Great Northern Minerals

ASX ANNOUNCMENT

8 March 2022

Camel Creek delivers 202,000 oz of Gold and 9,000 t of Antimony

Highlights:

- **Initial Camel Creek Mineral Resource Estimate (MRE) of 2.4Mt @ 2.6 g/t Au & 0.4% Sb (202,000 oz Au & 9,000 tonnes of antimony)**
- **Camel Creek contains a significant antimony component – highlights opportunity to produce a high-value antimony concentrate**
- **65% of Camel Creek MRE is located in the Hinge Zone – open at depth and strike – potential exists to significantly increase initial resource with further drilling**
- **Initial Camel Creek MRE drives a material increase in the Golden Ant Project MRE**
  - **Updated Golden Ant Project MRE of 6.1Mt @ 2.0 g/t Au (386koz Au)**
  - **111% increase in contained gold from 183 koz to 386 koz Au**
  - **65% increase in overall resource tonnes from 3.7Mt to 6.1Mt**
- **Fully funded drill programs approved for 2022 aiming to further grow the resource base at Camel Creek and within the Golden Ant Project area.**

Great Northern Minerals Limited ("**GNM**" or the "**Company**") (**ASX: GNM**) is pleased to announce the initial Camel Creek Mineral Resource Estimate (**MRE**) of **2.4Mt @ 2.6 g/t Au & 0.4% Sb (202 koz Au & 9,000 tonnes Sb)**, part of GNM's Golden Ant Project in North Queensland. The Camel Creek MRE increases the contained gold in the Golden Ant Project MRE by 111% to 386 koz Au plus 9,000 tonnes Sb.

Table 1 Initial Camel Creek Mineral Resource Estimate (0.5 g/t Au cut-off grade)

	Classification	Tonnes (kt)	Gold (g/t)	Antimony (Sb %)	Contained Gold (koz)	Contained Antimony (tonnes)
Camel Creek [(1)]	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**

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.
(1) Widenbar & Associates 3 March 2022

GNM CEO & Managing Director, Cameron McLean said: *"We are pleased to announce the initial Camel Creek Mineral Resource Estimate of 2.4Mt @ 2.6 g/t Au & 0.4% Sb (202 koz Au & 9,000 tonnes Sb). Camel Creek also contains significant antimony, raising the potential to produce an antimony concentrate at Camel Creek.*

This is a material step forward for GNM, increasing the contained gold at our Golden Ant Project by 111% to 386 koz Au and will underpin the Golden Ant Project Scoping Study.

Exploration activities will continue at our Golden Ant Project as we seek to further increase the Mineral Resource and, as part of the Scoping Study, seek to better understand the potential for higher grade Mineral Resources at depth at Camel Creek and Golden Cup."

1. Camel Creek Mineral Resource Estimate

Great Northern Minerals Limited (ASX: GNM) ("GNM" or the "Company") is pleased to announce the initial Mineral Resource Estimate of **2.4Mt @ 2.6 g/t Au & 0.4% Sb (202 koz Au & 9,000 tonnes Sb)** for the Camel Creek deposit, part of GNM's Golden Ant Project in Far North Queensland.

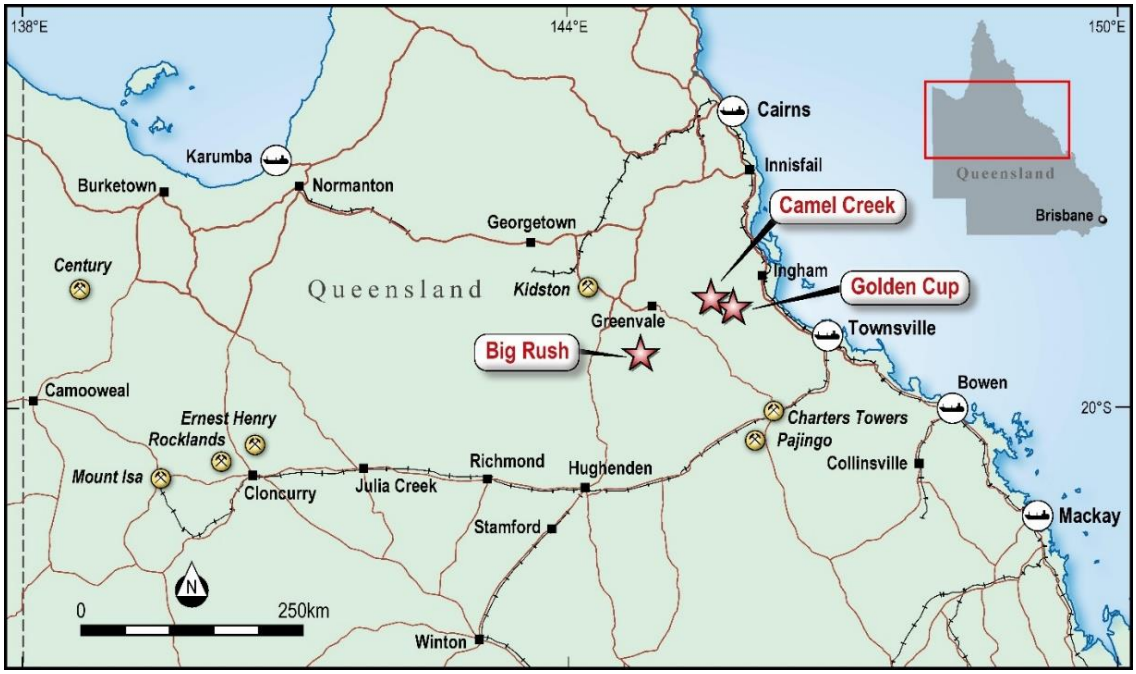
Table 2 Initial Camel Creek Mineral Resource Estimate (0.5 g/t Au cut-off grade)

	Classification	Tonnes	Gold	Antimony	Contained Gold	Contained Antimony
		(kt)	(g/t)	(Sb %)	(koz)	(tonnes)
Camel Creek [(1)]	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**

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.
(1) Widenbar & Associates 3 March 2022

The Camel Creek Project is part of GNM's Golden Ant Project and is located approximately 200km north-west of Townsville in north-eastern Queensland.

Figure 1 Camel Creek Project Location

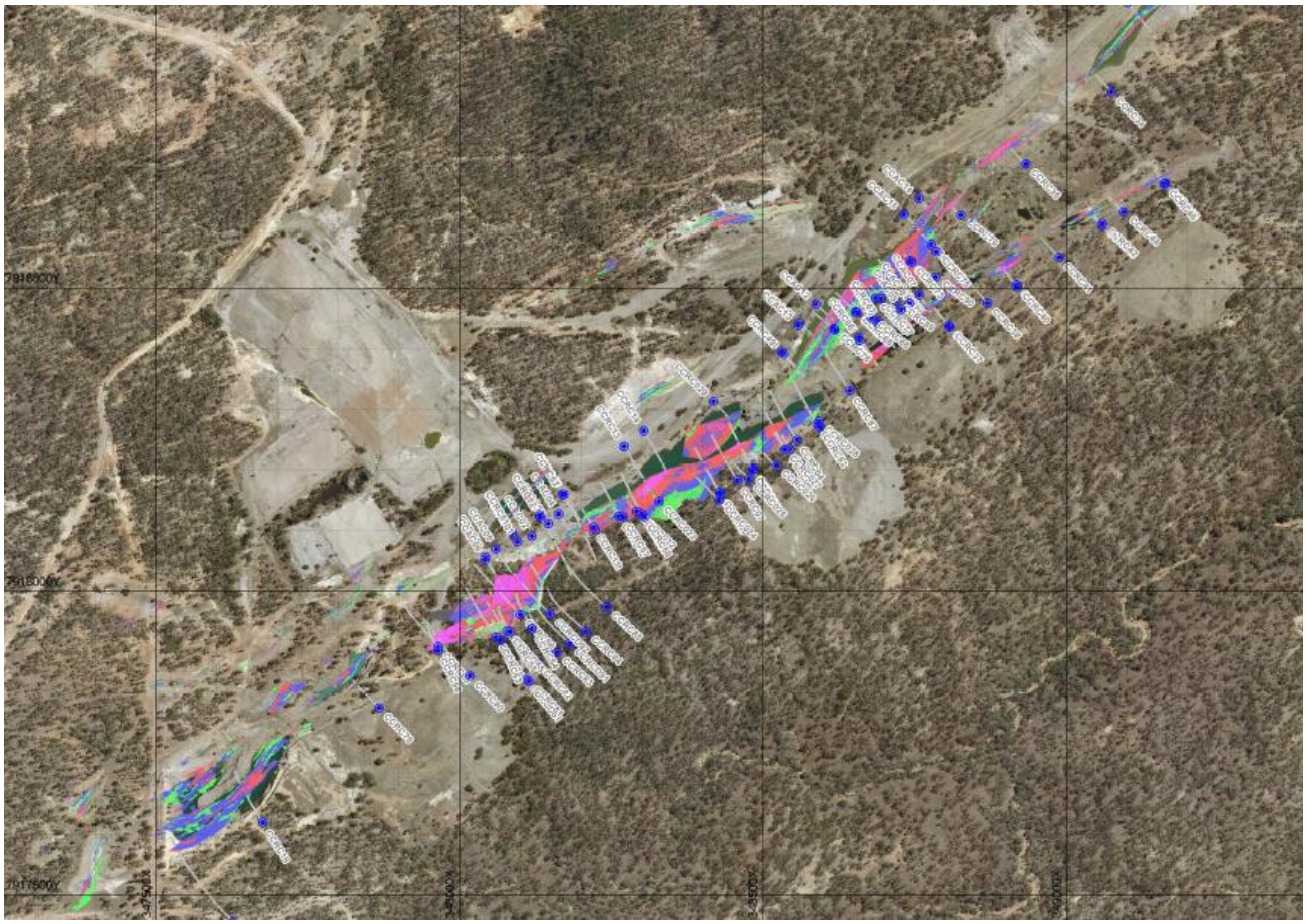


The Camel Creek deposit lies wholly within Mining Leases MLs 10168, 10175 and 10192 which are held by Golden Ant Mining Pty Ltd. Great Northern Minerals Limited acquired 100% of issued capital of Golden Ant Mining Pty Ltd in August 2020 and now holds a 100% interest in Mining Leases. The Mining Leases are all granted.

1.1. Potential to Increase the Camel Creek MRE

To date, the majority of the Camel Creek Mineral Resource Estimate is located within the Hinge Zone (comprising 61% of the total resource by volume and 65% by tonnage, at 0.5 Au g/t cut-off).

Figure 2 Camel Creek Aerial Plan View; MRE and GNM drilling



The Hinge Zone is open at depth and strike and GNM intends to carry out a systematic drilling program in 2022 to target these potential extensions and also to support the potential for a high grade UG mining operation.

Figure 3 Camel Creek Aerial Plan View; MRE, GNM drilling and resource classification

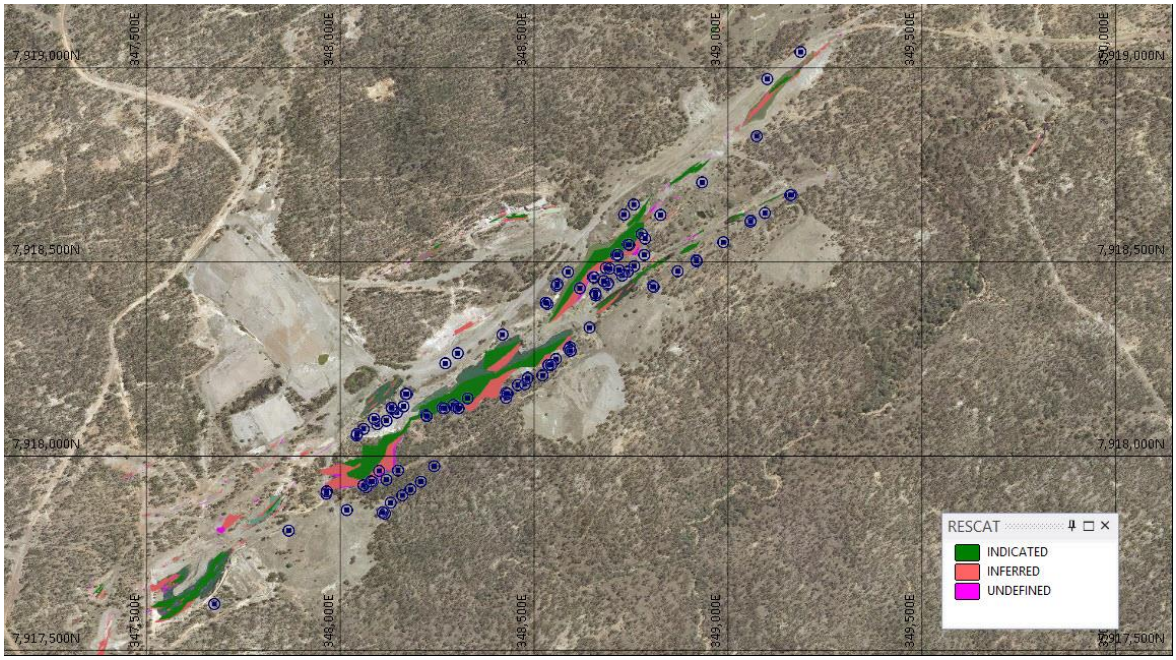
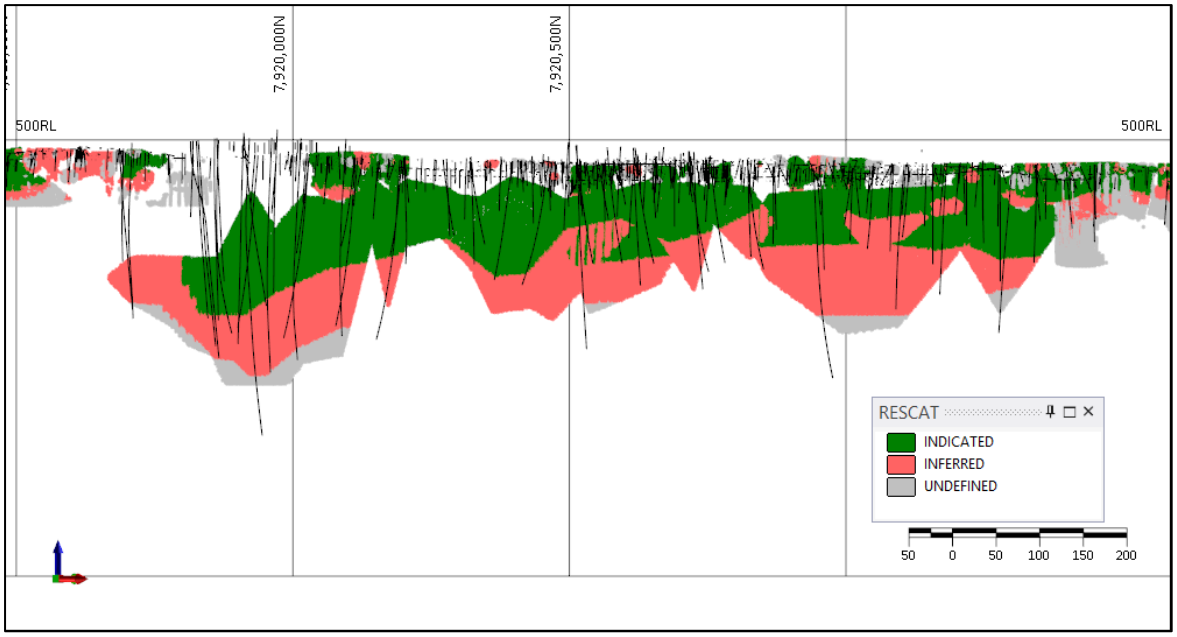


Figure 4 Central (Hinge Zone) Area Resource Classification Long Section



2. Golden Ant Project Mineral Resource Estimate

The initial Camel Creek Mineral Resource Estimate (MRE) of 2.4Mt @ 2.6 g/t Au & 0.4% Sb (202koz Au & 9,000 tonnes Sb) has driven a material increase in the Golden Ant Project Mineral Resource to 6.1Mt @ 2.0 g/t Au (386koz Au).

Table 3 Updated Golden Ant Project Mineral Resource at a 0.5 g/t Gold cut off

	Resource Classification	Tonnes (kt)	Gold (g/t)	Antimony (Sb %)	Contained Gold (koz)	Contained Antimony (tonnes)
Camel Creek (1)	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**
Big Rush (2)	Indicated	2,236	1.7	-	99	-
	Inferred	1,203	1.8	-	54	-
	Sub Total	**3,439**	**1.8**	**-**	**153**	**-**
Golden Cup (3)	Indicated	-	-	-	-	-
	Inferred	279	**3.4**	-	**30**	-
	Sub Total	**279**	**3.4**	**-**	**30**	**-**
Camel Creek		2,410	2.6	0.4%	202	9,000
Big Rush		3,439	1.8	-	153	-
Golden Cup		279	3.4	-	30	-
Golden Ant Project	**Total**	**6,128**	**2.0**	**-**	**386**	**-**

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

The successful completion of the Camel Creek MRE supports the Golden Ant Scoping Study, designed to assess mining, metallurgical, environmental parameters of the project and to investigate and determine the optimum path forward to understand the potential economics of both the Camel Creek mineralised zones and also the potential integration of the entire Golden Ant project.

2.1. Potential to Increase the Golden Ant MRE

To date, GNM has completed Mineral Resource Estimates for its Camel Creek, Golden Cup and Big Rush deposits delivering a total Mineral Resource of 6.1Mt @ 2.0 g/t Au (386 koz Au). GNM believes that there is significant potential to increase this resource.

All deposits (Camel Creek, Golden Cup and Big Rush) are open at depth and strike and GNM intends to undertake targeted exploration at these deposits, targeting potential high-grade mineralisation at depth.

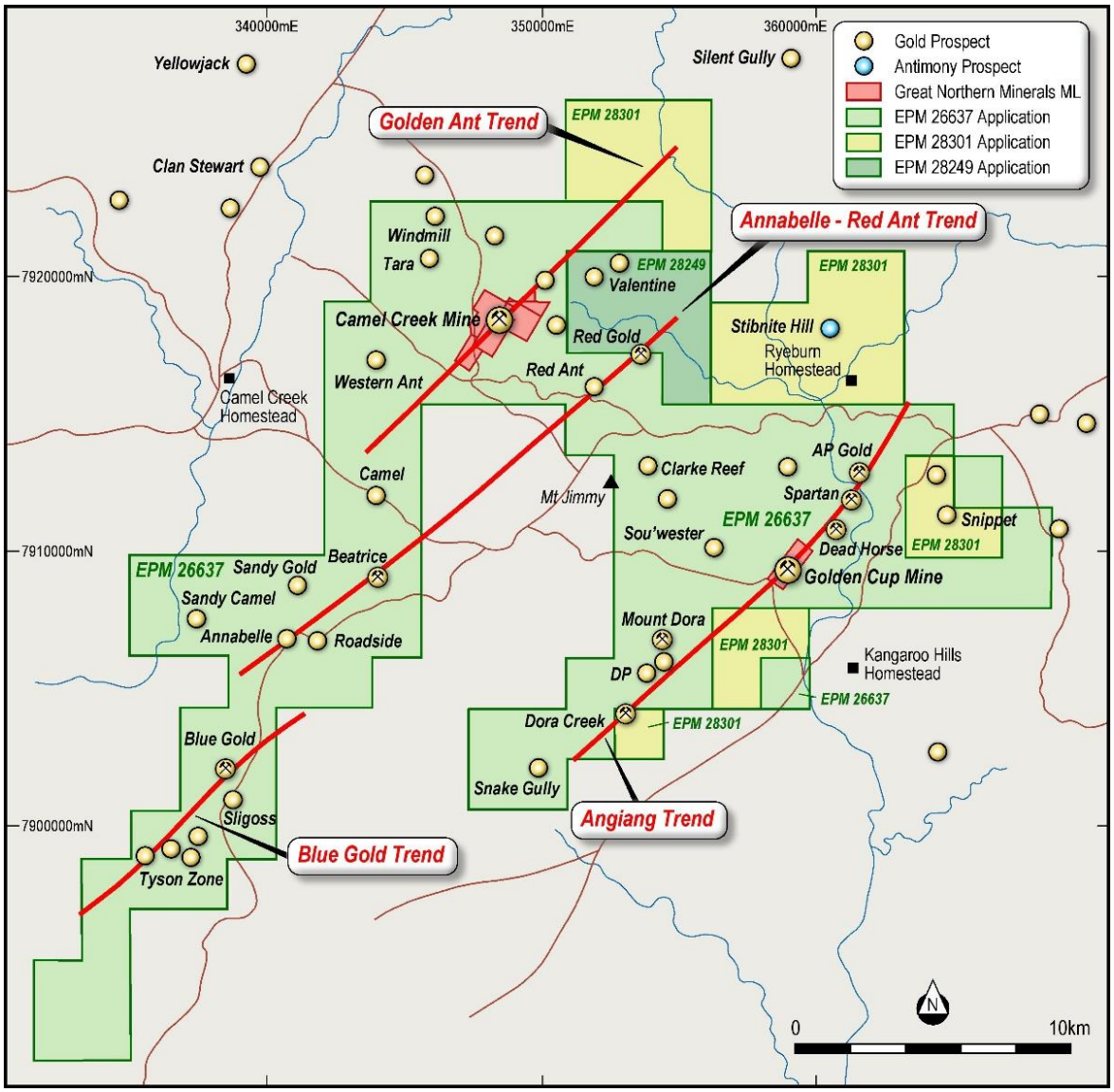
The Golden Cup deposit is only defined to 70 metres vertical depth and further deeper drilling at depth is likely to define additional mineralisation in this area.

GNM is currently planning a drilling program to test the Golden Cup depth extensions and this program is scheduled to commence in Q2 2022.

GNM controls the Amanda Bell Goldfield (which contains the Camel Creek and Golden Cup deposits). Historical mining operations were undertaken at multiple satellite deposits within the Goldfield (Red Gold, Mt Dora, Dora Creek, Beatrice, Blue Gold, AP Gold, Spartan and Dead Horse) (refer to Figure 5) which GNM control but have not yet been able to access (subject to grant of tenements). There are a large number of undrilled targets and open-ended significant intersections underneath a number of the previously mined open pits

Gold bearing oxide ore has been mined from open pits at these deposits and it is believed that there is the potential to define significant sulphide mineralisation (gold plus antimony) at a number of these deposits. EPM 26637 is expected to be granted imminently and this will allow GNM to commence work (exploration, resource estimation) on known historical mines, with priority being the Red Gold deposit.

Figure 5 Golden Ant Project GNM Tenement Holding



3. Camel Creek MRE Detailed Disclosure

Widenbar and Associates Pty Ltd.'s Principal, Mr Lynn Widenbar, was commissioned by Great Northern Minerals Limited to generate a JORC 2012 compliant Mineral Resource Estimate for the Camel Creek Gold Deposit, which forms part of Company's Golden Ant Project. The Project consists of the Amanda Bell Goldfield (Camel Creek and Golden Cup) and the Big Rush Goldfield which were mined from 1989 to 1998 producing approximately 150,000 oz Au.

The Golden Ant Project is located approximately 200km north-west of Townsville in north-eastern Queensland. To date, GNM have drilled 143 RC holes for 18,552 metres and 8 HQ diamond holes at the project.

The Camel Creek Gold Mine has been the subject of substantial previous exploration, shallow resource definition drilling and mining operations. Lynch Mining first recognized gold mineralization in the Camel Creek area in 1986 and mined the shallow oxide portion of the deposit and treated via a heap leach operation. Great Northern Minerals Limited (previously Greenpower Energy Ltd) purchased the final interest in the project in August 2020.

There have been multiple drilling programs, culminating in four separate drilling campaigns by GNM in 2020 and 2021, which have informed the vast majority of the MRE.

The global Camel Creek database (09-02-2022) contained a total of 4,349 drill hole collar entries, for a total of 69,136m. A large proportion of the historic drilling was in the shallow oxide portion of the deposit completed during mining activities for grade control and have not been used in the MRE. GNM completed 98 holes (94 RC and 4 RC with diamond tails) for a total of 12,355m and this drilling informs the vast majority of the MRE at Camel Creek.

A major mineralised zone known as the Hinge Zone in the centre of the deposit has been interpreted and wireframed by GNM staff and has been modelled separately using an unfolding technique and Ordinary Kriging estimation.

In the remainder of the deposit, mineralised domains have been constructed using an Indicator Modelling methodology with a grade threshold of 0.3 g/t Au. One metre composite data has been flagged with these mineralised domains and statistical analysis has been carried out to determine top cuts (which vary between 10 g/t and 40 g/t).

Variography has been carried out to define kriging parameters; an Ordinary Kriging interpolation within the mineralised domains has been used to generate a resource block model.

Weathering surfaces have been defined to generate oxide and fresh domains, and in-situ dry bulk density has been assigned on this basis with the following values being used: 2.3 t/m3 for oxide and 2.9 t/m3 for fresh material.

Detailed validation has been carried out and shows good correlation between drill hole data grades and block model grades.

The Camel Creek Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (**JORC Code**). The classification methodology has used a combination of drill hole spacing and kriging output parameters to define the resource classes.

3.1. Geology and geological interpretation

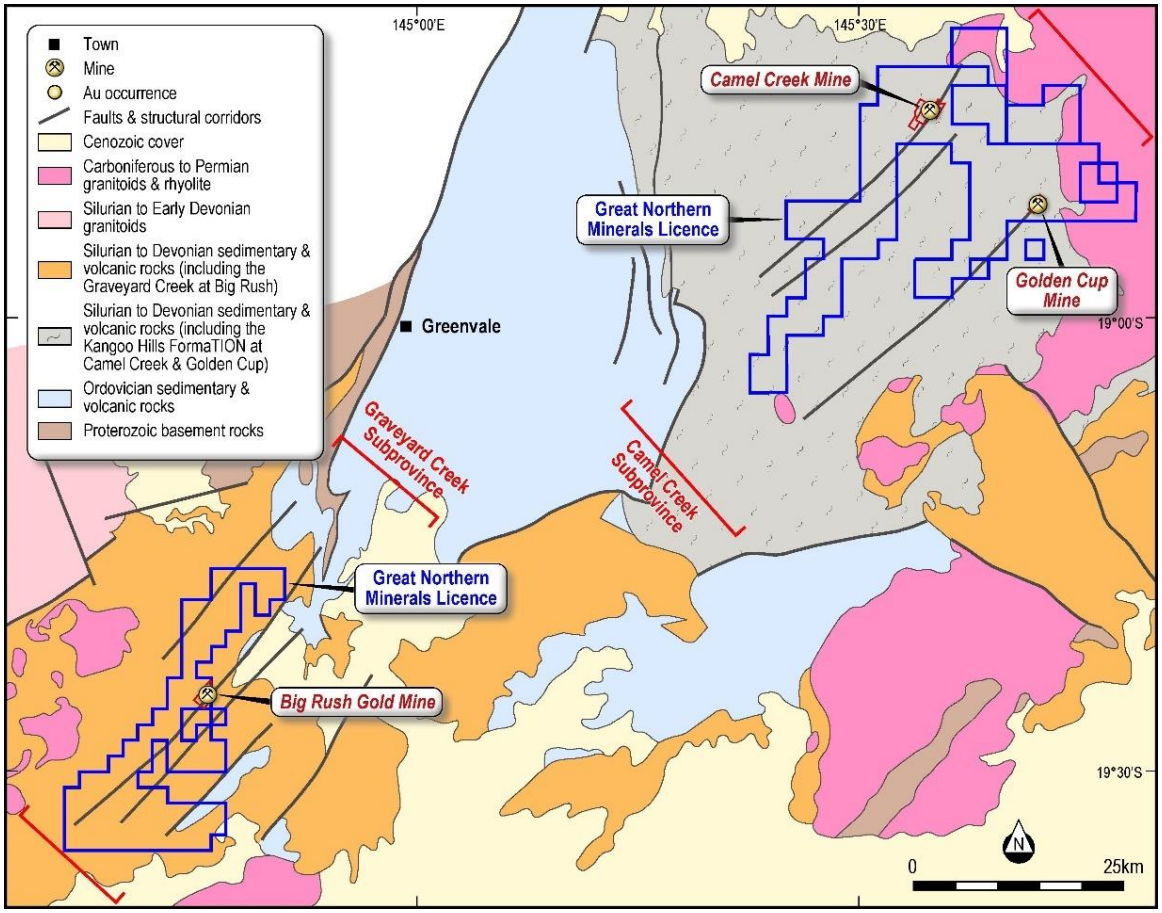
The Camel Creek gold-antimony deposit is located within the Amanda Bell Gold Field in North Queensland. Gold mineralisation is found within tightly folded and sheared sediments of the Silurian Greenvale Formation and the Early Devonian Kangaroo Hills Formation with a small basin of Early Carboniferous Clarke River Formation overlying these sequences on the northeast of the Field.

The Greenvale Formation comprises a deep water turbidite sequence of interbedded siltstones, grewackes and shales. The Kangaroo Hills Formation has been deposited in basins on the Greenvale Formation and comprises predominately conglomerates with distinctive clast compositions varying from well-rounded quartz vein to fossiliferous limestone.

Three periods of deformation have been recognised with gold mineralisation introduced syn-D2, post D2-pre D2, syn D2 and post D2-D3. D2 folds are considered recumbent and isoclinal with a well-developed slatey cleavage (S1). D1 structures were then folded by upright, angular to chevron folds of D2 which trend NE-SW. Plunge reversals along the major D2 folds were then produced during a weak cross cutting D3 deformation.

Gold mineralisation on the Golden Ant Trend (Camel Creek deposit) was deemed syn-D2 and contained in quartz & stibnite lenses and boudin necks hosted within carbonaceous shale horizons. Sandstone and greywacke beds within these shale horizons are also boudinaged. During D2, quartz and stibnite were transposed into narrow discontinuous veins and mineralised quartz vein stockwork developed in coherent sandstone beds.

Figure 6 Golden Ant Project Regional Geology



3.2. Sampling and sub-sampling techniques

Historical RC Drilling: Lynch Mining Pty Ltd subsidiary Golden Ant Mining Limited (GAML) completed 200 holes reverse circulation (RC) (6,593 metres drilled) at Camel Creek between 1989 and 1990 prior to commencing mining operations. Hole depths ranged from 17 to 109 metres and averaged 30 metres depth and were designed to principally define the oxide mineralisation. Drilling, logging and sampling procedures were industry standard for the time and are largely commensurate with the work completed by GNM.

GNM RC Drilling: To date, GNM has completed 98 holes (13,540 metres drilled) of RC drilling at Camel Creek. The sampling carried out consisted of individual cone split of one metre composite split samples. Sample weights were approximately 3kg of material. Sample recoveries were assessed visually and appeared to be consistent throughout drill holes. All samples were dry.

GNM Diamond Drilling: GNM has completed 484 metres of diamond drilling (4 diamond tails to RC drill holes) of HQ diameter core. Sampling was half diamond core cut into regular one metre intervals. Sample weights were approximately 3kg of material Diamond core recovery was measured for each run and calculated as a percentage of the drilled interval. The core recovery was considered excellent at 98-100%.

QAQC and database management for GNM's 2019 and 2020 drilling campaigns has been carried out by CSA Global and has been reviewed and found to be acceptable by Widenbar and Associates.

3.3. Drilling techniques

Historical RC Drilling: The RC drilling was undertaken by Leanda Drilling from Charters Towers using a conventional RC rig (UDR 650 and Warman 1000) fitted with a 350 CFM, 900 PSI compressor and a conventional reverse circulation drill string. A number of the GNM drillholes have drilled in the vicinity of a number of these with similar results returned.

GNM RC Drilling: The RC drilling was undertaken by Eagle Drilling from Charters Towers using a DE810 rig with a 5 ½" diameter face sampling hammer.

GNM Diamond Drilling: Diamond coring was undertaken with a modern truck mounted rig and industry recognised quality contractor. Core (standard tube) was drilled at HQ3 size (61.1mm) from a precollar depth (180 metres). The core was orientated using a Reflex Ez-Ori tool.

3.4. Classification criteria

The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including:

- Geological continuity;
- Data quality;
- Drill hole spacing;
- Modelling technique; and
- Estimation properties including search strategy, number of informing data and average distance of data from blocks.

The resource classification methodology incorporated a number of parameters derived from the kriging algorithms in combination with drill hole spacing and continuity and size of mineralised domains.

Geological Continuity

Geological continuity is understood with reasonable confidence. The classification reflects this level of confidence.

Data Quality

Resource classification is based on information and data provided from the GNM database. Descriptions of drilling techniques, survey, sampling/sample preparation, analytical techniques and database management/validation provided by indicate that data collection and management is well within industry standards. Widenbar considers that the database represents an accurate record of the drilling undertaken at the project.

Drilling Spacing

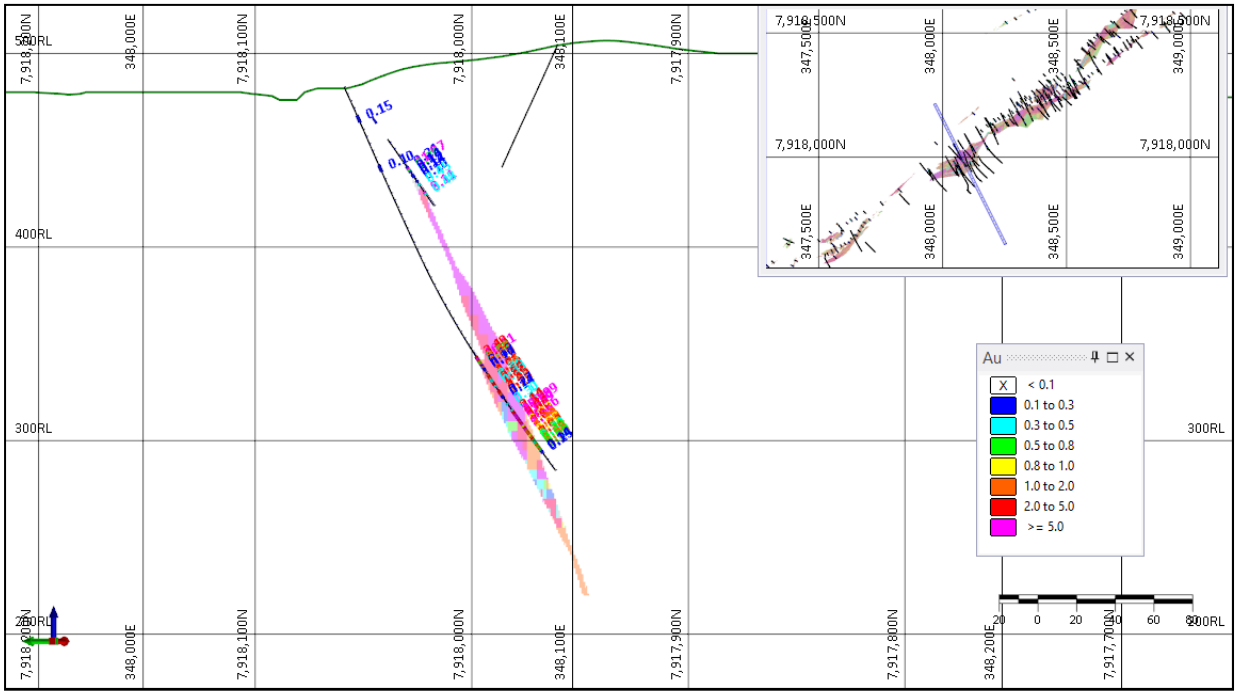
Drill hole location plots have been used to ensure that local drill spacing conforms to the minimum expected for the resource classification. Section lines are typically spaced at 20m, though there are significant areas where spacing is 10m to 15m. Indicated material is generally confined to areas where resource definition drill spacing is 25m. Inferred material is generally up to 50m drill spacing.

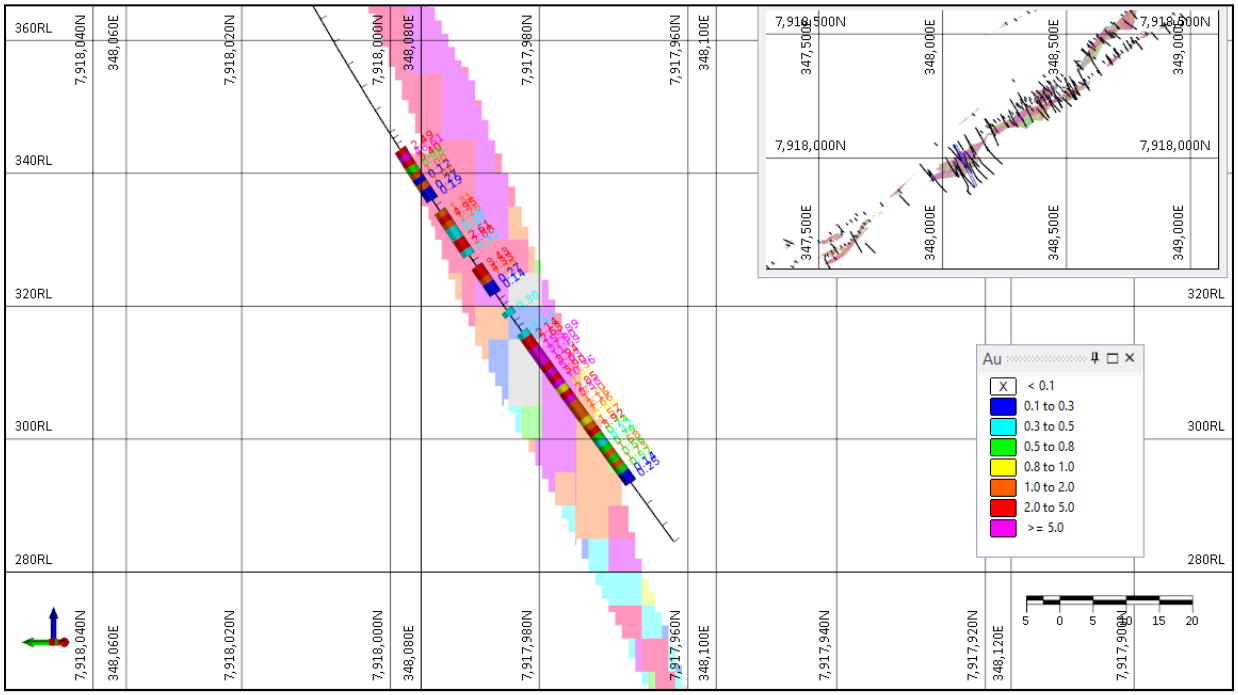
Modelling Technique

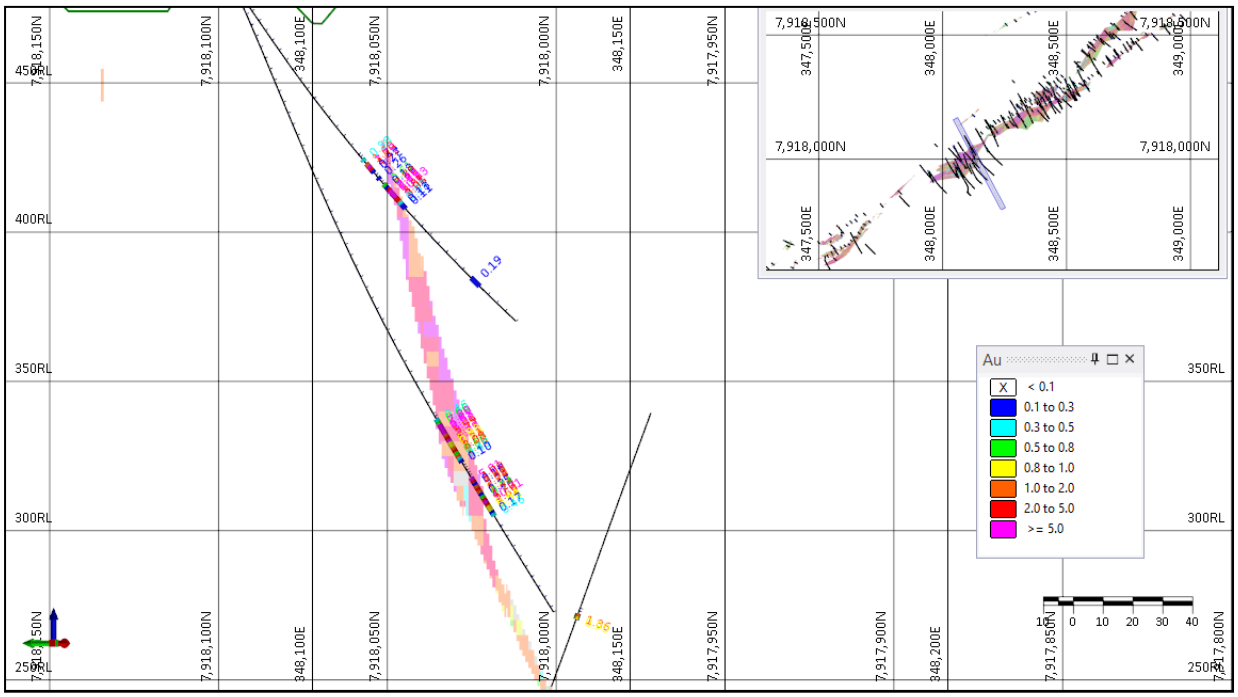
The resource model was generated using an Ordinary Kriging interpolation method, with a three-pass search approach. The search pass used, the number of samples used, the kriging variance and the average distance of samples from each block, were all stored in the block model.

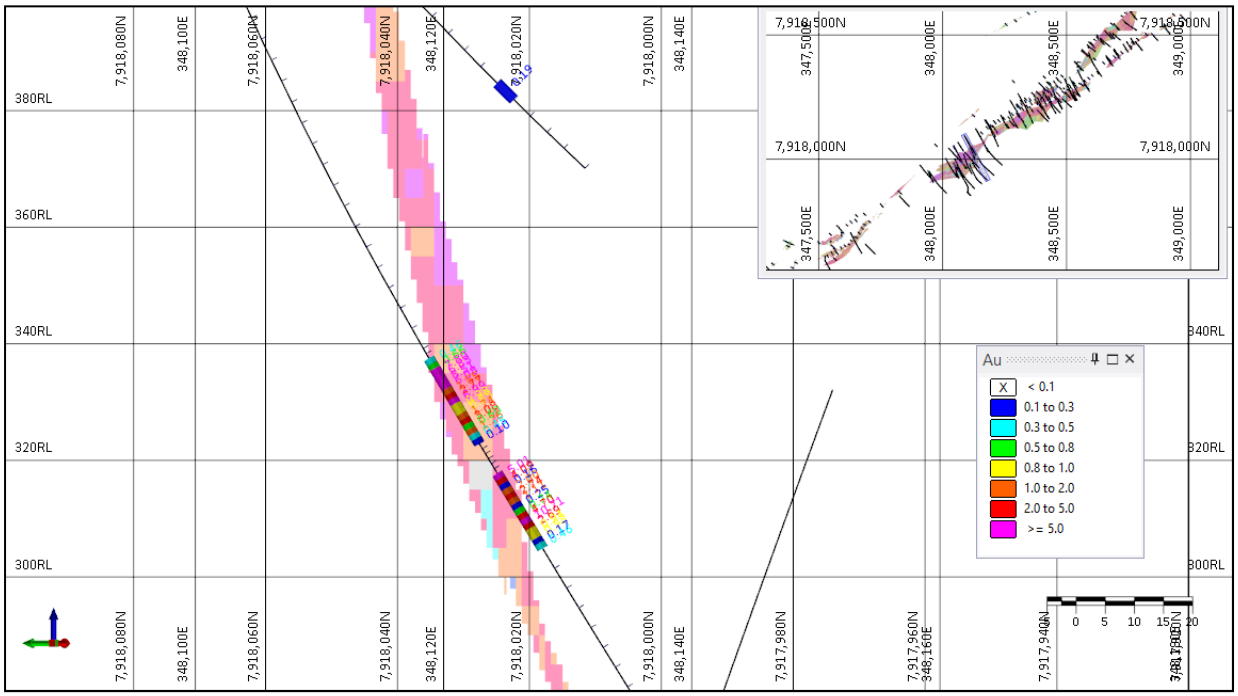
In general, the kriging variance, search pass and average distance are all broadly correlated with a combination of drill hole spacing and domain thickness. The above parameters were used as a guide in combination with drill spacing to arrive at a final resource classification.

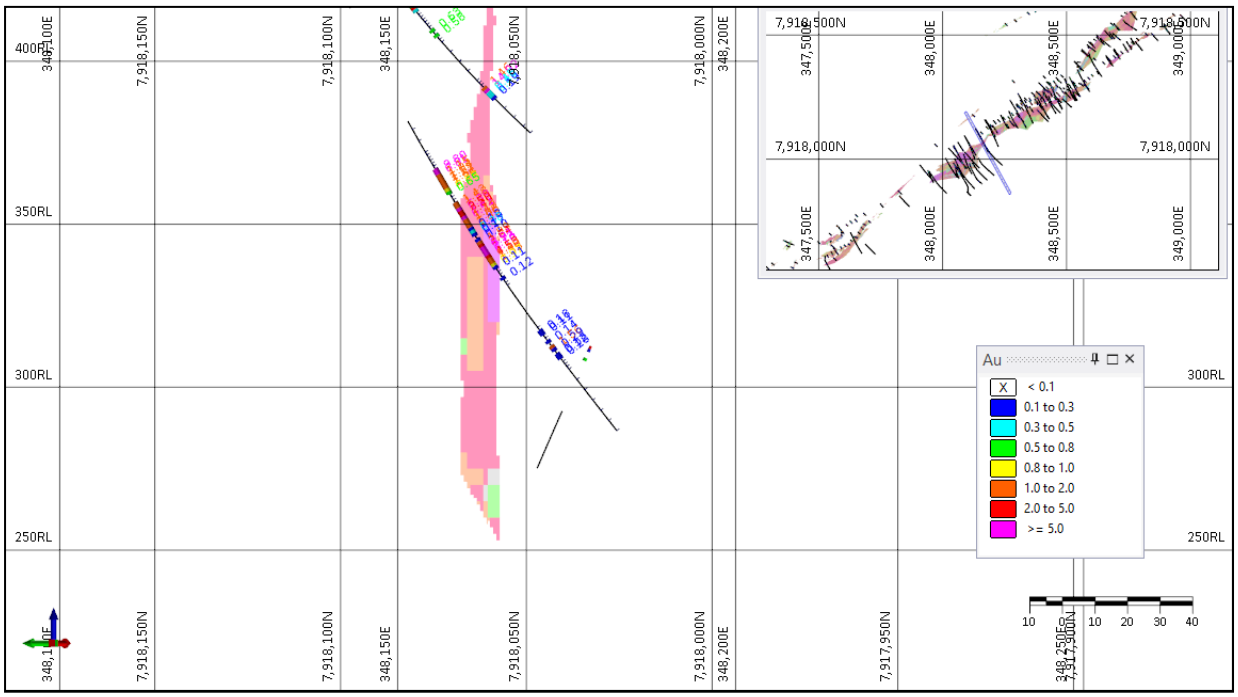
A number of cross sections are illustrated below.

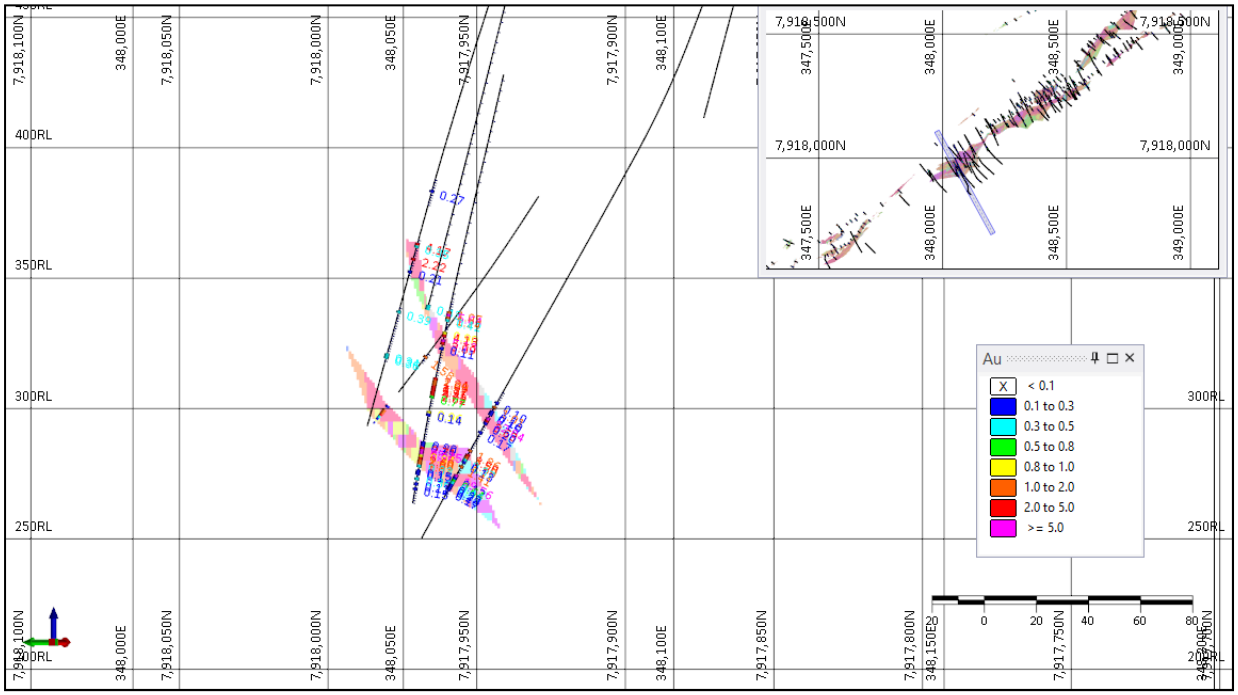

500RL
400RL
300RL
200RL
7,918,200N
7,918,100N
7,918,000N
7,917,900N
7,917,800N
7,917,700N
348,000E
348,100E
348,200E
Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
0 20 40 60 80

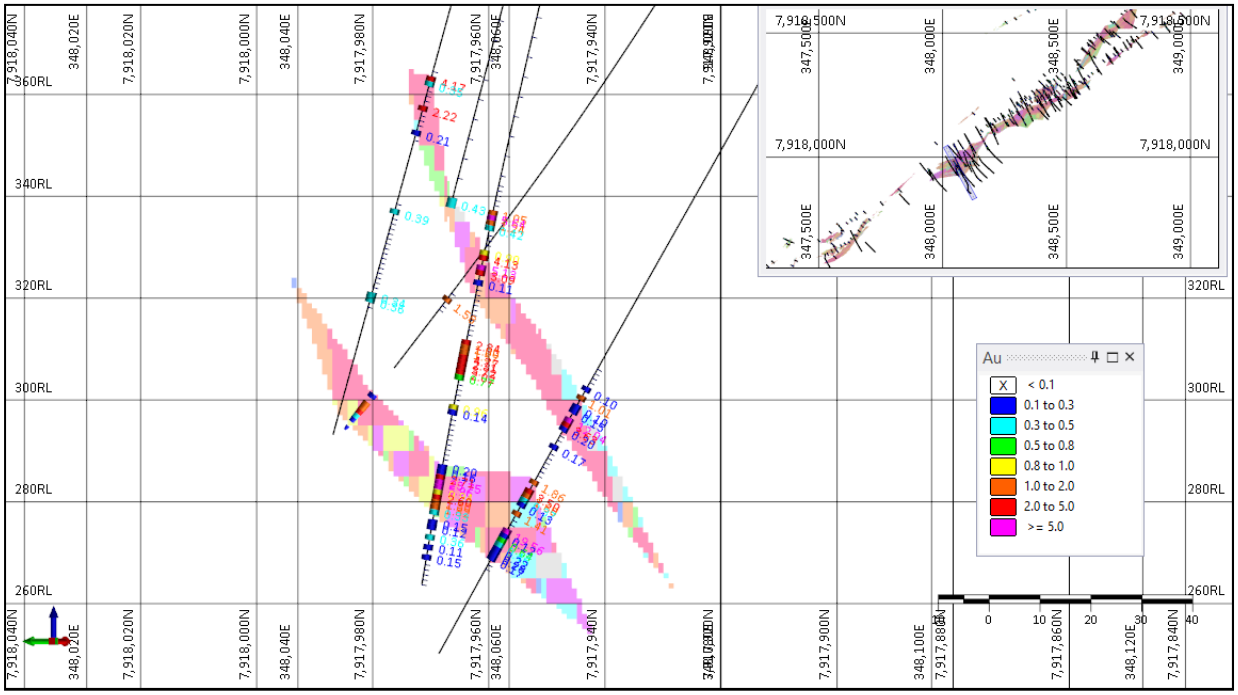

360RL
340RL
320RL
300RL
280RL
7,918,040N
7,918,020N
7,918,000N
7,917,980N
7,917,960N
7,917,940N
7,917,920N
7,917,900N
348,060E
348,080E
348,100E
348,120E
Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
5 0 5 10 15 20


7,918,150N
7,918,100N
348,100E
7,918,050N
7,918,000N
348,150E
7,917,950N
450RL
400RL
350RL
300RL
250RL
7,917,900N
348,200E
7,917,850N
7,917,800N
7,918,500N
347,500E
348,000E
348,500E
349,000E
7,918,000N
Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
0 10 20 30 40


7,918,080N
348,100E
7,918,060N
7,918,040N
348,120E
7,918,020N
7,918,000N
348,140E
380RL
360RL
340RL
320RL
300RL
7,917,980N
7,917,960N
348,160E
7,917,940N
7,917,920N
7,918,500N
347,500E
348,000E
348,500E
349,000E
7,918,000N
Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
0 5 10 15 20


Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
400RL
350RL
300RL
250RL
7,918,000N
348,000E
348,500E
347,500E
349,000E


Au
< 0.1
0.1 to 0.3
0.3 to 0.5
0.5 to 0.8
0.8 to 1.0
1.0 to 2.0
2.0 to 5.0
>= 5.0
400RL
350RL
300RL
250RL
7,918,000N
348,000E
348,500E
347,500E
349,000E



3.5. Sample analysis method

GNM drill hole sample assaying was carried out by the external and independent Intertek Australia Townsville. Intertek provide both sample preparation and chemical analysis service and undertake regular internal quality control checks on the assay data reported.

Sample preparation at Intertek uses the standard industry method as follows:

- Samples are received, weighed, and dried (four hours at 105°C)
- Samples up to 3.3kg are jaw crushed to a nominal 70% passing 6mm. if weighing more than 3.3kg, the sample is split and 50% of the sample is used
- The entire sample is pulverised to 85% passing 75µm
- The sample is then split and 200g is used for analysis and the remainder is bagged and sent back to GNM.

Gold grades were determined by fire assay with an atomic absorption spectroscopy (AAS) finish. Multi element (total of 48 elements analysed) were determined by four acid digest and analysed by ICP-AES (inductively coupled plasma-atomic emission spectrometry). By the following procedure:

A 0.25g pulverised sample is oven dried before pre-oxidation and decomposition by fusion with lithium borate flux containing 20% sodium nitrate as an oxidising agent. The resulting melt is poured to produce a fused disk. The disk is analysed using a wavelength dispersive X-Ray fluorescence spectrometer.

3.6. Estimation methodology

Drill hole data was imported into Micromine 2022 (SP2) software for all further processing.

All drill hole data was validated, including:

- Checks for duplicate collars
- Checks for missing samples
- Checks for down hole from-to interval consistency
- Checks for overlapping samples
- Checks for samples beyond hole depth

All data was properly validated.

The global Camel Creek digital database has a total of 4,349 holes for 69,136m; the assay file has 53,216 sample intervals for a total of 68,443m. However, many of the "holes" represent shallow exploration holes (<10m) and trenches and ditch-witch sampling in mined-out area, plus blast holes and grade control drilling, also in mined-out areas. As such, while these may have a minor impact on the definition of "mineralised" zones, they are not used in grade estimation. The Camel Creek MRE has been informed by the drilling completed by GNM, plus the GA-series RC drill holes completed by Lynch Mining.

The grade estimation methodology used Ordinary Kriging interpolation, using Micromine 2022.1 software. A major mineralised zone known as the Hinge Zone in the centre of the deposit has been interpreted and wireframed by GNM staff and has been modelled separately using an unfolding technique and Ordinary Kriging estimation.

In the remainder of the deposit, mineralised domains have been constructed using an Indicator Modelling methodology with a grade threshold of 0.3 g/t Au. One metre composite data has been flagged with these mineralised domains and statistical analysis has been carried out to determine top cuts (which vary between 10 g/t and 40 g/t).

Variography has been carried out to define kriging parameters; an Ordinary Kriging interpolation within the mineralised domains has been used to generate a resource block model.

Weathering surfaces have been defined to generate oxide and fresh domains, and in-situ dry bulk density has been assigned on this basis with the following values being used: 2.3 t/m^3 for oxide and 2.9 t/m^3 for fresh material. Detailed validation has been carried out and shows good correlation between drill hole data grades and block model grades.

3.7. Cut-off grade(s), including basis for the selected cut-off grades(s)

When generating the Indicator Model mineralisation wireframes, a threshold cut-off of 0.3g/t was adopted. As no pit optimisation or economic analyses have been carried out at the time of reporting, the resource estimate has been reported cut-offs of 0.5g/t Au and 1.0 g/t Au. A zero cut-off grade report has also been generated to give a total mineralised volume and tonnage estimate.

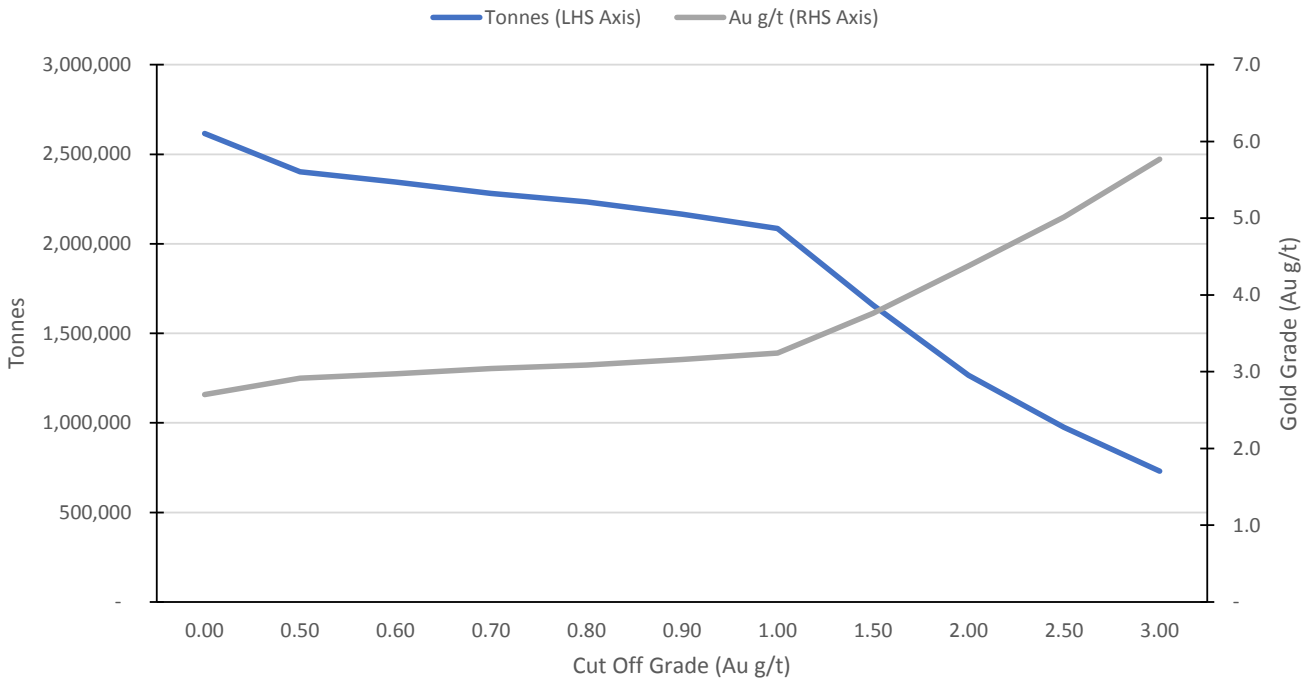
Table 4 Camel Creek Mineral Resource Estimate (0.0, 0.5 and 1.0 g/t Au CoG)

	Classification	**Tonnes**	**Gold**	**Antimony**	**Contained Gold**	**Contained Antimony**
		(kt)	**(g/t)**	**(Sb %)**	**(koz)**	**(tonnes)**
0.0 g/t Au CoG	Indicated	1,540	2.6	0.4%	128	5,800
	Inferred	1,070	2.2	0.3%	76	3,400
	Sub Total	**2,620**	**2.4**	**0.4%**	**204**	**9,200**
	Classification	**Tonnes**	**Gold**	**Antimony**	**Contained Gold**	**Contained Antimony**
		(kt)	**(g/t)**	**(Sb %)**	**(koz)**	**(tonnes)**
0.5 g/t Au CoG	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**
	Classification	**Tonnes**	**Gold**	**Antimony**	**Contained Gold**	**Contained Antimony**
		(kt)	**(g/t)**	**(Sb %)**	**(koz)**	**(tonnes)**
1.0 g/t Au CoG	Indicated	1,280	3.0	0.4%	125	5,400
	Inferred	800	2.8	0.4%	66	3,200
	Sub Total	**2,090**	**2.9**	**0.4%**	**192**	**8,600**

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.
Widenbar & Associates 3 March 2022

It is assumed that majority of mining at Camel Creek will be by open pit methods, therefore it was decided to report the JORC 2012 Camel Creek Mineral Resources at a gold cut-off grade of 0.5 g/t Au.

Figure 7 Camel Creek Grade Tonnage Curve



Antimony grade was also calculated for the Camel Creek Mineral Resource. Historical metallurgical data indicates that there is potential to recover the antimony to a potentially saleable concentrate.

GNM intend to conduct a detailed metallurgical test work program and one of the goals of this program is to better understand the antimony recover and the likely specifications of an antimony concentrate. This will enable GNM to generate a gold-equivalent cut-off grade for the Camel Creek deposit, should it be appropriate to do so.

3.8. Mining and metallurgical methods and parameters, and other material modifying factors considered to date

Mining commenced initially at Camel Creek in May 1989 at a mining rate of 500,000tpa with treatment by heap leaching of uncrushed oxide ore. By the end of 1990 this mining rate dropped to 150,000-200,000 TPA thereby permitting more selective mining of ore bodies with restrictive dimensions. At this stage it was known that mineable reserves existed at the Golden Cup and Red Gold deposits. Open pit gold mines were cumulatively worked along the Golden Ant zone, the Angiang Line and at Red Gold between 1989 and 1995.

Along the Golden Ant to Black Bull zone (known as the Camel Creek mine) there were some 28 pits mined between 1991 and 1995 over a 5km strike length. The mineralisation in these pits was predominated by vein and shear zone hosted Au + Sb + As (±Pb ± Zn). However, only oxide material was mined down to maximum oxidisation depths of approximately 30 metres and the gold bearing stibnite + arsenopyrite sulphide ore remains.

At the Camel Creek 28 pits were mined over 5,000 metres of strike length for >1 million tonnes mined at an average grade of 1.7g/t Au. The heap leach pads contain a significant amount of relic auriferous oxide & sulphide ores.

At Camel Creek the remaining infrastructure includes:

- Numerous pits full of variably potable water
- Leach pads (approximately 900,000 tonnes with an unknown quantity of relic auriferous material)
- Roads and tracks
- Good quality fencing around pits and heap leach pads

Some 3km of the pit walls have been battered and rehabilitated; however a new phase of mining will aim at re-opening select pits and potentially go underground to mine the high grade sulphidic ores.

Amdel undertook a metallurgical test work program on Camel Creek in 1992. This program investigated a range of processing strategies for ore from the deposit, including bulk flotation to generate a single concentrate and split flotation to produce an antimony concentrate for direct sale followed by a bulk sulphide concentrate for further processing.

The bulk flotation tests indicated that the gold and antimony are both highly amenable to recovery by flotation with recoveries around 90% being achieved. High arsenic grades in the concentrate were also recorded and further work via selective flotation techniques and focused marketing was required.

The previous split flotation testing showed that a separate saleable antimony concentrate (grading 62% antimony) could be produced which contained around 60% of the antimony. Treatment of the second sulphide concentrate by roasting, pressure oxidation and bacterial oxidation followed by cyanide leaching for gold extraction showed that all of these process routes were viable, with extractions of 80 to 90 % of the gold in this concentrate being seen. The cyanide leach conditions were not optimised with significant preg-robbing occurring which reduced the gold extractions from what might otherwise have been over 90%.

In 2010, bulk flotation test work was undertaken on Camel Creek ore by HRL laboratories at three different grind sizes which showed that gold recoveries of 76 – 88 % were achievable. These tests were repeated in 2014 with longer flotation residence times and on samples which were felt to be more representative of the ore body. This subsequent testing resulted in increased gold recoveries of 86 – 92 % into a bulk concentrate and also demonstrated that flotation recovery was relatively insensitive to grind size. Comparative testing of conventional gravity processing followed by direct leaching of the ore confirmed that low gold recoveries were obtained by these routes.

A detailed metallurgical test program to be completed by ALS Metallurgy to optimise optimum metallurgical parameters is in the design and planning stages with work to commence in the coming weeks.

*****ENDS*****

This announcement has been authorised by the Board of Great Northern Minerals Limited.

For more information please contact:

Cameron McLean
Managing Director
Great Northern Minerals Limited
+61 8 6214 0148
info@greatnorthernminerals.com.au

Peter Taylor
Investor Relations
NWR Communications
+61 412 036 231
peter@nwrcommunications.com.au

About Great Northern Minerals Limited

Great Northern Minerals Limited is an ASX-listed gold focused explorer and developer. The Company's Golden Ant Project is located in Far North Queensland and includes the Amanda Bell and Big Rush Goldfields.

Total gold production from the Amanda Bell Goldfield was approximately 95,000 oz Au (57,000 oz from Camel Creek and 14,000 oz from Camel Creek satellite deposits plus 18,000 oz from Golden Cup and 6,000 oz from Golden Cup satellite deposits). Total gold production from the Big Rush Goldfield was 60,000 oz Au.
Three heap leach gold mines were operated (Camel Creek, Golden Cup and Big Rush). Mining activities commenced in 1989 and ceased in 1998 with the depletion of oxide gold mineralisation.

Great Northern Minerals aims to develop a new gold camp in North Queensland based on the Golden Ant Project.

Competent Persons Statement

The information in this release 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.

Lynn Widenbar BSc(Hons), MSc, DIC, MAusIMM, MAIG
Principal Consultant, Widenbar and Associates Pty Ltd

The information in this report 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.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Sampling for Reverse Circulation (RC) drill holes consists of individual cone split of one metre composite split samples. • RC sample weights were approximately 3kg of material. The full sample was pulverised. Fire Assaying (gold only) was completed using a 50 g charge. Multi-element assay results were completed via ICP following a four-acid digest with ICP finish. A total of 48 elements were analysed. • Diamond (DD) core was half cut into regular one metre intervals. • DD sample weights were approximately 3kg of material. The full sample was pulverised. Fire Assaying (gold only) was completed using a 50 g charge. Multi-element assay results are via ICP following a four-acid digest with ICP finish. A total of 48 elements were analysed. • Assaying of GNMs RC and DD holes was completed at Intertek Ltd's assay laboratory in Townsville. • Assaying of the Lynch Mining RC holes was completed at Amdel Laboratories, Townsville.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• GNM RC drilling at Camel Creek was angled Reverse Circulation drilling using a face sampling hammer. (150mm) • GNM Diamond coring was undertaken by Eagle Drilling with a modern truck mounted rig. • Core (standard tube), was drilled at HQ3 size (61.1mm) from pre-collar depth (180 metres) • The core was orientated using a Reflex Ez-Ori tool. • Lynch RC was angled conventional Reverse Circulation drilling completed by Leanda Drilling using a Warman 1000 and UDR 650 RC rig.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to*	• GNM RC sample recoveries were assessed visually and appeared to be consistent throughout drill holes. • All samples were dry and no measurements needed to be taken. No sample bias believed to occur. • GNM diamond core recovery was measured for each run and calculated as a percentage of the drilled interval. The core recovery was

Criteria	JORC Code explanation	Commentary
	preferential loss/gain of fine/coarse material.	considered excellent at 98-100%. • There has been no assessment of core sample recovery and gold grade relationship.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging of colour, weathering, lithology, alteration and mineralisation has been undertaken for GNM RC holes. • RC logging is considered both qualitative and quantitative in nature. • The full length of the RC holes was logged. • All GNM core was geologically logged. Lithology, veining, alteration, mineralisation and weathering are recorded in the geology table of the drill hole database. Final and detailed geological logs were forwarded from the field following cutting and sampling. • Geological logging of core is qualitative and descriptive in nature.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 1m samples were collected straight from the RC drill rig cyclone and cone splitter. • Sampling is considered representative. • Internal laboratory standards have been used. • On site QAQC during all GNM drilling included inclusion of standards every 30-40 samples, duplicates every 30 samples as well as random blank samples, inserted in every hole. • Lynch Mining drilling had duplicate laboratory analytical checks, but no known standards were used. • 3kg sample size considered appropriate for the grain size of the sedimentary rock units sampled, and the composition of the mineralised intervals. • GNM Diamond core was cut in half, one half retained as a reference and the other sent for assay. • Sample size assessment was not conducted but used sampling size typical for similar style gold deposits.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of*	• The assaying work for Lynch samples and both GNM RC and DD samples was Fire Assay (50g) for gold, which is industry standard assay technique for gold mineralisation and ICP for multi-elements with a four-acid digest. • No geophysical tools or instruments were used. • Laboratory standards were utilised for all GNM drilling. On site QAQC included inclusion of standards every 40 samples, duplicates every 40 samples as well as random blank samples, every 40 samples. • CSA Global have compiled and reported on the QA/QC with no issues observed.

Criteria	JORC Code explanation	Commentary
	accuracy (i.e. lack of bias) and precision have been established.	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Historic mining within 40m also recorded gold mineralisation although thickness and grade varies which is believed to represent the changing nature of this style of mineralisation. • No twin holes were drilled, all pre-GNM drilling was in shallow oxide zones. • Data was collected on paper and entered into an Excel Worksheet. • No adjustments were made to assay results.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Coordinates for GNM holes were located by handheld Garmin GPS, averaged over 30 minutes, resulting in an accuracy of +/- 2 metres. • Co-ordinates are recorded in GDA94 zone 55. • Control considered to be good. (+/- 2 metres) • Holes drilled during the Camel Creek mining operation were surveyed by DGPS by mine surveyors
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• GNM drilling was on nominal 20-40 metre centres. • One metre samples and composited samples were taken. RC assay results reported are all 1 metre cone split samples. • DD assay results reported are all one metre HQ core samples. • Historical drilling and grade control sampling was close-spaced (<10m) in what is now mined-out oxide areas.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The attitude of the lithological units is predominantly believed to be NE striking and dipping at a moderate angle towards the southeast. Drilling was generally perpendicular to the considered mineralisation orientation with holes drilled at azimuths of 315 degrees at dip angles between -50 to -80 degrees. • Due to locally varying intersection angles between drillholes and lithological units all results are defined as downhole widths. • No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Samples taken by qualified staff and delivered to the assay laboratory by company representatives.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews completed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Camel Creek deposit lies wholly within Mining Leases MLs 4522, 4523, 4524, 4525, 4534, 4540 and 6952 which are held by Golden Ant Mining Pty Ltd. The Mining Leases are all granted. • Great Northern Minerals Limited (GNM) purchased 100% of Golden Ant Mining Pty Ltd in August 2020 and now holds a 100% interest in Mining Leases.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Camel Creek area has been the subject of substantial previous exploration, resource definition and grade control drilling and mining operations. • The project was purchased by Golden Ant Mining Ltd (GAML), a member of the privately owned Lynch Group of companies. The bulk of the historical drilling and mining on the project was carried out by Golden Ant Mining Pty Ltd. • The final database has a total of 4,349 holes for 69,136m; the assay file has 53,216 sample intervals for a total of 68,443m. GA-series RC holes (200 holes drilled for 6,583m completed) were drilled from 1992-1994 by Lynch Mining Pty Ltd subsidiary Golden Ant Mining Limited (GAML).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The project area is situated within the mudstone, siltstones and fine to coarse grained sub-lithic arenites of the mid Devonian Mytton Formation, which is the upper most member of the Broken River Group. • The Broken River Province is fault bounded to the northwest against the Pre-Cambrian Georgetown province by the respective Teddy Mount, Halls Reward and Burdekin Fault Zones and the Clarke River Mylonite Zone to the southeast which separates it from the Pre-Cambrian/Early Palaeozoic Lolworth-Ravenswood Province. • The gold mineralisation at Camel Creek is located within the generally tightly folded sediments of the early Devonian age Kangaroo Hills Formation which is characterised by a varying assemblage comprising sandstone, mudstone and lesser tuff. • Gold is strongly associated with quartz veining and sulphide occurrences. The primary mineralisation that remains is to a certain extent refractory with gold associated with arsenopyrite and antimony. Further metallurgical work has

Criteria	JORC Code explanation	Commentary
		commenced. • Historical mining has removed the auriferous oxide ore that was amenable to extraction by cyanide leaching. The primary mineralisation that remains is refractory with gold associated with arsenopyrite and to a lesser extent pyrite.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No Exploration results are reported in this release. • All GNM drilling has been previously comprehensively reported and documented to the ASX. • See ASX releases 18/08/20, 9/09/20, 17/05/21, 28/06/21 18/10/21 and 8/02/21.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No intersection grades are reported as exploration results • No metal equivalents are used or presented.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Drilling is generally perpendicular to the structure by angled holes at 45° to 60° into structures dipping between 70° and 90°.

Criteria	JORC Code explanation	Commentary
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Maps and sections are presented in the release
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No intersection grades are reported as exploration results
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Amdel undertook a metallurgical test work program on Camel Creek in 1992. This program investigated a range of processing strategies for ore from the deposit, including bulk flotation to generate a single concentrate and split flotation to produce an antimony concentrate for direct sale followed by a bulk sulphide concentrate for further processing. • The bulk flotation tests indicated that the gold and antimony are both highly amenable to recovery by flotation with recoveries around 90% being achieved. High arsenic grades in the concentrate were also recorded and further work via selective flotation techniques and focused marketing was required. Split flotation testing showed that a separate saleable antimony concentrate (grading 62% antimony) could be produced which contained around 60% of the antimony. Bulk density data was generated from 18 samples from the 2021 GNM diamond drilling campaign. All are in fresh rock.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work will include: • Drill testing for extensions to the known mineralisation, mostly down dip and along strike. • Additional metallurgical test work to determine the most appropriate process route for gold and antimony recovery. • Complete an initial Scoping Study on the economics of re-establishing a gold producing operation at Camel Creek.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The GNM drill hole database is managed and validated by CSA Global. Drill hole data was provided to Widenbar in an Access database and also as files exported to Micromine format. • All drill hole data was validated, including: • Checks for duplicate collars • Checks for missing samples • Checks for down hole from-to interval consistency • Checks for overlapping samples • Checks for samples beyond hole depth
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Due to Covid-19 and travel restrictions, the Competent Person has not yet made a site visit; however, communications with GNM Technical Director Simon Coxhell, who has made several site visits have provided confirmation of drilling activities, geology etc.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the overall geological interpretation is moderate given there is some reliance on the historical drilling. • This is offset in the main Hinge Zone part of the deposit by the more recent drilling that supports and extends the historical data. • Mineralised domains for parts of the deposit have been generated using Indicator Modelling at a 0.3 g/t threshold. • GNM has carried out a detailed interpretation of the Hinge Zone and constructed wireframes which have been used to unfold and constrain the estimation process in this part of the deposit. The Hinge Zone comprises approximately 65% of the Total Resource, and 74% of the Au metal.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The mineralisation extends over a strike length of 4.0 km. • Mineralisation typically extends 60 to 100m below the original surface, with parts of Hinge Zone extending to a depth of 320m. • Mineralisation is typically 5 to 10m with thinner zones in places.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description*	• A block model was constructed using Micromine software. A block size of 10m E x 5m N x 5m RL was chosen with a 32° rotation, with sub-blocking to 1 x 1 x 1m. This reflects a practical single mining unit in a shallow open pit selective mining environment. • Grades were interpolated into blocks using 1m composites by an Ordinary Kriging methodology.

Criteria	JORC Code explanation	Commentary
	of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• First pass search ellipse was 30x25x4m, with a second pass of 50x50x10m and a third pass of 75x75x15m. • The minimum number of samples is 8 in pass 1, 2 in pass 2 and 1 in pass 3. Maximum number of samples is 24 in all passes. • Minimum number of holes is 2 in pass 1, 2 in pass 2 and 1 in pass 3. Minimum number of samples per hole is 2 in pass 1 and 1 in passes 2 and 3. Maximum number of samples per hole is 4 in all passes. • As and Sb are present in some areas, and have been estimated in the model, but 3% of all assays have As and Sb, though 8% of mineralised domain assays have As and Sb. • The mineralised envelope (either derived from indicator modelling or interpreted wireframes) is used as a hard boundary for estimation; no composite data from outside of the envelope is used to inform the grade of blocks within the mineralised envelope. • A top cut for Au was determined from review of log probability plots. It varies between 10 and 20, and up to 40 for the main domain in the hinge zone. • The estimation process was validated by comparing global block grades with the average composite grades, visual checks comparing block grades with raw assay data and swathe plots. All methods showed good correlation between drill data and block model
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages are estimated on a dry basis and moisture content is not considered in the resource estimate.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• When generating the Indicator Model mineralisation wireframes, a threshold cut-off of 0.3g/t was adopted. As no pit optimisation or economic analyses have been carried out at the time of reporting, the resource estimate has been reported cut-offs of 0.5g/t Au and 1.0 g/t Au. A zero cut-off report has also been generated to give a total mineralised volume estimate.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the*	• It is assumed that mining at Camel Creek will be by open pit methods, though there is potential for underground mining at depth in parts of the Hinge Zone. • Grade control in the historic pits included trenching, blast hole sampling and ditch witching. Quartz veining also provided good

Criteria	JORC Code explanation	Commentary
	assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	visual control.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Amdel undertook a metallurgical test work program on Camel Creek in 1992. This program investigated a range of processing strategies for ore from the deposit, including bulk flotation to generate a single concentrate and split flotation to produce an antimony concentrate for direct sale followed by a bulk sulphide concentrate for further processing. • The bulk flotation tests indicated that the gold and antimony are both highly amenable to recovery by flotation with recoveries around 90% being achieved. High arsenic grades in the concentrate were also recorded and further work via selective flotation techniques and focused marketing was required. Split flotation testing showed that a separate saleable antimony concentrate (grading 62% antimony) could be produced which contained around 60% of the antimony. Treatment of the second sulphide concentrate by roasting, pressure oxidation and bacterial oxidation followed by cyanide leaching for gold extraction showed that all of these process routes were viable, with extractions of 80 to 90 % of the gold in this concentrate being seen. • In 2010, bulk flotation test work was undertaken on Camel Creek ore by HRL laboratories at three different grind sizes which showed that gold recoveries of 76 – 88 % were achievable. These tests were repeated in 2014 with longer flotation residence times and on samples which were felt to be more representative of the ore body. This subsequent testing resulted in increased gold recoveries of 86 – 92 % into a bulk concentrate and also demonstrated that flotation recovery was relatively insensitive to grind size. Comparative testing of conventional gravity processing followed by direct leaching of the ore confirmed that low gold recoveries were obtained by these routes. • Further metallurgy test work is recommended.
Environmental factors	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of*	• Environmental considerations have not been factored into this mineral resource estimate. The assumption has been made that the waste

Criteria	JORC Code explanation	Commentary
or assumptions	*the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	material can be disposed of in a mine waste dump, as has historically happened on site.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• The bulk density for the fresh material in the mineral resource estimate is based on measurements taken on core from the 2021 GNM drill program. An in-situ dry bulk density of 2.9 t/m^3 was applied to fresh rock and 2.35 t/m^3 to oxide.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). • A range of criteria has been considered in determining this classification including: • Geological continuity; data quality; drill hole spacing and modelling technique. • Estimation properties including search strategy, number of informing data and average distance of data from blocks. • The resource classification methodology incorporated a number of parameters derived from the kriging algorithms in combination with drill hole spacing and continuity and size of mineralised domains • The mineral resource estimate appropriately reflects the Competent Person's views of the deposit.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The current model has not been audited by an independent third party.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The resource estimate is deemed to be an accurate reflection of both the geological interpretation and tenor of mineralisation within the deposit. • The mineral resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model. • There are no records of historic production data being compared against a block model when mining was carried out. Reports anecdotally showed reasonable correlation.