ASX ANNOUNCEMENT

26 February 2024

NEW BASE METAL TARGETS CONFIRMED AT THE EARAHEEDY PROJECT

HIGHLIGHTS:

- **16 new large base metal anomalies (*Cu, Pb, Zn, Co*) defined in first pass geochemical soil sampling**
- **Anomalies cover in excess of 100km of strike length and 30km strike width**
- **Assays reported are from 4,650 samples taken in 2023 as well as 1,955 taken the previous year by Lodestar**
- **Next stage field work commencing in March will define drill targets for the first half of 2024**

Management Commentary:

Lodestar Managing Director Ed Turner commented: *"Following on from successful first pass drilling programmes in 2023, which intersected significant Cu, Au and Zn mineralisation, I am very happy to report our extensive geochemical soil sampling programmes outside of these drilled areas have also revealed multiple defined base metal anomalies which need to be followed up.*

The multi-element assays from 6,605 geochemical soil samples have highlighted numerous exciting base metal anomalies over large areas. Despite the size of these programmes, we have still only sampled approximately half of the Earaheedy Project area, so we expect further high-quality targets to be identified in the near-term. Infill sampling will shortly commence over these anomalies as well as first pass programmes for the remaining untested areas. These will lead to definition of drill targets for the first half of 2024."

Lodestar Minerals Limited ("**LSR**" or "**the Company**") (**ASX: LSR**) is pleased to announce multiple new geochemical soil sampling anomalies have been identified at the Company's flagship Earaheedy Project (the "**Project**") in Western Australia.

Following compilation and interpretation of all assays from the numerous geochemical soil sampling programmes completed in 2023 Lodestar has delineated **16 significant and large base metal anomalies** spread over the project area which extends over more than 100km of strike length and more than 30km across strike in the main area.

Despite the large areas covered by the first pass sampling it is mostly widely spaced on 200 x 200m, 400 x 200m, 400 x 400m and 800 x 200m grids and infill sampling will be required over these anomalies prior to defining drill targets.

Each sample was assayed for a multi-element suite of 60 elements. This large suite of elements includes potential "***path finders***" which may be associated with various styles of mineralisation and are used as tools, along with geological and geophysical information, to improve the interpretation and delineation of new targets.

Geochemical Soil Sampling - Discussion of Results

Assays have been compiled and interpreted from multiple soil sampling programmes completed in late 2023 as well as from earlier surveys in 2022. A total of 4,650 samples were collected in 2023 and 1,955 samples in 2022 for a total of 6,605 samples by Lodestar over numerous areas. Figure 1 presents the areas covered by Lodestar soil sampling programmes. These programmes cover a large percentage of the 1,400 square km Project area however large areas remain to be sampled.

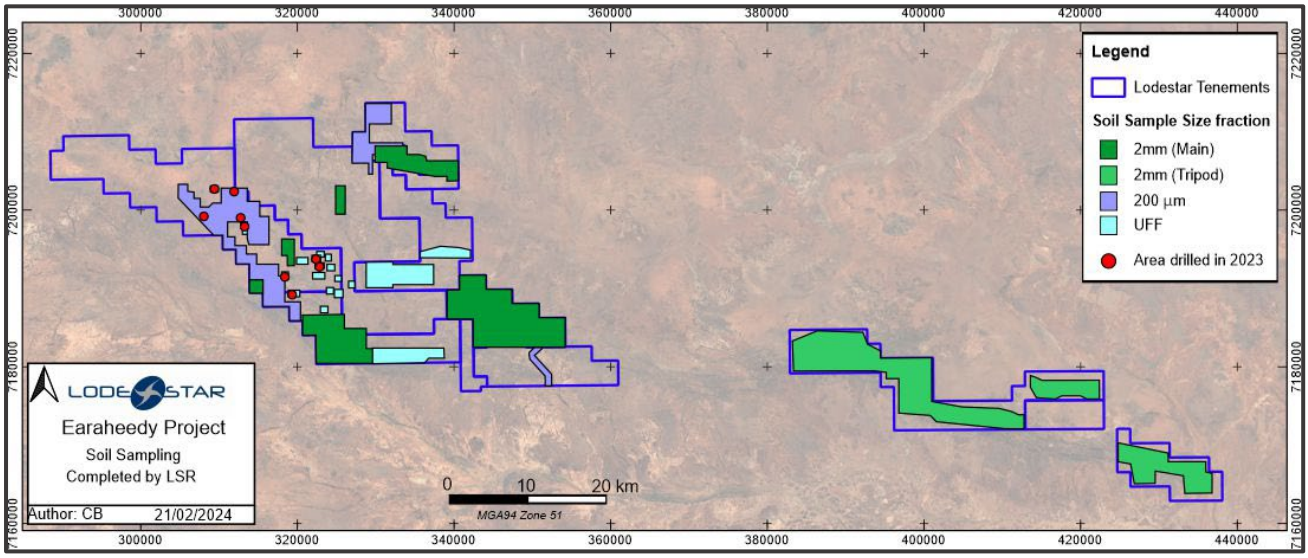

Figure 1: Geochemical soil sampling coverage by Lodestar with their repartition by the different size fractions. These being -2mm (Split between Main and Tripod tenements), -200µm and UFF. The red circles represent the areas drilled by LSR in 2023 (Aircore, RC and Diamond core)

Different sample size fractions, UFF (~2 µm), 200 µm and 2mm have been used across the tenement, depending on the regolith cover. These size fractions correspond to the maximum grain size of the analysed samples. Each size fraction has different element assay thresholds hence why they have been treated as separate datasets. The data has been separated into four datasets: UFF, 200 µm, 2 mm across the Main tenements (west block) and 2 mm across Tripod tenement (east tenements).

Each size fraction data set was analysed separately and the 50th, 75th, 90th, 95th & 99th percentile determined for each of the 60 elements assayed (Table 1). This allows to categories the results whilst comparing them to their background level (50th percentile). The data sets were then merged according to their percentile ranges to create the combined images.

New anomalous target areas were then defined using this combined information as well as incorporating interpretation of geological and geophysical data.

A total of 16 new target areas were identified (Figures 2-5). These will require infill soil sampling to better delineate more discrete anomalies prior to planning drill testing of these targets.

The following figures (2-5) represent the soil sampling completed by Lodestar showing Copper or Zinc values. The background image is a combined heat map of Cu, Zn, Co and Pb (in ppm). The red outlines are the newly defined targets.

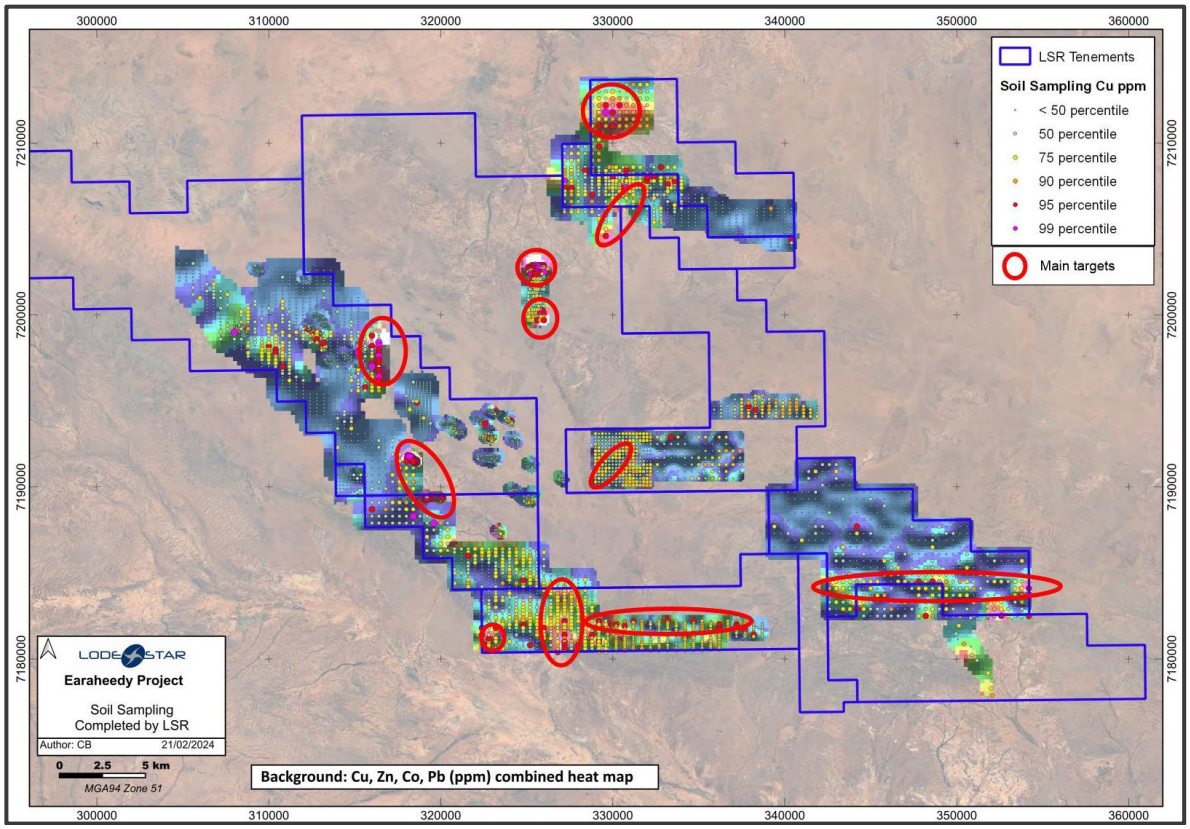

Figure 2: Copper values in Main tenements

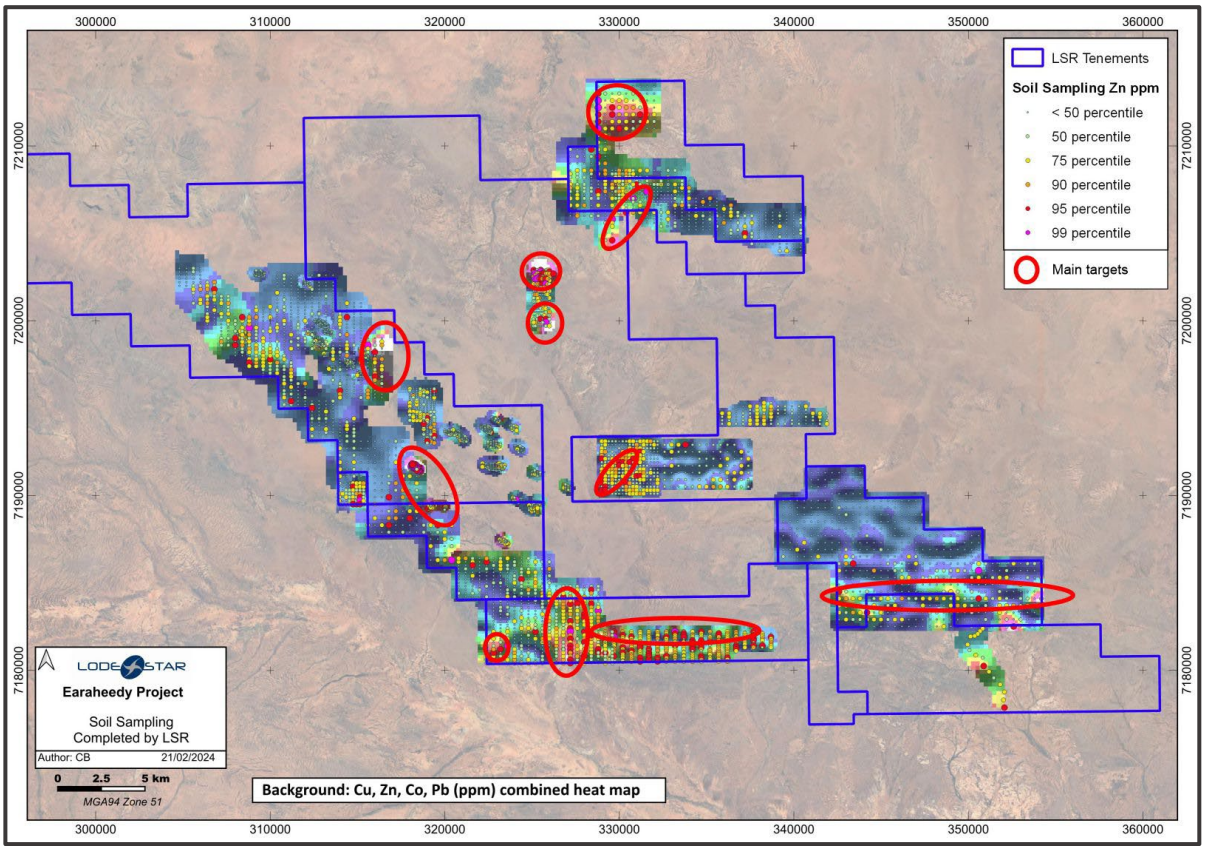

Figure 3: Zinc values in Main tenements

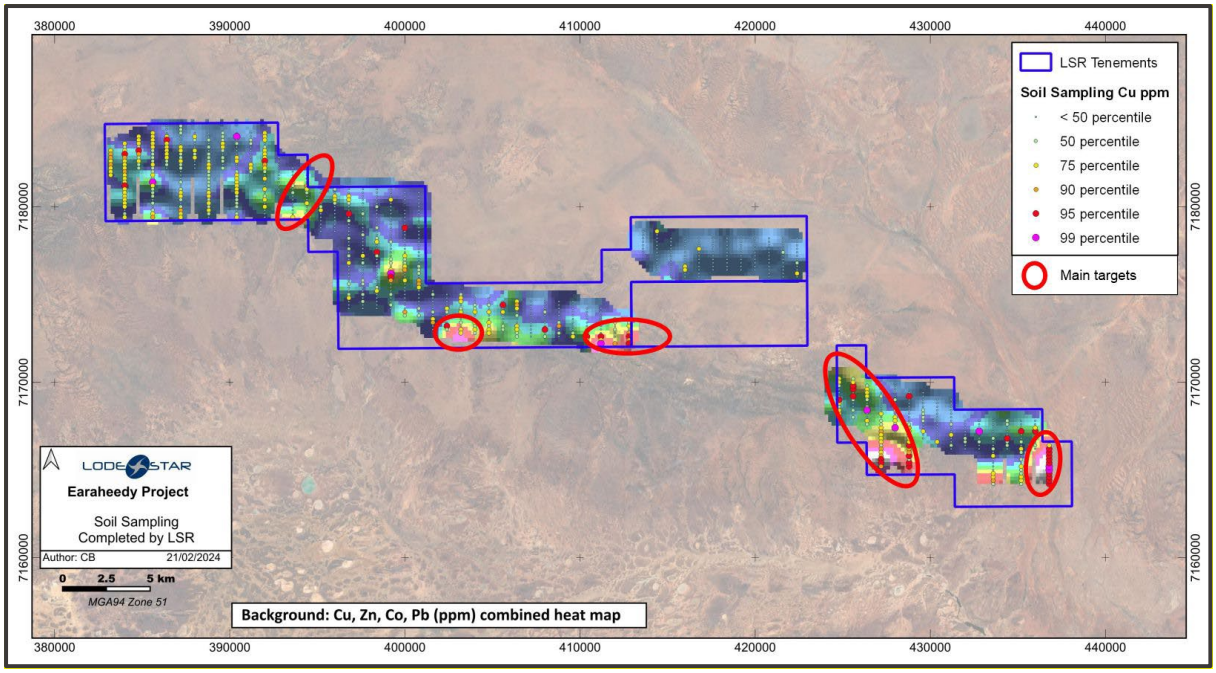

Figure 4: Copper values in Tripod tenements

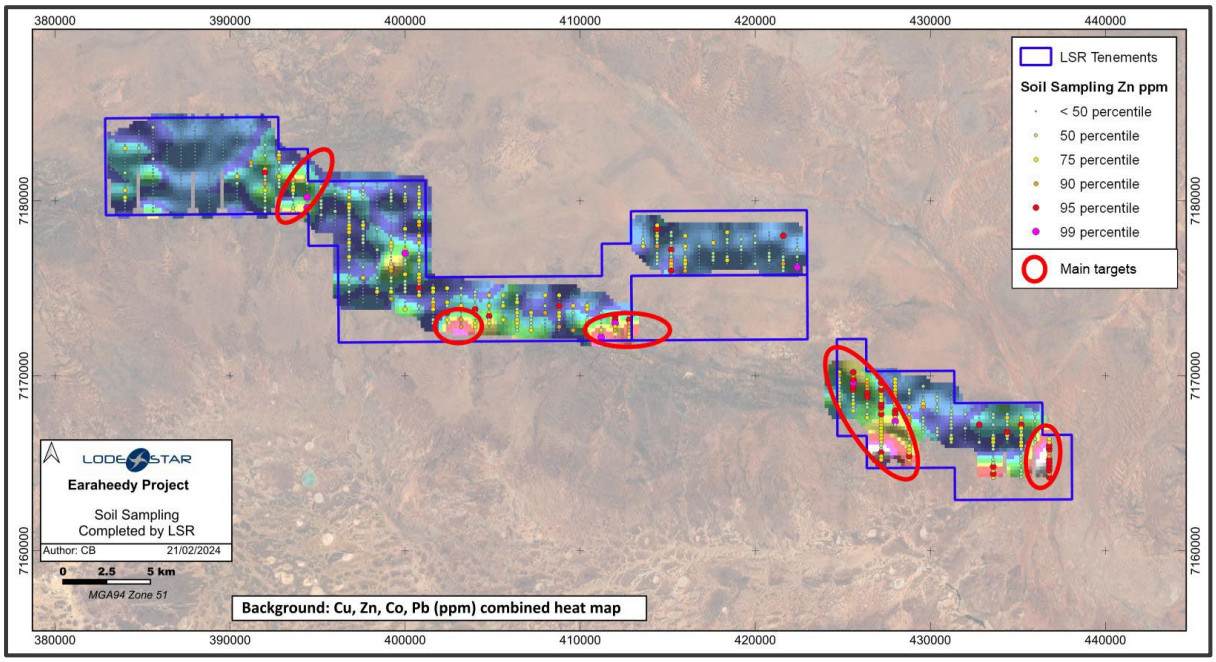

Figure 5: Zinc values in Tripod tenements

Table 1: Values in ppm of the elements used in the combined Cu, Co, Pb, Zn heat maps classified by their percentile values.

	Percentile	50	75	90	95	99
Fraction size	**Element**					
2 mm - Main	Cu	17	20	25	28	49
	Zn	22	30	40	48	66
	Co	4	5	6	7	14
	Pb	15	19	22	24	29
2 mm - Tripod	Cu	16	18	22	24	36
	Zn	18	26	36	42	58
	Co	4	4	5	6	11
	Pb	11	14	18	20	40
200 µm	Cu	15	18	22	26	45
	Zn	16	22	30	36	50
	Co	4	5	6	6	9
	Pb	9	13	19	23	37
UFF	Cu	28	34	39	42	61
	Zn	40	48	58	65	93
	Co	14	19	24	28	42
	Pb	26	29	32	35	43

EXPLORATION STRATEGY: NEXT STEPS

- *Closer spaced infill geochemical soil sampling for the 16 targets is planned to commence in early March.*
- *First pass geochemical soil sampling for the remaining prospective but untested areas.*
- *An ongoing review of all current and new geochemical data will be incorporated with geological and geophysical data to delineate new drill targets for the first half of 2024.*

ABOUT LODESTAR

Lodestar Minerals is an active Western Australian base metal and gold explorer. Lodestar's projects comprise the 100% owned Earaheedy, Ned's Creek and Coolgardie West projects (Figure 6).

Lodestar also has **exposure to lithium via its strategic 3.6% shareholding in Future Battery Minerals (ASX:FBM)** who own the Kangaroo Hills lithium Project in Western Australia and the Nevada Lithium Project in the US.

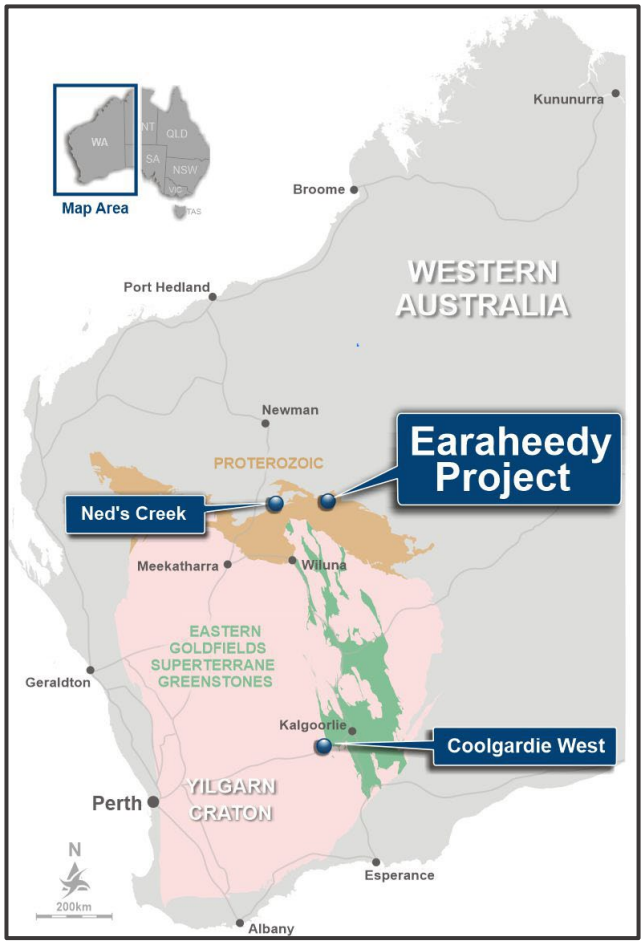

Figure 6: Lodestar's Project locations

The Earaheedy Project (Figure 7) is a major strategic land holding comprising over 1,400 sqkm in the emerging Earaheedy Province. The Project is located on the northern margin of the prospective Earaheedy Basin and Lodestar now owns approximately 100km of strike length of the Yelma-Frere unconformity which hosts Rumble Resource's Zn-Pb Ag Chinook Deposit on the Earaheedy Basin's southern margin. The Chinook MRE is **94Mt @ 3.1% Zn+Pb** and **4.1 g/t Ag**.

The Project also includes Cu-Au targets within a similar geological setting to the DeGrussa Copper Deposit which is located in the neighbouring Bryah Basin. Limited historic drilling within Lodestar's tenements has intercepted high grade copper including **2m @ 4.65% Cu and 3m @ 1.97% Cu**.

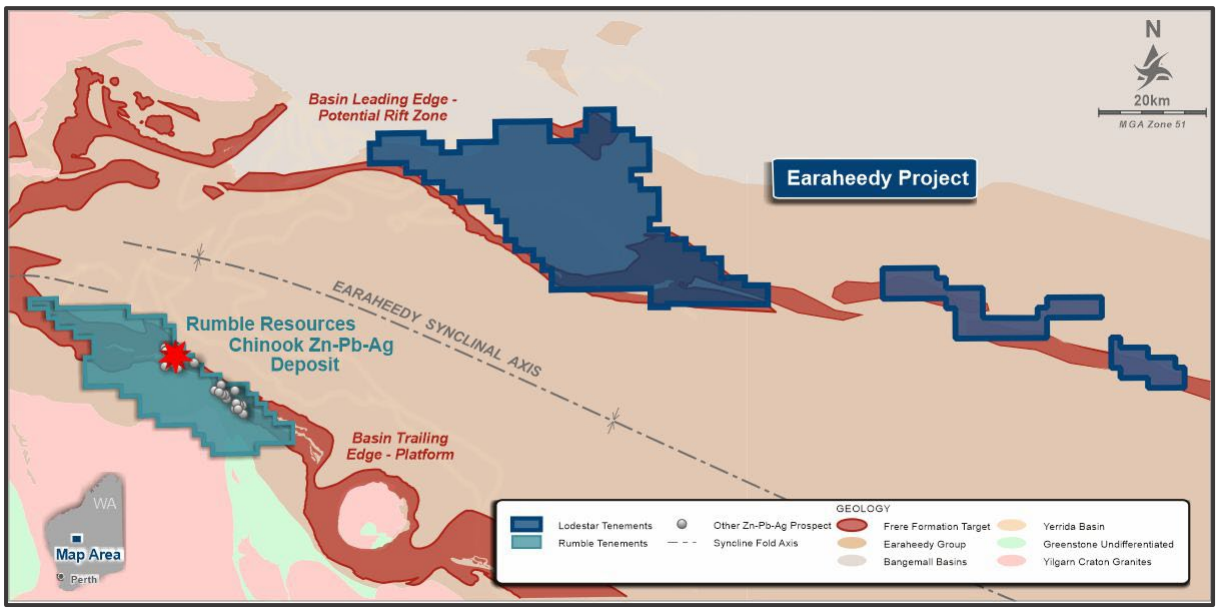

Figure 7: Lodestar's Earaheedy Project tenements

This announcement has been authorised by the Board of Directors of the Company.

-ENDS-

Contacts

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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Ed Turner, 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 Turner consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

This announcement is 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.

JORC Code, 2012 Edition – Table 1

Sections 1 & 2 Sampling Techniques and Data & Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

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.*	• Soil samples were collected by hand using a mattock to remove surface material prior to extracting approximately 500g to 1kg of soil sieved to -2mm, -200 µm or -85 µm. • Soil sampling is a first-pass geochemical reconnaissance technique where a single sample is taken at each sample location through a sampling grid. The grids used in these samples were 200 x 200m, 400 x 200m, 400 x 400m and 800 x 200m.
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).*	• N/A. No drilling is being reported here.
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.*	• N/A.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support*	• Sample comments include a brief description of the environment.

Criteria	JORC Code explanation	Commentary
	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.*	
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.*	• No sub-sampling has been conducted. Samples were sieved in the field to the desired size fraction: -2mm, -200 µm or -85 µm. • Various sample size fractions were used depending on the location of the samples and the regolith cover.
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.*	• All 2mm and 200 µm samples were sent to Bureau Veritas in Perth and the UFF samples were sent to LabWest in Perth. Fire Assay was used for gold analysis and the 59 multi-elements suite using mixed Acid Digest - Full ICP-AES & ICP-MS Scan. • Reference standards and blanks were inserted at 1:30. Results indicate satisfactory accuracy and precision was achieved.
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.*	• The sampling was predominantly completed by Lodestar employees with a few programmes completed by external contractors. No QAQC problems were identified in the results. • No adjustment to assay data.
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.*	• Sample locations were located and recorded using a hand-held GPS. • GPS coordinates were recorded in MGA94 Zone 51 grid. • Handheld GPS coordinates are regarded as being accurate within 4m in the east and

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	west directions. No RL was recorded for soil sampling locations.
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.*	• Sampling to date is on wide based grids and infill sampling is required before pursuing exploration drilling.
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.*	• By its nature, surface geochemistry represents a two-dimensional image of metal distribution. The spacing and location of the data is currently only being considered for exploration purposes.
Sample security	• *The measures taken to ensure sample security.*	• All samples were stored at Lodestar's exploration camp then transported to Perth Laboratories by Lodestar personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit or reviews 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.*	• The soil sampling in Earaheedy is located on E69/3533, E69/3483, E69/3590, E69/3699, E69/4030, E69/3952, E69/3882, E69/3883, E69/3824, E69/4134, E69/4152, E69/4153 owned 100% by Lodestar Minerals Ltd. The tenements are within the Birriliburu People (MNR) and the Matuwa Piarku Aboriginal Corporation (TMPAC) Native Titles.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several episodes of limited exploration for gold, diamonds, iron ore and base metals have been carried out in the area, including surface geochemistry, aeromagnetics, EM surveys, vacuum, RAB, RC and diamond drilling. Exploration of the southern part of the tenements completed by Sons of Gwalia, Aztec Exploration and MIM defined and tested the main outcropping targets, identifying significant copper mineralisation in drilling at the Main Gossan Prospect. Follow up drilling by Empire Resources (up to 2011) has in the main targeted the outcropping, siliceous ironstones representing sulphide-bearing strata within complexly deformed metasediments and discrete magnetic anomalies within the regional aeromagnetic data. Large areas under

Criteria	JORC Code explanation	Commentary
		shallow aeolian sand cover were unexplored.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Earaheedy tenements are located on the northeastern margin of the Earaheedy Basin, a NW-trending asymmetric east-plunging synclinal basin 250km long and 150km wide. The northern margin has been locally strongly deformed by folding and faulting and was formerly known as the Stanley Fold Belt. Early explorers assigned the sedimentary sequence in the Earaheedy Project to the "Troy Creek Beds" that were thought to pre-date the Earaheedy Basin. The sediments have since been assigned to the Yelma Formation. MIM state that conformable dolerite sills intrude the sequence in the area of the North Chert prospect, raising the possibility of syn-sedimentary volcanic activity on the northern margin. Bunting (1986) regards the northern margin as tectonically active, the presence of mafic intrusives and ultramafic rocks indicates potential for a rifted margin and Besshi-style VMS mineralisation with SEDEX and epigenetic structurally controlled mineralisation styles also possible.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• N/A.
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*	• No data compositing has been applied.

Criteria	JORC Code explanation	Commentary
	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.	
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').*	• N/A.
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 to figures in the body of the announcement.
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.***	• The information in this report is based on the current data available.
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.*	• All information has been reported within the text of the announcement, no other information 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 commercially sensitive.*	• Further work is discussed in the document.