

# Equinox Strengthens Brazilian Footprint with Strategic Expansion into New Rare Earth Clay Tenements in Minas Gerais

Strategic applications further strengthens Equinox's emerging position in the global rare earths supply chain

# **Highlights**

- Equinox applies for ~850km<sup>2</sup> of tenements with compelling potential for ionic clay-hosted rare earths deposits in the State of Minas Gerais, in Patos de Minas, Brazil.
- The staking of the new "Mata da Corda" Rare Earths Project signifies a strategic extension of Equinox's recently established stake in rare earth clays in Brazil, expanding the Company's total exploration footprint to ~2,550km<sup>2</sup>.

**Equinox Resources Limited (ASX: EQN) ("Equinox" or "Company")** is pleased to announce that it has moved to rapidly expand its strategic rare earths exploration footprint in Brazil by applying for a new package of prospective rare earth clay tenements. This involves submitting strategic pegging applications for a ~850km² Mining Rights package to establish the newly defined "**Mata da Corda**" Project, located in the rare earth clay prospective province of Patos de Minas, in Minas Gerais State, Brazil.

The Company considers the establishment of the Mata da Corda Project as an important strategic extension of its recently staked Campo Grande Project in Brazil (see EQN ASX announcement, 28 November 2023), supporting its continued growth and development as a diversified global resources company and complementing its advanced iron ore asset in WA and lithium assets in Canada (together "Existing Projects"). The Company intends to continue undertaking the activities on the Existing Projects that were referred to in its previous announcements (including the Company's Quarterly Activities Report dated 26 October 2023).

Aside from the Agência Nacional de Mineração (ANM) application fee of approximately \$18,000 and expenses, the Company has yet to incur any expenditure related to the Mata da Corda Project.



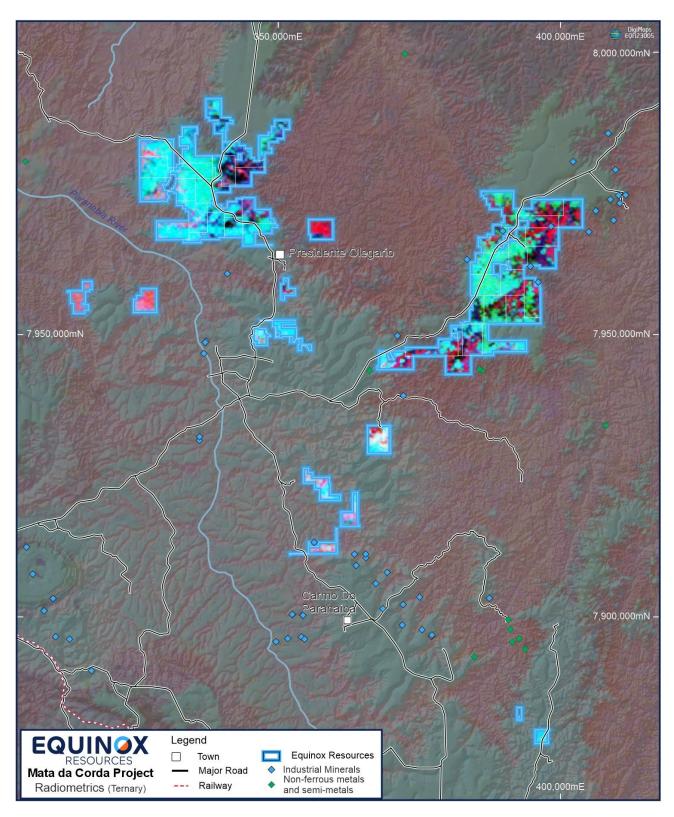


Figure 1: Map showing the tenements which Equinox has applied for in the Mata da Corda region.



# Equinox's CEO, Zac Komur, commented:

"The 'Mata da Corda' Project is not just an expansion, but another leap forward for us. It enhances our presence in Brazil, expanding our reach to an impressive 2,550km². The project transcends mere geographic expansion – it is a strategic move that positions Equinox as an emerging leader in the global rare earths clay sector, a key industry for the progression of technology and sustainable energy solutions.

"As with Campo Grande, our journey to this new region was also guided by extensive research and diligent analysis of geophysical markers. This preparatory work has been instrumental in leading us to this promising area.

"What excites us most, however, is our plan for 2024. Exploration planning is already underway, and as soon as the tenements are granted as expected in the first quarter of next year, we will be ready to implement our plans and start exploration and drilling at the Mata da Corda and Campo Grande Projects.

"This venture is more than just a new project for us: it represents the culmination of the partnerships we have already built in Brazil and our success in rapidly assembling a passionate and highly experienced team. I am eagerly looking forward to my return to Brazil in the first quarter of 2024 to commence drilling at these projects."

# **Project Overview**

The Mata da Corda Group, located in the Arco do Alto Paranaíba region, has been identified as a prime location for exploration for rare earth clay elements due to its unique geological composition and extensive size of approximately 2,200km². This area is distinguished by its kamafugitic rocks, which include a variety of formations such as subvolcanic plugs, volcanic flows, and pyroclastic deposits, indicating a rich and diverse geological history.

The region's soil is predominantly clayey and rich in iron, making it highly fertile. This is further enhanced by the presence of laterite crusts, which are known for their mineral content. The geological activity in the area, characterised by multiple volcanic pulses, has resulted in layers of pyroclastic materials like tuffs and lapillites, which are often associated with rare earth element deposits.



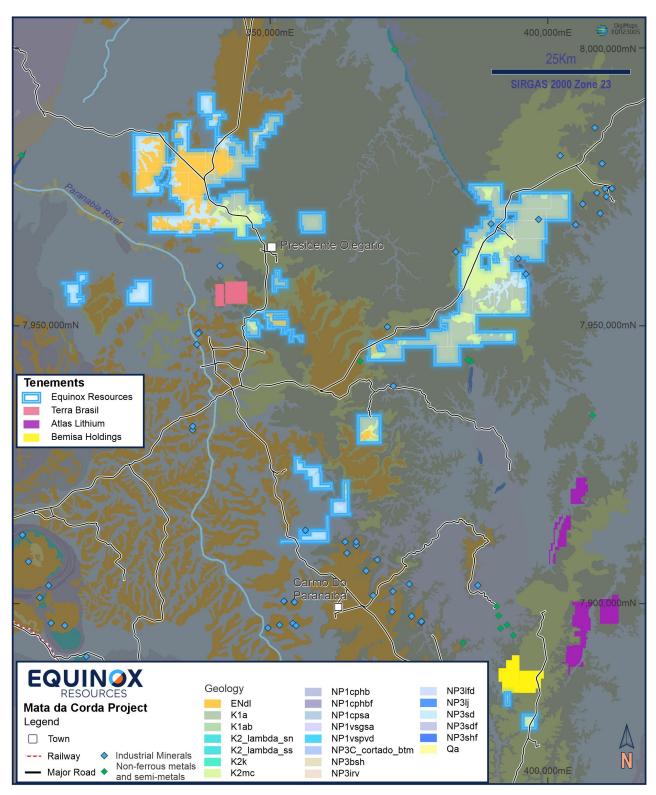


Figure 2: Mata da Corda Region - Geology

The Ministry of Mines and Energy's Geological Service of Brazil (CPRM) carried out the geological survey of potential areas in Brazil for strategic REE minerals and identified Mata da Corda region as significantly prospective for REE exploration. It identified the presence of minerals such as



fluorapatite, gorceixite, and wavellite in altered kamafugite rocks, along with titanomagnetite and anatase, points to a concentration of valuable elements including phosphorus, iron, titanium, and rare earth elements (Takehara, 2015)¹.

According to the CPRM assessment report (Takehara, 2015), the Mata da Corda Group is delimited by magnetometric (high magnetic susceptibility related to the extrusive body) and gamma spectrometric (high weathering related to soils and superficial laterite crust) geophysical anomalies. Equinox carried out desk top assessment of the area including re-interpretation of the available government geophysical data.

The tenements were selected based on the available mafic index and lateritic weathering index data which was reclassification with the aim of identifying areas where high lateritic index and high mafic index values are observed. After reclassification, the known boundary of the Mata da Corda Group was superimposed. The area was selected based on the higher indicators of mafic rocks and laterite packages within the Mata da Corda Group.

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<sup>&</sup>lt;sup>1</sup> Takehara L. et. Assessment of Land Potential for Rare Earths in Brazil, Secretariat of Geology, Mining and Mineral Processing, Ministry of Mines and Energy, 2015



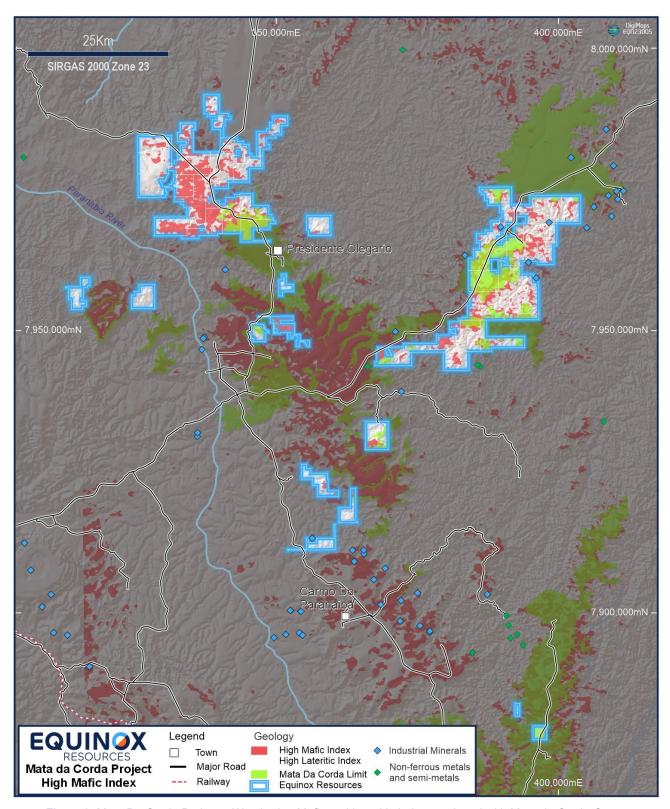


Figure 3: Mata Da Corda Project – Weathering Mafic and Lateritic Index overlayed with Mata da Corda Group

The geological and geochemical characteristics of the Mata da Corda Group make it an ideal location for pegging and exploring for rare earth clay elements.



# **Near-Term Exploration Priorities**

The Company, in the deployment of its growth ambitions and in securing the grant of the new tenements, will conduct a comprehensive project review and intends to undertake the following activities:

- Application for Preliminary Environmental Licence Q1 CY2024
- Preparation of the project exploration management plan Q1 CY2024
- Finalisation and selection of exploration contractors to commence a drilling campaign Q1 CY2024

Once the applications are granted, it is intended that Equinox will initially undertake preparatory work (such as soil sampling) on the Mata da Corda Project. These activities are intended to be funded by utilising the portion of the funds raised under the Company's recent capital raising (see Equinox's announcement dated 28 November 2023) that was previously allocated towards working capital purposes. The extent of any further exploration activities to be taken on the Project (and the requirement for the Company to raise any further funds to pay for such activities) will be assessed following the Company's initial activities on the Project.

# **Project Location**

The Mata da Cardo Project is situated about 400km from Belo Horizonte, along the Paranaíba River in south-eastern Brazil. This region is a key agricultural area, known for producing staples such as coffee, cotton, potatoes, sugarcane, and corn. Its economic base is further strengthened by light industry and livestock raising.

Education and healthcare infrastructure in the region are robust, with a range of schools and higher education institutions, as well as hospitals and clinics. This supports a healthy and educated local workforce. Additionally, the Pedro Pereira dos Santos Airport provides connectivity to major cities, facilitating travel and business operations.

The Mata da Cardo Project stands out due to its strategic logistical advantages. The region benefits from clean and affordable hydroelectric and wind power, as well as high-capacity electricity transmission lines. Such infrastructure is advantageous for mining and mineral processing operations.

Transportation infrastructure is also a key asset in the region. Major highways and the West-East Integration Railway support the movement of goods, enhancing trade and accessibility for local industries.

The area around the project has a significant population, offering a diverse labour pool. The city of Patos de Minas, with its population of approximately 160,000, is indicative of the region's labour potential. The local educational infrastructure helps in fostering a skilled workforce suitable for various industries, including agriculture, mining and manufacturing. The presence of efficient transport networks like highways and railways also improves workforce mobility, drawing from a larger labour pool in surrounding areas.



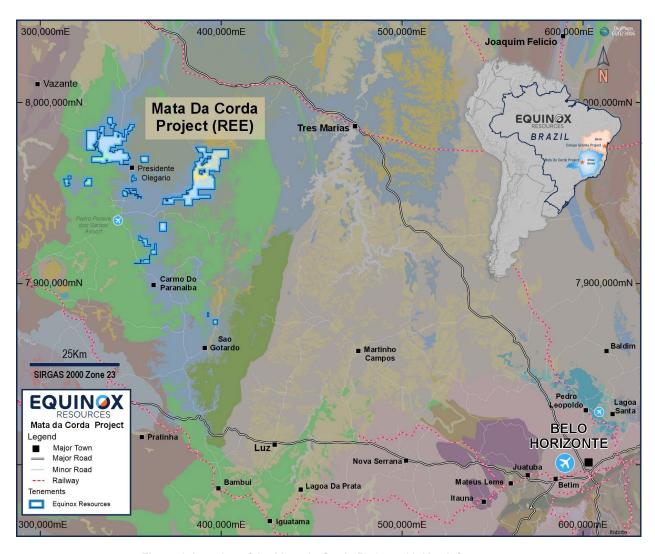


Figure 4: Location of the Mata da Cardo Project with Key Infrastructure



# **Mining Rights Under Application**

A summarised list of the 51 Exploration Licence Requests is provided below:

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Tenement No.	Phase	Prospect	State	Size (ha)	Substance
833352/2023	Exploration Request	Olegário	Minas Gerais	1,940.43	Rare Earths
833353/2023	Exploration Request	Olegário	Minas Gerais	1,951.60	Rare Earths
833354/2023	Exploration Request	Olegário	Minas Gerais	1,999.32	Rare Earths
833355/2023	Exploration Request	Olegário	Minas Gerais	1,933.61	Rare Earths
833363/2023	Exploration Request	Olegário	Minas Gerais	1,278.24	Rare Earths
833368/2023	Exploration Request	Olegário	Minas Gerais	1,183.97	Rare Earths
833372/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,881.13	Rare Earths
833373/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,929.17	Rare Earths
833375/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,951.77	Rare Earths
833376/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,841.67	Rare Earths
833377/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,927.08	Rare Earths
833378/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,987.97	Rare Earths
833379/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,932.61	Rare Earths
833380/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,964.65	Rare Earths
833381/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,979.76	Rare Earths
833384/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,810.88	Rare Earths
833388/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,996.56	Rare Earths
833389/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,496.27	Rare Earths
833396/2023	Exploration Request	Olegário	Minas Gerais	1,994.66	Rare Earths
833397/2023	Exploration Request	Olegário	Minas Gerais	1,426.47	Rare Earths
833398/2023	Exploration Request	Olegário	Minas Gerais	1,756.91	Rare Earths
833399/2023	Exploration Request	Olegário	Minas Gerais	1,521.93	Rare Earths
833400/2023	Exploration Request	Mata do Brejo	Minas Gerais	1,284.46	Rare Earths
833401/2023	Exploration Request	Mata do Brejo	Minas Gerais	1,537.79	Rare Earths
833402/2023	Exploration Request	Olegário	Minas Gerais	1,280.64	Rare Earths
833407/2023	Exploration Request	Olegário	Minas Gerais	1,996.21	Rare Earths
833409/2023	Exploration Request	Olegário	Minas Gerais	1,495.92	Rare Earths
833411/2023	Exploration Request	Olegário	Minas Gerais	555.38	Rare Earths
833362/2023	Exploration Request	Olegário	Minas Gerais	1,981.12	Rare Earths
833364/2023	Exploration Request	Olegário	Minas Gerais	1,133.30	Rare Earths
833365/2023	Exploration Request	Olegário	Minas Gerais	1,995.91	Rare Earths
833366/2023	Exploration Request	Olegário	Minas Gerais	1,865.33	Rare Earths
833369/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,947.72	Rare Earths
833370/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,929.70	Rare Earths
833374/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,939.92	Rare Earths
833383/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,932.87	Rare Earths
833385/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,972.80	Rare Earths



Tenement No.	Phase	Prospect	State	Size (ha)	Substance
833386/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,996.97	Rare Earths
833391/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,808.71	Rare Earths
833392/2023	Exploration Request	Olegário	Minas Gerais	1,690.95	Rare Earths
833393/2023	Exploration Request	Olegário	Minas Gerais	1,721.30	Rare Earths
833394/2023	Exploration Request	Olegário	Minas Gerais	1,979.80	Rare Earths
833403/2023	Exploration Request	Lagoa Formosa	Minas Gerais	1,992.95	Rare Earths
833404/2023	Exploration Request	Lagoa Formosa	Minas Gerais	1,539.60	Rare Earths
833405/2023	Exploration Request	Lagoa Formosa	Minas Gerais	1,130.69	Rare Earths
833406/2023	Exploration Request	Lagoa Formosa	Minas Gerais	1,000.95	Rare Earths
833413/2023	Exploration Request	Olegário	Minas Gerais	758.48	Rare Earths
833371/2023	Exploration Request	Varjão de Minas	Minas Gerais	1,858.08	Rare Earths
833419/2023	Exploration Request	Olegário	Minas Gerais	1,950.33	Rare Earths
833420/2023	Exploration Request	Matutina	Minas Gerais	573.43	Rare Earths
833422/2023	Exploration Request	Matutina	Minas Gerais	179.60	Rare Earths



## **Investor and Media Contacts**

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Authorised for release by the Board of Equinox Resources Limited.

# **Competent Person Statement**

The information in this report which relates to Exploration Results is based on information compiled by Mr Robert Wason, who is a member of the Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Wason is a consultant to Equinox Resources Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Wason consents to the inclusion in this report of the matters based on that information in the form and context in which it appears.

# FORWARD LOOKING STATEMENTS

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Equinox Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Equinox Resources Limited or any of its directors, officers, agents, employees, or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.



# JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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Criteria	JORC Code explanation	Commentary	
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Geophysical data/maps was sourced from the Government of the State of Minas Gerais survey of 2005-2006 for the area.     Details are as following:	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling has been undertaken.	
Drill sample recovery	<ul> <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>	No drilling has been undertaken.	
Logging	<ul> <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>	Not applicable as no drilling has been undertaken.	
Sub-sampling techniques and sample preparation	<ul> <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 subsampling stages to maximise representivity of samples.</li> </ul>	Not applicable as no samples have been taken.	



Criteria	JORC Code explanation	Commentary
	<ul> <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>	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Not applicable as no samples have been taken.
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.	Not applicable as no samples have been taken.
Location of data points	<ul> <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>	Navigation was controlled by an integrated GPS Inertial Measurement System with Magnetic Heading Sensors.
Data spacing and distribution	<ul> <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>	Not available.
Orientation of data in relation to geological structure	<ul> <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> <li>Not applicable, as no samples have been taken.</li> <li>Historical reports suggests that the geophysical survey grid was aligned to cross the majority of the known structures and stratigraphy.</li> </ul>
Sample security	The measures taken to ensure sample security.	Not applicable, as no drilling has been undertaken.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Not applicable, as no samples have been taken.



Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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 licence to operate in the area.</li> </ul>	The Mata da Cardo Project is situated about 400km from Belo Horizonte, along the Paranaíba River in south-eastern Brazil. The tenement count considers 51 valid applications for grant of tenements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No other exploration is known apart from the government agency's field mapping and geophysical datawork.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Mata da Corda Group occupies an extensive plain of approximately 2,200 square kilometers on the eastern flank of the Arco do Alto Paranaíba.</li> <li>This area is characterised by having rocks with kamafugitic affinity that appear in the form of subvolcanic plugs, volcanic flows and pyroclastic deposits (Patos Formation) and epiclastic deposits (Capacete Formation), with a predominance of explosive rocks (Seer et al., 1989).</li> <li>The entire plateau is covered in iron-rich, predominantly clayey weathered soil, making it highly fertile for agriculture. Laterite crusts are common in the landscape.</li> <li>From a geological point of view, volcanism in the region occurred in multiple pulses, as evidenced by the recurrent presence of pyroclastic levels, including tuffs, lapillites and breccias. Rocks with kamafugitic affinity include mafurites and ugandites, which are ultrabasic rocks, characterised by the presence of feldspathoids instead of feldspars, in addition to abundant clinopyroxene, titanomagnetite and perovskite (Takehara, 2015).</li> </ul>
Drill hole Information	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:	Exploration results are not being reported.



Criteria	JORC Code explanation	Commentary
	of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</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>	Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	Exploration results are not being reported.
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.	Appropriate diagrams are included in the main body of this announcement.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Exploration results are not being reported.
Other substantive exploration data	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.	Relevant maps and diagrams are included in the main body of the report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Proposed work program after the grant of tenements is included in the main body of the report.