

ASX: ESR

16 December 2024

Exploration and Project Update

HIGHLIGHTS

- ➔ **Induced Polarisation (IP) at Ira Miri defines low resistivity anomaly below cover (Figure 1)**
 - IP system to stay in the field until early February 2025 concentrating on Ira Miri trend
 - Estrella's geophysics personnel operating the system independently in extended trial
- ➔ **Preparation for reverse circulation drilling underway to test geological and IP manganese targets**
 - Essential RC equipment being imported into Timor-Leste by Dili-based H2O Drilling
 - Permitting and land access for drilling underway at Samalari, Sica and Ira Miri

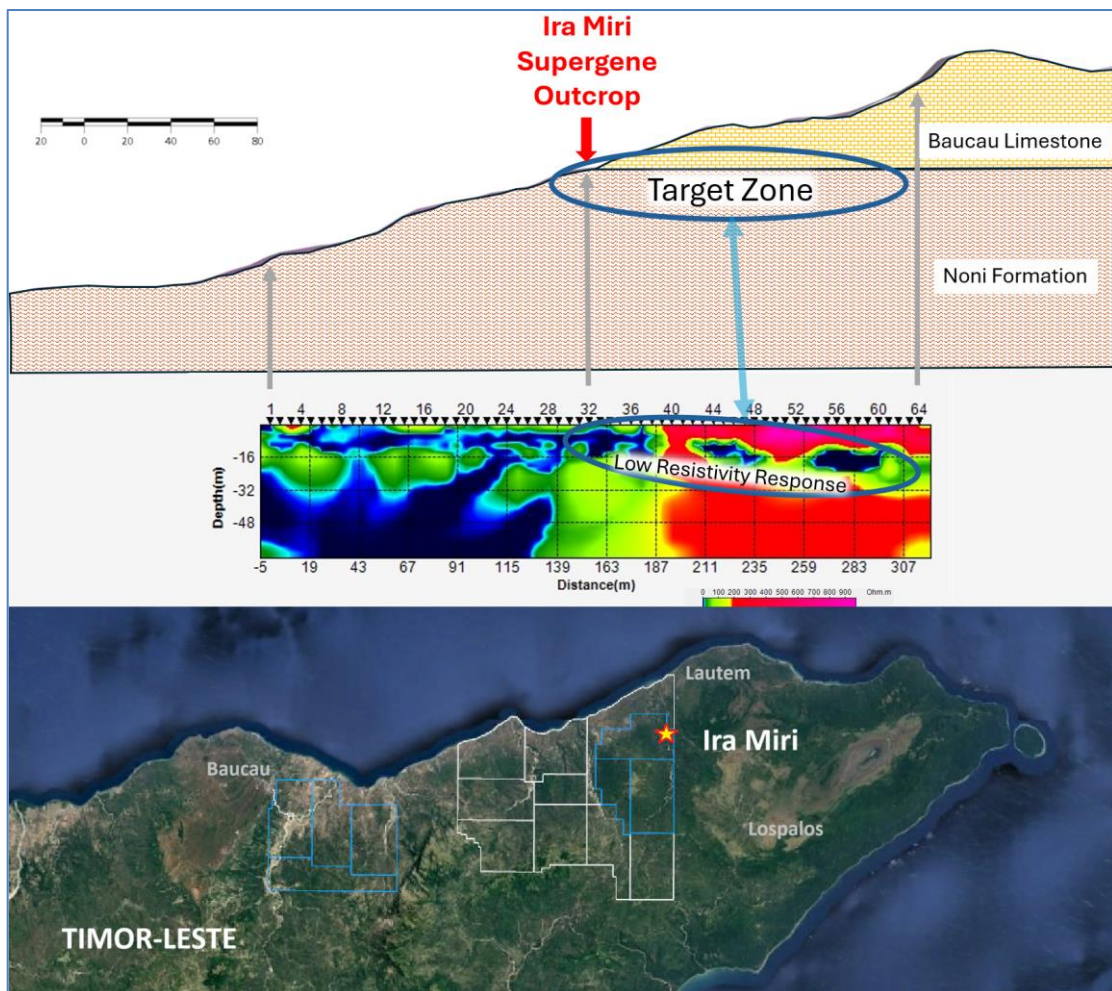


Figure 1: Line 1 at the Ira Miri Prospect targeting supergene manganese mineralisation within Noni Formation, lying beneath the Baucau Formation which was deposited over the top. The low resistivity response depicted in black and green corresponds with the buried, projected location of the supergene which outcrops in the centre of the survey, and runs to the northeast (right) below the red, higher resistivity Baucau Formation.



Figure 2: Estrella CEO Chris Daws at the partially outcropping supergene manganese exposure at Ira Miri within concession MEL2023-CA-ZA001. Visual estimates of the mineral abundances present within the exposure exhibited >80% manganese-iron-oxide minerals along with chert. The company has taken samples for assay which are due in Q1 2025. Estrella advises that visual estimates are not a proxy for laboratory analysis.

Cautionary Statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to announce positive IP data from the first Induced Polarisation trial line conducted over the newly discovered Ira Miri manganese zone within its licenses in Lautém, Timor-Leste. The company is also progressing approval to access these areas for drilling along with its Sica and Lalena prospects, and the Samalari Prospect in Baucau.

Commenting on the results and work program going forward Estrella Managing Director Chris Daws said:

“Momentum continues to build at Estrella’s Timor-Leste manganese assets as we roll out IP surveys and prepare for drilling across this region – which is virtually unexplored to date.

“On the IP front, it is pleasing to see the survey identifying a low-resistivity anomaly which our emerging geological model interprets as a potential target for supergene manganese. The result aligns with outcropping observed at site, but further work is required to understand the size of the anomaly.

“I am also pleased to report that management has been able to identify cost-effective equipment and talent to undertake an RC drilling program in the near future. This drilling campaign is shaping up as a major milestone – as it is not only the Company’s first glimpse at potential mineralisation at depth but is also significant for the country of Timor-Leste. This campaign brings to fruition enhanced investment and employment opportunities driven by minerals exploration, which is ultimately a successful outcome of the nation’s updated Mining Code and desire to develop a minerals industry.

We will continue to work closely with our partners, including Murak Rai Timor E.P., and others as we strive to establish minable resources in Timor-Leste”

Figure 1 shows IP Line 1 over the Ira Miri Prospect where supergene manganese mineralisation was found outcropping at surface (Figure 2) on a west-facing hill during recent mapping. This outcrop was previously announced to the ASX on 18 November 2024.

The outcrop formed the centre of the IP line (at station 32 in Figure 1) and a low-resistivity anomaly was detected running eastwards and shallowly into the hill from that point. Supergene manganese is generally conductive and is capable of producing the response seen, buried below the much more resistive Baucau Limestone which was deposited over the top.

The FlashRes Universal 64 transmitter/receiver system is being operated by Estrella's geophysicist, a fully qualified Timor-Leste national with experience gained in IP from across Timor-Leste. This is the first time IP has been used in the country exclusively targeting manganese mineralisation.

Estrella intends to operate the system in-country for the next 2 months along with continued mapping of the Ira Miri trend so as to define further drill targets.



Figure 3: Estrella's Geophysicist, Eustaquio Amaral (right) with Mat Cooper of Core Geophysics during the IP trial

Permitting, Drill Access and Drill Planning

Estrella is progressing a work program across its seven Exploration and Evaluation Licenses that should see the Company drilling in the first and/or second quarter of 2025, targeting its Samalari, Ira Miri, Sica and Lalena Prospects (Figure 4). These prospects have all been the subject of the recent IP trial.

The IP data is undergoing final modelling and correlation with the geological sections. The resulting targets are being finalised ahead of drill and road access planning, environmental surveys, cultural surveys and government environmental approvals.

The Company will be targeting known outcropping mineralisation at Samalari in its Baucau licenses and Ira Miri in Lautém. Additional targets at Lalena and Sica arising from the IP trials will also be drilled.

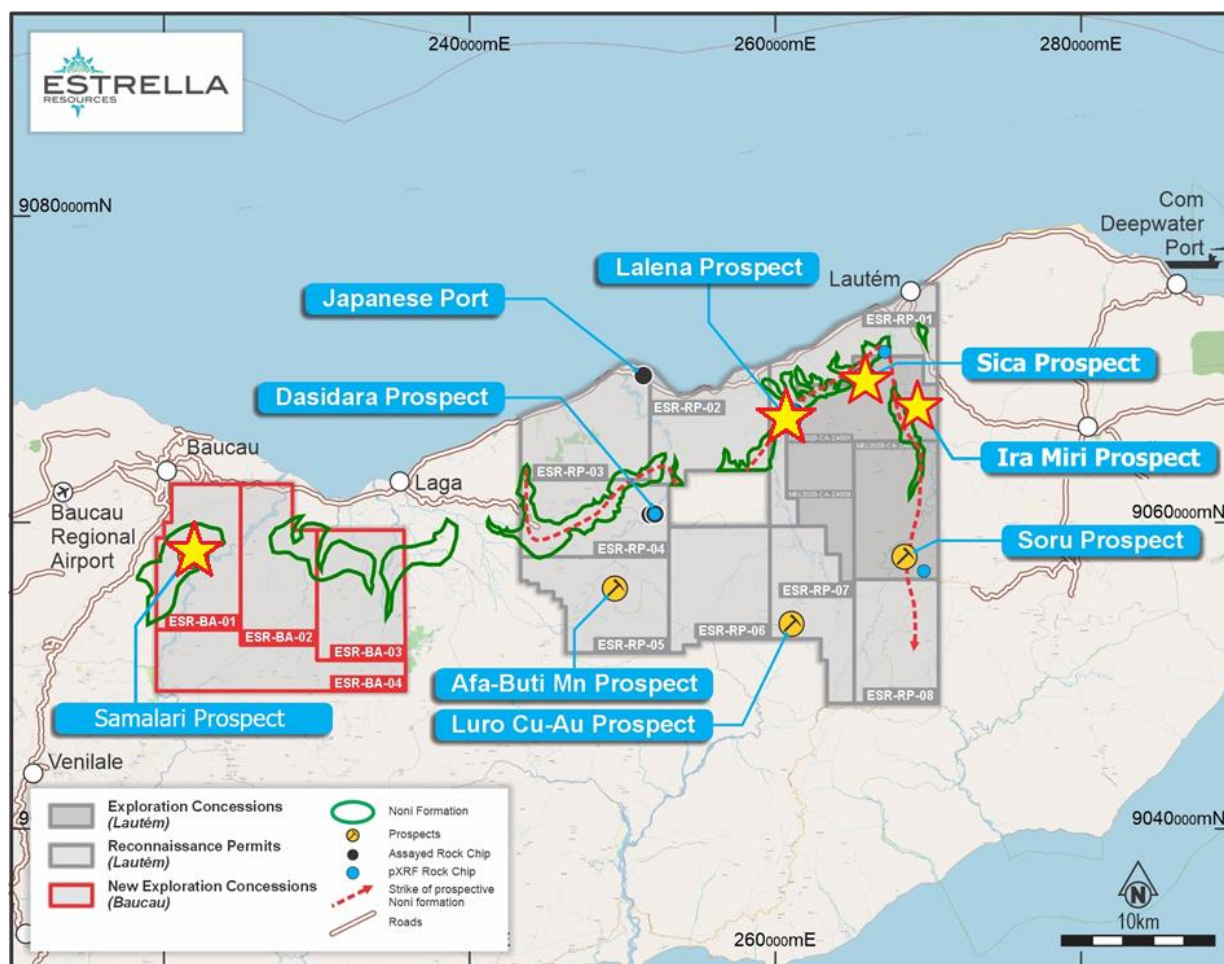


Figure 4: Location of Estrella's prospects where the IP trials have taken place

H2O Drilling, based in Dili has been drilling water bores in Timor-Leste since 1999, completing over 500 wells along with geotechnical drilling. Estrella is collaborating with H2O Drilling to expedite the first modern exploration drill program for economic minerals in Timor-Leste.

Essential RC equipment is being shipped from their base in Darwin. In addition, a track carrier for the compressor and a complete RC cyclone and sampling system was sourced in Vietnam (Figure 5). These are currently being shipped to Timor-Leste by the Company.



Figure 5: Track carrier and RC sample system from Vietnam being loaded into a sea container for transport to Timor-Leste



Figure 6: Existing 525 Boart Long Year Delta Base multi-purpose track mounted drill rig and water truck, with H2O drilling team in Timor-Leste.

The type of rig and auxiliary transport system pictured in Figure 5 will be essential as Estrella aims to mobilise towards the end of the wet season in February 2025, pending government approval and land access agreements where necessary. The first exploration drill crew (core search) will begin drilling campaigns utilising a reverse circulation configured multi-purpose drill rig expected to arrive in Dili in February 2025.

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

FURTHER INFORMATION CONTACT

Christopher J. Daws
Managing Director
Estrella Resources Limited
+61 8 9481 0389
info@estrellaresources.com.au

Media:
David Tasker
Managing Director
Chapter One Advisors
E: dtasker@chapteroneadvisors.com.au
T: +61 433 112 936

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. Mr Warriner and Mr Nicholls 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.

Cautionary Statement

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

APPENDIX 1 JORC TABLE 1 – TIMOR-LESTE EXPLORATION

Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 Induced Polarisation Geophysics was conducted under the supervision of Mathew Cooper of Core Geophysics using a FlashRes Universal 64 transmitter/receiver system, running on 12 volt truck batteries. Estrella's geophysicist, Eustaquio Amaral, a qualified geophysicist was also present during the trial. Both Mr Cooper and Mr Amaral conducted field QAQC prior to data interpolation. IP electrodes were placed at a 5m spacing and subjected to 315 volts of current using dipole-dipole and ZZ arrays. The results were initially interpreted using ZZ software for the initial interpolation. Final interpolations will be processed by Core geophysics after the RL corrections have been applied to the data. This is not reported upon here.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> No drilling has been undertaken to date.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Rock-chip samples were geologically logged for mineral content and photographed prior to sending for assay or screening by pXRF.

Criteria	JORC Code explanation	Commentary
	<i>relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> 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.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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</i> 	<ul style="list-style-type: none"> No systematic sampling has been conducted at this early stage.

Criteria	JORC Code explanation	Commentary
	<p><i>estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No orientation-based sampling bias has been identified.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • 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.

For personal use only

Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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

For personal use only

Criteria	JORC Code explanation	Commentary
		<p>where they have been exposed to chemical weathering.</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling has been undertaken in the area. Sample locations are shown in the body of the text.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> Any relationships have been discussed within the body of the text.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Relevant diagrams have been included within the main body of text.
Balanced Reporting	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Induced Polarisation Geophysics was conducted under the supervision of Mathew Cooper of Core Geophysics using a FlashRes Universal 64 transmitter/receiver system, running on 12 volt truck batteries. Estrella's geophysicist, Eustaquio Amaral, a qualified geophysicist was also present during the trial. Both Mr Cooper and Mr Amaral conducted field QAQC prior to data interpolation. IP electrodes were placed at a 5m spacing and subjected to 315 volts of current using dipole-dipole and ZZ arrays. The results were initially interpreted using ZZ software for the initial interpolation. Final interpolations will be processed by Core geophysics after the RL corrections have been applied to the data. This is not reported upon here. All observations are discussed within the body of the text.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. 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. 	<ul style="list-style-type: none"> 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.

For personal use only