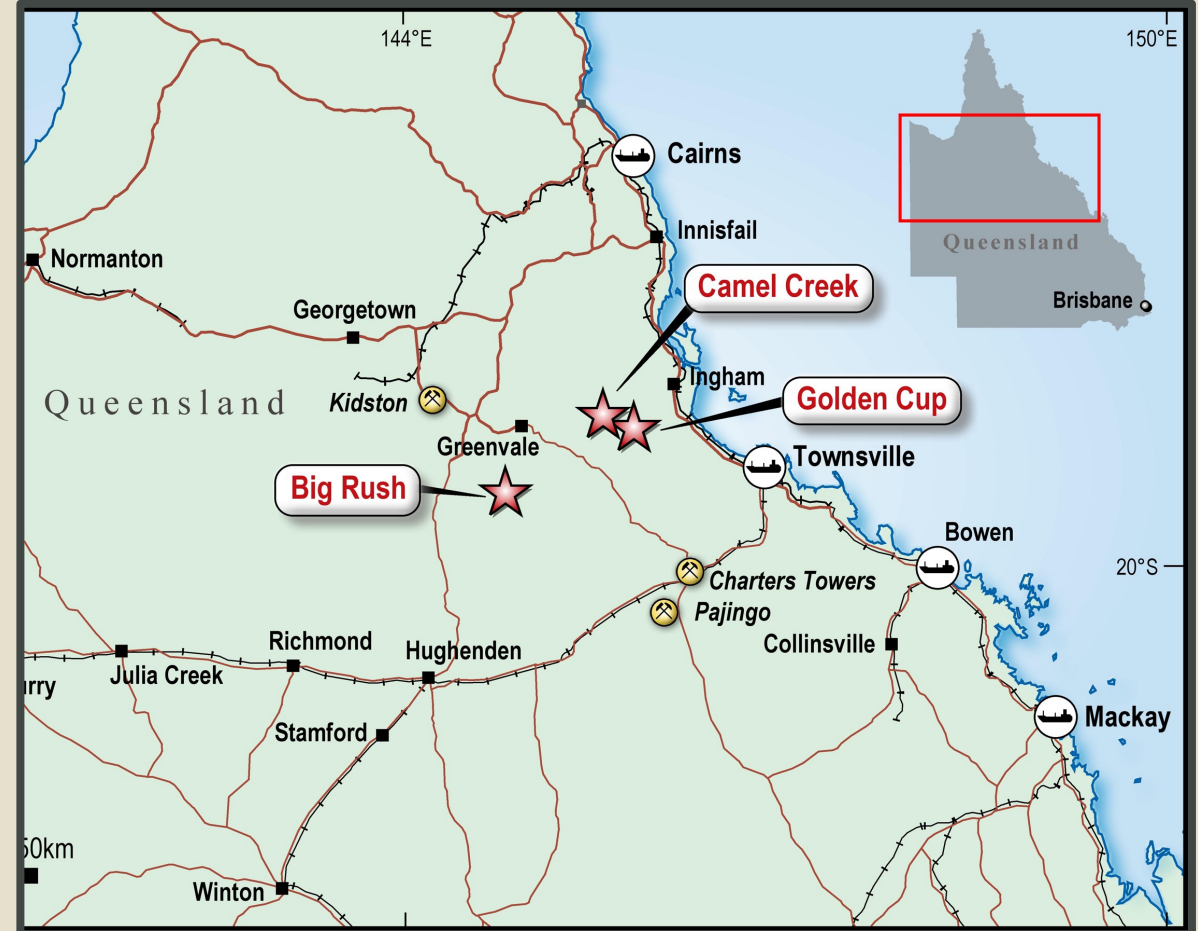
## Corporate Snapshot – highly experienced team with a focus on delivery

Corporate Structure	
Shares on issue	1,709m
Options on issue	768m
Share price	A\$0.005 per share
Market capitalisation	A\$8.55m
Cash <sup>(1)</sup>	A\$3.15m
Debt	Nil
<i>(1) As at 14 March 2022</i>	

Board of Directors	
<b>Non-Executive Chairman</b>	<b>Kim Robinson</b>
<ul style="list-style-type: none"> <li>Geologist - 35 years' experience in mineral exploration and mining</li> <li>Forrestannia Gold, Jubilee Mines, Kagara and Energia Metals</li> <li>Exceptional track record of discovery, project development and operation</li> </ul>	
<b>Managing Director</b>	<b>Cameron McLean</b>
<ul style="list-style-type: none"> <li>25 years' experience in resource sector</li> <li>Snowden Mining Industry Consultants, Queensland Pacific Metals</li> </ul>	
<b>Technical Director</b>	<b>Simon Coxhell</b>
<ul style="list-style-type: none"> <li>Geologist - 35 years' experience in exploration, development &amp; mining</li> <li>Managing Director/CEO of Echo Resources (acquired by Northern Star for A\$244m in 2019)</li> </ul>	
<b>Non-Executive Director</b>	<b>Simon Peters</b>
<ul style="list-style-type: none"> <li>Mining engineer - 20 years' experience in resource sector</li> </ul>	
<b>Company Secretary</b>	<b>Aida Tabakovic</b>
<ul style="list-style-type: none"> <li>Accounting, reporting compliance - 10 years' experience in resource sector</li> <li>Involvement in a number of junior explorers on the ASX</li> </ul>	

## Golden Ant Project – high grade gold & antimony

- Located in North Queensland - consists of three key deposits – Camel Creek, Golden Cup and Big Rush
- Gold mineralisation occurs in quartz veins with variable contents of gold, pyrite, arsenopyrite and stibnite
- Mineral Resource of 6.1Mt @ 2.0 g/t Au (386koz Au)
- Significant antimony exposure – Camel Creek (9,000 tonnes contained Sb @ 0.4% Sb) plus multiple Sb exploration targets
- Historic mining operations (1989 to 1994) consisting of open pit mining (oxide ore) with gold recovered by heap leaching. Mining activities ceased on depletion of oxide mineralisation – fresh (sulphide) mineralisation was exposed in all open pits
- GNM acquired 100% of the project in 2020, and to date have:
  - Completed initial JORC Resource (Big Rush, Golden Cup, Camel Creek)
  - Drilled over 17,000m to date;
  - Consolidated regional landholding; and
  - Commenced scoping study

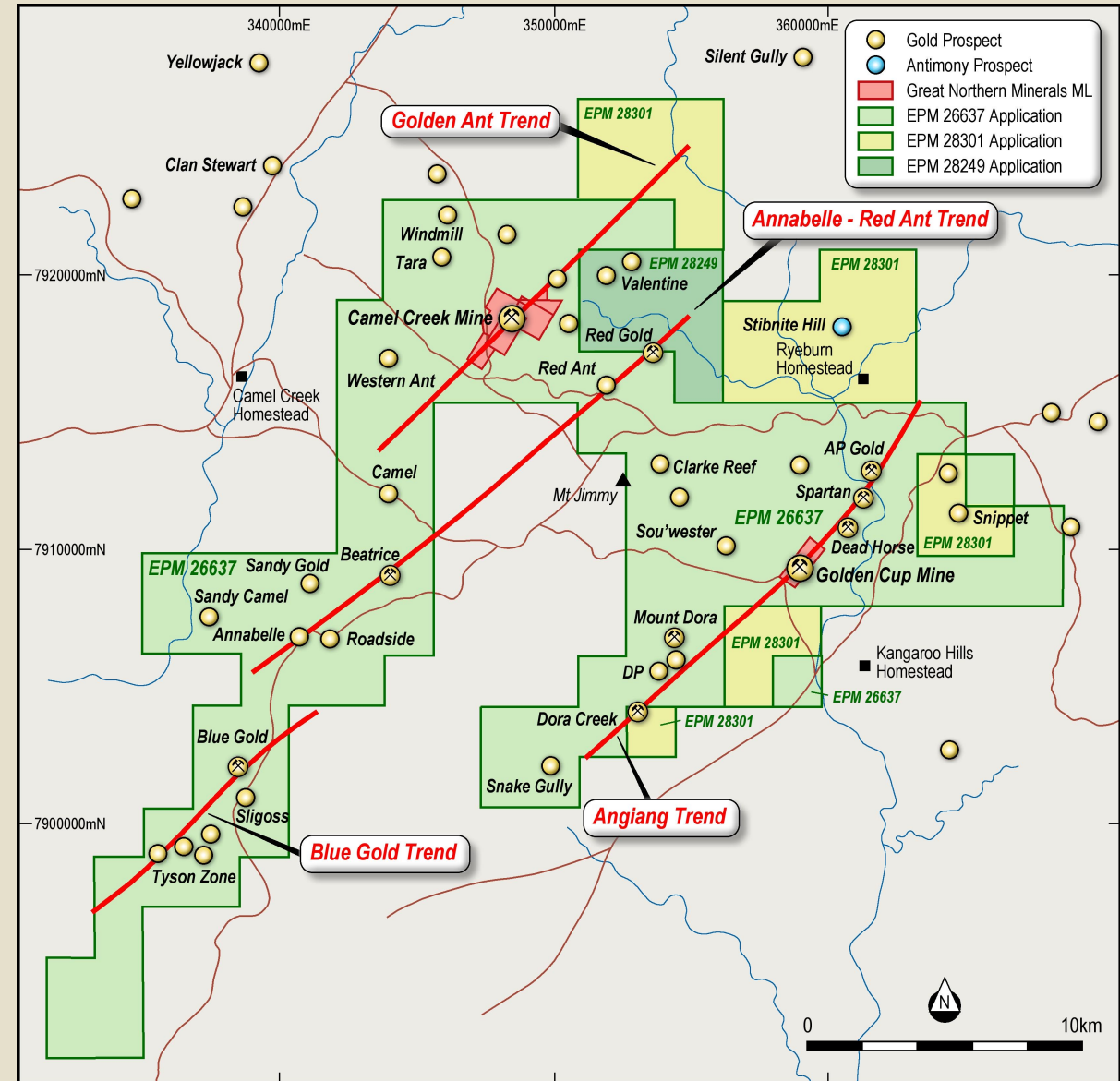


# Camel Creek & Golden Cup



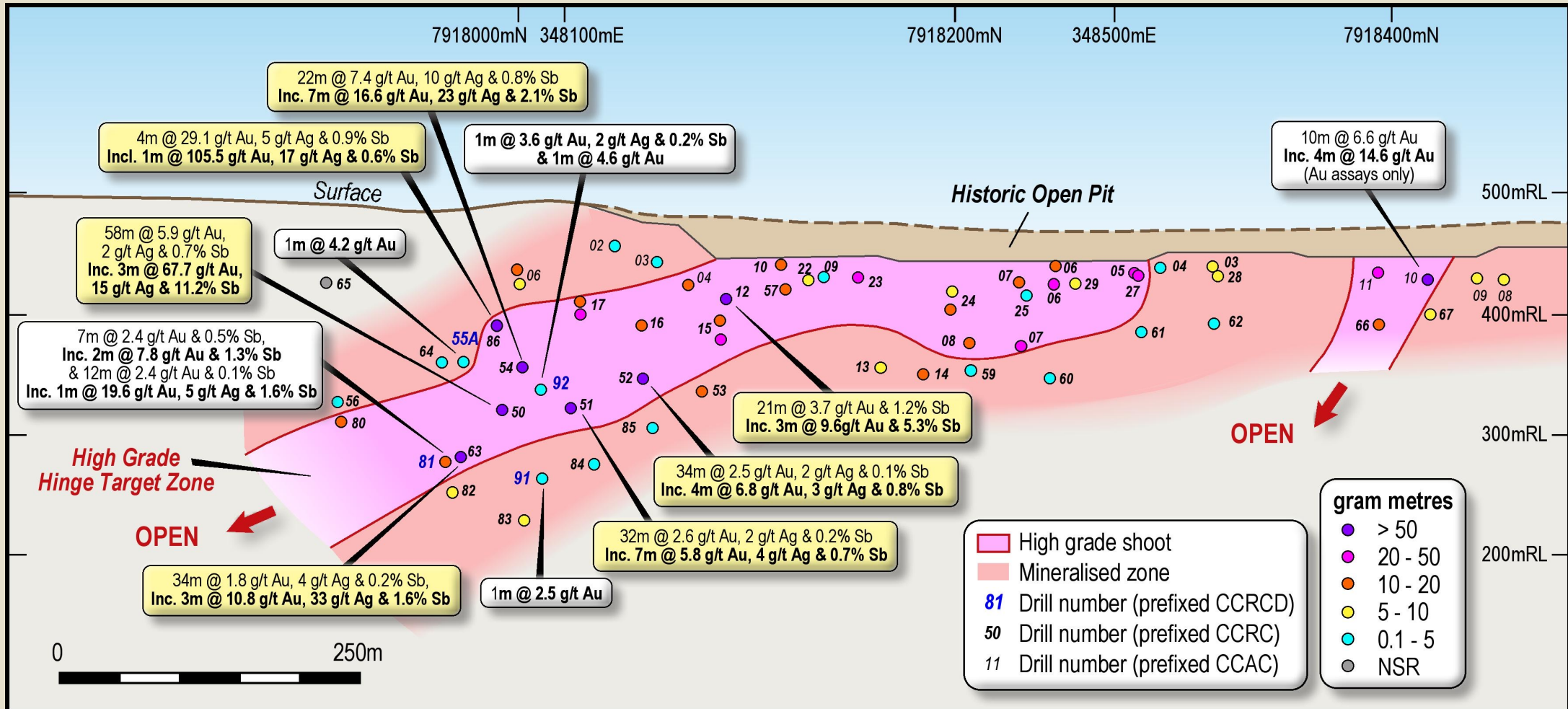
## Camel Creek & Golden Cup

- Amanda Bell Goldfield covers an area of approx. 1,000 km<sup>2</sup> to the west of Ingham in Far North Queensland.
- GNM controls the Goldfield – holding granted Mining Leases over the main deposits and exploration applications over the remaining area
- Gold and antimony mineralisation is hosted in continuous shear zones along three main trends – Golden Ant, Blue Gold and Angiang Trend
- Gold bearing oxide ore was mined from multiple open pits on eight deposits and these plus others all have remnant primary ore, many of them with significant antimony mineralisation in addition to the gold.
- Two historic heap leach operations at Camel Creek and Golden Cup with total gold production of 95koz Au
- To date, GNM has defined JORC Resources (open at depth and along strike) at Camel Creek and Golden Cup
- Excellent exploration upside with multiple regional gold and antimony targets



## Camel Creek Deposit: High-Grade Gold & Antimony

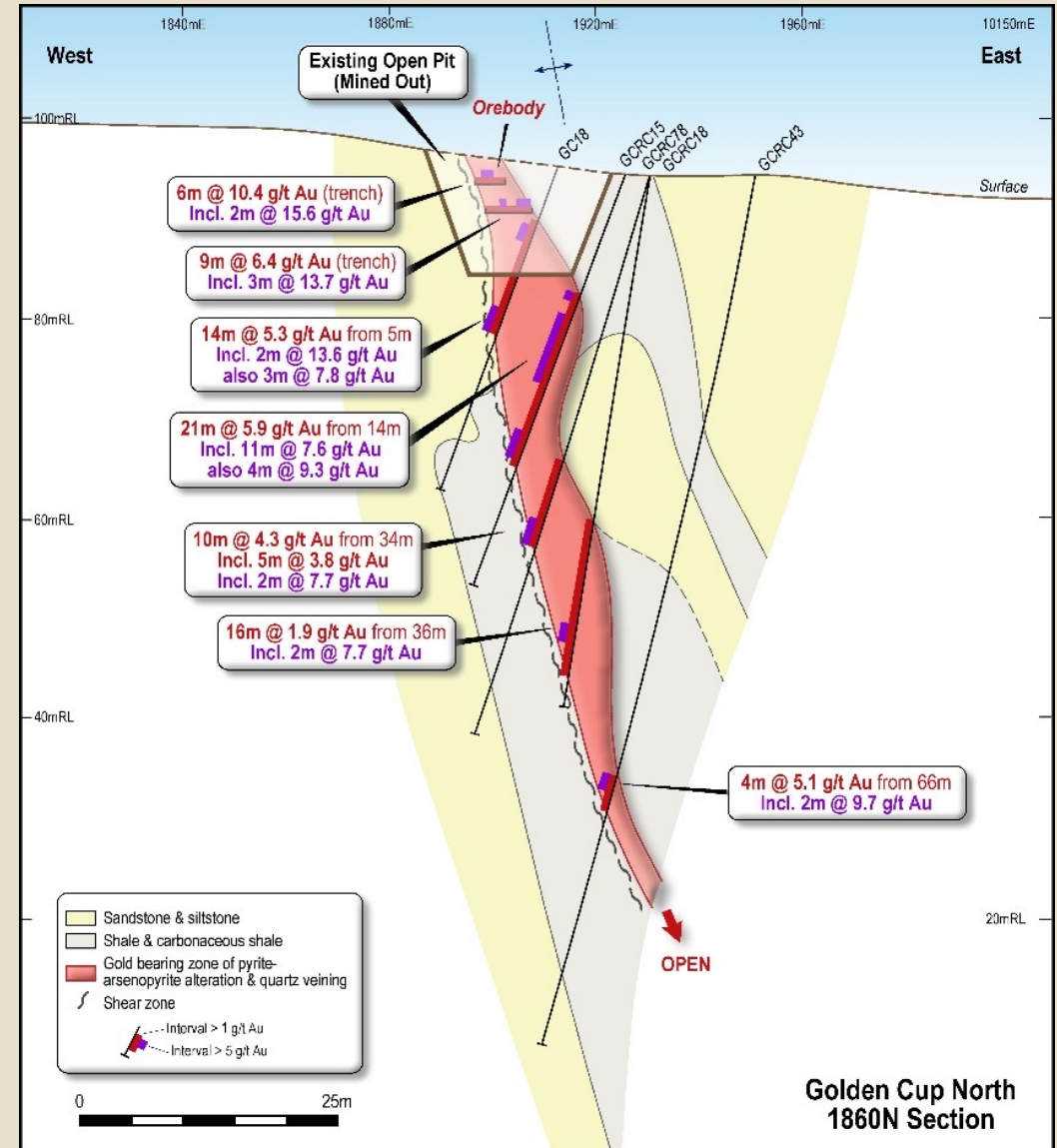
- 28 open pits mined over 5km of strike length for >1 Mt mined at 1.7 g/t Au
- Camel Creek Mineral Resource (2.4Mt @ 2.6 g/t Au & 0.4% Sb) is open at strike & depth – potential for material increase
- Hinge Zone (high-grade Au-Ag-Sb shoot) is a priority drill target – CCRC54 intersected 3m @ 67.7 g/t Au, 15 g/t Ag & 11.2% Sb



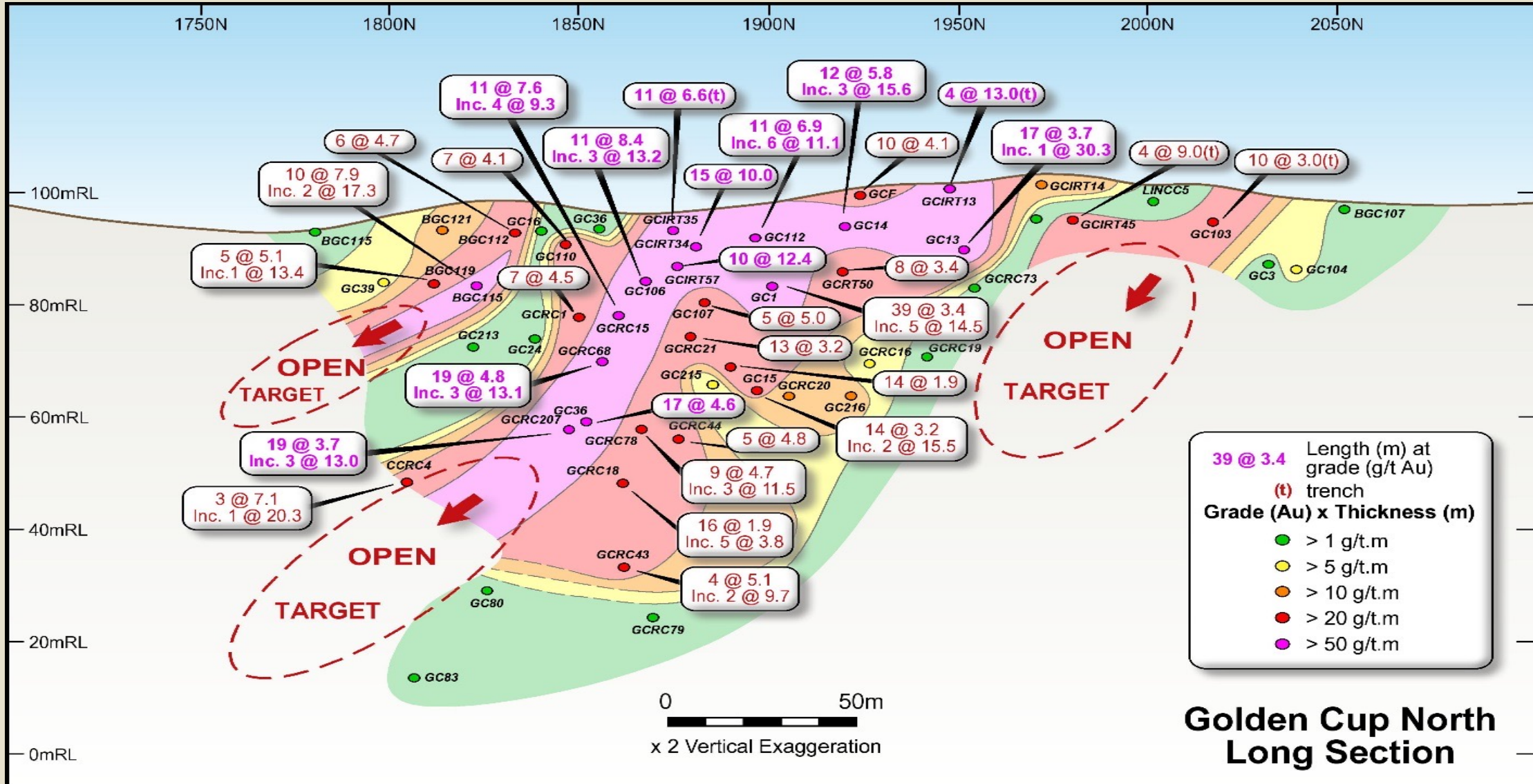


## Golden Cup Deposit

- 9 pits mined over 1,700m of strike length for 0.2Mt tonnes mined at an average grade of 2.8 g/t Au, with production finishing in 1993
- Ore extracted from 9 pits over a 1.5km strike length with an average pit depth of less than 15m
- 90% of drilling was less than 50m deep and mineralisation remains open at depth and along strike
- RC Drilling in December 2019 returned high grade gold intercepts including:
  - **7m @ 7.5 g/t Au from 32m 9m @ 4.7 g/t Au from 42m (GCRC078); and**
  - **9m @ 4.7 g/t Au from 42m (GCRC078)**
- Golden Cup Mineral Resource (**0.3Mt @ 3.4 g/t Au**) is open at strike & depth



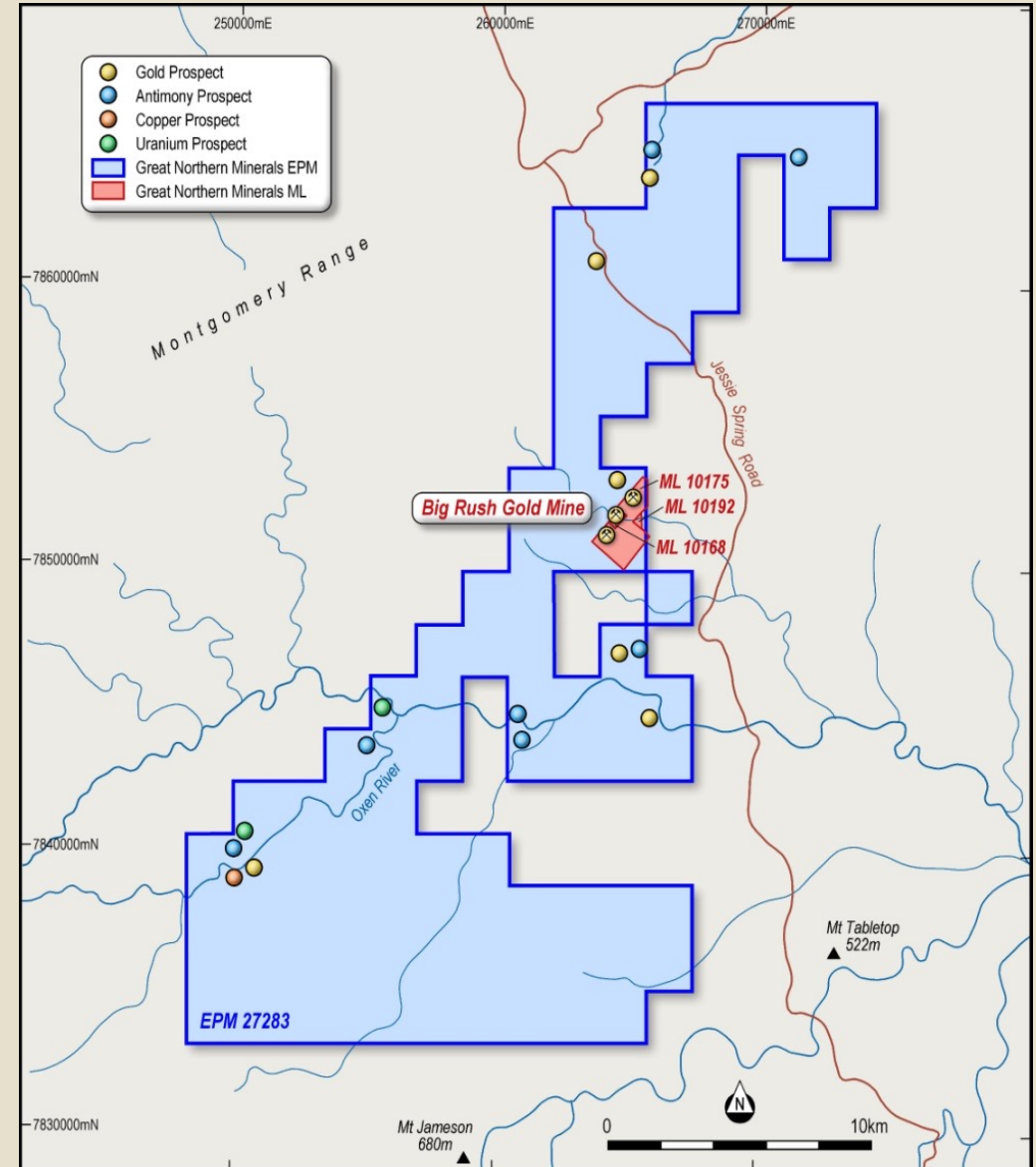
# Golden Cup Deposit: Plenty of Upside





## Big Rush

- 4 pits mined over 2,200m of strike length for 1.0Mt tonnes mined at an average grade of 1.7 g/t Au, with production finishing in 1997
- To date 1,400m of strike length systematically assessed with excellent potential for the delineation of additional mineralisation
- GNM RC Drilling in December 2019 and September 2020 returned high grade gold intercepts beneath the Central and Northern Pit including:
  - 28m @ 2.5 g/t Au from 83m (BRR1007) &
  - 24m @ 4.0 g/t Au from 73m (BRR1009)
  - 24m @ 3.9 g/t Au, including 8m @ 10.6 g/t Au from 140 metres (BRR1013)
  - 32m @ 3.9 g/t Au, including 4m @ 19.0 g/t Au from 76 metres (BRR1014)
  - 28m @ 1.7 g/t Au from 148m (BRR1026)
- Big Rush Mineral Resource (3.4Mt @ 1.8 g/t Au) is open at strike & depth



## Potential to Reprocess Historic Heap Leach Pads

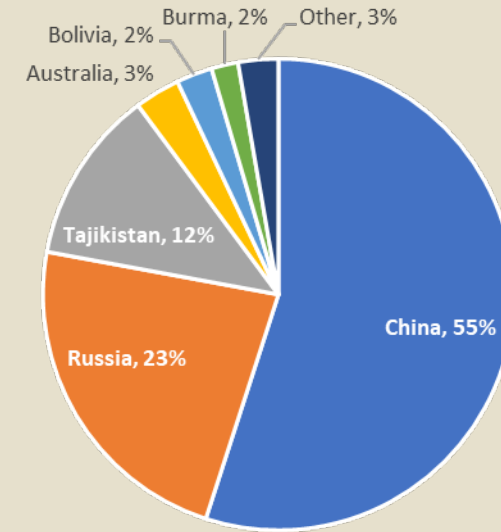
- Historic heap leach pads at Camel Creek, Golden Cup and Big Rush contain a significant amount of relic auriferous oxide & sulphide ores
  - Camel Creek – 1.2Mt stacked on pads
  - Golden Cup – 0.3Mt stacked on pads
  - Big Rush – 1.0Mt stacked on pads
- Historical records indicate Sb rich mineralisation was mined at Camel Creek – potential exists to recovery antimony (stibnite) from Camel Creek leach pads
- GNM reviewing a proposed ore sorting test work program
  - Focus on potential to upgrade historic heap leach material to recover gold and antimony mineralisation as a feed to any proposed processing operation
  - Examine ability to product a bulk Sb concentrate from ore sorting



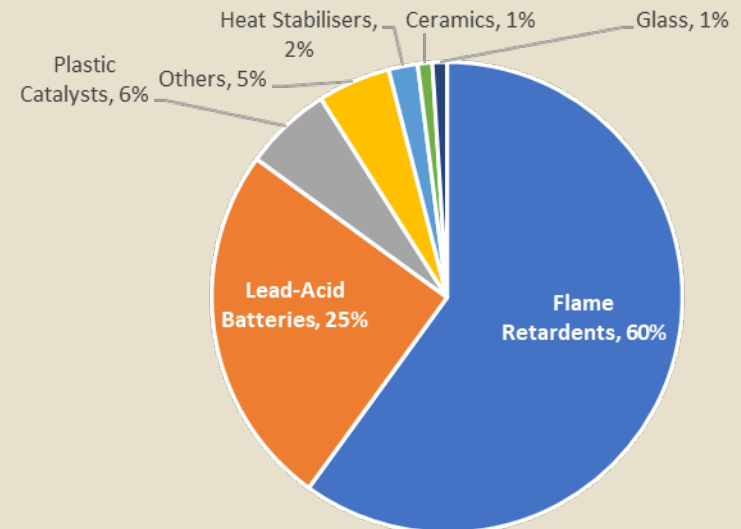
## Antimony: Exciting Exposure to a Critical Raw Material

- Critical Raw Materials are metals and minerals essential to economic and national security and are vulnerable to supply chain disruptions
- Antimony has been identified as a critical raw material by the US, UK, EU, Japan, Canada and Australia
- Antimony mine production is dominated by China (55%) and Russia (23%)
- Approx. 3% of global mine production is sourced from Australia (Costerfield Sb-Au mine, Victoria)
- Antimony’s main current uses are in fire retardants used in virtually all consumer and industrial plastics and lead-acid batteries
- Emerging technology for large capacity energy storage batteries points to antimony being a critical raw material for the clean energy transition
- **Recent and ongoing geo-political shockwaves from the Russia-Ukraine conflict have driven antimony prices to US\$14,000 per tonne (Argus, 18 March 2022)**

World Antimony Mine Production 2021 (USGS)



Antimony End Uses (USGS, Roskill)



## Golden Ant Project – Material upside to initial Mineral Resource

- GNM announced (8 March 2022) an initial Golden Ant Project Mineral Resource of 6.1Mt @ 2.0 g/t Au (385koz Au) with significant antimony exposure at Camel Creek (9,000 tonnes cont. Sb)
- GNM focused on delivering the exciting potential to increase current Mineral Resources
  - Deeper drilling along strike and at depth
  - Assess other historic mining areas within the exploration portfolio

	Camel Creek	Golden Cup	Big Rush
JORC Resource	<b>2.4Mt @ 2.6 g/t Au &amp; 0.4% Sb</b>	<b>0.3Mt @ 3.4 g/t Au</b>	<b>3.4Mt @ 1.8 g/t Au</b>
Resource Upside	Open at depth & strike Previous mining to only shallow depths (<30 m) High-grade drill intersections beneath open pits		
Satellite Deposits	Beatrice, Red Gold, Blue Gold	Dora Creek, Mt Dora, Dead Horse, Spartan, AP Gold	Janelle’s Hope, Yellow Jack*
Exploration Potential	Limited modern or systematic exploration		

*\*Janelle’s Hope and Yellow Jack are held by 3<sup>rd</sup> parties*

## Fully Funded High Impact Work Program Underway in 2022

### Increase Mineral Resource Base

- Test depth and strike extensions at Camel Creek & Golden Cup
- Assess other historic mining areas within the exploration portfolio

### Deliver Exploration Success

- Multiple historic satellite pits to be drilled
- Multiple exploration targets to be drilled

### Advance Scoping Study

- Historic heap leach pad ore sorting study
- Metallurgical test work program to produce gold and antimony concentrate from primary ore
- Preliminary mine design work

### Understand Antimony Potential

- Target known antimony mineralisation
- Marketing of any potential Sb products produced (heap leach sorting and primary ore test work)



An aerial photograph of a quarry site. A river flows through the left side of the image, reflecting the sky. The quarry is a large, excavated area with exposed rock faces. The surrounding landscape is covered in dense green forest. In the background, there are rolling hills under a cloudy sky. In the bottom right corner, there is a small area of construction equipment and materials.

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# Competent Persons Statement

**Competent Persons Statement – Exploration Results**

*The information in this presentation that relates to Exploration Results is based on information compiled under the supervision of Simon Coxhell, the Technical Director of Great Northern Minerals Limited. Mr. Coxhell is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles 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.” Mr. Coxhell consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.*

**Competent Persons Statement – Camel Creek and Big Rush Mineral Resources**

*The information in this presentation that relates to Mineral Resources is based on information compiled by Mr. Lynn Widenbar, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Widenbar is a full-time employee of Widenbar and Associates Pty Ltd. Mr. Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves’. Mr. Widenbar consents to the inclusion in the report of the matters based on his information in the form and context that the information appears.*

**Competent Persons Statement – Golden Cup Mineral Resource**

*The information in this presentation that relates to Mineral Resources is based on information compiled by Andrew Beaton (Mineral Resources) a part time consultant to Great Northern Minerals. Mr Beaton is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.” Mr Beaton consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.*

*Refer to previous ASX announcements on the 14 May 2019, 20 June 2019, 4 July 2019, 11 July 2019, 5 August 2019, 15 August 2019, 25 November 2019, 10 December 2019, 12 December 2019, 16 December 2019, 20 December 2019, 23 December 2019, 28 January 2020, 7 February 2020, 18 August 2020, 9 September 2020, 16 September 2020, 7 October 2020, 26 October 2020, 15 December 2020, 14 January 2021, 25 February 2021, 17 May 2021, 11 June 2021, 28 June 2021, 9 September 2021, 18 October 2021, 8 February 2022 and 8 March 2022 in respect of historic drilling intersections, exploration targets and mineral resources. Great Northern Minerals is not aware of any new information or data that materially affects the information included in the relevant market announcements listed.*

## Golden Ant Mineral Resource (0.5 g/t Au cut-off)

	Resource	Tonnes	Gold	Antimony	Contained Gold	Contained Antimony
	Classification	(kt)	(g/t)	(Sb %)	(koz)	(tonnes)
<b>Camel Creek <sup>(1)</sup></b>	Indicated	1,440	2.7	0.4%	127	5,700
	Inferred	970	2.4	0.3%	75	3,300
	Sub Total	2,410	2.6	0.4%	202	9,000
<b>Big Rush <sup>(2)</sup></b>	Indicated	2,236	1.7	-	99	-
	Inferred	1,203	1.8	-	54	-
	Sub Total	3,439	1.8	-	153	-
<b>Golden Cup <sup>(3)</sup></b>	Indicated	-	-	-	-	-
	Inferred	279	3.4	-	30	-
	Sub Total	279	3.4	-	30	-
<b>Camel Creek</b>		2,410	2.6	0.4%	202	9,000
<b>Big Rush</b>		3,439	1.8	-	153	-
<b>Golden Cup</b>		279	3.4	-	30	-
<b>Golden Ant Project</b>	<b>Total</b>	<b>6,128</b>	<b>2.0</b>	<b>-</b>	<b>386</b>	<b>-</b>
Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.						
(1) Widenbar & Associates 3 March 2022						
(2) Great Northern Minerals ASX release dated 21 February 2021						
(3) Great Northern Minerals ASX release dated 9 December 2019						