Lodestar Minerals Limited ABN 32 127 026 528
Level 2, 55 Carrington Street PO Box 985
Nedlands WA 6009 Nedlands WA 6909
Tel: +61 8 9423 3200 Fax: +61 8 9389 8327

ASX ANNOUNCEMENT

2nd June 2016

Electronic lodgement

COMPANY SNAPSHOT

LODESTAR MINERALS LIMITED
ABN: 32 127 026 528

CONTACT DETAILS
Bill Clayton, Managing Director
+61 8 9423 3200

Registered and Principal Office
Level 2, 55 Carrington Street
Nedlands, WA 6009

PO Box 985
Nedlands, WA, 6909

info@lodestarminerals.com.au

www.lodestarminerals.com.au

CAPITAL STRUCTURE
Shares on Issue:
386,224,233 (LSR)

Options on Issue:
43,550,127 (unlisted)

ASX: LSR

PROJECTS
Peak Hill – Doolgunna:
Camel Hills – gold
Neds Creek – gold
Marymia – gold
Imbin – gold and base metals

New Bedrock Gold Drill Target Identified at Contessa

Highlights

- **Strong Induced Polarisation (IP) anomaly in close proximity to supergene gold mineralisation identified at Contessa.**
- **The IP anomaly extends for a distance of 150m, has a target depth of 150m to 200m and lies below and south-east of Lodestar drilling.**
- **The anomaly is strongest on the section corresponding with previous ore-grade drill intercepts[1], including**
  - **LNR546 – 15m at 3.1g/t gold from 40m**
  - **LNR656 – 21m at 3.01g/t gold from 40m and**
  - **LNR545 - 10m at 1.2g/t gold from 50m**
- **An RC program to test the IP anomaly is now a high priority and currently being planned.**

West Australian gold explorer Lodestar Minerals Limited (ASX:LSR, "Lodestar" or "the Company") advises that the results of the recently completed detailed aeromagnetic and Induced Polarisation (IP) geophysical surveys at the Contessa gold prospect have now been received and reviewed. Contessa is located on the Company's 100%-owned Ned's Creek project, located 170km north of Meekatharra, Western Australia (Figure 1).

Lodestar completed a gradient array and pole-dipole IP survey at Contessa to assist with targeting bedrock gold mineralisation beneath the extensive supergene gold mineralisation intersected by aircore drilling.

The Contessa gold discovery was made by the Company in 2013. An initial surface sampling program identified a 6km gold and Bi-Mo anomaly overlying granite-greenstone.

[1] See Lodestar's ASX announcements dated 18 March 2013 and 4 June 2013.

Aircore drilling over a 700m strike intersected widespread alteration and supergene gold mineralisation, confirming the presence of a large gold system.

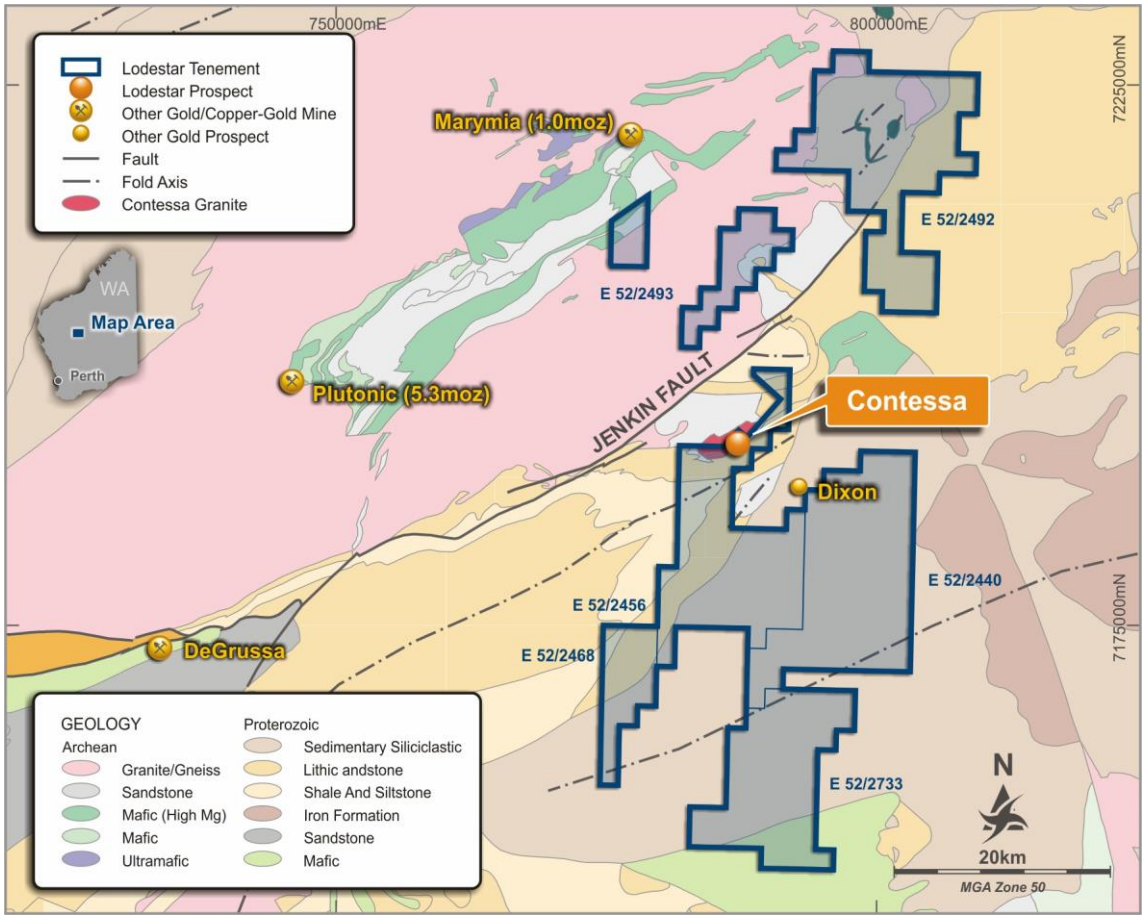

Figure 1 Location plan showing Lodestar's Ned's Creek project tenements and the Contessa prospect.

A later phase of wide-spaced RC drilling, to test for a local source for the supergene gold, intersected widespread alteration surrounding narrow intervals of +1g/t gold associated with disseminated pyrite in the underlying basement. This suggested good potential for more strongly developed bedrock mineralisation in the Contessa area.

The association of disseminated pyrite and gold also indicated that IP geophysics may be a suitable technique for targeting sulphide mineralisation as a bedrock source to the shallower supergene gold mineralisation.

The IP survey was completed across the 3km area of the main supergene gold drill intercepts. The survey has identified a strong chargeability anomaly on 69700N (local grid) below and south east of the line of drilling (see Figures 2 and 3). The closest RC drill hole to the anomaly (LNRC010) intersected widespread, weakly disseminated pyrite mineralisation, thought to represent alteration within an extensive, gold-bearing hydrothermal system. Significant supergene gold mineralisation was characteristic of this drill section and potentially represents a dispersion halo from a nearby bedrock source. The IP anomaly is therefore a priority target for follow up RC drilling.

The IP chargeability anomaly extends over a distance of 150m to the north east of section 69700N, below the depth of Lodestar's current aircore drilling. An initial two hole program of RC drilling to a vertical depth of 200m is being planned to investigate the source of the anomaly on section 69700N.

Lodestar will provide an update on timing of the drill program when planning is complete and a contractor has been engaged.

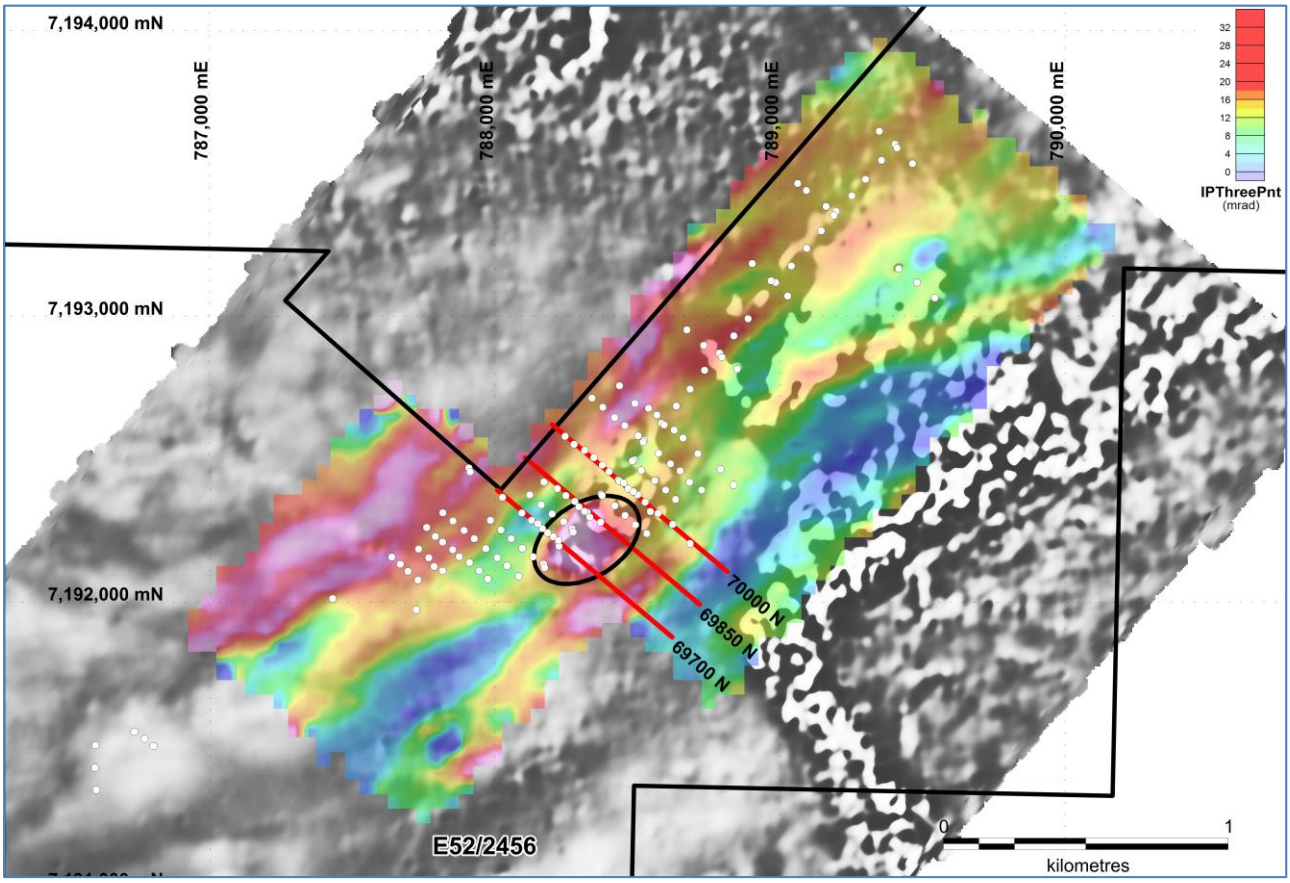

Figure 2 Gradient Array IP image overlying detailed 1VD magnetic image. Strong chargeability zone outlined in black, pole-dipole traverses shown as red lines and drill collars greater than 25m depth shown in white. MGA94 Zone 50

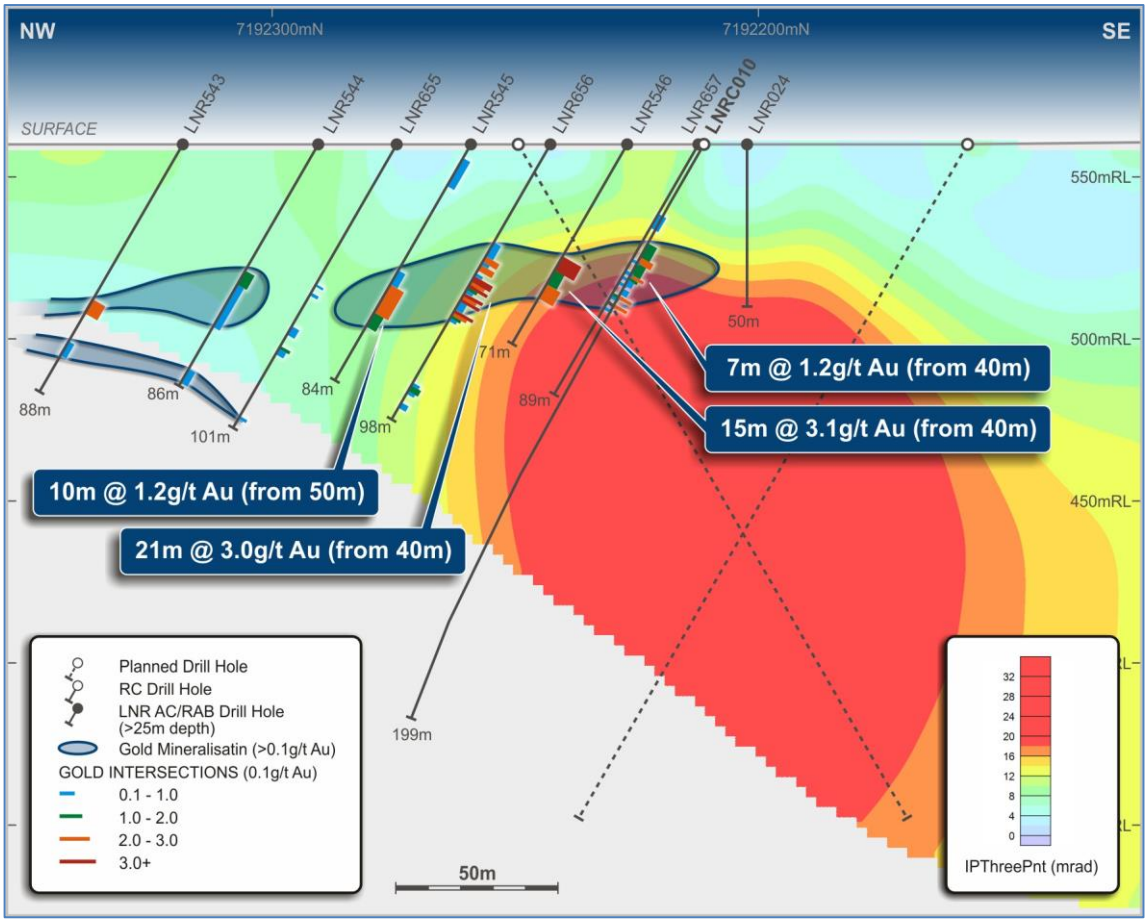

Figure 3 Section 69700N showing modelled IP chargeable target in relation to drilling, planned RC holes shown on section.

Bill Clayton
Managing Director

Media Enquiries:
Michael Vaughan, Fivemark Partners
michael.vaughan@fivemark.com.au
m: +61 422 602 720

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 report that relates to Geophysical Exploration Results is based on information compiled by Mr Barry Bourne, who is employed as a Consultant to the Company through geophysical consultancy Terra Resources Pty Ltd. Mr Bourne is a fellow of the Australian Institute of Geoscientists and a member of the Australian Society of Exploration Geophysicists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and 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 Bourne consents to the inclusion in the report of matters based on 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 announcement dated 18th March 2013 "LSR Significant Gold Results from Contessa", 4th June 2013 "Significant Gold Discovery at Contessa" and 29th December 2014 "RC Drilling intersects Significant Gold in Alteration Zone". 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 announcements. 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 announcements.

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.	• In May 2016, Lodestar Minerals Ltd commissioned Zonge Engineering and Research Organisation (Australia) Pty Ltd to complete a ground-based Induced Polarisation (IP) survey over a two square kilometre area of the favourable Archaean geology at its Contessa gold prospect in Western Australia. The line spacing for the gradient IP survey was 100 metres with receiver dipoles positioned 25 metres along line. Lines of 50 metre pole-dipole IP data were subsequently acquired over the resulting anomalies in order to facilitate tighter geophysical modelling, and thus better drill targeting of the priority anomalies. At least two readings were acquired at each station in order to ensure data repeatability. Quality assurance and quality control (QA/QC) of the IP data was independently verified by Terra Resources in Perth.
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.)	• This report does not contain any new drill-related results. Any drilling referenced in this report has previously been released by the Company in its announcements of 2013 and 2014.
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.	• This report does not contain any new drill-related results. Any drilling referenced in this report has previously been released by the Company in its announcements of 18 March 2013, 4 June 2013 and 29 December 2014.

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.	• This report does not contain any new drill-related results. Any drilling referenced in this report has previously been released by the Company in its announcements of 18 March 2013, 4 June 2013 and 29 December 2014.
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.	This report does not contain any new drill-related results. Any drilling referenced in this report has previously been released by the Company in its announcements of 18 March 2013, 4 June 2013 and 29 December 2014.
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 accuracy (i.e. lack of bias) and precision have been established.	• The survey parameters and geophysical equipment used by Zonge for the Induced Polarisation (IP) survey at Contessa gold prospect includes: **Survey Parameters** Configuration: gradient IP and pole-dipole IP in Frequency domain Survey direction: northwest-southeast Total number of survey lines: 20 gradient IP 3 pole-dipole IP Line spacing: 100 metres (gradient IP) 150 metres (pole-dipole IP) Station interval: 25 metres (gradient IP) 50 metres (pole-dipole IP) Number of receiver dipoles: 8

		Base frequency: 0.125 Hertz Duty cycle: 100% **Survey Equipment** Transmitter: GGT30 Receiver: GDP322 Sensor: Porous pots At least two readings were acquired at each station in order to ensure data repeatability. The IP system is fully calibrated and daily tests were carried out to ensure data quality.
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.	• All primary analytical data acquired by Zonge during the IP survey were recorded digitally and sent in electronic format to Terra Resources in Perth for independent quality control and evaluation.
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.	• The data points of Zonge's IP survey were located using standard GPS positioning. The expected accuracy is +/- 5 metres for easting and northings and 10 metres for elevation coordinates. Elevation values were in AHD. The grid system used is Map Grid of Australia (MGA) GDA94 Zone 50.
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.	• The line spacing for the gradient IP survey was 100 metres with receiver dipoles positioned 25 metres along line. Lines of 50 metre pole-dipole IP data were subsequently acquired over the resulting anomalies in order to facilitate tighter geophysical modelling, and thus better drill targeting of the priority anomalies
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	• This report does not contain any new drill-related results. The line spacing for the gradient IP survey was 100 metres with receiver dipoles positioned 25 metres along line. Lines of 50 metre pole-dipole IP data were subsequently acquired over the resulting

	bias, this should be assessed and reported if material.	anomalies. The orientation of the Company's IP survey lines was designed to cross the targeted geology and mineralised structures at right angles in an attempt to minimise the risk of biased or inaccurate sampling.
Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by Lodestar Minerals Ltd.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Experienced geophysicists at Terra Resources in Perth independently reviewed all data acquired from the IP survey at Contessa gold prospect.

Criteria	Commentary
Mineral tenement and land tenure status	• Contessa is located on E52/2456, within Lodestar's Ned's Creek project. The tenement is owned by Audacious Resources, a wholly-owned subsidiary of Lodestar Minerals and expires on 16/09/2020. The tenement is within the Native Title Claim WC99/46 of the Yugunga-Nya Claim Group. Lodestar has signed a Heritage Agreement with the claimants to carry out mineral exploration on the tenement.
Exploration done 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 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.
Geology	• The geology of the project area comprises the northern margin of the Proterozoic Yerrida Basin. The geology forms two discrete units; o 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. o 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 widely exposed at surface. The mafic-ultramafic rocks and the adjacent granite host the gold mineralisation and are thought to be Archaean in age and similar to the sequences that host the lode gold deposits in the Plutonic and Baumgarten greenstone belts.
Drill hole information	• Not Applicable
Data aggregation methods	• Not Applicable.
Relationship between mineralisation widths and intercept lengths	• Not Applicable.
Diagrams	• See Figures 2 and 3.
Balanced reporting	• No drill results to report.
Other substantive exploration data	• None to report.
Further Work	• Extensive zones of anomalous gold greater than 100ppb (0.1g/t) have been identified in drilling at Contessa. The anomalies remain open at depth and along strike along the granite contact. An IP geophysical survey was completed to target sulphide-associated gold mineralisation in the basement. A chargeable anomaly has been identified in the region of significant supergene gold mineralisation, below and south east of current drilling. Further drilling is planned to test this anomaly.