

ASX ANNOUNCEMENT

8 February 2022

Camel Creek drilling intercepts high-grade gold & antimony

Highlights:

- High grade gold-antimony mineralisation intersected in Camel Creek diamond drilling program
 - Drill results extend high-grade gold-silver-antimony Hinge Zone, which is open at depth
 - CCRC81 returned the following intercepts:
 - 7.0m @ 2.4 g/t Au & 0.5% Sb from 222m down-hole inc. 2.0m @ 7.8 g/t Au & 1.3% Sb from 227m down-hole; and
 - 12.0m @ 2.4 g/t Au & 0.1% Sb from 241m down-hole inc. 1.0m @ 19.6 g/t Au, 5 g/t Ag & 1.6% Sb from 252m down-hole
 - Results will be included in Camel Creek Mineral Resource Estimate which is expected to be completed by end of the current quarter
-

Great Northern Minerals Limited (“GNM” or the “Company”) (ASX: GNM) is pleased to announce diamond drilling results from the Golden Camel deposit at the Golden Ant Project in Far North Queensland.

All four holes intersected gold-silver-antimony mineralisation, with CCRC81 confirming the high-grade gold-silver-antimony Hinge Zone is open at depth. The results of the drilling will be used in the estimate of the initial Camel Creek Mineral Resource and to plan the next round of drilling. The Mineral Resource Estimate (MRE) will be completed by end of the current quarter.

The completion of the Camel Creek MRE will complete the initial phase of resource estimates for the Golden Ant Project (Camel Creek, Golden Cup and Big Rush) advancing the Golden Ant scoping study.

GNM CEO & Managing Director, Cameron McLean said: *“The Camel Creek drilling results are encouraging and further add to the overall resource base. The high-grade gold-silver-antimony mineralisation intersected in the Hinge Zone is open at depth and demonstrates the potential for an underground mining operation at Camel Creek.”*

The presence of high-grade antimony mineralisation at Camel Creek is significant in that antimony holds Critical Mineral status with both US and Australian governments as well as potentially enhancing the economics of the project. The drilling information will be used in the initial Camel Creek Mineral Resource Estimate which will be completed by end of the March quarter, 2022”.

1. Camel Creek Diamond Drilling Results

GNM has received the following material assay results for a recently completed diamond drilling program at the Camel Creek deposit. A total of 484m of HQ diameter diamond drilling was completed with 508 metres of RC (reverse circulation) pre collars (refer to ASX release “Camel Creek Diamond Drilling Update” dated 30 November 2021) for further details.

Table 1 Camel Creek Diamond Drilling Program – Material Intersections

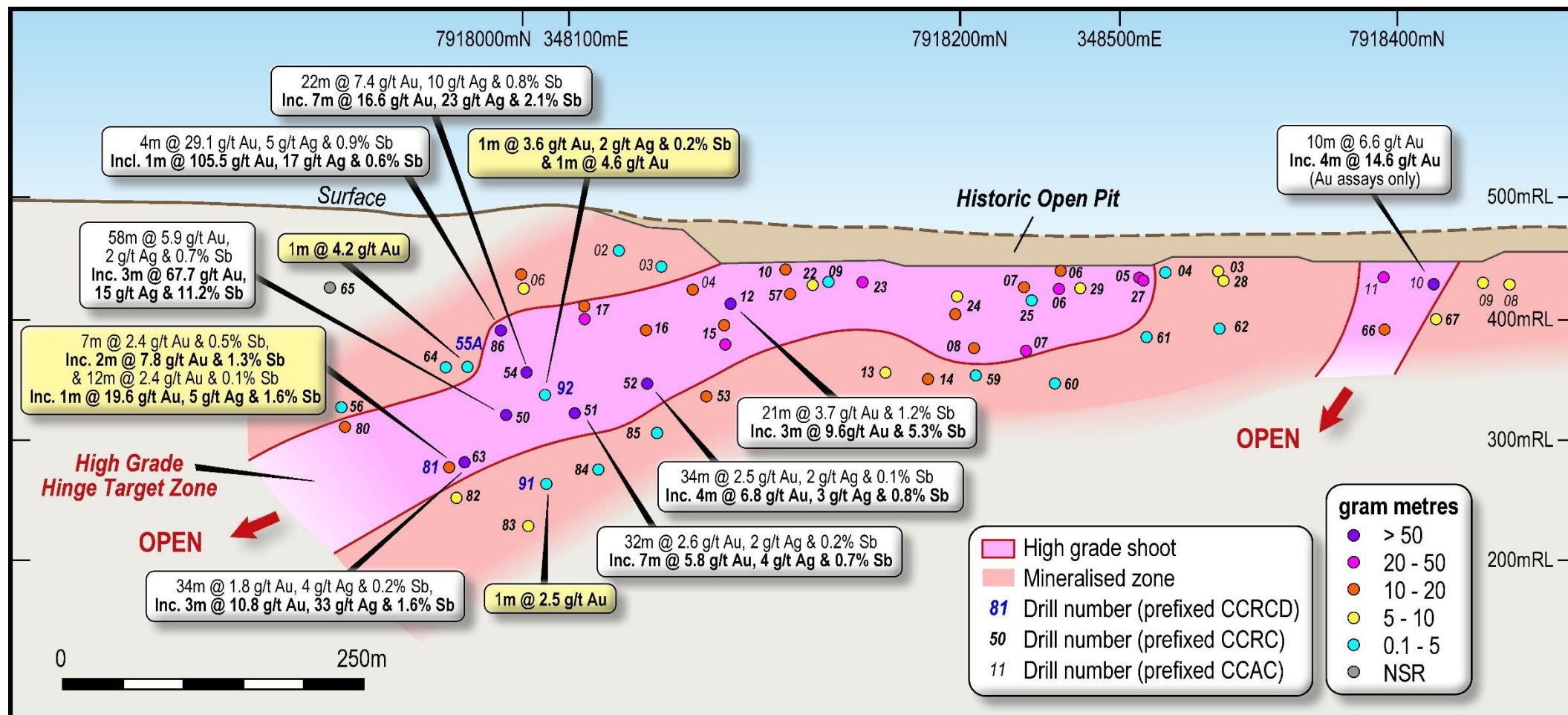
Hole	From	To	Intercept	Au g/t	Ag g/t	Sb %
CCRCD55A	145.0	146.0	1.0	4.2	nm	nm
and	151	152	1.0	2.2	1	0.6%
CCRCD81	222.0	229.0	7.0	2.4	1	0.5%
inc	227.0	229.0	2.0	7.8	1	1.3%
and	241.0	253.0	12.0	2.4	2	0.1%
inc	252.0	253.0	1.0	19.6	5	1.6%
CCRCD91	252.0	253.0	1.0	2.5	2	nm
CCRCD92	164.0	165.0	1.0	3.6	2	0.2%
and	193.0	194.0	1.0	4.6	nm	nm
<i>nm – assay below 0.5 g/t Ag and 0.1% Sb</i>						
<i>True width is estimated to be approximately 2/3 of intersection width</i>						

All holes intersected mineralisation, with a highlight being the mineralisation intersected in CCRCD81, with broad mineralised zones containing higher grade gold-silver-antimony rich veining.

The results from the diamond drilling will be used in the estimation of an initial Mineral Resource for the Camel Creek deposit, which is expected to be completed by the end of the current quarter (quarter ending 31 March 2022).

The results from the drilling will be used in planning the next round of drilling at Camel Creek, in particular to target the high-grade Hinge Zone which remains open at depth.

Figure 1 Camel Creek Long Section (Recent Diamond Drilling & High-Grade Hinge Zone)



2. Camel Creek Hinge Zone

GNM's drilling to date has defined a high-grade plunging mineralisation shoot (Hinge Zone) which is open at depth. The Hinge Zone mineralisation consists of high-grade gold-silver-antimony mineralisation and material (> 50 gm metre Au) intersections are listed in Table 2.

The Hinge Zone represents an exceptional UG target – with high grade to bonanza grade mineralisation consistently intersected over mineable widths. High high-grade gold-silver-antimony mineralisation has been intersected to date in multiple holes – with **CCRC50 returning 3m @ 67.7 g/t Au, 15 g/t Ag and 11.2% Sb from 191.0m down hole.**

Table 2 Camel Creek Hinge Zone – Material Intersections (> 50 gm metre Au)

Hole ID	From (m)	To (m)	Down Hole Intersection (m)	Au (g/t)	Ag (g/t)	Sb (%)
CCAC10	54.0	64.0	10.0	6.6	*	*
inc	60.0	64.0	4.0	14.6	*	*
CCRC12	58.0	79.0	21.0	3.7	1	1.2%
inc	58.0	61.0	3.0	9.6	1	5.3%
CCRC50	155.0	213.0	58.0	5.9	2	0.7%
inc	191.0	194.0	3.0	67.7	15	11.2%
inc	191.0	192.0	1.0	153.9	31	10.4%
CCRC51	164.0	196.0	32.0	2.6	2	0.2%
inc	164.0	171.0	7.0	5.8	4	0.7%
CCRC52	126.0	160.0	34.0	2.5	2	0.1%
inc	154.0	158.0	4.0	6.8	3	0.8%
CCRC54	154.0	176.0	22.0	7.4	10	0.8%
inc	162.0	169.0	7.0	16.6	23	2.1%
CCRC63	193.0	227.0	34.0	1.8	4	0.2%
inc	220.0	223.0	3.0	10.8	33	1.6%
CCRC86	125.0	129.0	4.0	29.1	5	0.9%
inc	127.0	128.0	1.0	105.5	17	0.6%
True width is estimated to be approximately 2/3 of intersection width						
*Au assays only available for CCAC10						

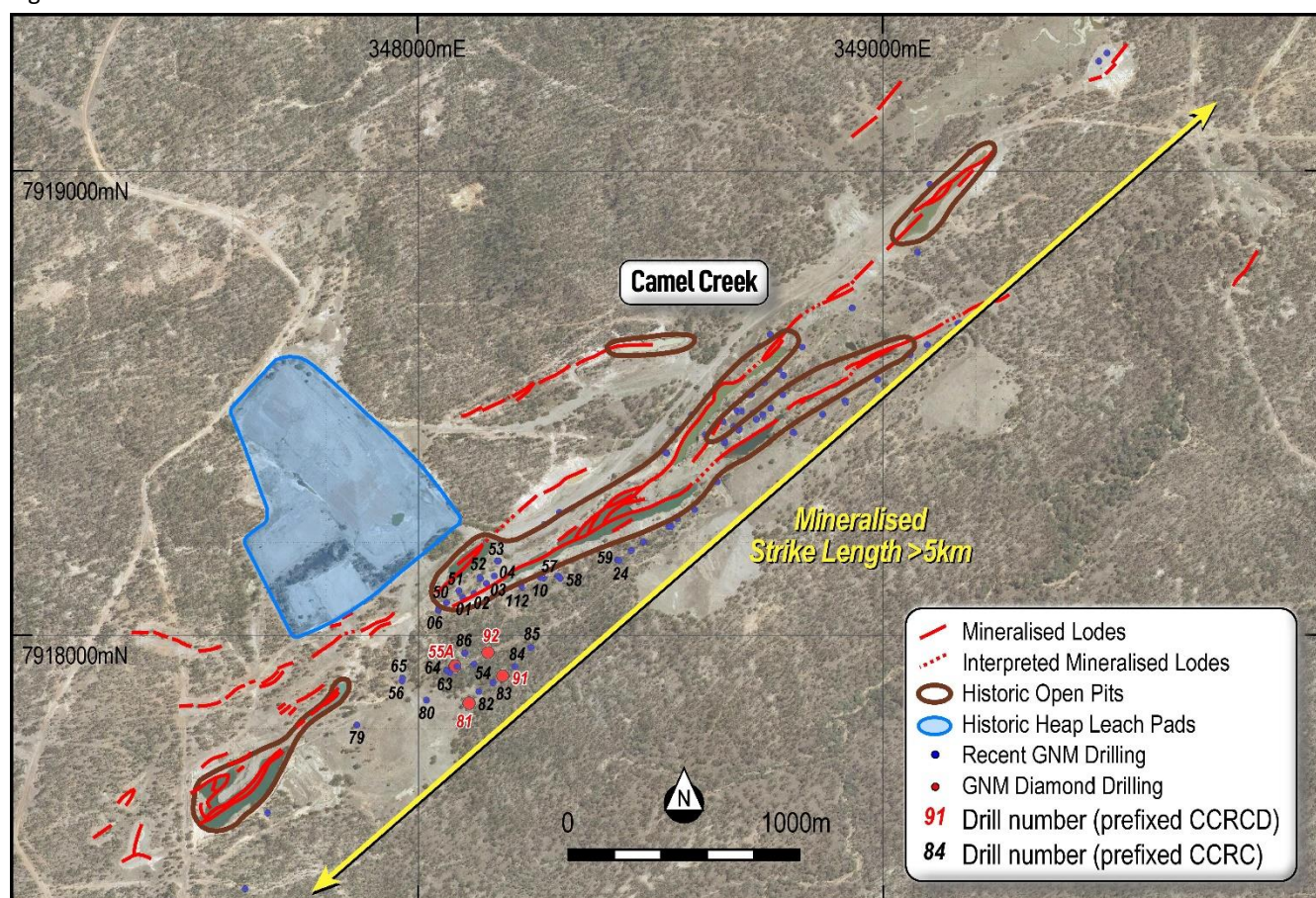
3. Camel Creek & Golden Ant Project

Camel Creek is the major mining centre in the Amanda Bell Goldfield, which covers an area of approx. 1,000 km² in Far North Queensland. Gold bearing oxide ore has been mined from open pits on eight deposits and these plus other smaller pits all have material primary sulphide mineralisation remaining, many of them with significant antimony mineralisation in addition to the gold.

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). Mining activities commenced in 1989 and ceased in 1995 with the depletion of oxide gold mineralisation.

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

Figure 2 Camel Creek Plan



The Golden Ant Project is located approximately 200km northwest of Townsville in Northern Queensland. 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.

Figure 3 Golden Ant Project Location



GNM acquired the Golden Ant Project in 2019 and commenced exploration activities in December 2020. To date, GNM have drilled 143 RC holes for 18,552 metres and 8 HQ diamond holes at the projects and have successfully completed Mineral Resource Estimates for the Big Rush and Golden Cup deposits.

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
+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 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.

Table 3 Camel Creek HQ Diamond Drillhole Information Summary

	Grid MGA94 Zone 55					RC Precollar		HQ Diamond		Total
Hole No	Easting	Northing	RL	Dip	Azi	From	To	From	To (EOH)	Diamond Metres
CCRCD55A	348077	7917943	502	-75	315	0	104	104	218	114
CCRCD81	348146	7917852	498	-60	313	0	95	95	280	185
CCRCD91	348178	7917901	502	-70	315	0	187	187	286	99
CCRCD92	348149	7917962	511	-65	310	0	122	122	208	86

Section 1 JORC Code, 2012 Edition - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drilling reported is angled HQ Diamond Drilling Sampling was half diamond core cut into regular one metre intervals. 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 was completed at Intertek Ltd's assay laboratory in Townsville.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> 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 precollar depth (180 metres) The core was orientated using a Reflex Ez-Ori tool.
Drill sample recovery	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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%. There has been no assessment of core sample recovery and gold grade relationship

Criteria	JORC Code explanation	Commentary
	<i>preferential loss/gain of fine/coarse material.</i>	
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The assaying work 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 instruments reported. Laboratory standards utilised. On site QAQC included inclusion of standards every 40 samples, duplicates every 40 samples as well as random blank samples, every 40 samples.

Criteria	JORC Code explanation	Commentary
	<i>standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	
Verification of sampling and assaying	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Historic mining within 40m also recorded gold mineralisation although thickness and grade varies yet this is believed to represent the changing nature of this style of mineralisation. • No twin holes were drilled, All previous drilling in shallow oxide zones. • Data was collected on paper and entered into an Excel Worksheet. • No adjustments to assay results.
Location of data points	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Coordinates located by hand held 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)
Data spacing and distribution	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Drilling was on nominal 40 metre centres. • One metre samples and composited samples were taken. Assay results reported are all one metre HQ core samples.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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

Criteria	JORC Code explanation	Commentary
		<p>all results will be defined as downhole widths. True widths of the mineralised zones are interpreted as between 2-25 metres true thickness</p> <ul style="list-style-type: none"> No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Samples taken by qualified staff and delivered to assay laboratory by company representatives.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> No audits or reviews completed.

Section 2 JORC Code, 2012 Edition - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Mining Leases are held by Golden Ant Mining Pty Ltd. Great Northern Minerals Limited has purchased 100% of the Mining Lease listed above from Q-Generate Pty Ltd the owner of Golden Ant Mining Pty Ltd. The Mining Leases are granted.
<i>Exploration by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> 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 Ltd (previously Greenpower Energy Ltd purchased the final interest in the project in August 2020.
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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. The area is traversed by a major northwest/south east structural corridor paralleling the Sybil Graben, with many of the numerous basaltic, andesitic and rhyolitic dykes of the region sharing a similar trend. The region has undergone three significant periods of deformation with gold mineralisation introduced during at least four different phases, resulting in a complex mineralogical history. 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 commenced.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Refer to Table 4 of this ASX Announcement which provides easting and northing of the drill collars, dip, azimuth and end of hole depths.

Criteria	JORC Code explanation	Commentary
	<p>depth</p> <ul style="list-style-type: none"> 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. 	
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (egg 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. 	<ul style="list-style-type: none"> The drill intercepts reported in Table 1 are on a length weighted basis. No high-grade cuts have been applied to the tabled intersections. Based on the 1 metre split sample results, all anomalous results greater than 0.5 g/t Au have been reported. No metal equivalents are used or presented.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> Drilling is generally perpendicular to the structure by angled RC at 50° to 65° into structures dipping between 30° and 60°.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Maps and sections are presented in the announcement.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The accompanying document is considered to represent a balanced report.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Camel Creek Gold Project has been the subject of substantial previous exploration and mining operations. Anomalous antimony and arsenic values have been returned from ICP results.

Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Further work will include; Drill testing for extensions to the known mineralization, mostly down dip. Metallurgical test work to determine the most appropriate process route for gold recovery.