

# Sica and Lalena Prospects Deliver Exceptional Assays

## HIGHLIGHTS

- ➔ Rock chip assays received from Sica Prospect (Figure 1) which consists of eroded and upgraded supergene manganese oxide material
  - Rock chip samples returned between **46% and 57% Mn** (Table 1) received from wide spaced sampling program
  - Exploration work to locate the source in-situ supergene material under near-by cover continues
  - Applications to gain relevant environmental approvals for ground-disturbing work submitted
- ➔ Assays for rock chips received for Lalena Prospect which resides in a similar geological setting to Sica
  - Assays between **19% and 56% Mn** returned (Table 1)
  - Further evidence of near-by supergene material under cover at Lalena
- ➔ Planning to deploy ground geophysics to locate in-situ supergene under cover is underway
  - In-country geological team expanded to meet aggressive exploration schedule including additional stratigraphic and geophysical expertise to complement existing capabilities

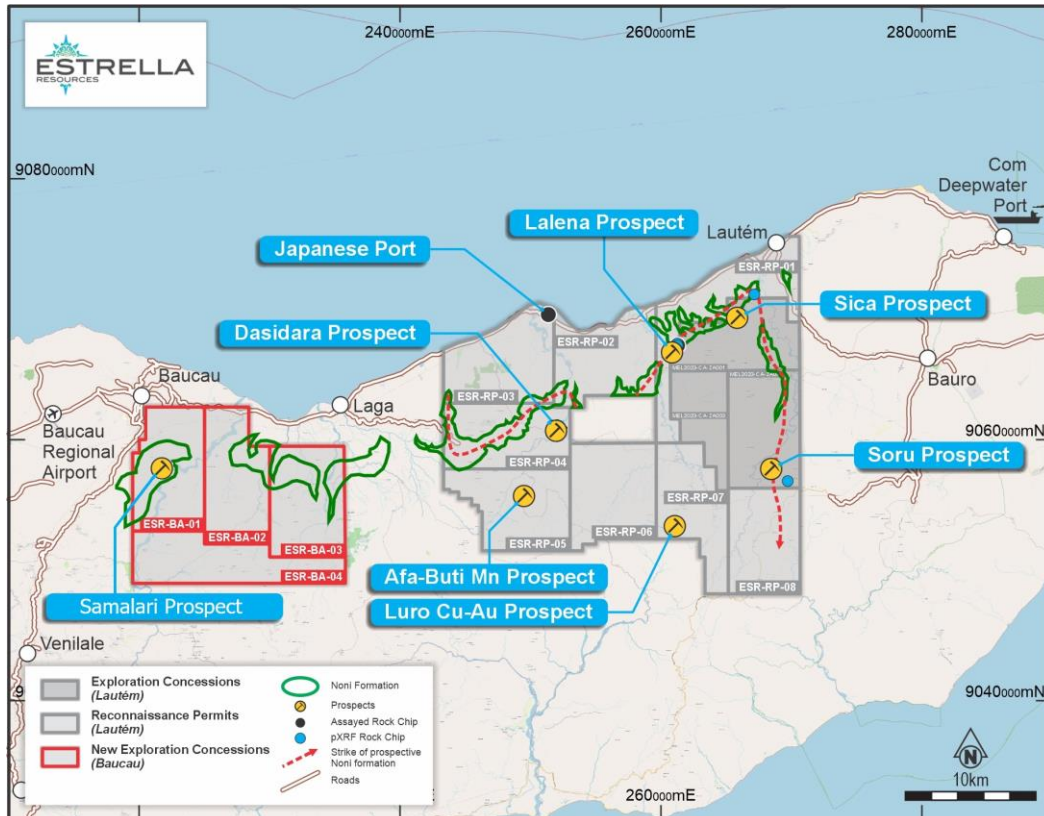


Figure 1: Location map with prospects

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Estrella Resources Limited (**ASX: ESR**) (**Estrella** or the **Company**) and the national Timor-Leste mining JV partner **Murak Rai Timor E.P.** are pleased to announce an update to exploration activities in the Lautém Municipality of Timor-Leste and the return of high-grade manganese assays from the Sica and Lalena mapping and sampling program conducted recently.

**Commenting on the results, Estrella Managing Director Chris Daws said:**

“With a constant stream of high-grade manganese results flowing from our Timor-Leste tenure, Estrella and our partners Murak Rai Timor continue to make fantastic progress unlocking mineralisation in this unexplored region.

“These results from Sica and Lalena add further weight to our rock chip discoveries, with a number of these samples first reported as containing anomalous manganese in pXRF results earlier this year (See announcement dated 1 August 2024).

“With our understanding of the relationship between the geological host Noni Formation and the observed manganese-bearing supergene blankets growing, Estrella is now pushing ahead with applications for ground-disturbing work and geophysical surveying.

“Estrella is entering a very exciting stage where our exploration focus will increasingly intensify on targeting the source of these early-stage rock chip discoveries and hopefully lead to the drill definition of high-grade manganese resources that can be developed.”

Surface samples of the concentrated manganese cobblestones were collected and exported to Australia for laboratory analysis with the results presented in Table 1 and sample locations in Figure 2 below.

**Table 1: Australian Laboratory Services assay results (ME-XRF26s) from the Sica and Lalena rock chip program**

Sample ID	Prospect	WGS84_52 Easting	WGS84_52 Northing	Mn%	Al2O3 %	Fe2O3 %	MgO %	P2O5 %	SO3 %	SiO2 %
CBR114548	Sica	265272	9068922	58.18	0.6	0.52	0.13	0.15	<0.01	0.99
CBR114525	Sica	266996	9070248	57.02	0.85	0.83	0.1	0.4	0.91	2.2
CBR114542	Sica	266333	9070146	56.73	0.45	0.39	0.15	0.15	0.17	4.48
CBR114543	Sica	265623	9069578	56.08	0.24	0.93	0.11	0.65	0.01	0.51
CBR114526	Sica	266565	9070105	53.35	0.61	1.46	0.96	0.1	0.63	2.51
CBR114527	Sica	266546	9070079	51.29	0.66	0.66	0.21	0.1	0.12	10.82
CBR114524	Sica	266994	9070546	48.70	1.7	1.07	0.3	0.05	1.52	11.62
CBR114522	Sica	264605	9069110	48.51	0.33	0.8	0.16	0.07	0.14	15.13
CBR114521	Sica	264513	9069085	46.03	0.26	3.75	0.3	0.07	0.12	5.82
CBR114520	Lalena	263425	9068298	56.22	0.47	0.88	0.16	0.1	0.1	0.98
CBR114518	Lalena	263311	9068077	48.81	0.57	4.45	0.4	0.11	0.03	2.81
CBR114517	Lalena	263288	9067967	44.48	1.43	6.59	0.94	0.05	0.5	5.73
CBR114553	Lalena	262114	9068811	38.20	0.47	0.88	0.29	0.1	0.05	21.17
CBR114523	Lalena	261792	9069355	31.21	1.75	17.51	1.41	4.47	0.29	7.31
CBR114554	Lalena	262341	9068497	31.04	1.44	21.78	1.01	2.46	0.43	6.72
CBR114519	Lalena	263316	9068129	19.35	0.65	14.97	0.17	0.16	0.19	45.37

The Sica and Lalena Prospects were discovered by mapping the prospective Noni Formation where primary manganese mineralisation is associated with a chert sequence towards the top of the formation. The manganese in these cherts has subsequently undergone supergene enrichment, forming a manganese-rich blanket above the weathered surface of the chert.

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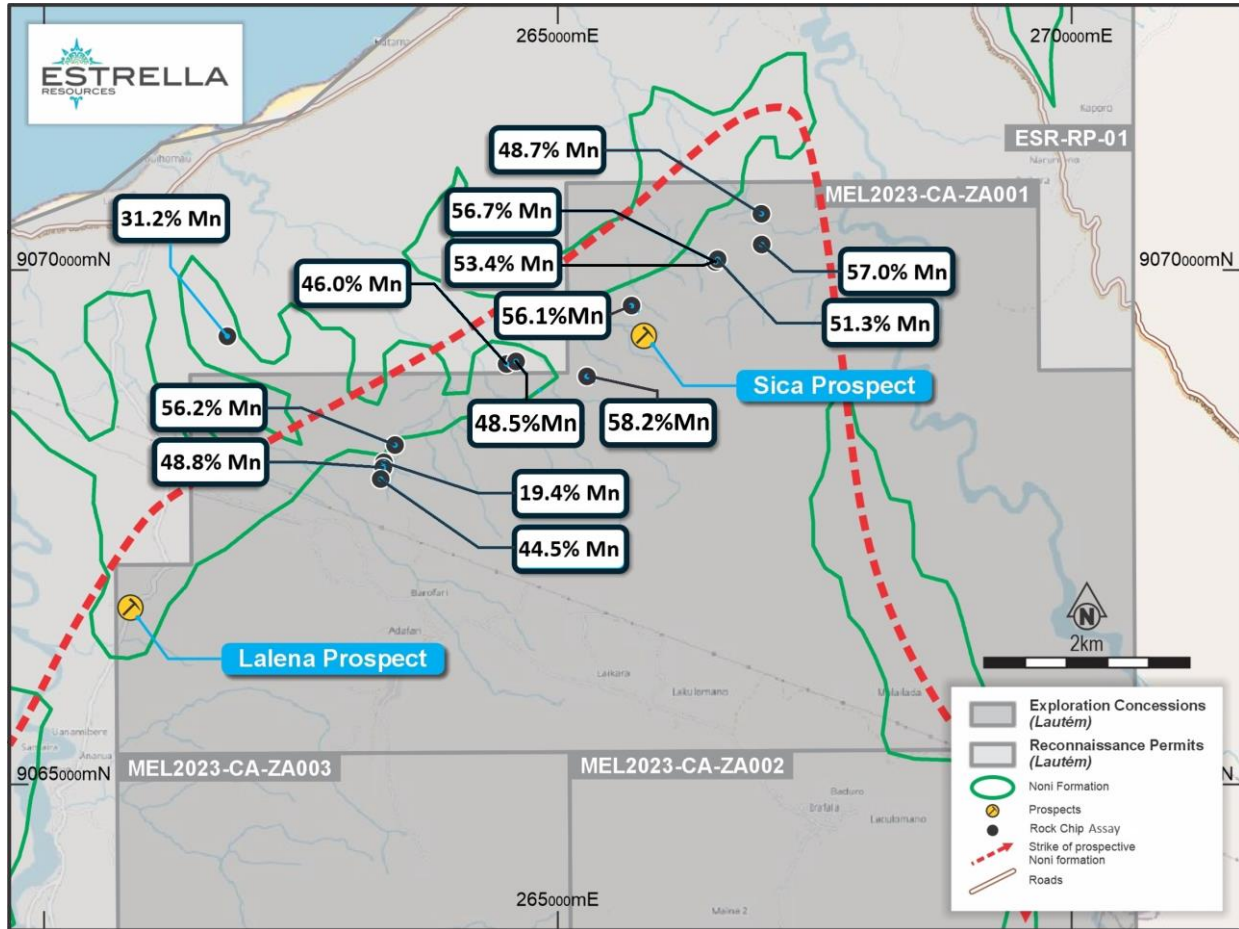


Figure 2: Sica and Lalena Prospects with Noni Formation highlighted (in green)

Mineralisation at Sica and Lalena consists of surface concentrations of manganese-rich cobblestones that are derived from the erosion of the supergene blanket (Figure 3). The concentrated, remnant supergene material can be found over a distance of several hundred metres at both prospects.



Figure 3: Layer of concentrated high-grade manganese supergene material at the Sica Prospect<sup>1</sup>

The eroded and concentrated mineralisation has been derived from in-situ supergene material that is now mostly covered in scree from the overlying limestones. The supergene process occurred during a period of sea-level drop and island uplift. Subsequently, sea-level rise after this period saw the supergene

<sup>1</sup> Refer to ASX Announcement dated 1 August 2024

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mineralisation buried and preserved below additional limestone sequences deposited over the top of the Timor Island.

Further uplift and erosion towards the present day has uncovered portions of this supergene blanket. The process has further enriched the supergene cobblestones that have been concentrated in valley floors throughout the Sica and Lalena Prospects.

The buried and preserved portions of the supergene blanket (an example shown in Figure 4) from which the surficial material has been derived remains the focus of exploration efforts.



**Figure 4: Subcropping chert and supergene material (estimated 85% chert, 15% manganese oxides) near the Sica Prospect**  
 This was not submitted for assay however pXRF readings from the manganese oxides were around 21% Mn indicating strong supergene enrichment. Cautionary Statement of pXRF – portable XRF results that are announced in this report are from uncrushed, rock-chip samples and are preliminary only. The use of the Bruker Titan S2 pXRF is an indication only of the order of magnitude of expected results.

The Company has employed an additional two technical staff to complement the existing in-country team. The new members strengthen the Company's stratigraphic mapping and geophysical skillset and will assist in meeting Estrella's aggressive exploration timetable.

The Company is developing the means to conduct geophysical surveys over areas it believes, through mapping, that the supergene blanket remains preserved below surficial scree and overlying limestones. The equipment required already exists in the country and has been used mainly to locate water for communities. Estrella will look to negotiate the use of this equipment and repurpose it for manganese exploration.

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Figure 5: Sica Manganese Prospect site visit - Estrella representatives including Managing Director Chris Daws, Beau Nicholls, Company geological team members, locals and representatives from Glencore plc.

The Company looks forward to updating shareholders as the exploration program continues to unfold.

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

**ENDS**

#### **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.

#### **Cautionary Statement of pXRF**

pXRF results that are announced in this report are from uncrushed, rock-chip samples and are preliminary only. The use of the pXRF is an indication only of the order of magnitude of expected final assay results. Four of the samples that are the subject of this report will be submitted for laboratory assay in Australia and some variation from the results presented herein should be expected.

**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.

**Competent Person Statement**

The information in this announcement relating to Exploration Results is based on information compiled by Mr Steve Warriner, who is the full-time Group Exploration Manager for Estrella Resources and a member of the Australian Institute of Geoscientists, and Mr Beau Nicholls, who is an Executive Director of Sahara Natural Resources consulting part-time to Estrella, 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.

**APPENDIX 1 JORC TABLE 1 – TIMOR-LESTE EXPLORATION**

**Section 1 - Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Initial rock-chip samples were taken and dispatched through customs and quarantine to ALS in Malaga for multi-element analysis.</li> <li>Samples were analysed using a 4-acid digest, ME-MS for 61 elements and ME-XRF for over-grade manganese on a 50g sub-sample.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken to date.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken to date.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Rock-chip samples were geologically logged for mineral content prior to sending for assay or screening by pXRF.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all</li> </ul>	<ul style="list-style-type: none"> <li>Sample sizes are appropriate to the grain size of the mineralisation.</li> <li>The exploration program is in its very early stages and initial sample sizes were kept small due to freight and customs / quarantine restrictions. They are not considered representative of the bulk of mineralisation.</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p>sub-sampling stages to maximise representivity of samples.</p> <ul style="list-style-type: none"> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are selected based on geological logging. Samples have been dispatched to an accredited commercial laboratory in Perth for analysis.</li> <li>Preliminary 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.</li> <li>Standards and blanks have not been included in this early phase of the program.</li> <li>Current field samples are being analysed by pXRF. The Cautionary statement is included when assessing pXRF.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No prior modern exploration has been conducted in the area.</li> <li>No adjustments to assay data were undertaken.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>GPS equipment using MGA94, Zone 52 coordinate system with an accuracy of +/- 5m.</li> <li>Topographic control using 30m spaced satellite point data.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No systematic sampling has been conducted at this early stage.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No orientation-based sampling bias has been identified.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Exported samples are in the possession of ESR personnel from field collection to customs submission in Dili.</li> <li>Non-exported samples remain with ESR personnel.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audit or review has been undertaken.</li> </ul>



Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration and Evaluation Concessions MEL2023-CA-ZA001, MEL2023-CA-ZA002 and MEL2023-CA-ZA003 are awarded to Estrella Murak Rai, forming the joint-venture between Estrella Resources Representante Permanente (70%) and Murak Rai Timor (30%).</li> <li>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%)</li> <li>Estrella Resources Limited Representante Permanente is registered in Timor-Leste and is a wholly-owned subsidiary of Estrella Resources Limited (Australia).</li> <li>All of the Concessions and Permits are current and in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Other local geologists and companies have sporadically explored the area however there has been no documentation collected nor systematic exploration to quantify mineral occurrences.</li> <li>No minerals drilling has taken place.</li> <li>No close-spaced geophysics has taken place.</li> <li>No systematic, modern exploration has taken place.</li> <li>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.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The current Permits host three main forms of manganese mineralisation.</li> <li>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.</li> <li>Additional primary mineralisation exists as pisolithic concretions and direct precipitates within deep-sea limestones.</li> <li>Secondary mineralisation exists in the form of small to extremely large clasts of manganese mineralisation associated with the Bobonaro Formation, a melange that is a lithotectonic unit composed mostly of broken, clay-rich layers that are mixed to varying degrees with structurally</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<p>and stratigraphically overlying units. This unit represents an under-sea collapse zone containing multiple manganese clasts over a very large area.</p> <ul style="list-style-type: none"> <li>• Tertiary mineralisation exists where high rainfall and erosion has sorted and concentrated detrital manganese into river paleo-channels.</li> <li>• Alluvial gold mineralisation has been reported in the area however no exploration has been undertaken.</li> <li>• 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.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>• 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"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length</li> </ul> </li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling has been undertaken in the area.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Exploration results with all relevant drillhole information are reported in the body of the text.</li> <li>• No aggregation methods have been used.</li> <li>• Metal equivalent values have not been used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• Any relationships have been discussed within the body of the text.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Relevant diagrams have been included within the main body of text.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and</li> </ul>	<ul style="list-style-type: none"> <li>• No new information has been withheld.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>other locations used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• No other substantive data exists as the program is in its early stages.</li> <li>• All observations are discussed within the body of the text.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Further work by ESR will include systematic mapping and sampling along with stratigraphic and structural classification.</li> </ul>

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