ASX ANNOUNCEMENT

22 November 2021

Exploration update – Ned's Creek JV

HIGHLIGHTS

- RC drill program managed by Lodestar completed at Ned's Creek Joint Venture
- Drilling results will contribute towards a Mineral Resource estimate over a zone of shallow supergene gold mineralisation to support a potential future open pit mine
- 14 holes completed over a 600m zone targeting the Contessa granite contact as the potential source of supergene mineralisation at Contessa intersected an extensive hydrothermal system which remains open.

Lodestar Minerals Limited ("**Lodestar**" or "**the Company**", **ASX:LSR**) advises that the RC drilling program at the Contessa gold prospect located on the Ned's Creek Joint Venture (Vango Mining (ASX:VAN) earing 51%) is completed and all samples have been dispatched to the laboratory for assay.

The program comprised 29 holes in total for 3715m (see Table 1) and consisted of two phases.

- a series of 12 vertical RC holes, drilled to a set depth of 90m over an area of 120m by 140m, to verify significant supergene gold intersected in previous aircore drilling and support a maiden resource estimate for the supergene hosted mineralisation;
- 14 holes targeting the Contessa granite contact as a potential source of the widespread supergene and nugget-related gold discovered in the Contessa area; and
- 3 additional RC holes were completed on the contact zone 1500m southwest of Contessa, at the Central Park prospect (Figure 1).

Previous aircore drilling at Contessa intersected extensive supergene gold mineralisation[1] prior to RC drilling programs that targeted deeper primary mineralisation. Significant intercepts from earlier aircore drilling include:

- *15m at 3.1g/t Au from 40m in LNR546*
- *21m at 3.01g/t Au from 40m in LNR656*
- *20m at 1.61g/t Au from 48m in LNR796*
- *12m at 1.3g/t Au from 48m in LNR800*
- *8m at 3.35g/t Au from 48m in LNR810*
- *16m at 2.16g/t Au from 84m in VCTRC0003, including 4m at 9.63g/t Au.*

Results from the recently completed program will support a maiden resource estimate for a potential open pit operation at Contessa.

[1] See Lodestar's ASX releases dated 18th March 2013, 4th June 2013, 1st December 2016 and 10th February 2020.

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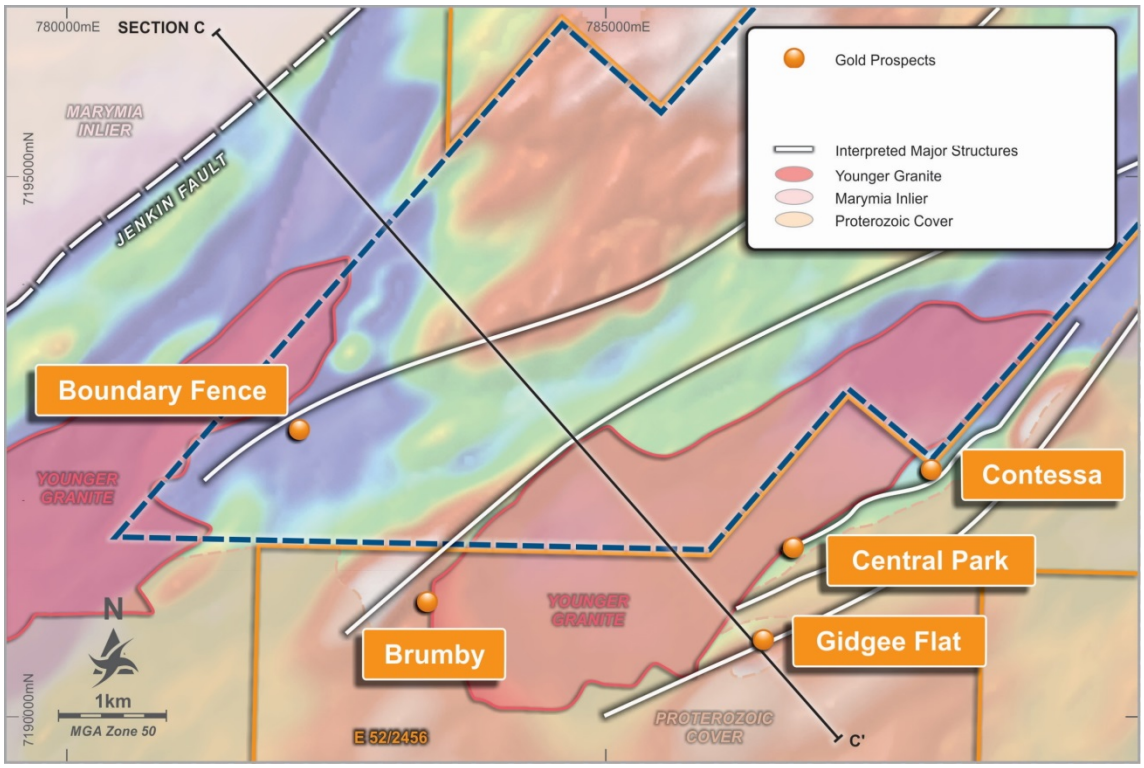

Figure 1 Prospect location plan, background magnetic image.

Exploration drilling also targeted the granite contact at Contessa for the first time, testing a strike distance of over 600m, with holes angled to the southeast at regularly spaced intervals of 100m (see Figure 2).

The key observations of the drilling relate to visual confirmation of an extensive hydrothermal alteration system developed on the granite contact.

- Hydrothermal alteration identified within a granodiorite intrusive extends over a distance of at least 400m.
- The hydrothermal alteration consists of strong silica and/or sericite alteration with associated disseminated pyrite. Accessory molybdenite and fluorite observed within the alteration zone are consistent with the extensive Bi-Mo geochemical anomaly that first identified the Contessa exploration target (see Lodestar's ASX announcement dated 18th December 2012). The alteration is pervasive and interpreted to be associated with the intrusion of a fluid-rich, undeformed late granitic phase.
- Hole LNRC097, the most south westerly hole in the Contessa program, also intersected silica alteration with disseminated pyrite in schistose rocks adjacent to the contact (the contact itself was not intersected).
- Previous aircore drilling completed between the Contessa and Central Park prospects (1500m along strike to the south west) does not extend over the contact intersected in this program.

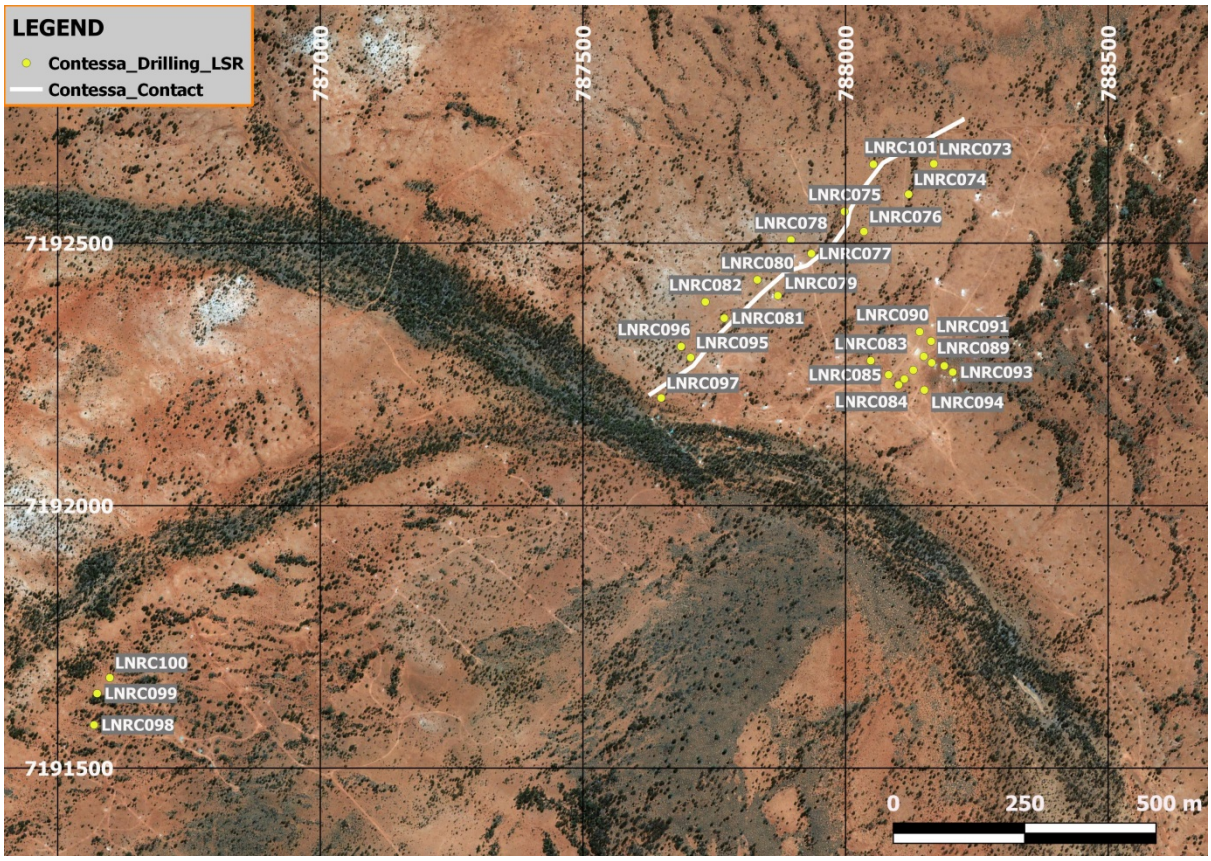

Figure 2 Location of RC drill hole collars, showing interpreted position of Contessa granite contact at surface (MGA94 Zone 50).

Lodestar Managing Director, Bill Clayton commented "Although the outcome of the drilling will not be known until assay results are received, the identification of an extensive hydrothermal alteration system associated with the granite contact has confirmed the conceptual model and shown that it is of significant scale. We await results with great anticipation."

Table 1 Drill hole information (grid GDA94 datum).

HoleID	Easting	Northing	RL	TotalDepth	DrillType	Dip	Azimuth
LNRC073	788168	7192651	574.8	150	RC	-60	130
LNRC074	788120	7192593	575.2	153	RC	-60	130
LNRC075	787998	7192560	575.9	153	RC	-60	130
LNRC076	788035	7192522	575.5	153	RC	-60	130
LNRC077	787935	7192480	576.1	153	RC	-60	130
LNRC078	787896	7192506	576.2	201	RC	-60	130
LNRC079	787871	7192400	576.1	141	RC	-60	130
LNRC080	787832	7192430	576.5	153	RC	-60	130
LNRC081	787769	7192357	576.3	160	RC	-60	130
LNRC082	787733	7192388	576.8	153	RC	-60	130
LNRC083	788048	7192276	574.5	90	RC	-90	0
LNRC084	788101	7192230	573.9	90	RC	-90	0
LNRC085	788082	7192249	574.1	90	RC	-90	0
LNRC086	788112	7192241	573.8	90	RC	-90	0
LNRC087	788129	7192258	573.8	90	RC	-90	0
LNRC088	788149	7192284	574.0	90	RC	-90	0
LNRC089	788164	7192272	574.2	90	RC	-90	0
LNRC090	788141	7192331	573.9	90	RC	-90	0
LNRC091	788163	7192313	574.0	90	RC	-90	0
LNRC092	788188	7192266	574.1	90	RC	-90	0
LNRC093	788204	7192254	573.8	90	RC	-90	0
LNRC094	788150	7192220	574.1	90	RC	-90	0
LNRC095	787705	7192282	575.7	153	RC	-60	130
LNRC096	787687	7192303	576.3	153	RC	-60	130
LNRC097	787649	7192205	575.3	153	RC	-60	130
LNRC098	786569	7191582	582.0	153	RC	-60	130
LNRC099	786575	7191642	581.4	153	RC	-60	130
LNRC100	786599	7191672	581.0	153	RC	-60	130
LNRC101	788053	7192650	575.8	147	RC	-60	130

THIS ANNOUNCEMENT IS AUTHORISED BY THE MANAGING DIRECTOR OF THE COMPANY ON BEHALF OF THE BOARD OF DIRECTORS.

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About Lodestar

Lodestar Minerals is an active Western Australian gold and base metal explorer.

Lodestar's projects comprise the advanced Nepean Nickel Project JV, the Ned's Creek JV and the 100% owned Camel Hills, Imbin, Jubilee Well, Coolgardie West and Bulong projects.

The Imbin Project is a major strategic land holding in the emerging Earaheedy Province, site of Rumble Resource's recent and potentially world-class Zinc-Lead discoveries. The Imbin Project is located on the northern margin of the prospective basin and is the site of significant historic copper intersections in drilling and approximately 20km of strike of the target Yelma-Frere unconformity

Lodestar discovered multiple zones of syenite intrusion-related gold mineralisation at the Ned's Creek Project on the Yilgarn craton margin, 150km west of Imbin. Vango Mining Limited is earning a 51% interest in the Ned's Creek JV by contributing $5M of expenditure over 3 years.

Bulong and Jubilee Well are recent acquisitions in highly endowed gold districts; first-pass drill programs are being planned. Coolgardie West includes underexplored greenstone prospective for gold, nickel and lithium pegmatites.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, Managing Director, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Clayton consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this announcement that relates to previously released exploration results was disclosed under JORC 2012 in the ASX announcements dated

- *18th December 2012 "Exploration Update – Ned's Creek"*
- *18th March 2013 "Significant Gold Results from Contessa"*
- *4th June 2013 "Significant Gold Discovery at Contessa"*
- *1st December 2016 "Contessa – Brumby Aircore Drilling Results"*
- *10th February 2020 "High Grade Initial Drilling Intersections from Ned's Creek*

These announcements are available to view on the Lodestar website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.*	• RC drill holes were sampled at 1m intervals throughout, with 4m composites collected from the angled exploration drill holes targeting the contact. Samples collected from the cyclone were laid in sequence on the ground in rows of 20 (plastic bags for vertical holes testing the supergene mineralisation). • Sample representivity is maintained by placing the samples in a pre-numbered calico bag with a corresponding sample book entry. Certified reference materials, field duplicates and laboratory repeat samples are analysed routinely. • 1m RC samples were collected as a 2.5kg split in calico bags attached to the on-board cone splitter. Composite 4m metre samples were collected by spearing the pile using a PVC spear and combined to create a 2.5 to 3.0kg composite sample. The samples were submitted to a commercial laboratory for drying, crushing, and pulverising to produce a 40g charge for fire assay of gold, aqua regia digest for gold and multi-elements by multi-acid digest..
Drilling techniques	• *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).*	• RC drilling using a 5.5" face sampling hammer. • RC holes were surveyed with a north-seeking gyro survey tool.
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 preferential loss/gain of fine/coarse material.*	• Sample recoveries and wet samples were monitored and recorded qualitatively in Lodestar's drill hole database. Recoveries were generally 80 -100% and less than 1% were reported as wet samples. • High pressure air used to maintain a dry sample and drill sampling equipment was cleaned regularly to minimise contamination. • Not applicable.
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.*	• Chip samples were routinely geologically logged throughout the hole. • Logging is qualitative in nature. • All RC holes are geologically logged in full.
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*	• No core samples taken. • Individual 1m split samples collected from the cone splitter or composites of 1m chip piles are submitted for assay.

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	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.*	Most samples were dry. Selected intervals were composited from 1m bulk samples to produce a 2.5kg 4m composite using a PVC spear. All samples for assay are stored in pre-numbered bags and submitted to Bureau Veritas Laboratories for sample preparation and analysis. • Sample preparation for drill samples involves drying the whole sample, crushing to 3mm and pulverising to 90% passing -75 microns. The pulverised sample was split with a rotary sample divider to obtain a 40 gram charge. Duplicate field samples (1:20), certified reference standards (1:20) and laboratory repeats are used to monitor satisfactory reproducibility. • Sample size is appropriate for early exploration drilling where mineral grainsize is unknown.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Not applicable. • No geophysical tools were used to determine any element concentrations. • Not applicable.
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.*	• Not applicable. • Not applicable.. • Field and laboratory data are collected electronically and entered into a relational database. Data collection protocols are recorded in Lodestar's operation manual. • Not applicable.
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.*	• A hand-held GPS has been used to locate the drillholes. • Drill hole coordinates were recorded in MGA94 Zone 50 grid. • The topography within prospect areas is generally flat; RL's are averaged from GPS readings of individual drill holes in each area and are subject to significant error. In the Contessa and Gidgee Flat areas drill hole collar RL's have been adjusted to the DEM surface derived from a detailed aeromagnetic survey using Bendix/King radar altimeter equipment with a resolution of 0.3m.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Drill holes targeting the Contessa contact were placed at a nominal hole spacing of 100m (northeast-southwest)

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	• *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.*	and 50m (northwest-southeast) and the holes targeting supergene mineralisation were placed 40m to 20m apart.. • Not Applicable. • Not applicable.
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.*	• At Contessa the target mineralisation is believed to dip towards the north based on limited diamond drilling and a marker graphitic shear. • Not Appkicable.
Sample security	• *The measures taken to ensure sample security.*	• Samples were stored at Lodestar's exploration camp in sealed bags under supervision prior to dispatch by Lodestar contractors and registered courier to Bureau Veritas Laboratories.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been carried out.
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.*	• Contessa is located on E52/2456, within Lodestar's Ned's Creek project. Vango Mining Limited are earning a 51% interest in the Ned's Creek project by spending $5M. The tenement is owned by Audacious Resources, a wholly-owned subsidiary of Lodestar Minerals and expires on 16/09/2022. The tenement is within the native title claim WC99/46 of the Yugunga-Nya Group. Lodestar has signed a Heritage Agreement with the traditional owners to carry out mineral exploration on the tenement. • Contessa may extend into M52/780. Lodestar earned an 80% interest in the tenement and the tenement is included in the Ned's Creel JV with Vango Mining. The tenements are held by Vango Mining Limited and Dampier (Plutonic) Pty Ltd (a wholly-owned subsidiary of Vango Mining Limited). M52/780 expires on 26/09/2034 (VANGO 60/100:DAMPIER 40/100). • M52/780 is located within the Yugunga Nya people native title claim WAD6132/1998.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration commenced at McDonald Well in the late 1960's, WMC explored for Zambian Copper Belt style mineralisation and completed regional geological mapping and sampling, followed by minor percussion drilling. CRA Exploration completed regional mapping and auger sampling, also at McDonald Well. No significant anomalies were identified on

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		the tenements. Minor exploration drilling by Barrick and CRA Exploration east and south of Contessa intersected ultramafic lithologies, confirming the extent of the greenstone sequence in this area. There has been no material exploration by other parties over the Contessa area. • Gold exploration in the Plutonic Well greenstone belt commenced in 1986. Marymia Exploration, in their 1994 report, declares that there had been little or no previous exploration within the Yowereena tenements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The geology of the project area comprises the northern margin of the Proterozoic Yerrida Basin. The geology forms two discrete units; Proterozoic sediments of the Yerrida Basin that are prospective for sediment-hosted copper and base metal mineralisation in black shale and carbonate sequences, with evidence of secondary and primary copper mineralisation in the Thaduna district, overlie Archaean basement rocks on the northern margin of the Yerrida Basin. The basement-sediment contact trends east-west and Lodestar's exploration has identified extensive gold anomalism adjacent to this contact. The basement consists of granite and fringing mafic to intermediate and ultramafic rocks that are not well exposed at surface. The mafic-ultramafic rocks and the adjacent granite that hosts gold mineralisation are thought to be Archaean in age but may be part of the Glenburgh orogenic event along the northern Yilgarn margin. Identification of syenite-hosted, intrusion-related gold mineralisation at Brumby and Gidgee Flat indicates that this region differs from other lode gold occurrences in the Plutonic Well greenstone belt and the surrounding Proterozoic fold belt and does not form part of the adjacent Marymia Inlier.

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.*
		• Tabulated drillhole data is provided in Tables 1.
		• Northing and easting data generally within 5m accuracy
		• RL data +-0.2m
		• Down hole length =+- 0.1 m

Criteria	JORC Code explanation	Commentary
	• *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	• *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.*	• Not Applicable.
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 (eg 'down hole length, true width not known').*	• Drilling was oriented towards 130 degrees, perpendicular to the regional strike of stratigraphy. Measurement of foliation in the area indicates steep dips however mineralisation appears to dip shallowly to steeply to the north.
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.*	• Refer Figures 2 for drillhole locations.
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.*	• Not Applicable.
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.*	• None to report.
Further Work	• *The nature and scale of planned further work (eg 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*	• Contiguous supergene gold mineralisation was intersected by aircore drilling. RC drilling has confirmed and extended the mineralisation and demonstrated a spatial association with the granite contact. This contact is open along strike and requires systematic drill testing.

Criteria	JORC Code explanation	Commentary
	commercially sensitive.	