



ASX ANNOUNCEMENT

11 February 2015

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

admin@lodestarminerals.com.au

www.lodestarminerals.com.au

CAPITAL STRUCTURE

Shares on Issue:
324,546,386 (LSR)

Options on Issue:
20,750,000 (unlisted)
36,077,591 (listed - 31 Mar 2016)

ASX: LSR

PROJECTS

Peak Hill – Doolgunna:
Base metals, gold



REVIEW REVEALS WORLD-CLASS GOLD POTENTIAL OF CONTESSA

- **Structural setting of the Contessa area has similarities with major gold camps of the Eastern Goldfields Province, Western Australia**
- **Contessa is located within a fault over-step between regional shears, a highly favourable setting for orogenic and intrusion-related gold and analogous to major gold deposits in the Eastern Goldfields (e.g. St. Ives, Sunrise Dam)**
- **Supergene gold intersected by Lodestar at Contessa occurs at the southern end of a large diorite intrusive complex and is believed to be displaced from its primary source**
- **Five new structural and intrusion-related primary gold targets identified over 4 kilometre strike length, in areas with minimal or no previous drill testing**

Following completion of the recent RC drilling at Contessa (Figure 1), Lodestar Minerals Limited (ASX: LSR, “Lodestar” or “the Company”) engaged consultant geologist Dr Walter Witt to review the results of Lodestar’s gold exploration programme. Dr Witt’s review highlighted the geological and structural setting of the Contessa gold occurrence and noted important similarities with a number of major gold camps within the Eastern Goldfields Province of Western Australia. The review included the re-logging of bottom of hole sample chips from 101 aircore drill holes drilled in the Contessa area and access to all related data. The conclusions of Dr Witt’s report are summarised below.

Interpreted Structural Setting

Contessa is located on the northern margin of the Palaeo-Proterozoic Yerrida Basin, within a north east trending litho-structural corridor that terminates the north northwest trending Kalgoorlie Terrane. The dominant structural feature is a set of north east trending ductile shears interpreted from magnetic and VTEM images. The northern shear zone is poorly exposed as a 100m wide zone of intense foliation and bleaching at the contact between the Contessa host sequence and the granite to the north.



Figure 1 Location Plan - Contessa gold prospect within the Ned's Creek project

Interpretation of the magnetic and VTEM conductivity data suggests that Contessa lies within a broad tectonic zone, four kilometres in length, bounded by two major north east trending shear zones (Figure 2). The setting is believed to represent a fault over-step (a contractional or dilational jog between two major shears), which is intruded by a small, concealed granite plug. The fault over-step environment is very favourable for orogenic and intrusion-related gold and is associated with world-class gold deposits e.g. St. Ives (10.5Moz Au), Sunrise Dam (5.8Moz Au).

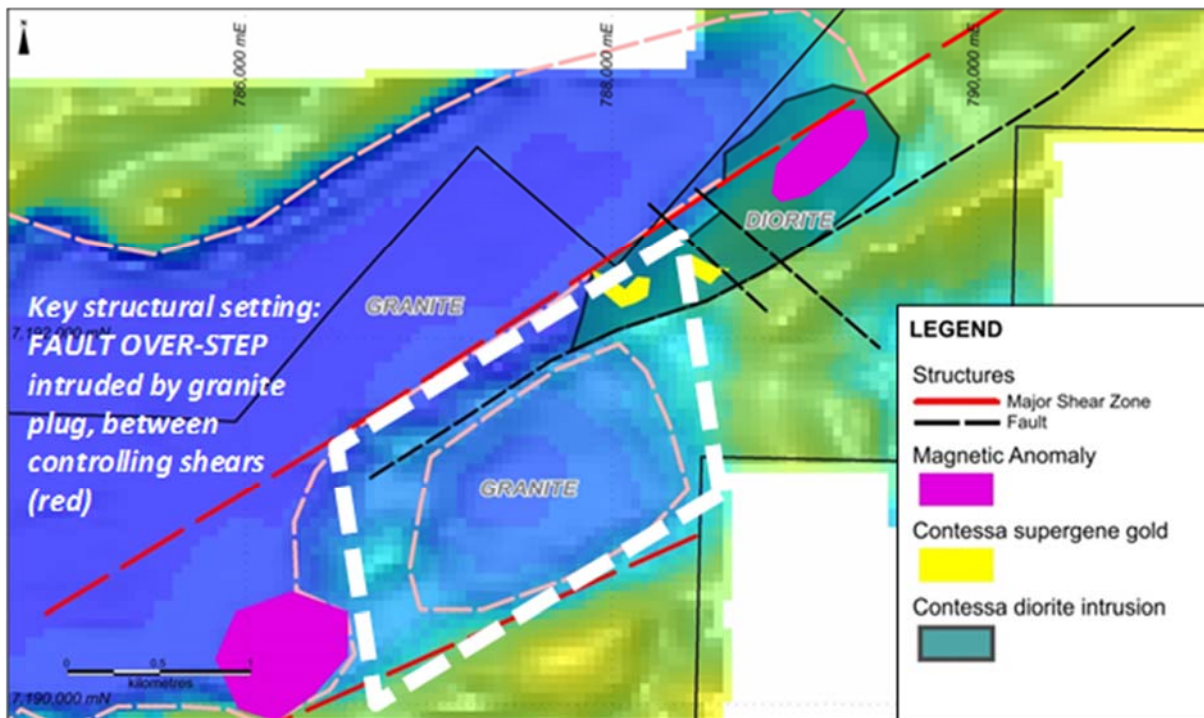


Figure 1 Structural setting of the Contessa prospect (E52/2456) highlighting fault over-step or jog between major shears, an important setting for major gold deposits of the Eastern Goldfields Province. Background VTEM conductivity image Channel 30 (MGA94 zone 50).



Priority Targets

The completion of this review marks an important change in the exploration strategy at Contessa. Five new primary gold targets with potential to host significant lode-style gold mineralisation have been identified (Figure 3), based on interpretation of the structural setting, geological relationships and analogues from within the Eastern Goldfields. These targets have received little or no previous drill testing.

- **TARGET 1** A bulls-eye magnetic anomaly located at the southern end of the Contessa grid; the anomaly possibly represents a magnetic intrusion similar to dioritic to syenitic intrusions associated with gold mineralisation in the Eastern Goldfields e.g. Wallaby (7.1Moz Au, Figure 4). This target lies beneath sediments of the Yerrida Basin but is accessible to RC and diamond drilling at relatively shallow depth.

- **TARGET 2** A second magnetic anomaly located at the northern end of current Contessa drilling represents a similar target, within the interpreted boundary of the diorite intrusive complex. Drilling in this area is wide-spaced, relatively shallow and does not represent an effective test of this target.

- **TARGET 3** A bulls-eye VTEM anomaly is located immediately southwest of the second magnetic anomaly, within the diorite intrusive complex. The anomaly is well constrained geologically and lies within otherwise non-conductive diorite. Disseminated pyrite mineralisation is known from the RC drilling at Contessa and the VTEM anomaly may represent concentrations of sulphides associated with alteration and gold mineralisation.

- **TARGET 4** The Contessa gold prospect was first identified as an extensive bismuth-molybdenum anomaly in surface geochemical sampling. A coincident bottom of hole bismuth-molybdenum-lead anomaly occurs on the southern margin of the larger granite body, between the Contessa supergene gold anomaly and recent aircore drilling that reported 5 metres at 8.89g/t Au (LNR758) and 5 metres at 2.15g/t Au (LNR 757) (see Lodestar's ASX announcement dated 24 November 2014). In-fill aircore drilling of the anomaly along approximately 1 kilometre of this contact is proposed.

- **TARGET 5** The southern shear zone represents a structural target and an analogue of the Contessa area where it intersects the southern contact of the small granite plug. The target lies beneath sediments of the Yerrida Basin and previous exploration of this area has been ineffective because of this cover.

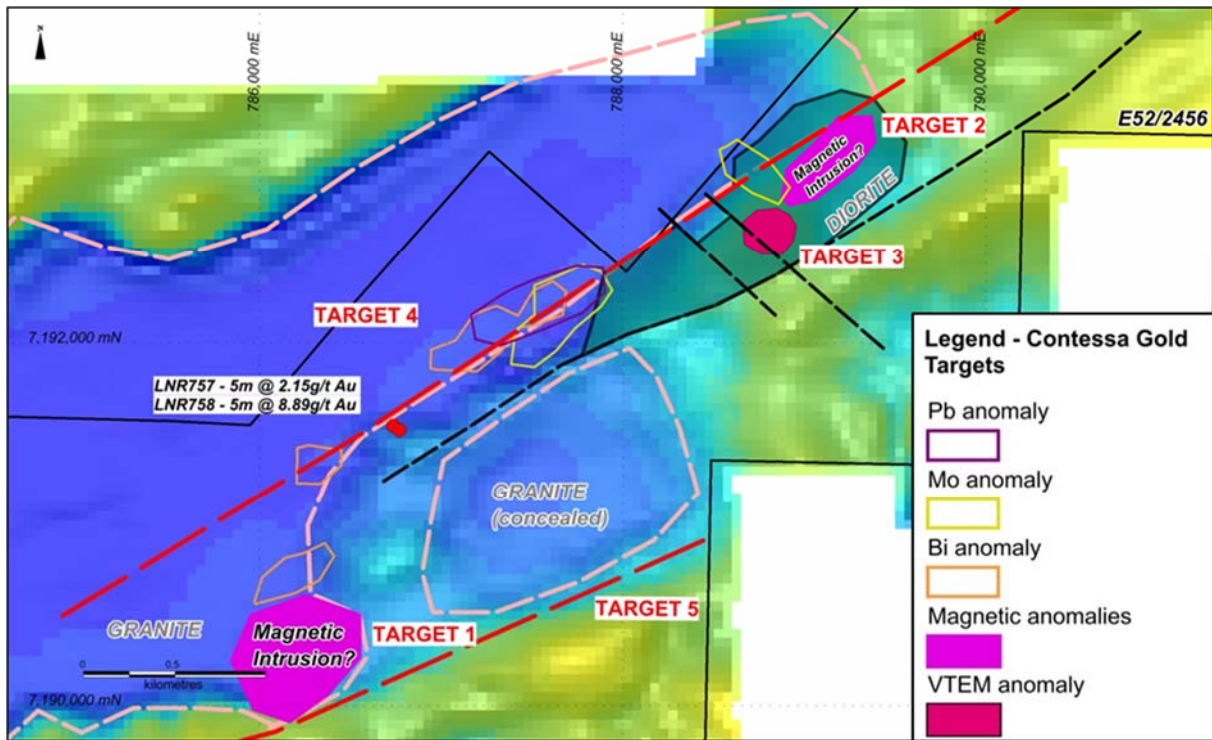


Figure 2 Primary gold targets identified within the Contessa over-step fault system (LNR757 & 758 shown as red dots)

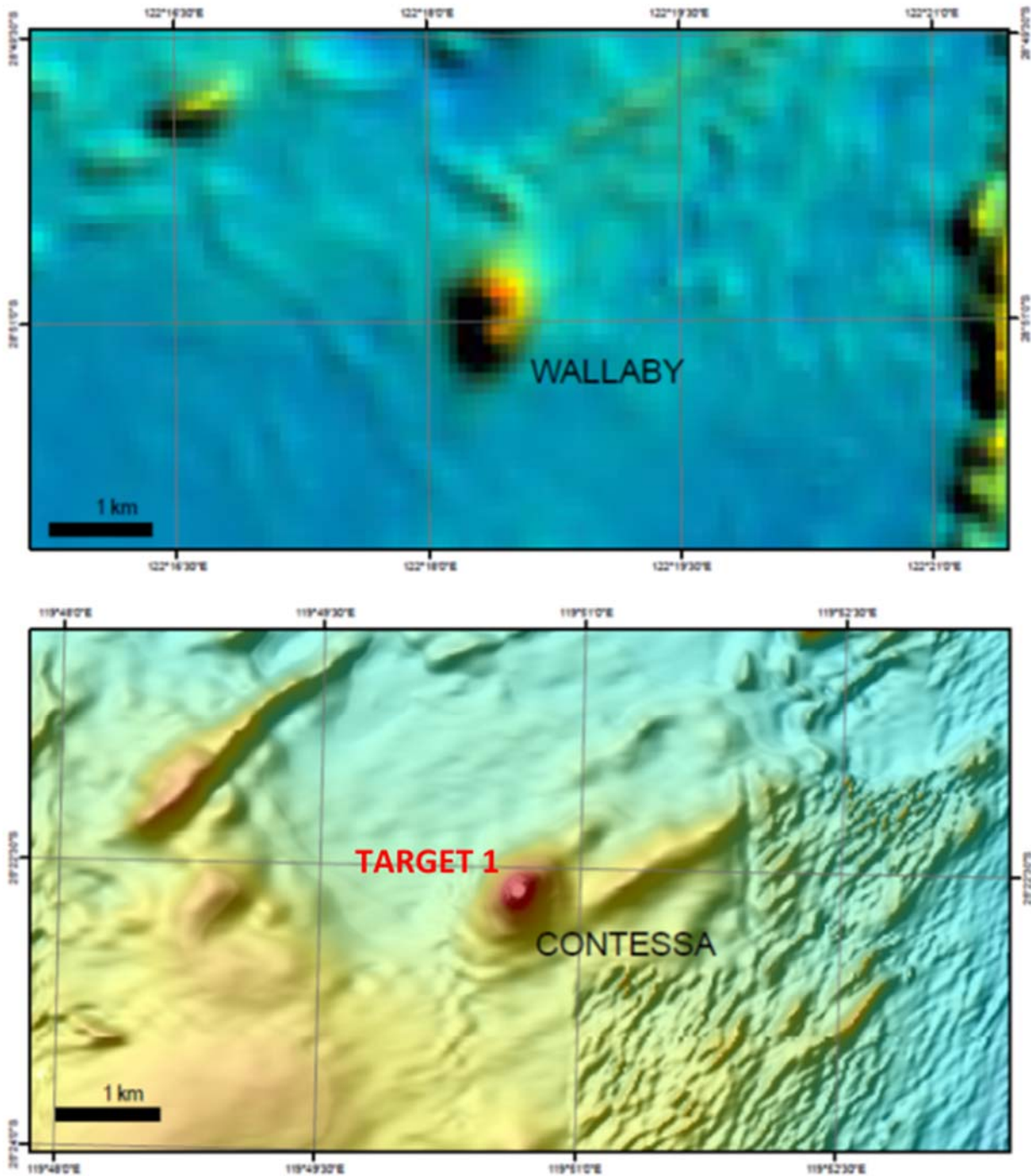


Figure 3 Comparative magnetic signatures of Wallaby (7.1 Moz Au) and Contessa TARGET 1 at the same scale.

Gold Potential and Regional Setting

“World-class gold systems occur adjacent to reactivated crustal-scale deformation zones”

In the Ned's Creek area the northern margin of the Yerrida Basin lies at the boundary between the north northwest trending Archaean Kalgoorlie Terrane of the Eastern Goldfields Province and northeast - trending Archaean Marymia Inlier and Palaeo-Proterozoic basins. In a regional context, the Contessa area is located close to the structural termination of the northern Yilgarn Craton (a former continental margin) and has been subject to cyclic reactivation throughout the period of collision between the Yilgarn and Pilbara Cratons.



The fundamental influence of this margin is expressed as the northern limit of Palaeo-Proterozoic sedimentation and the Bryah-Doolgunna Rift (see Lodestar's ASX announcement dated 15 July 2014), a gravity anomaly related to abundant mafic magmatism (Narracoota Formation) along a northeast trending rift zone that projects eastwards into the Contessa area. The margin is a zone of relative crustal weakness that allowed transfer of heat and magma from the mantle and deeper crust to sites of gold deposition in the upper crust.

The occurrence of a large diorite intrusive complex (2km by 0.5km) at Contessa, together with discrete magnetic bodies representing possible magnetic intrusions within an over-step structure on a regional shear system, is indicative of local high heat flow and is consistent with the structural setting of many large to world-class orogenic and intrusion-related gold deposits.

A handwritten signature in blue ink, appearing to read 'L. Clayton'.

BILL CLAYTON

About Lodestar Minerals

Lodestar Minerals Limited is a Perth-based active explorer with projects in the Peak Hill district and bordering the northern Yilgarn margin. The Ned's Creek project forms the core of Lodestar's project portfolio and represents a strategic landholding of 830 square kilometres over the north eastern margin of the Yerrida Basin and the Jenkin Fault, a fundamentally significant regional fault system that is adjacent to the DeGrussa Cu-Au deposit.

The Ned's Creek tenements are located 170 kilometres north east of Meekatharra, 7 kilometres east of the Thaduna-Green Dragon copper mines being evaluated by Ventnor Resources and Sandfire Resources and 5 kilometres east of Sandfire Resources and Sipa Resources' Enigma copper discovery. The Yerrida Basin contains thick volcano-sedimentary sequences that are bounded by major structures, the Jenkin and McDonald Well Faults and there is good potential for large-scale base metal and gold mineralisation adjacent to these structures.

In 2013 Lodestar discovered significant gold mineralisation at the Contessa prospect. Contessa lies within a 5 kilometre long gold anomaly overlying Archaean greenstone, on the southern margin of the Marymia inlier. Lodestar believes that this structural position marks a major crustal break, a highly favourable environment for magma-driven metal accumulation during cyclic reactivation of a former continental margin represented by the northern boundary of the Yilgarn Craton.

The region has potential to host a number of styles of base metal and gold deposits and Lodestar has embarked on an aggressive exploration program to assess the potential of the Ned's Creek project.

The exploration concepts developed on the Ned's Creek project have been applied elsewhere along the northern margin of the Yilgarn Craton, specifically targeting palaeo-arc and back arc settings at Camel Hills and Imbin where historic exploration has identified gold and copper mineralisation, respectively. The Camel Hills and Imbin projects are currently under tenement application.

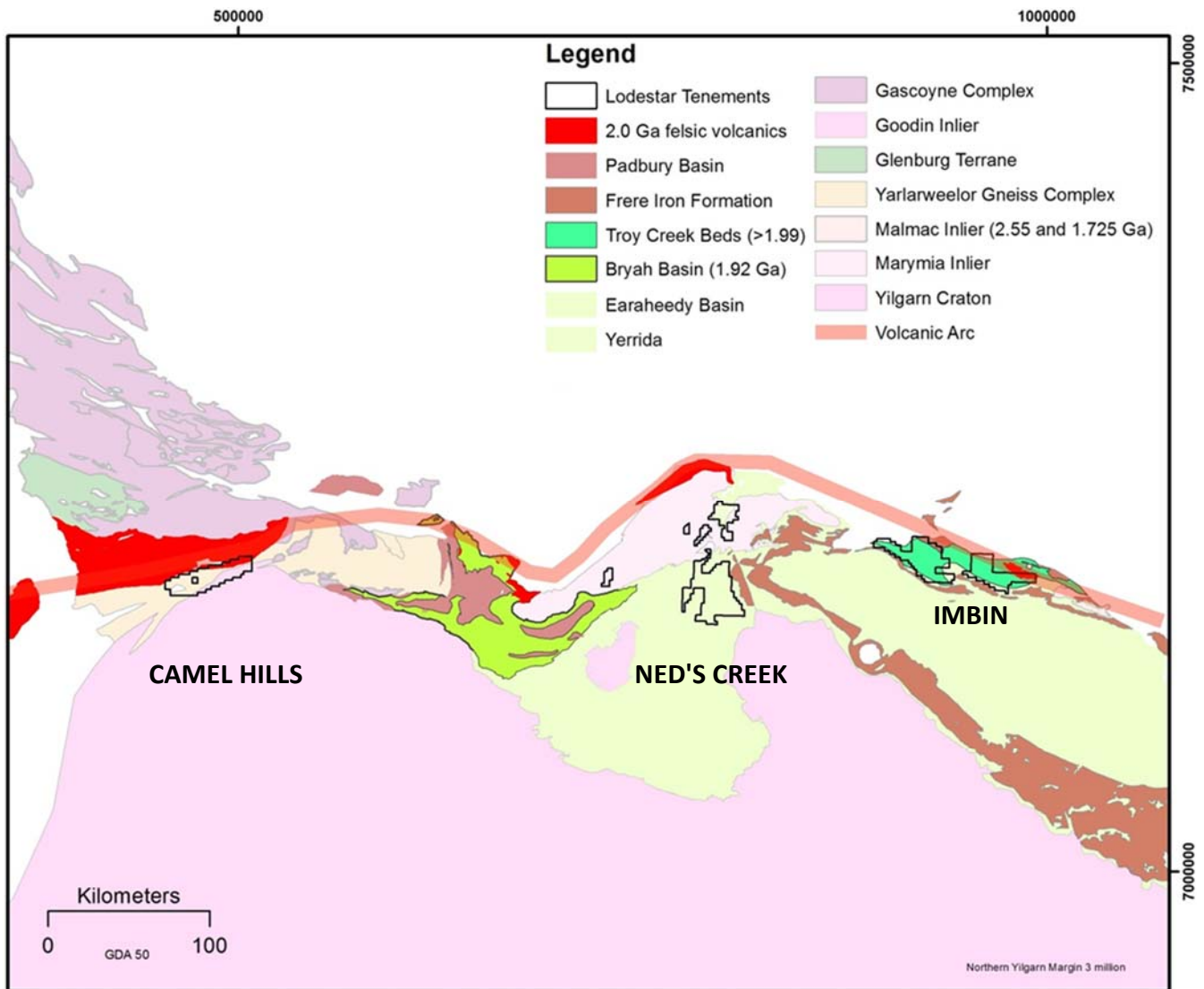


Figure 4 Lodestar - Targeting palaeo-arc and back arc positions across the northern Yilgarn margin at Camel Hills, Ned’s Creek and Imbin

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 Code 2012 in the ASX announcements dated 15th July 2014 “Contessa Gold Results and Ned’s Creek Copper Targets” and 24th November 2014 “LSR – Contessa Drilling Update”. The 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.