

ASX ANNOUNCEMENT

28 January 2020

High Grade Drill Intercepts and New Zone Identified at Big Rush Project, North Queensland

Great Northern Minerals Limited (“Great Northern Minerals” or the “Company”) (ASX: GNM) is pleased to announce the receipt of assay results from the remaining six Reverse Circulation (RC) drill holes at the Company’s Big Rush Gold Project in Northern Queensland (Figure 1). Best intersections, calculated at nominal 1 g/t cutoff, are highlighted below with detailed data in Table 1.

Highlights:

- Hole BRRC1004 **5m from 92m @ 12.6 g/t Au** (reported 23 December, 2019)
- Hole BRRC1006 **15m from 84m @ 2.4 g/t Au**
- Hole BRRC1007 **28m from 83m @ 2.5 g/t Au** inc **15m from 83m @ 3.3 g/t Au**
- Hole BRRC1008 **3m from 118m @ 14.5 g/t Au**
- Hole BRRC1009 **24m from 97m @ 4.0 g/t Au** and **2m from 113m @ 35.2 g/t Au**
- Hole BRRC1010 **7m from 88m @ 2.45 g/t Au**
- New high grade zone identified, centred about 15m grid east of the Main Zone, with **3m @ 14.5 g/t Au** (11370N) and **2m @ 35.2 g/t Au** (11390N)
- Robust assay results confirm potential revealed by historical intersections
- All assay results have now been received and work has commenced on a JORC resource

The Programme

A total of 8 RC drill holes for 1,042 metres were completed at the project in early December 2019. All holes tested mineralisation beneath the historical Central Pit workings (Figure 2) along 200m of strike length, notionally, 75m below original surface and up to 60m below the pit floor. Samples were collected for each metre and split through a rig-mounted cone splitter with 10% of each sample (approximately 2.5-3kg) collected in a calico sample bag for assay and bulk samples stored on site in plastic bags. Gold assays were all by fire assay. Only very minor water was encountered and all samples were dry and of even volume. The objective of the programme was to validate previous drilling results to enable a maiden JORC-compliant resource to be calculated. Analyses have confirmed the width and grade of historic drill intersections and resource estimation work has commenced.

Big Rush Mineralisation

Big Rush “Orogenic-Style” gold mineralisation is concentrated along a discrete, steeply dipping, NE-trending structurally complex zone that cuts highly deformed sedimentary rocks. In the immediate orebody environs, host rocks include a high proportion of variably graphitic black shale and siltstone. Gold mineralisation along the structure is intimately associated with multi-phase quartz veining and correlates strongly with quartz vein intensity and, in highly chlorite-altered host sediments, sulphide content, notably pyrite and arsenopyrite.

During the 1990's, four open pits were developed along 2.2km of the Big Rush structure (Figure 2) to extract oxide ore for heap leaching. From south to north, these were the Sergei, Southern, Central and Northern pits. The Central pit was mined up until 1998. Outside of the Central pit there has been no drilling since 1997. The potential to outline further mineralisation is obvious and, at the Central Pit, mineralisation remains open along strike and at depth (Figure 9). The high grade zones within the Big Rush system, and grade variability, are consistent with a high degree of structural control. Detailed infill and step-out drilling will be required at Big Rush to unlock its potential.

Discussion of Results

Holes BRRC 1004 (Section 11270N) and BRRC1005 (Section 11310N) returned **5m @12.6 g/t Au** and **12m @ 1.1 g/t Au**, respectively, and were reported in an ASX announcement on 23 December 2019.

Hole BRRC1006, drilled on Section 11330N and 20m along strike from BRRC1005, returned an intersection of **15m @ 2.4 g/t Au** from 84 – 99m downhole (Table 1, Figures 2 & 3), which includes **10m @ 3.1 g/t Au** from 89-99m using a 2 g/t cut. This intersection is consistent with historical holes drilled approximately 5m above and 10m below, respectively, BRDH293 with **14m @ 2.5 g/t Au** and BR251 with **19m @ 3.5 g/t Au**.

Hole BRRC1007, drilled on Section 11350N and 20m along strike from BRRC1006, returned an intersection of **28m @ 2.5 g/t Au** from 83 – 111m downhole (Figure 4), including **12m @ 3.63 g/t Au** from 85m. The intersection is wider and higher grade than the hole above (BRPD138) and reveals a thickening in the mineralisation, at this level, which is also indicated on the previous section 11330N.

Hole BRRC1008, located 20m along strike from BRRC1007 and drilled on Section 11370N, returned an intersection of **14m @ 1.3 g/t Au** from 92 – 106m (Figure 5), including **6m @ 2.24 g/t Au** from 100m. A separate interval of **3m @ 14.5 g/t Au** from 118m, located about 15m grid east of the main body of mineralisation, may represent a coherent high grade zone that links with a similar zone 20m to the north.

Hole BRRC1009, drilled on Section 11390N and 20m along strike from BRRC1008, returned an intersection of **24m @ 4.0 g/t Au** from 73 - 97m (Figure 6). Assays per metre ranged from 1.21 - 11.97 g/t Au over the interval with no exceptional high grades. Using a 4 g/t Au cut, this zone contains **10m @ 5.8 g/t Au** from 79m. The intersection lies within 5 metres south of, and updip and downdip of markedly lower grade intercepts in historical holes BRRC297 and BRRC298. This highly positive but seemingly anomalous result may be due to a geologically favourable intersection of mineralised structures. The down-dip/down-plunge extent of this zone will only be revealed by detailed extension drilling with a component of orientated core drilling to elucidate structural controls on gold distribution.

Hole BRRC1009 also intersected high grade gold about 15m grid east of the main zone with **2m @ 35.2 g/t Au** from 113m. This zone lies along strike from the high grade intercept in BRRC1008 20m to the south and may represent a coherent zone, the potential of which will only be revealed by detailed infill and extension drilling.

Hole BRRC1010 was drilled 40m to the north of BRRC1009 on Section 11430N (Figure 7) and intersected a broad zone of **25m @ 1.32 g/t Au** from 71-96m (calculated at 0.5 g/t Au cutoff) Including **9m @ 1.35 g/t Au** from 72m and **7m @ 2.45 g/t Au** from 88m. Historical hole BR181 intersected 8m @ 7.6 g/t Au approximately 10m down-dip of the 9m @ 1.35 g/t Au intercept in BRRC1010, however, this high grade intercept was largely carried by **1m @ 39.9 g/t Au**. The higher grade interval of **7m @ 2.45 g/t Au** in BRC1010 may be an expression of the high grade zone intersected in holes BRRC1009 and BRRC1008 to the south.

Hole BRRC1011 on Section 11470N, 40m north along strike of hole BRRC1010, intersected two narrow zones of Au mineralisation: **2m @ 1.52 g/t Au** from 72-74m and **2m @ 3.45 g/t Au** from 87-89m, broadly consistent with adjacent historical intersections.

In summary, the current programme has produced results consistent with historical drill results beneath the Central Pit and will enable the estimation of a JORC compliant resource. Mineralisation remains open at depth on most sections and along strike towards the Southern and Northern pits, illustrated schematically by Figure 9. Gold distribution along the structure is variable in grade and width, consistent with Orogenic-style gold mineralisation, and the potential of the deposit will only be unlocked by a campaign of detailed infill and extension drilling, including orientated core drilling at the early stages of the campaign to elucidate structural controls and facilitate hole targeting.



Figure 1: Location of the Company's gold projects in Northern Queensland

Table 1: Drill hole assay results, Big Rush Gold Project (nominal > 1 g/t Au)

Hole ID	Easting MGA94	Northing MGA94	Local Grid Section	Dip	Azimuth	EOH	From	To	Width (m)	Grade (g/t Au)
BRRC1004	264581	7851752	11270N	-60	310	119	92	97	5	12.64
BRRC1004							inc 95	96	1	52.21
BRRC1004							110	112	2	1.86
BRRC1004							118	119	1	1.06
BRRC1005	264505	7851839	11310N	-60	130	125	76	88	12	1.11
BRRC1006	264515	7851863	11330N	-55	130	125	24	26	2	1.2
BRRC1006							77	78	1	1.8
BRRC1006							84	99	15	2.39
BRRC1007	264525	7851879	11350N	-65	130	131	72	73	1	2.11
BRRC1007							83	111	28	2.51
BRRC1007							119	120	1	1.32
BRRC1008	264536	7851902	11370N	-60	130	143	54	55	1	3.14
BRRC1008							92	106	14	1.34
BRRC1008							118	121	3	14.46
BRRC1009	264555	7851912	11390N	-60	130	143	73	97	24	3.99
BRRC1009							103	105	2	2.00
BRRC1009							113	115	2	35.24
BRRC1010	264580	7851949	11430N	-55	130	125	72	81	9	1.35
BRRC1010							88	95	7	2.45
BRRC1011	264608	7851978	11470N	-55	130	131	72	74	2	1.52
BRRC1011							87	89	2	3.45

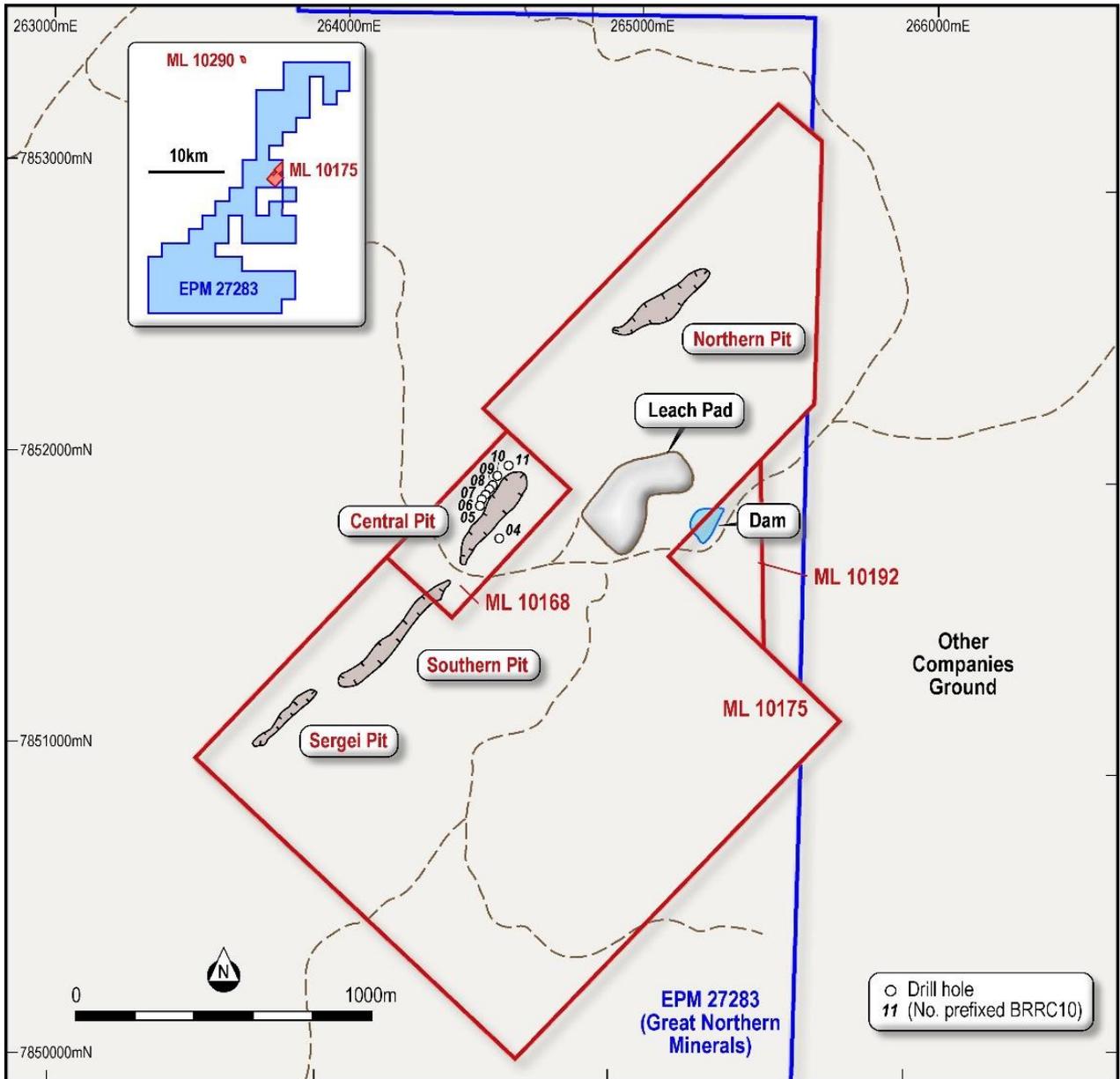


Figure 2: Location plan of the Big Rush Project showing recently completed drill holes and historical open pits

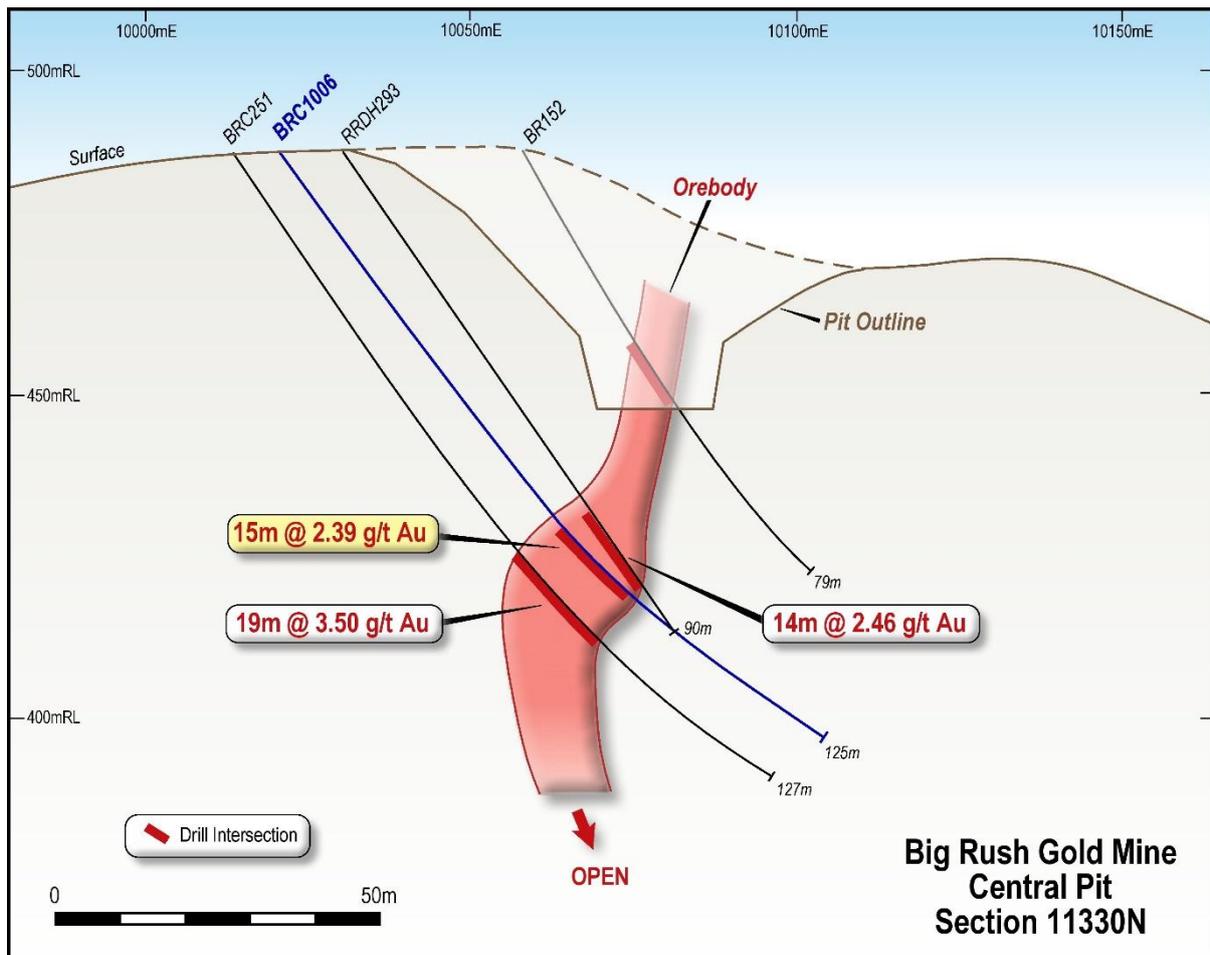


Figure 3: Cross section 11330N (Local Grid) showing drill hole BRR1006, Big Rush Project

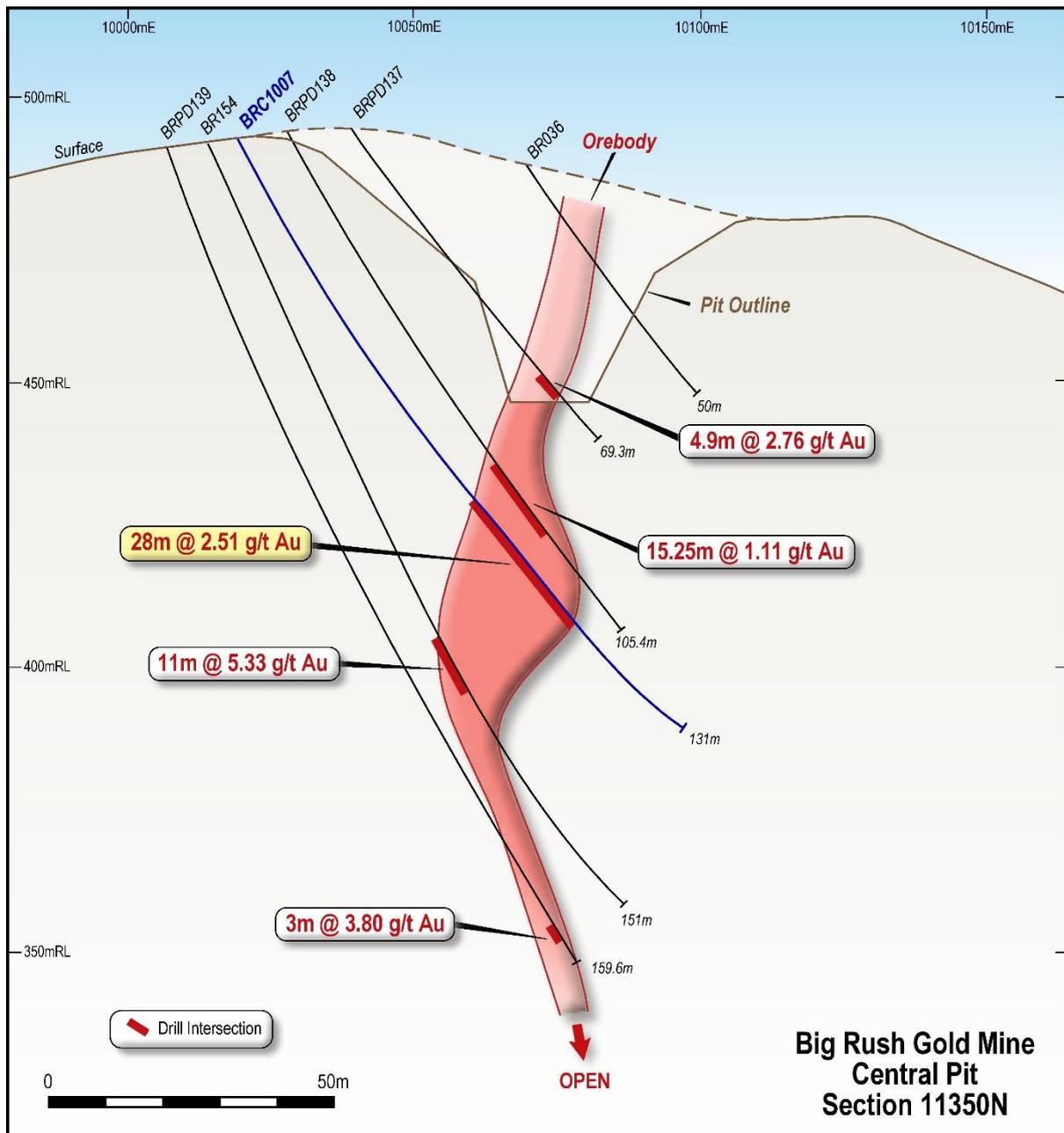


Figure 4: Cross section 11350N (Local Grid) showing drill hole BRC1007, Big Rush Project

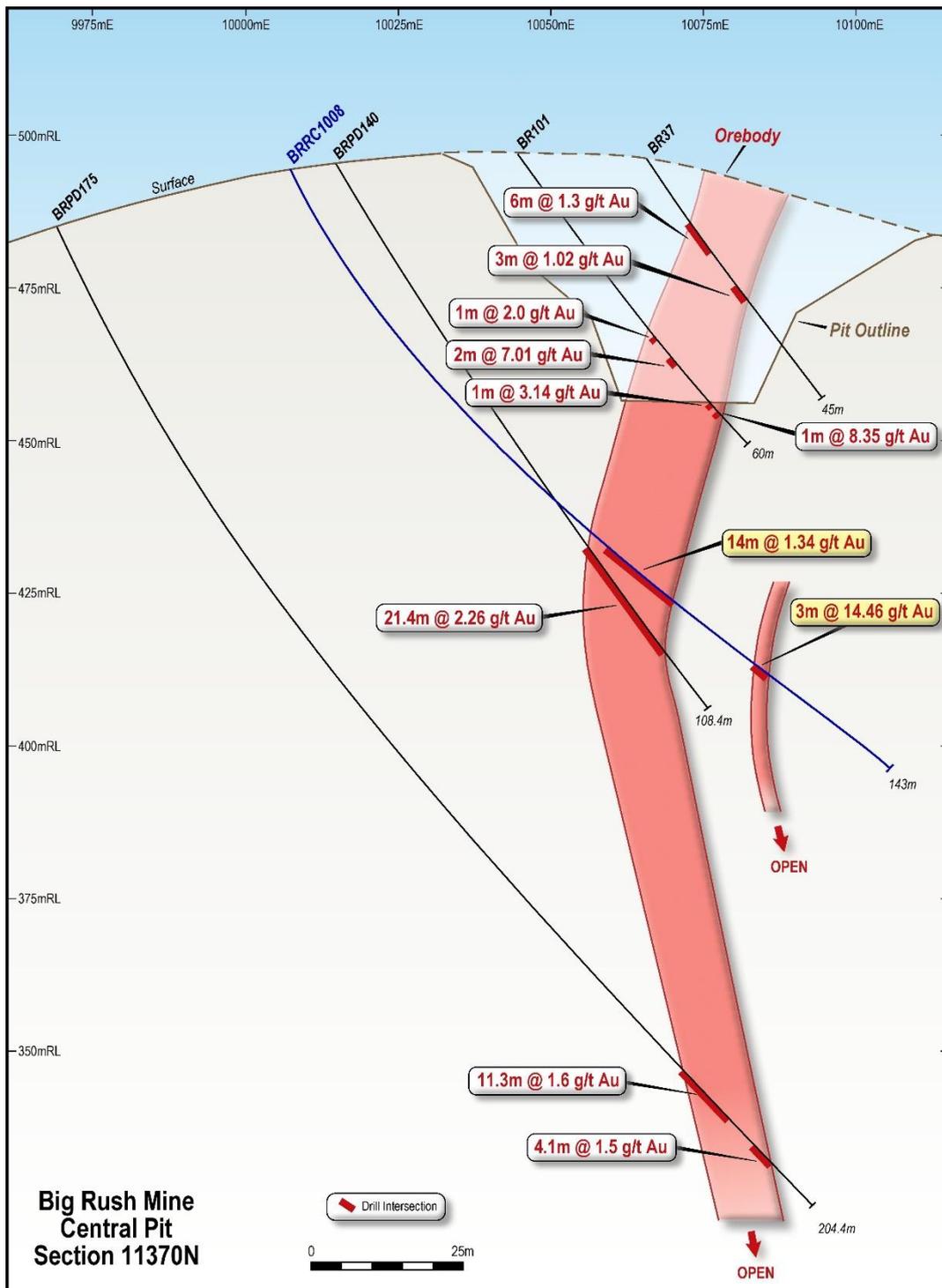


Figure 5: Cross section 11370N (Local Grid) showing drill hole BRRC1008, Big Rush Project

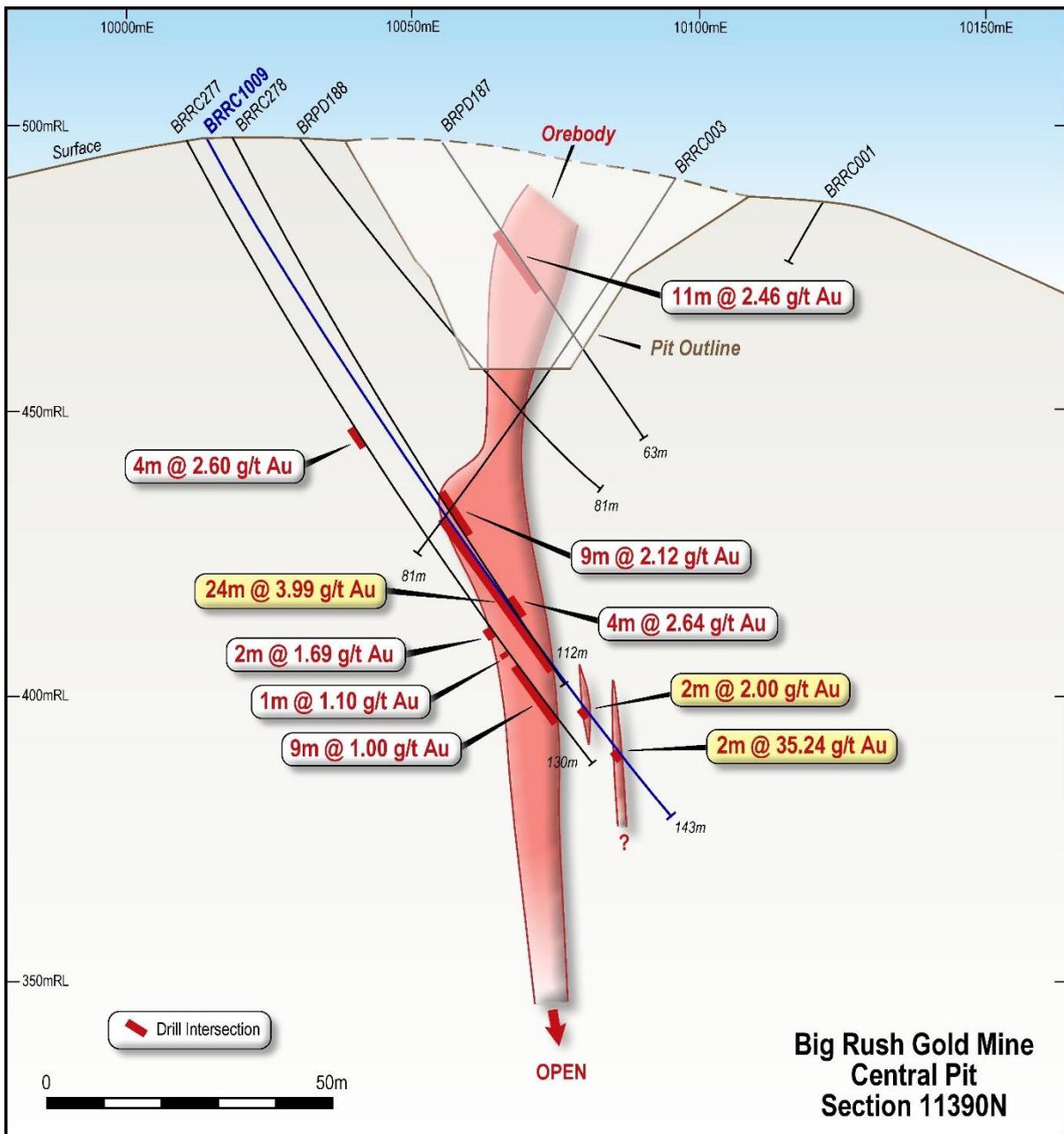


Figure 6: Cross section 11390N (Local Grid) showing drill hole BRR1009, Big Rush Project

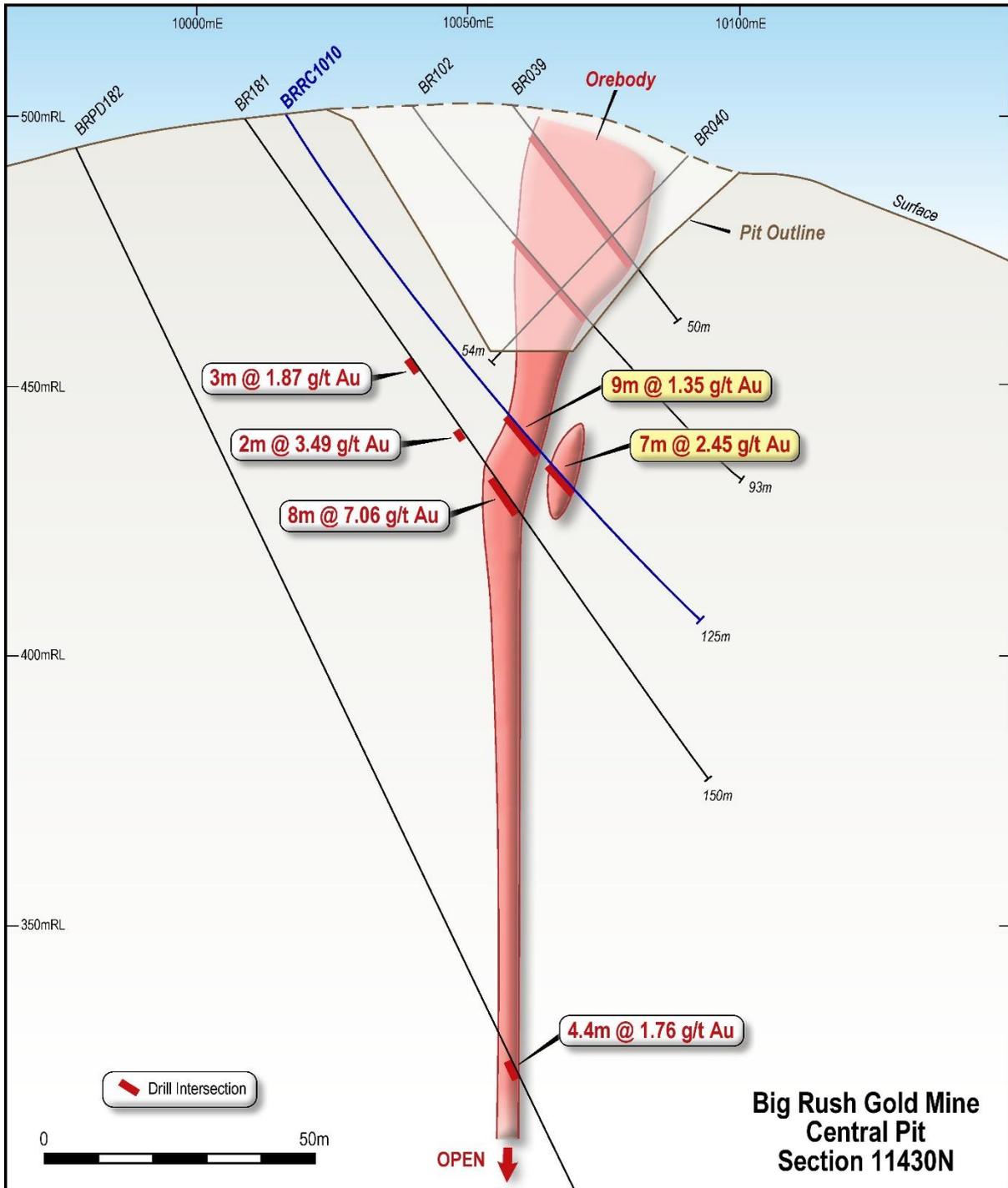


Figure 7: Cross section 11430N (Local Grid) showing drill hole BRR1010, Big Rush Project

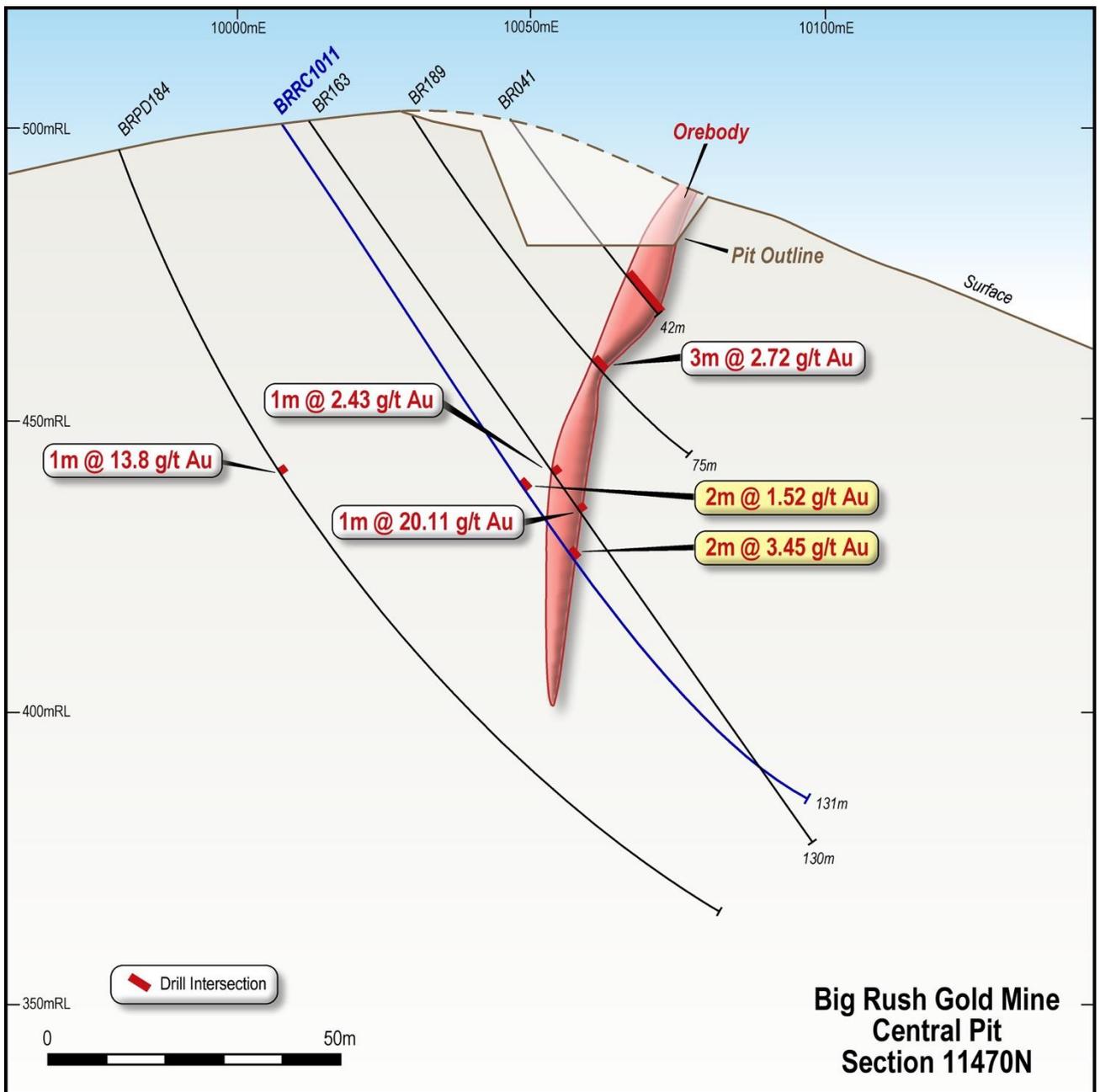


Figure 8: Cross section 11470N (Local Grid) showing drill hole BRRC1011, Big Rush Project

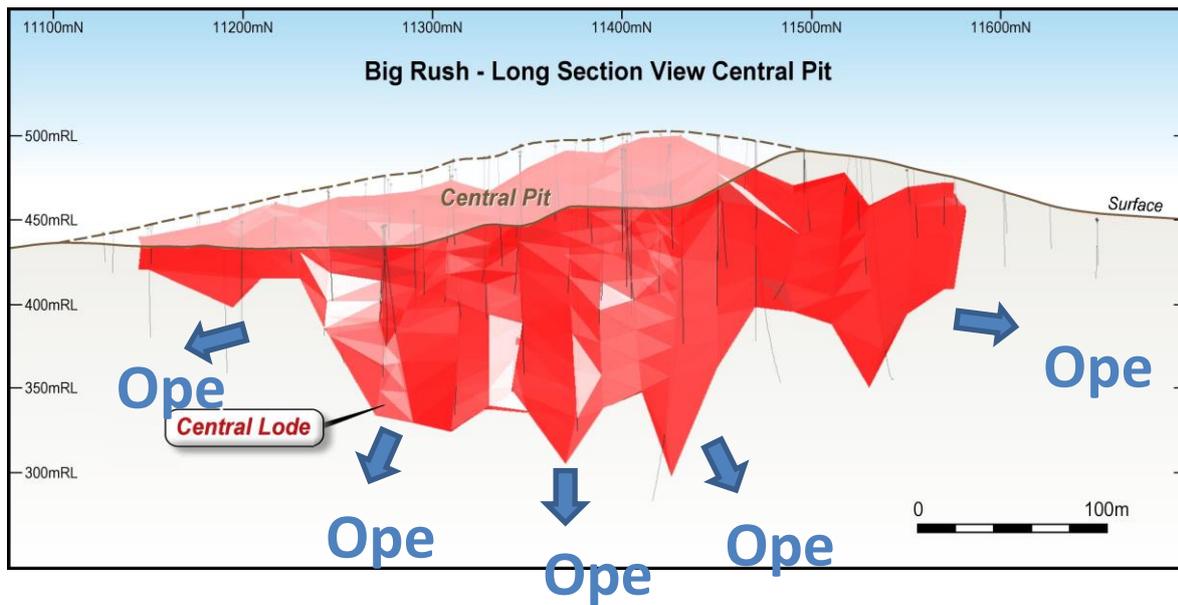


Figure 9: Big Rush Central Pit schematic longitudinal section

This ASX release was reviewed and authorised for release to the market by Managing Director, Cameron McLean.

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About Great Northern Minerals Limited

Great Northern Minerals Limited is an ASX-listed gold focussed explorer. The Company's projects include the Golden Cup, Camel Creek and Big Rush Gold Mines in Queensland.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Andrew Jones, an employee of Great Northern Minerals Limited. Mr Jones 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 Jones consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

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 (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Drilling reported is angled Reverse Circulation (RC) drilling. Sampling consists of one metre cone split samples. Sample weights were approximately 3kg of material. The full sample was pulverised. Fire Assaying was completed using a 50 g charge. Multi-element assaying was done using ICP following a four acid digest with multi-element assay results awaited. Assaying was completed at Intertek Ltd's assay laboratory in Townsville.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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"> All drilling at Big Rush was angled Reverse Circulation drilling using a face sampling hammer.
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 preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Sample recoveries were assessed visually and appeared to be consistent throughout drill holes. All samples were dry. No measures needed to be taken. No sample bias believed to occur.
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"> Geological logging of colour, weathering, lithology, alteration and mineralisation has been undertaken. RC is considered both qualitative and quantitative in nature. The total length of the RC holes were logged.

Criteria	JORC Code explanation	Commentary
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"> • Drilling was RC not core drilling. • 1m samples were collected straight from the drill rig cyclone and splitter. • Sampling is considered representative. • Internal laboratory standards used. • On site QAQC included inclusion of standards every 20 samples, duplicates every 20 samples as well as random blank samples. • 3kg sample size considered appropriate for the grain size of the sedimentary rock units sampled.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • The assaying work was Fire Assay (50g) which is industry standard assay technique for gold mineralisation and ICP for multi-elements with a four acid digest. Both considered total techniques. Multi-element assays awaited. • No instruments reported. • Laboratory standards utilised. On site QAQC included inclusion of standards every 20 samples, duplicates every 20 samples as well as random blank samples.
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 drill holes within 10m also recorded gold mineralisation although thickness and grade varies yet this is believed to represent the changing nature of this style of mineralisation. • Some of these holes twinned historic drill holes. • 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. • Co-ordinates are recorded in GDA94 zone 55. • Control considered to be good.
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 	<ul style="list-style-type: none"> • As this drilling program was a small drilling program there was considerable variation in the drill spacings. • Only 8 holes drilled over a 250 m strike length.

Criteria	JORC Code explanation	Commentary
	<p><i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • One metre samples were taken. Assay results reported are all 1 m samples.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<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 southwest. Drilling was generally perpendicular to the considered lithology orientation with holes drilled at azimuths of 310 degrees or 130 degrees at dip angles between -50 to -60 degrees. Due to locally varying intersection angles between drillholes and lithological units all results will be 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	<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.
Audits or reviews	<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
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Mining Leases MLs 10168, 10175 & 10192 are held by Alphadale Pty Ltd.. • Great Northern Minerals Limited has exercised an option agreement to purchase up to 100% of the Mining Leases listed above from Q-Generate Pty Ltd the owner of Golden Ant Mining Pty Ltd. • The Mining Leases are granted.
Exploration by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • The Big Rush Gold Mine has been the subject of substantial previous exploration, resource definition drilling and mining operations. • Gold mineralization in the Big Rush area was first recognized in 1987. • Previous exploration and mining activities have been undertaken by Werrie Gold, Alphadale Pty Ltd, Lynch Mining Pty Ltd and Curtain Bros Pty Ltd. • The project database contains 261 Reverse Circulation (RC) drill holes, 11 RC drill holes with diamond tails, 5 diamond holes and data from 195 blast holes and 179 trenches. The RC and diamond drilling completed had an average depth of 63m and the deepest drill hole in the database is 240.50 metres deep. The majority of exploration was

Criteria	JORC Code explanation	Commentary
		<p>completed between 1990 – 1997 just before and whilst mining was underway. Three RC holes totalling 396m were drilled by Curtain Bros Pty Ltd in 2010 but that is the only drilling recorded since mining activities stopped in 1998. Deeper drilling has largely been restricted to beneath the Central Pit with only limited drilling being completed beneath the Northern, Southern and Sergei Pits.</p> <ul style="list-style-type: none"> Great Northern Minerals Ltd (previously Greenpower Energy Ltd purchased the project in August 2019).
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Big Rush Gold Mine is located in the Broken River Mineral Field. Quartz vein hosted gold mineralization within sedimentary rock units occurs within the project area and has been mined previously.
Drill hole Information	<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 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. 	<ul style="list-style-type: none"> Refer to Table 1 of this ASX Announcement which provides easting and northing of the drill collars, dip, azimuth and end of hole depths.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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. Lengths of low-grade material (no more than 5m) have been incorporated where the adjacent higher grades are sufficient such that the weighted average remains above the 1 g/t Au lower cut-off grade. No metal equivalents are used or presented.

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<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°. Some of the reported intersections are very close to true width. • Due to locally varying intersection angles between drill holes and lithological units all results will be defined as downhole widths.
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Maps and sections are presented in the announcement.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • The accompanying document is considered to represent a balanced report.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • The Big Rush Gold Mine has been the subject of substantial previous exploration, resource definition drilling and mining operations.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg 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; <ul style="list-style-type: none"> Drill testing for extensions to the known mineralization, mostly down dip. Additional metallurgical test work to determine the most appropriate process route for gold recovery. Complete an initial Scoping Study on the economics of developing a gold producing operation at Big Rush.