ASX ANNOUNCEMENT

2 September 2021

MULTIPLE CONDUCTOR DRILL TARGETS IDENTIFIED AT EARAHEEDY-IMBIN PROJECT

HIGHLIGHTS

- **Multiple priority Cu-Ag±Au targets identified across the 20km long Imbin Corridor in heli-EM survey including a number of walk–up drill targets**
- **Majority of the 15 EM conductors identified lie under sand cover with no previous drilling**
- **High-grade copper reported from historic drilling at the Main Gossan prospect indicates significant potential for copper mineralisation within the corridor**
- **Strong association between discrete EM conductors and major (feeder) or secondary structures**
- **Follow up surface EM and geochemistry planned**

Lodestar Minerals Limited ("**Lodestar**" or "**the Company**", **ASX:LSR**) provides the following update on the preliminary results of the 887 line km NRG XCITE™ heli-EM (electromagnetic) survey completed over the Imbin Project, located on the northern margin of the emerging Earaheedy metallogenic province, 190km north of Wiluna, Western Australia (see Figure 1).

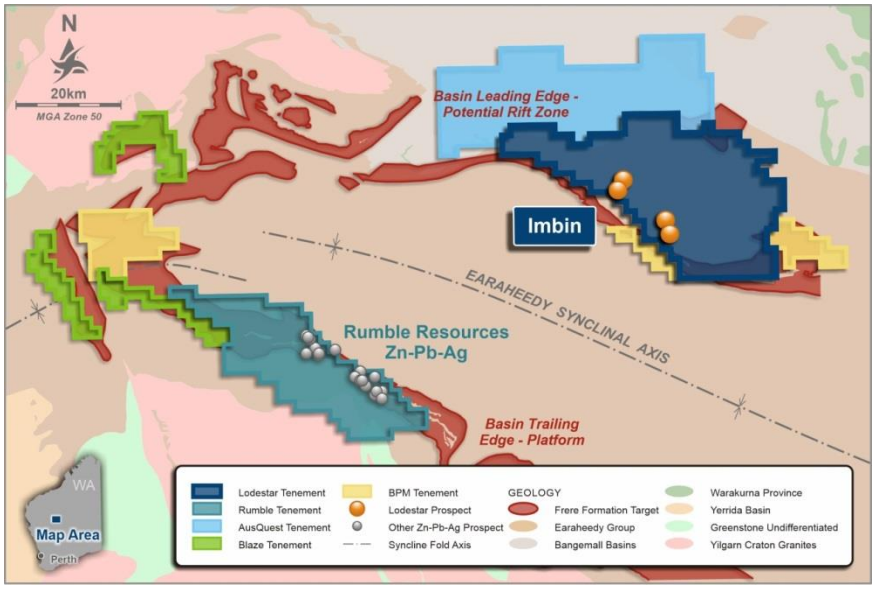

Figure 1 Imbin Project Location Plan, showing historic prospects and Rumble Resources' Zn-Pb discovery.

Preliminary results have been received for the survey which was flown in late July 2021. The heli-EM anomalies are identified as discrete conductors within a sedimentary sequence containing extensive carbonaceous shale interbedded with sandstones, dolomitic

shale/siltstone and chert. The Imbin corridor is characterised by significant Cu and Au geochemical anomalies in shallow drilling along the length of the corridor and primary Cu-Ag±Au mineralisation intersected in drilling at the Main Gossan prospect, located at the south eastern end of the corridor (see Lodestar's ASX announcement dated 17th July 2014).

A review of the Main Gossan drilling indicates that mineralisation is related to the interaction of a shear zone with a brittle, sulphidic chert unit within a sequence of pyritic carbonaceous and dolomitic shales, commonly silicified. Mineralisation is localised on the south-dipping, northern limb of a synformal fold (see Figures 2 & 3).

Historic drill intersections from the Main Gossan prospect demonstrate significant potential for Cu-Ag±Au mineralisation within the Imbin sequence:

- ***36m at 0.76% Cu from 91m, including 2m at 4.65% Cu, 17.5g/t Ag from 91m (including 1m at 6.7% Cu from 91m) and 3m at 1.97% Cu, 3g/t Ag from 117m in TCRC08-02.***
- ***8m at 1.47% Cu, 9g/t Ag from 88m and 4m at 3.04% Cu, 5.25g/t Ag from 104m (including 1m at 7.5% Cu from 105m) in TCRC09-06.***

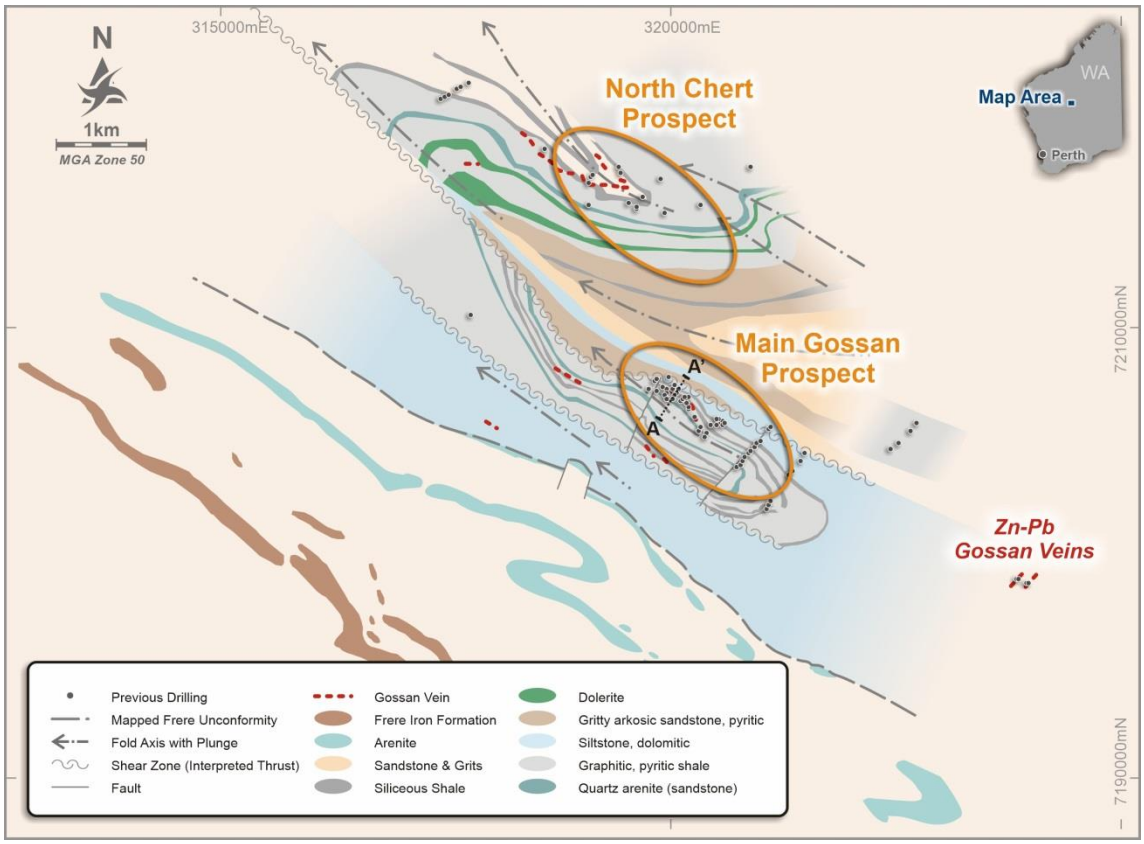

Figure 2 Geological interpretation showing Main Gossan and North Chert prospects with historic drill collars.

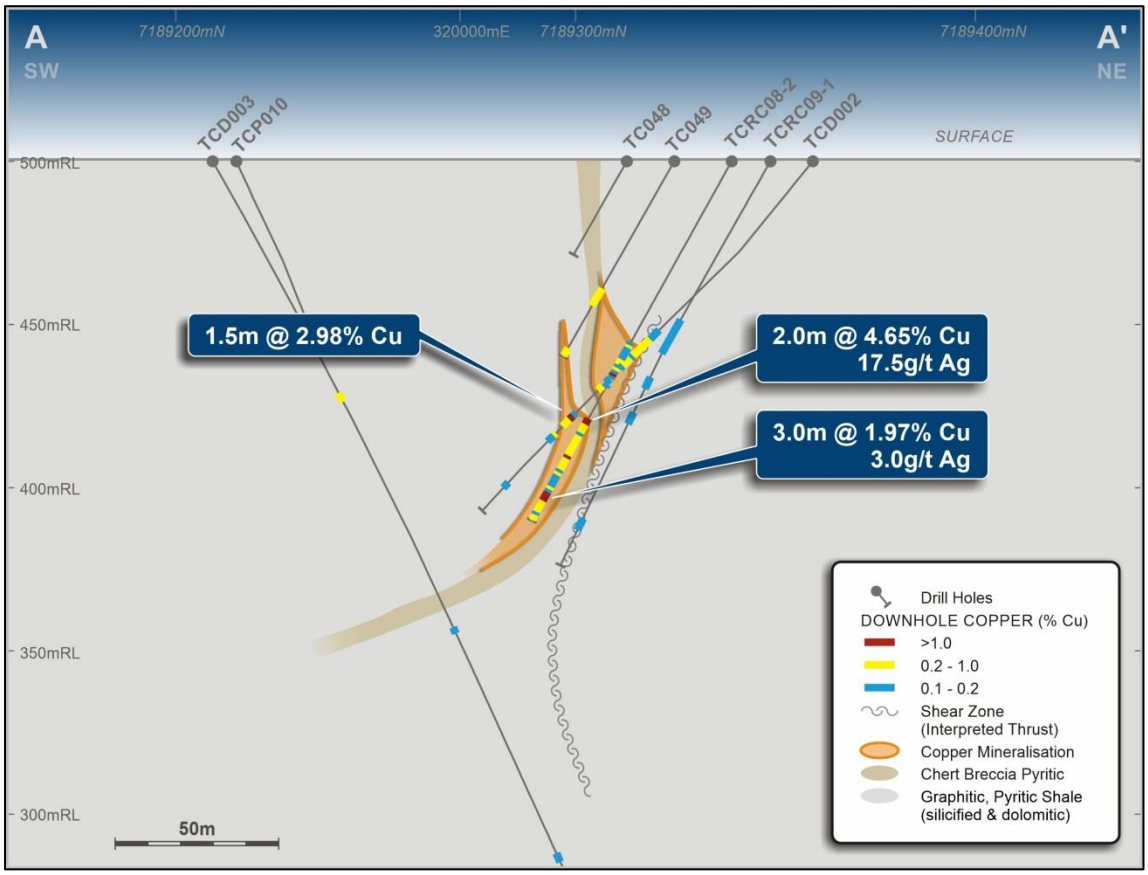

Figure 3 Main Gossan drill cross section interpretation showing mineralisation located on the contacts of a folded sulphidic chert unit.

The regional heli-EM survey was planned to identify potential massive sulphide conductors within the Imbin sediment-mafic sequence. Given there are known extensive conductive and sulphidic (pyritic) shales within the sequence, EM targets could also represent zones of structural thickening of conductive units and/or sulphides of no economic interest.

A total of 15 discrete conductors have been identified by the heli-EM survey (see Figures 4 & 5). The data is presented as a series of plans comprised of three independent datasets:

1. Geological interpretation completed by Mount Isa Mines Exploration (MIMEX) during their involvement in the project (1995-1997, see WAMEX report A56029);
2. A structural interpretation based on aeromagnetic data, completed by Southern Geoscience Consultants for Palladium Resources in 2001-2002 (see WAMEX report A63331); and
3. Recently acquired heli-EM data showing early time data (Channel 10) and the discrete anomalies identified from late time channels (Channel 23).

The geological interpretation provides a framework for the aeromagnetic and structural interpretations, confirming that the region is strongly deformed and dominated by north northwest-plunging open to tight folds and disrupted by parallel or sub-parallel shears and thrust faults. These faults may be reactivated early structures that have acted as fluid conduits during the evolution of the northern margin of the basin.

The aeromagnetic data highlight a number of magnetic highs; two of these have been targeted by drilling that intersected gabbro and lamprophyre (see WAMEX reports A88762 & A88867). Mafic magmas are important as a source of metals and as drivers of fluid flow within the crust and are intimately associated with the DeGrussa Cu-Au deposit in the Bryah Basin. The age of the mafic intrusions at Imbin is not known but confirmation of basaltic volcanism within sediments of the same age in the adjacent Malmac Project[1] indicates that mafic volcanism and intrusion during basin development cannot be discounted and therefore VHMS style mineralisation is a possibility.

Finally, the structural interpretation developed in 2001-2002 by Southern Geoscience Consultants illustrates a remarkable association between the preliminary heli-EM anomalies and first and second order structures (see Figure 5). These are structures expected to be the main conduits for fluid migration and therefore have potential to host mineralisation. Mineralisation related to early volcanic activity would also be remobilised by successive deformation events within the basin. i.e. will have a structural control.

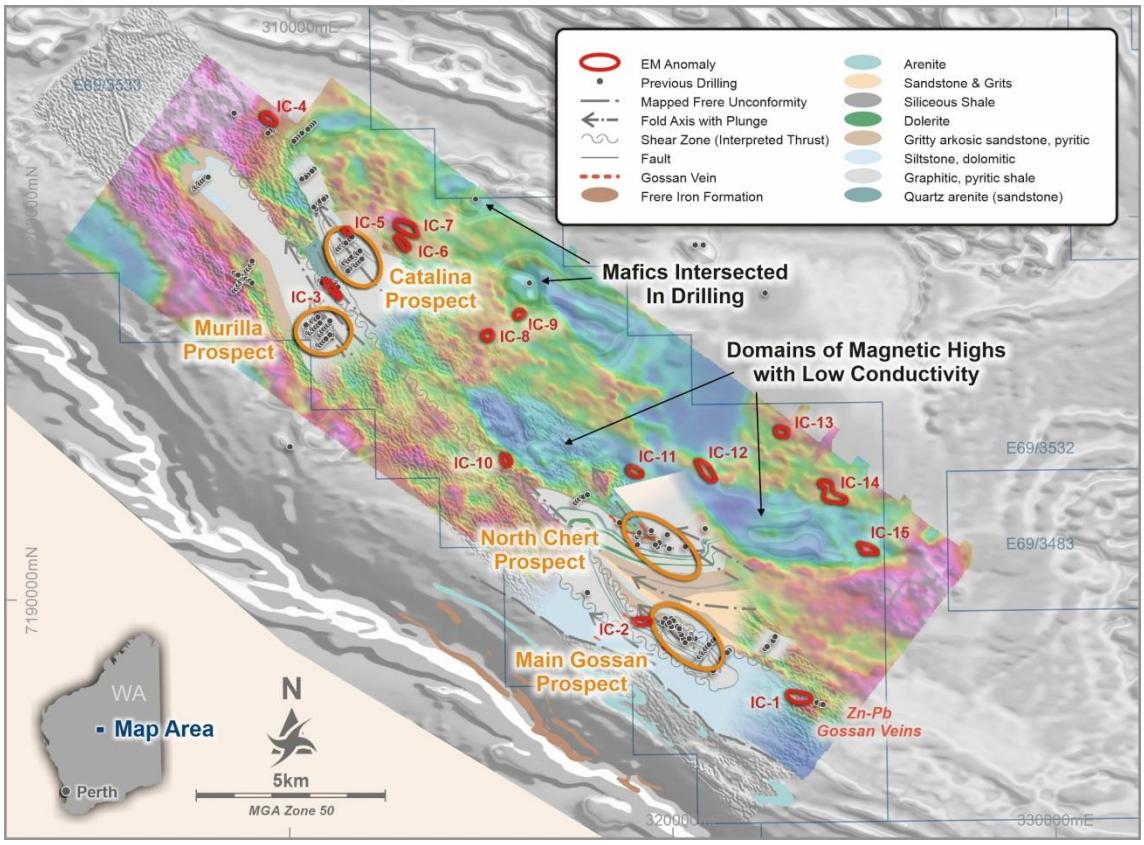

Figure 4 Heli-EM anomalies shown on a background of aeromagnetic data (greyscale) overlain by Channel 10 EM data (showing conductive sediments, mauve), historic drilling and geological interpretation.

[1] See Carnaby Resources ASX announcement dated 9th February 2021.

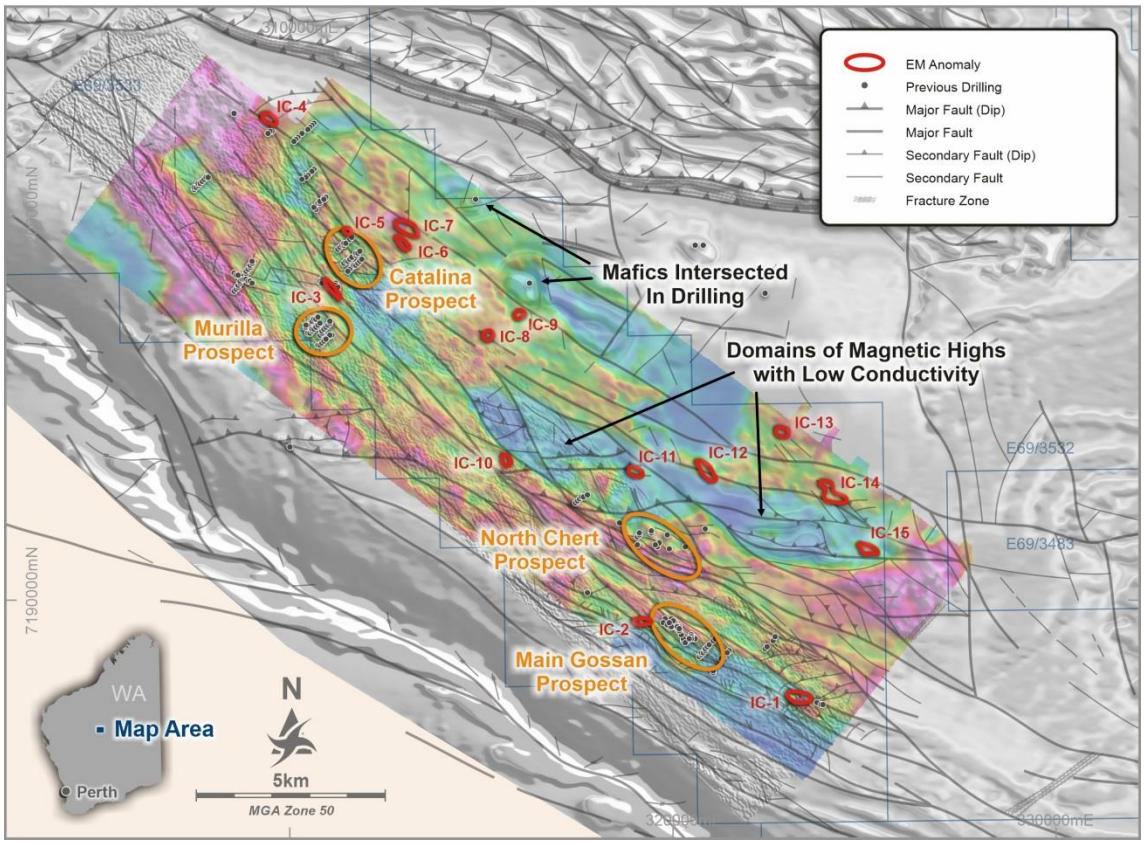

Figure 5 Heli-EM anomalies shown on a background of aeromagnetic data, Channel 10 EM data and a structural interpretation of the aeromagnetic data. Note the association between the heli-EM anomalies and multiple NNW trending shears.

Forward Plan

A review of the recently received final NRG XCITE™ heli-EM data is continuing under the supervision of Southern Geoscience Consultants (SGC). EM targets will be ranked based on proximity to magnetic highs (representing potential mafic intrusive centres) and location, either along strike from known mineralisation or in proximity to known geochemical anomalies. Further interpretation of the final data is needed to identify those anomalies that will require confirmation by surface EM surveys.

The timeline to drilling will be determined by:

- Finalising a State Deed agreement with one of the native title holders.
- Restoration of tracks into the area of the anomalies.
- Completion of any heritage surveys required to commence ground-based EM, geochemical sampling and drilling.
- Follow up surface EM and geochemical sampling where indicated.
- Submission and approval by DMIRS of a PoW for clearing and drilling-related activity.

Lodestar will keep shareholders informed as the results of the review become available and we progress towards drilling these important targets.

Contacts

Bill Clayton	Media enquiries
Managing Director info@lodestarminerals.com.au +61 8 9435 3200	Michael Vaughan, Fivemark Partners michael.vaughan@fivemark.com.au +61 422 602 720

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 and Bulong projects.

Lodestar holds a 20% interest in the Nepean Nickel Project with Auroch Minerals (ASX:AOU; 80%). The Nepean Nickel Project comprises the historic Nepean nickel mine (32,200t Ni production 1970 to 1987) and 12 km of the host ultramafic sequence. Nepean is an advanced project that represents a unique opportunity to add value via regional discovery, by identifying extensions to the Nepean orebody at depth (Nepean Deeps) and confirming a near-surface remnant resource suitable for rapid development.

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.

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

- *17th July 2014 "Lodestar Corporate Presentation".*

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 report template

Section 1 Sampling Techniques and Data

(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.*	• Historic drilling from the project listed in Lodestar's ASX announcement dated 17th July 2014. • NRG XCITE™ Heli-EM airborne EM survey totaling 887 line km completed on 200m line spacing with local in-fill to 100m line spacing. Survey lines were oriented 038-218 degrees, perpendicular to the predominant structural trend in the sedimentary-mafic sequence. The survey was completed between 17th and 20th July 2021. • EM calibration subject to high altitude checks on a daily basis. Magnetometer – checked against well-controlled magnetic feature to establish lag between GPS and magnetic readings. Altimeter calibrated at the start of survey. • NRG XCITE™ system configuration; Flying height: 60m to 70m EM sensor height: 30m to 40m Transmitter loop diameter: 18.4m Current: 275A Peak dipole moment: 285,000NIA Base frequency: 25Hz Coincident Tx-Rx Receiver: X, Z axis • The airborne EM system is widely used as a regional exploration method to identify bedrock conductors that may represent massive sulphide mineralisation. Alternatively, conductors so identified may represent graphitic units, weathering features and/or conductive saline ground water.
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).*	• Not applicable, NRG XCITE™ airborne EM (AEM).

Criteria	JORC Code explanation	Commentary
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.*	• 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.*	• Not applicable.
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.*	• Not applicable.
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*	• The NRG XCITE™ system altimeter, EM Rx-Tx and magnetic readings are calibrated before and during the survey. All digital data is inspected daily by NRG™ and the company's consultant geophysicist. • The Company receives a daily report on progress. The data is reviewed by the company's consultant geophysicist for QA and to determine if in-fill is required. • The preliminary data presented here has undergone a moderate level of processing/levelling by NRG™. The company's consultant geophysicist has completed QC of the data and considers them

Criteria	JORC Code explanation	Commentary
	been established.	suitable for public release. The processed data and imagery is of sufficient quality and detail for the company's consultant geophysicist to plan follow up FLEM over selected high priority targets identified from the heli-EM survey.
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.*	• Daily preliminary data checked by the company's consultant geophysicist. • Not applicable. • Daily production reports and preliminary data checks. • 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.*	• GPS navigation tolerance: horizontal 2.5%, vertical 0.5%. • UTM Coordinates WGS84 Zone 51. • Not applicable.
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.*	• Flight lines are flown on 200m line spacing, reducing to 100m in areas of in-fill, EM data is streamed with a resolution of ~0.5m. • 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.*	• Flight lines oriented at 038 to 218 degrees, perpendicular to the dominant structural trend. • Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• All data is transmitted and stored digitally and transmitted directly to the company's consultant geophysicist.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The EM data has been independently verified by the company's geophysical consultant, Russell Mortimer of Southern Geoscience Consultants.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
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.*	• Historic regional exploration was completed over E69/3532 and E69/3533 within the Warburton Mineral Field. The tenements are currently under application by Lodestar Minerals and form part of the Imbin base metal project. The main area of the tenements lies within granted native title area Birriliburu People WC1998/068, Lodestar has concluded heritage agreements with the representatives of the Birriliburu People and the Tarlka Matua Piarku People and is now awaiting grant of the tenements, pending signing of a State Deed by the Tarlka Matuwa Piarku people. There are no other known impediments to obtaining the grant of the tenements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration within the area of historic drilling includes geological mapping, surface sampling, auger drilling, aeromagnetic and ground magnetic surveys, electromagnetic surveys, RAB, RC and diamond drilling. Previous explorers include Sons of Gwalia, Aztec Mining, MIM Exploration, Herald-Palladium Resources, Empire Resources and Zodiac Resources.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Target deposit types include VMS, sediment-hosted base metal, sediment-hosted base metal-gold related to exhalative, replacement or structurally emplaced mineral systems and orogenic gold. The Troy Creek inlier represents a sequence of strongly folded and sheared carbonaceous shale, dolomitic and quartz sandstones, pelite, cherts, mafic volcanics and felsic intrusives and volcanic rocks. The sequence is intruded by dolerites. The northern margin of the Troy Creek Beds is faulted against the Scorpion Group and unconformably overlain by the Bangemall Group. The southern margin is believed to be an unconformity with the overlying Frere Formation. The depositional environment is thought to be an active basin margin – back arc rift.
Drill hole	• *A summary of all information material to the understanding of the*	• Historic drill hole information is listed in Lodestar's ASX

Criteria	JORC Code explanation	Commentary
Information	*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.* • *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.*	announcement dated 17th July 2014. • Previous exploration drilling has generally tested outcropping areas that have reported geochemical anomalies or conceptual targets based on aeromagnetic interpretation. The drilling completed to date has not targeted the EM anomalies identified by the heli-EM survey completed by Lodestar. The historic drilling is useful as an example of the style of mineralisation expected within the project.
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').*	• Not applicable. • Not applicable. • Not applicable.
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.*	• Plans of the heli-EM survey results and its interpretation are presented 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.*	• Only selected drill intersections are referred to and due to the absence of adequate reporting on methods and QA they are considered indicative only and not material.
Other substantive exploration	• *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*	• An aeromagnetic survey flown by Mount Isa Mines Exploration (MIMEX) is used in part of this review, as is a geological interpretation produced as part of their involvement in the project between 1995

Criteria	JORC Code explanation	Commentary
data	*method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	and 1997. MIMEX were also responsible for completing much of the geochemical sampling over E69/3533. An interpretation of a compilation of aeromagnetic data was completed by Southern Geoscience Consultants for Palladium Resources in 2001 (WAMEX A63337). The structural interpretation created by Southern Geoscience Consultants has been incorporated into the Lodestar targeting procedure.
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.*	• Targets generated from the NRG XCITE™ heli-EM survey will be followed up by ground geophysics, surface geochemistry and drilling or, if justified, may be drilled directly without additional exploration. • Exploration is at an early stage and further exploration is contingent on results.