

Timorese riverbed throws up manganese cobbles for Estrella

Andrew Duffy in The West Australian Sponsored 31 May 2024

Estrella Resources' hunt for manganese in Timor-Leste is heating up, with recent grab samples from riverbeds going as high as 58.4 per cent manganese at the company's newly-coined Dasidara prospect.

Management says geological reconnaissance across its 503.7 square kilometres of ground has defined mineralisation through 30km of strike length as proposals to kick off trenching and drilling are maturing.

The riverbed at Dasidara also threw up a grab sample going 53.7 per cent manganese from an area described by Estrella as "high-grade manganese cobbles". The prospect is in virgin ground away from the company's three other Timorese deposits – the Sauro, Lalena and Japanese Port prospects.

Sauro sits within a granted exploration and evaluation lease and contains two areas in which the prospective Noni formation has been mapped. Portable X-ray fluorescence (pXRF) analysis suggests the rocks at Sauro contain as much as 27.9 per cent manganese.

Lalena also sits within the same exploration and evaluation lease and has thrown out rock chips taken from the Noni Formation assaying at a massive 60.8 per cent manganese. Notably, the Lalena prospect sits along strike from the newly-identified Dasidara prospect.

The most recent batch of samples from Lalena came back with a high of 48.9 per cent manganese from a weathered manganese nodule.

Estrella's work at its Japanese Port prospect is laced with intrigue as it has been sampling a 15m-by-10m stockpile of manganese collected at the WWII port location. Management says two grab samples from that stockpile went 57.6 per cent and 58.1 per cent manganese.

It begs the question – where did it come from? While finding a pile of transported rocks means little to subsurface de-risking, Estrella notes that the stockpile is on the coast, 10km downstream of its Dasidara prospect.

At the very least, the pile suggests the riverbed may be cutting away at manganese somewhere below the present-day surface – possibly in layers of mobilised laterite enriched in manganese that have been dragged from somewhere upslope and redeposited.

Estrella says weathering, lateritisation and erosion has moved manganese oxides from where they formed near the top of the soil profile, to thickened layers within local creeks where the manganese cobbles get concentrated over time.

"In just a very short period of time, our exploration team has made several promising manganese discoveries within our tenements in Timor-Leste. Indications are the manganese is very high grade, low in deleterious elements and has excellent Fe to Mn ratio, which is highly sort after material by world markets."

-- Estrella Resources managing director Chris Daws

The company believes those factors make the rocks valuable feedstock for smelters. Interestingly, manganese mines in neighbouring Java provide smelter feedstock straight from the ground in some cases, with little to no processing required.

Estrella says it has successfully mobilised crushing and other laboratory equipment to Timor-Leste to give it the ability to test and report multi-element pXRF results from within the country, including the use of the portable parts per billion gold detection system. Management says select samples will be double checked in Australia as a QAQC (quality assurance/quality control) method.

The Timor-Leste manganese story is fast developing into one of frontier exploration success for Estrella as the company's geologists continue to explore the hills south of the town of Lautem on the north coast.

With manganese demand modelled to grow on the back of the closure of the Groote Eylandt manganese mine in the Northern Territory – a situation expected to extend until mid-next year – and with a backdrop of rising prices, it probably isn't a bad time to be finding prospects like Estrella's.

Estrella bumps Timor-Leste manganese strike out to 47km

James Pearson in Business News, 26 June 2024

Geological mapping and grab sampling by [Estrella Resources](#) has stretched its manganese strike out to 47km in Timor-Leste, with some priority samples already crushed and sent back to Perth for expert lab analysis.

After adding an extra 20km of strike within the Noni Formation, the company says it is now weighing up its business case for the potential first-ever manganese exports from the Southeast Asian country formerly known as East Timor.

High-grade grab samples from Noni include a 28.1 per cent hit recorded 7km north of Estrella's main Lalena prospect. Lalena also threw up further samples of 53.1 per cent and 46.1 per cent where previously-reported results have been as high as 60.8 per cent.

On the back of its recent results, the company is pushing hard with its preparations for the high-grade samples to be trialled for market appraisal, while applications to start trenching and drilling at the site have been submitted to allow further testing.

In a bid to speed up the analysis of its samples, management has recently taken delivery of laboratory equipment in Dili, allowing it to immediately process some 70 samples to improve the accuracy of initial on-site readings. The additional pulverised samples sent back to Australia will be analysed by geochemistry expert ALS in Perth.

[Estrella Resources](#) managing director [Chris Daws](#) said: *"Our teams are working hard to define the limits of the extensive high-grade manganese occurrences located within our granted Timor-Leste concessions. We are working quickly to determine whether we may have an early opportunity to commence the first-ever manganese exports from Timor-Leste to take advantage of recent supply disruptions."*

Daws said the company planned to provide bulk 30-tonne samples to potential end-users for metallurgical testing. He said management was also confident a short period of fieldwork had defined several priority drill targets.

The strike extension news comes after Estrella's recent discovery, just 5km west of Noni, of a 30 to 40-tonne manganese stockpile at a known historic World War II site it has dubbed Japanese Port. Grab samples from the location have yielded assays of 57.1 per cent and 58.1 per cent.

The exact source of the stockpiled material is still unknown, but the company's working theory is that the local river may be cutting away at manganese somewhere below the present-day surface – possibly in layers of mobilised laterite enriched in manganese that have been dissolved from somewhere upslope and redeposited.

Estrella says weathering, lateralisation and erosion has moved manganese oxides from where they formed near the top of the soil profile, to thickened layers within local creeks where the manganese cobbles get concentrated over time. The company is now in the process of acquiring permission from the government to use the stockpile for market appraisal samples to potential customers.

The urgency with which the company is now working should not come as a surprise considering the recent surge in manganese prices. The price for 37 per cent-grade manganese increased recently by 35 per cent to \$US6.29 (AU\$9.44) per dry metric tonne units and although it has pulled back 10 per cent since, it shows little sign of normalising any time soon.

The prices have spiked higher after a decision by South32 earlier this year to rule out any production from its Groote Island manganese operations in northern Australia because of substantial damage inflicted by Cyclone Megan in March. The setback has accentuated an already tight supply situation as South African miners sought to cut back export volumes at the end of last year.

With manganese on the rise and the likelihood of further discoveries at its Timor-Leste ground, Estrella could well be feeling as if it is in the right place at just the right time.

Estrella unveils rich manganese find in untapped Timor-Leste

By Bart Bogacz. Sponsored in The West Australia 31 July 2024

Estrella Resources is continuing to deliver the goods at its Lautém project in virgin Timor-Leste, with the discovery of new supergene manganese mineralisation exposed from surface at its Sica prospect.

The company says it also received “exceptional” assay results from grab samples taken at several nearby prospects, with grades reaching as high as 57 per cent manganese. Notably, portable XRF (pXRF) readings at Sica range between 26 per cent and 59 per cent manganese, hinting at the potential for fertile mineralisation to be lurking beneath the ground.

Sica was originally identified by mapping the interpreted geology of the Lalena prospect in a northeasterly direction, with the outcropping Noni Formation previously recognised by Estrella as the host structure for the extensive manganese mineralisation across the Lautém tenure. Management noted that Sica is now understood to host concentrations of manganese-rich cobblestones that are derived from weathering of the Noni Formation and erosion of the resulting supergene enrichment.

The remnant supergene material stretches for several hundreds of metres, with the company continuing its detailed geological mapping campaign to define boundaries of the supergene zones ahead of planned trenching activities. Surface samples taken from Sica will be shipped to Australia for more detailed assay analysis.

Curiously, new pXRF readings from a swathe of grab samples at Lalena also returned high-grade manganese ranging between 34 per cent and 64 per cent. The results appear to be consistent with assay results from grab samples taken at Lautém, including from Lalena where grades between 50 per cent and 57 per cent manganese have now been reported.

Importantly, the new assays confirm the presence of high-grade manganese across Estrella’s multiple prospects at Lautém. They also appear to show a strong correlation between pXRF readings and more advanced assay analysis recorded at the project.

Management believes such a correlation arms it with the confidence in being able to determine the manganese grade while in the field, which could help fast-track exploration works at Lautém.

Our exploration team is gaining a very good understanding of the controls and distribution of manganese within the Lautem Manganese Project. This has resulted in another fantastic manganese discovery – one of the best to date – at our Sica Prospect. The new discovery location is less than 5km from the major northern coastal highway, providing excellent logistics for any potential future exploration and mining at the prospect.

Estrella Resources managing director Chris Daws

Daws says the company’s move into Timor-Leste is delivering “very positive results”.

Estrella is one of the first exploration companies to enter the untapped Timor-Leste after successfully bidding for its 504-square-kilometre Lautém land package during the nation’s inaugural minerals tender last year.

The grant of tenure follows Daws’ fostering of a long-term relationship with the government of Timor-Leste in anticipation of recently-passed legislation designed to facilitate a new mineral exploration and development industry in the country.

Although no modern exploration works have taken place previously at Lautém, Estrella is rapidly changing the landscape, having already defined a 27km strike length of the manganese-rich Noni Formation.

The discovery of supergene manganese at Sica, coupled with a string of high-grade results from a smorgasbord of targets, brings to light the potential for Lautém to host a significant mineralised system. It might be early days for Estrella, but the Perth-based outfit is ticking all the right boxes in its hunt for manganese in the largely unexplored Timor-Leste.

Glencore runs rule over Estrella manganese in Timor-Leste

West Australian by James Pearson Sponsored Fri, 11 October 2024

Global metals-trading giant Glencore has cast its eye across Estrella Resources' manganese ground in Timor-Leste, where the latter has unveiled high-grade rock-chip assays hitting up to 57 per cent manganese at its Sica and Lalena prospects in the nation's Lautém Municipality.

It seems Estrella's efforts in Timor-Leste are starting to attract the attention of the industry's big boys. In particular, the heads of both manganese and nickel trading for Swiss-based Glencore, David Danon and Alexander Chandra, were recent attendees at a site visit, seemingly drawn by the high-grades, potential low-cost production and proximity to the metal's main market in China.

The results, which highlight the high-grade nature of manganese mineralisation in the relatively unexplored region, have marked a major step forward in Estrella's exploration efforts. Key findings from the rock-chip assays revealed manganese concentrations ranging from 46 per cent to 57 per cent at the Sica prospect, while Lalena recorded readings of between 19 per cent and 56 per cent.

The mineralisation at both prospects appears to be related to the erosion and enrichment of supergene manganese material, which has provided valuable clues as the company continues to pinpoint future drilling targets in its hunt for the source.

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. 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.

Daws also pointed out that extensive work at the company's newly-acquired Salamari prospect has deepened its understanding of how the supergene manganese enrichment relates to the Noni Formation – the region's predominant geological host. The research has helped clarify the connection between the geological feature and the observed manganese-bearing supergene blankets and will be applied to all future exploration at the project.

Armed with its new working theory, Estrella – using an expanded on-ground team including geophysical and stratigraphic expertise – is now pushing ahead with applications for ground disturbing work and geophysical surveying, with a specific focus on identifying buried supergene blankets that may contain even richer mineral deposits.

With a backdrop of tight supply, the company's project appears well-timed to be able to fill the gap. Not only is the project brewing to become a high-grade source of material, it lends itself perfectly to a potentially low-cost direct shipping ore (DSO), with easy access to infrastructure already in place and also claims a significant proximity advantage to the main Chinese market over-and-above the world's other main manganese suppliers in Africa.

Earlier in the year, disaster struck for one of the world's biggest manganese producers, South 32, after a cyclone knocked out the company's main loading infrastructure at *Groote Eylandt* in Australia's Northern Territory, causing the commodity's price to surge from US\$3.60 (AU\$5.33) a tonne to as high as US\$9 (AU\$13.33) a tonne.

An enormous amount of money has reportedly already been spent on rectifying the issue, but after nearly seven months of no supply from the mine, the jury is still out on whether the operation will ever be restored to its former glory.

Given that Estrella's Timor-Leste project represents the first metal operation to be developed under the nation's new mining code – not involving the country's richly-endowed petroleum assets – the government is keen to promote the project's credentials as a template for future mineral plays within its borders.

Highlighting just how important the development is, Daws notes that the company has been invited to speak alongside government officials at the upcoming International Mining and Resources Conference (IMARC) in Sydney in three weeks' time.

It appears that Estrella – derived from the Spanish word for star – is becoming aptly-named, as the stars start to align for the company and its promising manganese project.