

ASX: ESR

26 November 2024

Induced Polarisation Trial Targeting Supergene Manganese

HIGHLIGHTS

- ➔ Induced Polarisation (IP) trials at the Samalari and Sica manganese prospects ongoing
 - FlashRes Universal 64 system chosen for its transportability and robustness in the field
 - Estrella's geophysics personnel trained and operating the system independently
- ➔ Preliminary imaging of the Samalari and Sica supergene zones appears to have been successful
 - The supergene manganese blanket on the southern side of the Samalari prospect was detected where expected
 - Sica supergene response shows low resistivity anomalies under cover where predicted
- ➔ IP trial has been extended from Sica to the Lalena Prospect and also over the new Ira Miri Prospect, concentrating on Estrella's joint-venture ground with Murak Rai Timor (MRT)

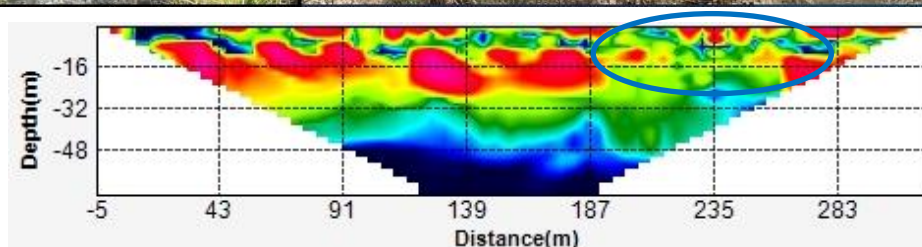
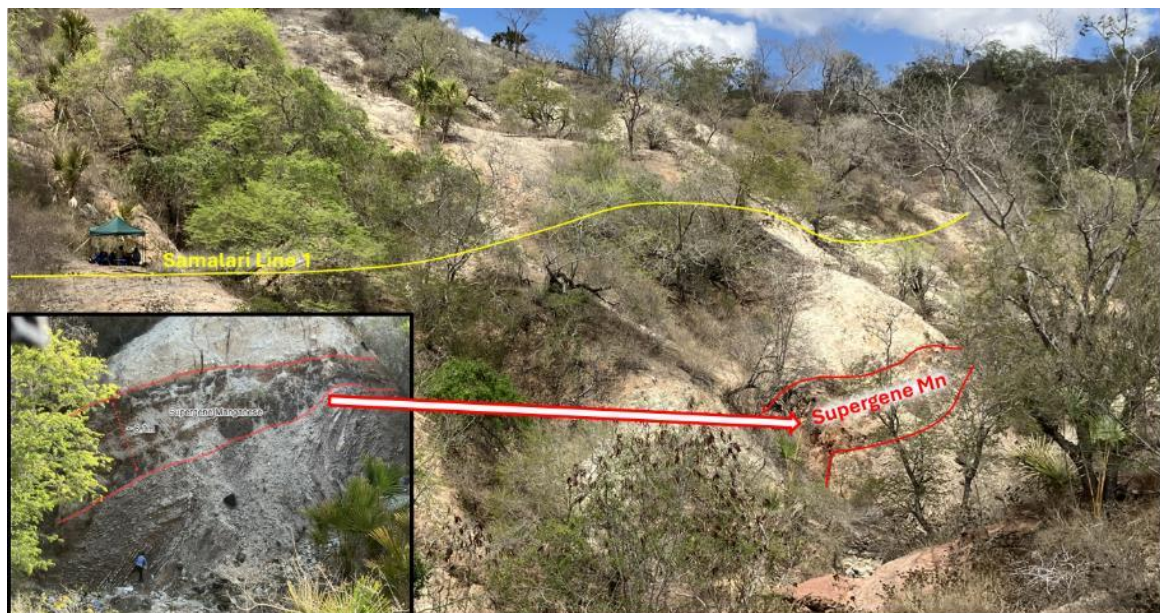


Figure 1: Western end of Salamari Line 1 over the supergene manganese zone previously announced 16 October 2024 with preliminary resistivity inversion below showing a low resistivity anomaly 70m west of the line centre point. High resistive responses are coloured yellow and red whilst low resistive responses are in blue and green.

Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to announce a positive initial outcome to the Induced Polarisation trial the Company is conducting in Timor-Leste, targeting supergene mineralisation within the Noni Formation.

Commenting on the new discoveries Estrella Managing Director Chris Daws said:

"These IP trials give Estrella it's first look at potential manganese discoveries at depth. Timor-Leste is virtually unexplored, so these findings are not just important for Estrella Resources but also relevant for the future of its developing minerals exploration industry."

"From the early work completed, we are very encouraged to be identifying low resistivity anomalies. Pairing our data with visual observations tells us that the exploration method is capable of identifying supergene manganese. "While further chargeability work is required, the plan will be to expand the trial to systematically apply IP across our licenses and permits, building our exploration database to make further discoveries."

Figure 1 shows Line 1 over the southern side of the Samalari Prospect where supergene manganese mineralisation was found outcropping in a creek wall some 450m south of the main deposit. This outcrop was previously announced to the ASX on 16 October 2024.

This outcrop was chosen for testing as the mineralisation can be located below the hill with some certainty, thus an IP line over the top should give a positive anomalous response.

Resistivity Results

As can be seen in the preliminary resistivity inversion at Samalari (not yet corrected for changes in elevation) there was a low resistive response 70m west of the line centre point, correlating well with the outcropping manganese mineralisation. Manganese supergene typically shows low resistivity (blue and green hues in Figure 1) in contrast to the Noni Formation cherts (highly resistive, red and yellow hues).

Buoyed by this result, the trial moved to the Sica Prospect where supergene mineralisation was found outcropping in the hills above a valley floor littered with high-grade supergene fragments (see ASX announcements dated 1 August 2024 and 18 November 2024) where these discoveries have been detailed.

The mapped geology of Line 1 at the Sica Prospect is shown in Figure 2 along with the position of the sub-cropping supergene (located and announced previously) and also showing a low resistivity anomaly below the Baucau Formation, in the position where supergene manganese has been predicted.

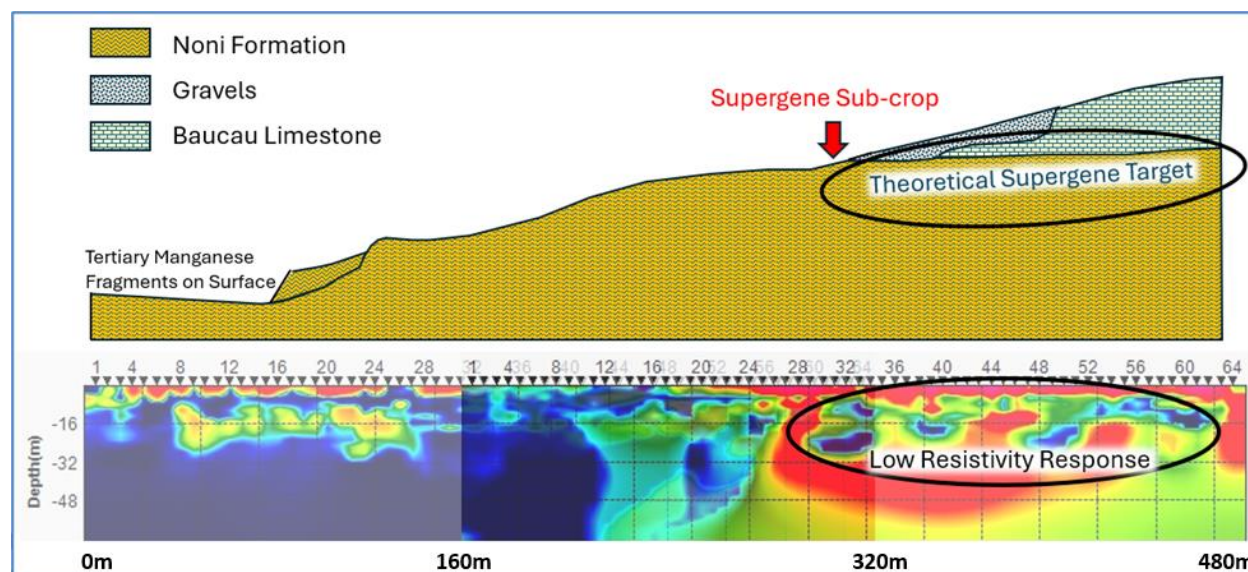


Figure 2: Line 1 at the Sica Prospect targeting supergene manganese mineralisation within Noni Formation and buried beneath the Baucau Formation which was deposited over the top. The low resistivity response depicted in blue and green corresponds with the theoretical location of the Noni Formation and potential supergene development.

It should be noted that this is preliminary inversion data and that there can also be low resistive responses from perched water tables, clay zones or water sitting along the unconformable contact between the Noni and Baucau Formations.

Chargeability Results

To properly distinguish between supergene manganese and clay horizons requires chargeability measurements to be taken with the IP technique. The FlashRes Universal 64 system used in the trial was selected for portability as it uses 12-volt car batteries as a power source to transmit current into the ground.

However, due to the prevalence of clays in the weathered Noni Formation, the chargeability decay response in both the clays and the supergene horizon was too low and quick to be modelled accurately. The solution to this is to pump more power into the ground during surveys, requiring a small generator rather than batteries.

Work on the chargeability response detected in the trial is ongoing to see if parts of it can be used. Future trials will incorporate a larger power source so that chargeability data can be captured over a longer decay period

Figures 3, 4 and 5 below show the locations of the trial IP lines within Estrella's Exploration and Evaluation Licenses. These licenses are the subject of a joint-venture between Estrella and Murak Rai Timor.

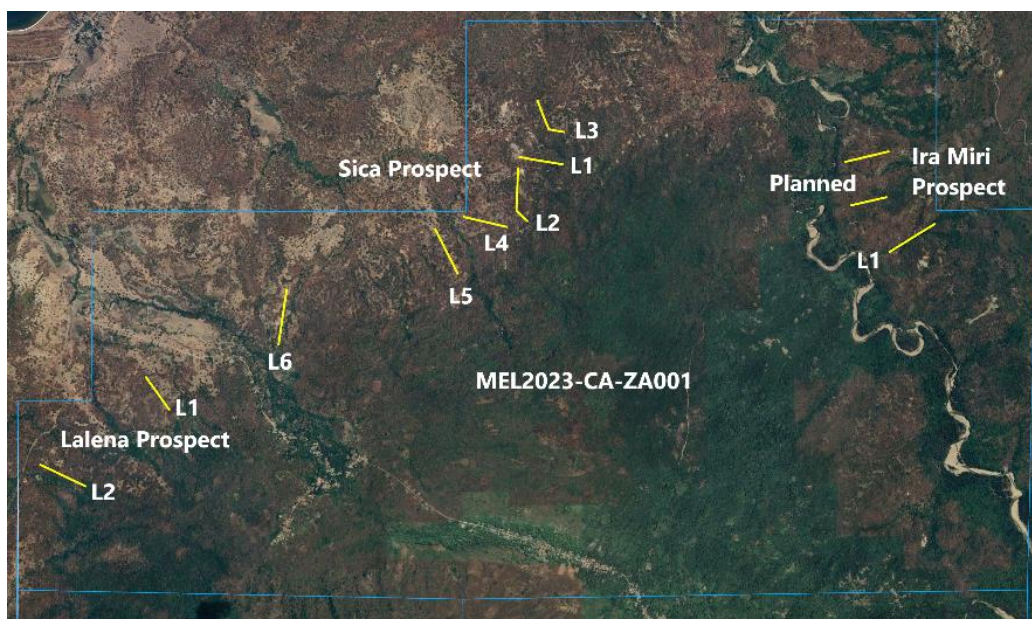


Figure 3: Locations of the Sica, Lalena and Ira Miri IP lines within Exploration and Evaluation License MEL2023-CA-ZA001

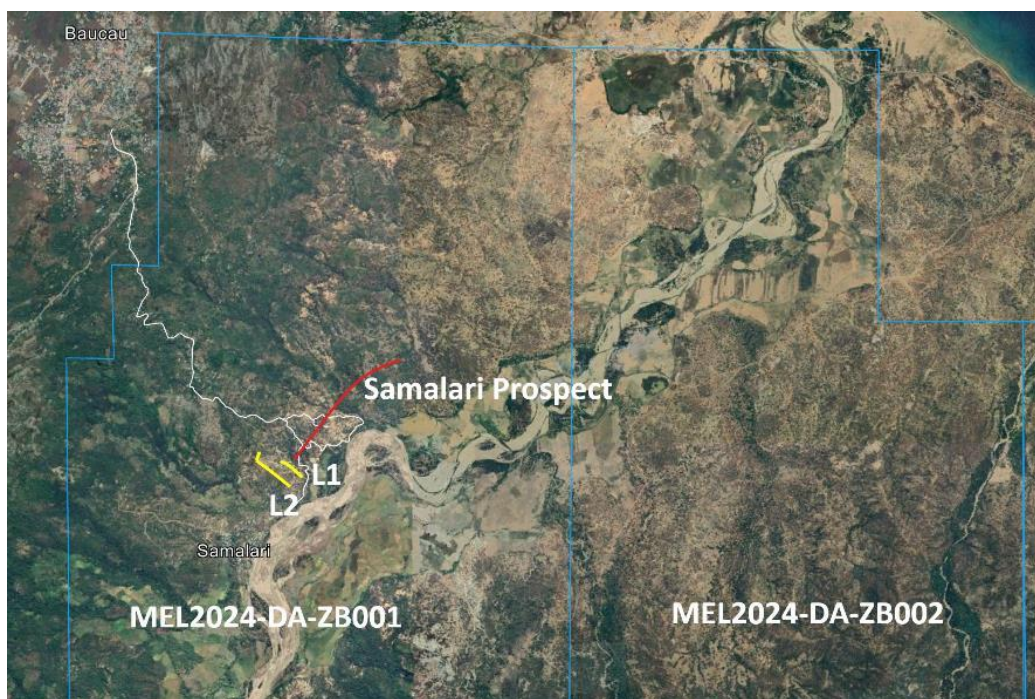


Figure 4: Location of the Samalari IP lines within Exploration and Evaluation License MEL2024-DA-ZB001

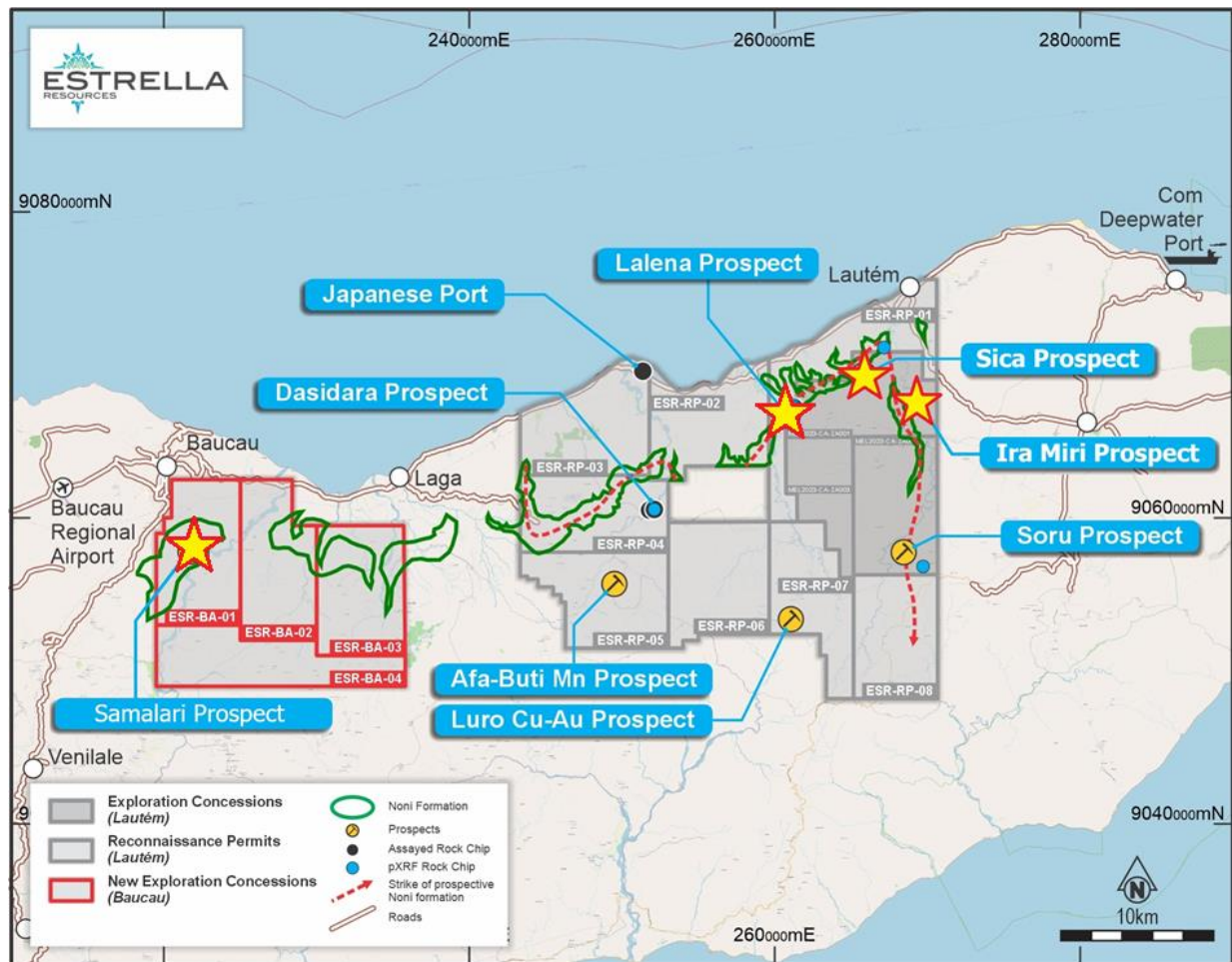


Figure 5: Location of Estrella's prospects where the IP trials have taken place



Figure 6: Estrella's Geophysicist, Eustaquio Amaral (right) with Mat Cooper of Core Geophysics during the IP trial

As a part of our Community Engagement commitment, Estrella employed a team of eight local Timorese to facilitate the transport of the gear and setting up the IP lines. In addition, we included two university students who are studying Geophysics at the National University. The students learned all practical aspects of the IP process from setup to acquisition and processing.

Next Steps

The trial was overseen by Mathew Cooper, the Principal Geophysicist of Core Geophysics, based in Perth, Western Australia. Mr Cooper assisted in training Estrella's personnel in Timor-Leste and will continue to work on the interpretation of the data.

The data now needs to be corrected for topography with further checks and balances before the final resistivity sections can be processed. This is not expected to markedly change the resistivity interpretation. Further work on chargeability modelling will not likely yield a satisfactory result. Additional trials with a higher power output are being planned.

The Company is in the process of converting its Environmental License to a higher category which will enable the in-country team to start trenching activities and to plan drilling to verify the current IP trials' findings.

The Company will update shareholders as more information comes to hand.

The Board has authorised for this announcement to be released to the ASX.

FURTHER INFORMATION CONTACT

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Forward Looking Statements

This announcement contains certain forward-looking statements which have not been based solely on historical facts but, rather, on ESR's current expectations about future events and on a number of assumptions which are subject to significant uncertainties and contingencies many of which are outside the control of ESR and its directors, officers and advisers.

Competent Person Statement

The information in this announcement relating to Exploration Results is based on information compiled by Steve Warriner, who is the Group Exploration Manager of Estrella Resources, and a member of The Australasian Institute of Geoscientists, Beau Nicholls, who is a Director of Sahara Natural Resources and is the Exploration Manager for Estrella Timor-Leste, and a fellow of The Australasian Institute of Geoscientists, and Mathew Cooper, the Principal Geophysicist of Core Geophysics and a member Australian Society of Exploration Geophysicists, Society of Geophysicists, the Society of Economic Geologists, the Australian Institute of Geoscientists and the Canadian Exploration Geophysical Society. Mr Warriner, Mr Nicholls and Mr Cooper have sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Warriner and Mr Nicholls consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

APPENDIX 1 JORC TABLE 1 – TIMOR-LESTE EXPLORATION

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.	- Determination of mineralisation has been based on geological mapping, visual mineral estimates and confirmation of metallic concentration using a Bruker S1 Titan Portable XRF instrument. - Initial rock-chip samples were taken and pXRF determinations on uncrushed samples made in the field. - Samples are then brought back to Dili and pulverized to 100% passing 1mm before the powder is again subjected to PXRF - A sub-sample of 150g is then dispatched through customs and quarantine in Australia to ALS in Malaga for multi-element analysis. - Exported samples are analysed using a 4-acid digest, ME-XRF26s, ME-MS61L at ALS in Malaga
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).	No drilling has been undertaken to date.
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.	- No drilling has been undertaken to date. - The installation of pulverising sample prep facilities in Timor-Leste ensures sample representivity when presented to the PXRF.
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.	Rock-chip samples were geologically logged for mineral content and photographed prior to sending for assay or screening by pXRF.
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	- Sample sizes are appropriate to the grain size of the mineralisation which in manganese oxides is very fine. - The exploration program is in its very early stages and initial sample sizes are kept small due to freight and customs / quarantine restrictions. They are not considered representative of the bulk of mineralisation.

Criteria	JORC Code explanation	Commentary
	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.	
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.	- Three sample types are quoted: 1 – Uncrushed Field PXRF (a fresh mineral face is chipped from samples prior to the XRF determination in the field) 2 – Crushed PXRF (samples from above are taken back to Dili, 1-3kg of material, and crushed/pulverised to 100% passing 1mm in the company's dedicated sample preparation facility, and 15g of powder is then taken for PXRF analysis. Crushed PXRF determinations have been subjected to repeat samples, standards and confirmation of accuracy by laboratory analysis. 3 – Assay, where 150g of material is exported to ALS in Malaga via quarantine in Darwin. Standards and blanks have not been included in samples sent to Australia. The company relies on the internal standards and blanks used by ALS. - Samples are being analysed at ALS in Malaga using a 4-acid digest, ME-ICP for 61 elements and all samples are also being tested for Pt, Pd and Au by fire assay and ICP-MS finish on a 50g sub-sample. - Currently, uncrushed field samples are being analysed by PXRF on location,. The Cautionary statement is included when assessing pXRF.
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.	- No prior modern exploration has been conducted in the area. - No adjustments to assay data were undertaken save where the ME-XRF26s method reports MnO%. - Mn% is derived by dividing MnO by 1.2912
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.	- Timor personnel use GRID software on mobile phones to record GPS locations, sampling data and photographs. Mobile phone accuracy (shown during coordinate capture) is set at a maximum tolerance of 5m. - Topographic control is accomplished using 30m spaced satellite point data.
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.	No systematic sampling has been conducted at this early stage.
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	No orientation-based sampling bias has been identified.

Criteria	JORC Code explanation	Commentary
	<i>introduced a sampling bias, this should be assessed and reported if material.</i>	
Sample security	<i>The measures taken to ensure sample security.</i>	- Exported samples are in the possession of ESR personnel from field collection to customs submission in Darwin. Possession then passes to the Department of Agriculture, Forestry and fisheries where Northline Couriers pick up the samples and take them by road to ALS in Malaga. - Non-exported samples remain with ESR personnel past Darwin Airport Customs.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	- No independent audit or review has been undertaken. - Internal QAQC involves frequent standard checks on the PXRF instrument to determine any drift of accuracy. - Additional checks involve analysis of any assayed samples in comparison to the crushed and uncrushed in-country PXRF determinations so as to provide confidence in in-country analysis.

Section 2 - Reporting of Exploration Results

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 license to operate in the area.	- Exploration and Evaluation Concessions MEL2023-CA-ZA001, MEL2023-CA-ZA002 and MEL2023-CA-ZA003 are awarded for two years to Estrella Murak Rai, forming the joint-venture between Estrella Resources Representante Permanente (70%) and Murak Rai Timor (30%). - Reconnaissance Permits ESR-RP-01, ESR-RP-02, ESR-RP-03, ESR-RP-04, ESR-RP-05, ESR-RP-06, ESR-RP-07 and ESR-RP-08 are awarded to Estrella Resources Limited Representante Permanente (100%) - Exploration and Evaluation Concessions MEL2024-DA-ZB001, MEL2024-DA-ZB002 and MEL2024-DA-ZB003 are awarded for four years to Estrella Murak Rai, forming the joint-venture between Estrella Resources Representante Permanente (70%) and Murak Rai Timor (30%). - Estrella Resources Limited Representante Permanente and Estrella Murak Rai are registered in Timor-Leste and is a wholly-owned subsidiary of Estrella Resources Limited (Australia). - All of the Concessions and Permits are current and in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- The first exploration was conducted by Allied Mining Corporation in 1937 during which mineral potential was discovered. Very small-scale mining of manganese, gold and construction material was conducted. The exploration was not systematic and hampered by difficult access. - Other work in the early 2000's has been conducted by the Pacific Economic Cooperation Council -PECC Minerals Network to assist Timor-Leste to understand and develop its minerals potential. - Local geologists and companies have sporadically explored the area however there has been no documentation collected nor systematic exploration to quantify mineral occurrences. - No minerals drilling has taken place. - No close-spaced geophysics has taken place. - No systematic, modern exploration has taken place. - The Geological Institute of Timor-Leste (IGTL) has recently (and still is) conducting stratigraphic analysis and fossil dating to reconstruct the geological history of Timor-Leste.
Geology	Deposit type, geological setting and style of mineralisation.	- The current Concessions and Permits host three main forms of manganese mineralisation. - Primary mineralisation can be found in stratigraphic banded cherts and banded irons formed from direct precipitation of manganese onto the sea floor. Evidence for both microbial and inorganic processes exist. - Secondary mineralisation exists as a supergene blanket above the cherts

Criteria	JORC Code explanation	Commentary
		where they have been exposed to chemical weathering. • Tertiary mineralisation exists where high rainfall and erosion has sorted and concentrated detrital manganese into river paleo-channels or scree deposits. • Alluvial gold mineralisation has been reported in the area however no exploration has been undertaken. • Estrella will use and expand upon the current known stratigraphy to evaluate and document mineralisation styles and relate them back to the tectono-stratigraphic genesis of the area.
Drill hole information	• A summary of all information material to the under-standing 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 • 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.	• No drilling has been undertaken in the area. • Sample locations are shown in the body of the text.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.	• Exploration results with all relevant drillhole information are reported in the body of the text. • No aggregation methods have been used. • Metal equivalent values have not been used.
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 (e.g. 'down hole length, true width not known').	• Any relationships have been discussed within the body of the text.
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.	• Relevant diagrams have been included within the main body of text.
Balanced Reporting	• 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. • Where comprehensive reporting of all	• No new information has been withheld.

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	
Other substantive exploration data	• <i>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.</i>	• No other substantive data exists as the program is in its early stages. • All observations are discussed within the body of the text.
Further work	• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	• Further work by ESR will include systematic mapping and sampling along with stratigraphic and structural classification. • Additional work on specific areas will be included under the heading Next Steps in the body of the text when appropriate to do so.