23 April 2024

# SUMMIT TO ACQUIRE TRANSFORMATIONAL BRAZILIAN NIOBIUM, RARE EARTH & LITHIUM PORTFOLIO

# **HIGHLIGHTS**

Summit has entered into a binding purchase agreement to acquire 100% of JUAZEIRINHO (Nb, REE), EQUADOR (Nb, REE), ARATAPIRA (REE), SANTA SOUSA (REE), T1/T2 (REE) & HERCULES NORTH & SOUTH (Li) Projects situated in the mining friendly and commodity-rich states of Minas Gerais & Paraiba.

#### NIOBIUM AND REE PACKAGE HIGHLIGHTS

- The Niobium and REE tenement package consists of Juazeirinho, Equador, Aratapira, Santa Sousa and T1/T2 Projects, covering a combined strategic area of 10,747.36 Hectares (107.47 km²) across 11 granted tenements.
- Exceptional grades in Niobium Pentoxide (Nb2O5) and partial rare earth oxide (PREO) were produced in panned concentrates from pegmatite and sediment samples at Juazeirinho and Equador (Paraiba State).1:

### **JUAZEIRINHO ASSAYS (Niobium & REE)**

- 355,400ppm or 35.54% (Nb<sub>2</sub>O<sub>5</sub>) + 14,080ppm PREO or 1.408% PREO (SID 099/24)
- 107,010ppm or 10.7% (Nb<sub>2</sub>O<sub>5</sub>) + 142,080ppm PREO or 14.208% PREO (SID 098/24)

#### **EQUADOR ASSAYS (Niobium + REE)**

- 303,400ppm or 30.34% (Nb<sub>2</sub>O<sub>5</sub>) + 15,130ppm PREO or 1.513% PREO. (SID 100/24)
- Nine of 17 rare earth elements were analysed by the previous owner and used in PREO calculations, implying higher TREO (total rare earth oxide) values are probable.
- Numerous LCT-pegmatite bodies were observed at Equador and Juazeirinho, indicating good potential for columbite/tantalite, lithium, with significant concentrations of niobium across these projects.

#### LITHIUM PACKAGE HIGHLIGHTS

- The lithium tenement package consists of the Hercules North and the Hercules South projects, covering 18,519.44 hectares (185.19 km²) across 14 licenses (granted and applications) situated in the prolific Jequitinhonha or Lithium Valley (Minas Gerais), where 85% of Brazil's lithium resources are located.
- Numerous artisanal mines exist within & near the tenement boundaries, where large LCT
  pegmatites have been identified that produced beryl, aquamarine, and spodumene in
  economic quantities, as evidenced by local stockpiles from garimperios production.

 $<sup>^{1}</sup>$  Note the Project Vendor provided these results and, as such, have not been previously formally released until now.



23 April 2024

- Artisanal surface mining has been prominent across all projects, providing priority drill targets for deeper-level pegmatite-related mineralisation.
- Summit has established an in-country exploration team ready to conduct an aggressive exploration program on all tenements concurrently.
- Summit has a strong balance street, having ~A2.2m AUD in the treasure as of the last quarterly cash report<sup>2</sup>.

# **Summit Managing Director, Gower He, commented:**

"We are extremely pleased to acquire these highly prospective projects. We anticipate acquiring these niobium, REE and lithium projects will enhance our company's status as a critical mineral explorer and developer.

Over the last few months, we have assessed many options for project acquisition and have chosen these highly prospective and large-scale projects within the established mining-friendly jurisdiction of Brazil. Additionally, Brazil, being a relatively geopolitically neutral jurisdiction, should provide us with unrestricted access to global off-take and funding options, giving our projects the best chance of success within the macro environment.

In addition to some of the strong historical grades, we received great observational reports from our recently completed on-site DD, from which we await rock chip and soil assay results. Expansive exploration programs are already being planned as we look to rapidly develop our projects, giving ourselves the highest chance of success.

I would like to personally thank all our loyal shareholders for their ongoing support. We look forward to regularly informing the market of our progress."

Summit Minerals Limited (ASX: SUM) ("Summit" or the "Company") is excited to announce that it has signed binding agreements ("Agreements") to acquire tenement packages highly prospective for rare earth elements (REE), niobium, and lithium. Term sheets were signed with vendors RTB Geologia & Mineracao Ltda (RTB), Sandro Arruda Silva Ltda. (SAS), and Mineracao Paranal Ltda (MPL) to acquire legal ownership and title over certain Exploration Permits and Applications for Exploration covering an area of 29,267 hectares in Minas Gerais and Paraiba States, Brazil (Figure 1; Table 2).

The Company continues to focus on executing its critical mineral strategy by purchasing several REE and niobium-rich opportunities in a country that hosts approximately 98% of the world's active niobium reserves<sup>3</sup> in addition to acquiring a lithium package located within the Araçuaí Orogen and Minas Gerais' fabled Lithium Valley, a developing world-class lithium production province.

<sup>&</sup>lt;sup>2</sup> Quarterly Activity and Cash Flow Report (30 January, 2024)

<sup>&</sup>lt;sup>3</sup> https://revistapesquisa.fapesp.br/en/the-niobium-controversy-2/

23 April 2024

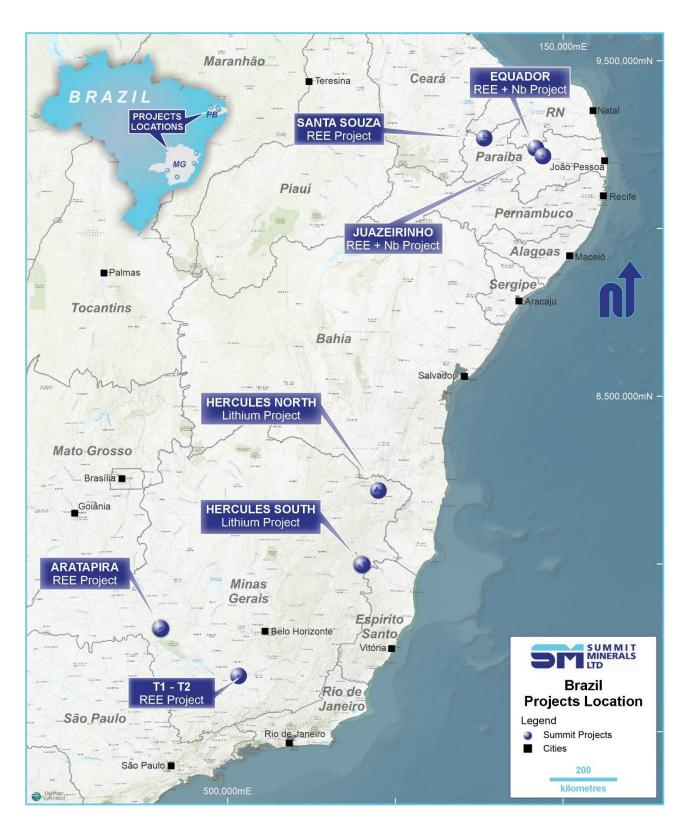


Figure 1 - Project locations, Minas Gerais and Paraiba States, Brazil

23 April 2024



Figure 2 Historical near-surface mining operations at Equador (751495 mE, 9246273 mN)

#### **BACKGROUND AND DISCUSSION**

Niobium is a rare metal found in rocks of volcanic origin in numerous locations worldwide. It is relatively difficult to find and is produced from pyrochlore and tantalite ores and as a by-product of mining for other minerals. Tiny amounts of niobium can make the steel used in construction twice as strong and more resistant to cracking. Traditionally, Niobium is used in high-quality steel manufacturing for construction and machinery, and super alloys used in the aerospace and oil and gas industries. With the latest electric vehicle battery innovations, it is set to be used in next-generation batteries to increase range and stability and decrease the use of cobalt. Making it a critical element in the race for decarbonisation.

### **Niobium and Rare Earth Element Tenements (Package 1)**

The acquired rare earth tenement package comprises six projects: Equador, Juazeirinho, Aratapira, Santa Sousa, and T1/T2. It covers 10,747.36 Hectares (107.47 km2) across 11 granted tenements.

This announcement focuses on the historical results of the Juazeirinho and Equador Projects (Figure 3; REE-Nb, Paraiba State) as the Company awaits the return of field results from its due diligence on them and the other projects.

# Background Geology - Paraiba State

The Paraiba projects, including Equador and Juazeirinho, are situated in Borborema Pegmatitic Province (BPP) in Northeast Brazil. This pegmatitic province represents one of the world's most important sources of tantalum, REE and beryllium, as well as producing significant quantities of



23 April 2024

gemstones, including aquamarine, morganite, and the high-quality turquoise blue "Paraíba Elbaite".

The Boqueirão granitic pegmatite is broadly widespread over the BPP and is classified as belonging to the lithium-cesium-tantalum (LCT) family<sup>4</sup>. It is enriched in Li, Rb, Cs, Be, Sn, Ta, Nb, B, P, and F. Similar to pegmatites of the Lithium Vally, the Boqueirão granitic pegmatite is related to granites of the late- to post-orogenic phase, labelled as G4 granites. It has intruded into meta-conglomerates of the Equador Formation and older granite and gneissic rocks near the Equador and Juazeirinho Projects. During the due diligence field reconnaissance, the unit was identified within both project areas.

The Equador and Juazeirinho Projects lie approximately 18 km north and 12 km east of Mineração Miranda, a large lithium, tin and columbite mine.

Field investigations - Juazeirinho and Equador Projects

Previous field investigations by the vendor, Sandro Arruda Silva Ltda, on the Juazeirinho and Equador Projects collected several pan concentrates from stream sediment samples and grab samples of pegmatitic rocks (Figure 3). The panned concentrates were sent to Alex Stewart International, an International iso-accredited laboratory, for analysis by pressed powder X-ray fluorescence. The samples were dried, pulverised, and pressed into standard pellets before XRF spectrometry measurements were completed. Radioisotope sources (109Cd and 241Am) were used for sample excitation, while X-ray spectra were acquired using a Si(Li) detector coupled with adequate electronics.

The vendor provided the following previously unreleased exceptional results in niobium pentoxide (Nb<sub>2</sub>O<sub>5</sub>; Appendix 1) and partial rare earth oxide (PREO) from the pressed powder X-ray fluorescence analysis of the panned concentrates (See address of Listing rule 3.1 - Appendix 2):

- Sample 099/24 355,400ppm or 35.54% Nb<sub>2</sub>O<sub>5</sub> + 14,080ppm or 1.408% PREO + 117,980ppm or 11.798% Ta<sub>2</sub>O<sub>5</sub> (Juazeirinho)
- Sample 098/24 107,010ppm or 10.7% Nb<sub>2</sub>O<sub>5</sub> + 142,080ppm or 14.208% PREO + 22,480ppm or 2.248% Ta<sub>2</sub>O<sub>5</sub> (Juazeirinho)
- Sample 100/24 303,400ppm or 30.34% Nb<sub>2</sub>O<sub>5</sub> + 15,100ppm or 1.51% PREO + 154,510ppm or 15.451% Ta<sub>2</sub>O<sub>5</sub> (Equador)

The analyses were completed in mid-March 2024.

The Equador sample (100/24) with a result of 30.34% Nb<sub>2</sub>O<sub>5</sub> confirms a reported historical sample (by CT Minerals) of 14% Nb<sub>2</sub>O<sub>5</sub> (751958 mE, 9246054 mN). Little information about the sample is known besides the result and its location.

The typical calculation of TREO involves summing the oxide values for the entire REE suite of 17 elements. At Juazeirinho and Equador, we consider only the nine rare earth elements analysed by the vendor: CeO<sub>2</sub>, La<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Ga<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Pr<sub>2</sub>O<sub>3</sub>, and Yb<sub>2</sub>O<sub>3</sub> in the PREO calculation (Table 1). Consequently, in all cases, the actual tenor is likely higher.

\_

<sup>&</sup>lt;sup>4</sup> https://www.mdpi.com/2075-163X/9/4/233



23 April 2024

Table 1 – Verified historical PREO results – Equador and Juazeirinho pan concentrates

Sample No	East_Z24UTM	North_Z24UTM	La₂0₃%	Ce0 <sub>2</sub> %	Nd <sub>2</sub> 0 <sub>3</sub> %	Pr <sub>2</sub> 0 <sub>3</sub> %	Eu <sub>2</sub> 0 <sub>3</sub> %	Ga <sub>2</sub> 0 <sub>3</sub> %	Gd <sub>2</sub> 0 <sub>3</sub> %	Y <sub>2</sub> O <sub>3</sub> %	Yb <sub>2</sub> 0 <sub>3</sub> %	PREO%
099/24	773864	9225107	0.224	0.358	0.123	0.007	0.04	0.096	0.036	0.524		1.41%
098/24	774117	9224986	4.821	5.513	1.615	0.01		0.034		2.012	0.203	14.21%
100/24	752306	9246054	0.388	0.669	0.112	0.01		0.14	0.043	0.151		1.51%

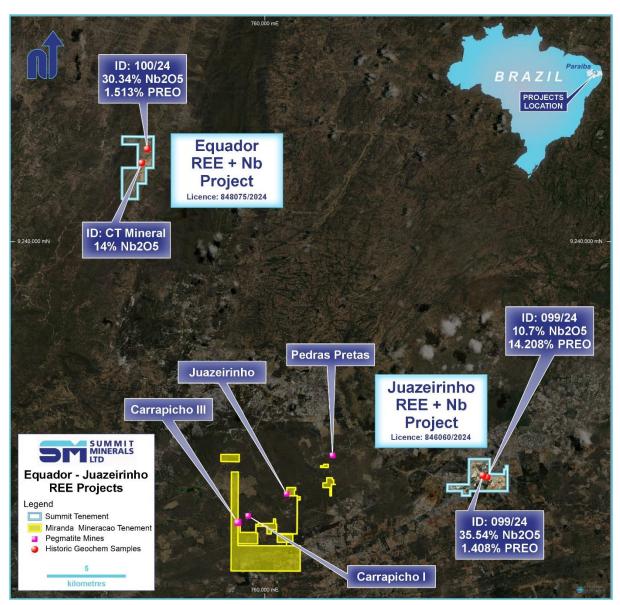


Figure 3 Location and relation of the Equador and Juazeirinho Project to the Miranda Mineracao Ltda mine with sampling locations.

Low-intensity magnetic separation to reduce ferromagnetic contaminants confirmed the presence of columbite in both projects. Several pegmatite outcrops were identified in each project, showing good potential for columbite/tantalite with the potential to carry significant concentrations of niobium.



23 April 2024

# **Cautionary Statement**

Mineral exploration using the concentration of heavy minerals from stream sediments is one of the oldest methods of prospecting for ore. Many ore minerals are dispersed in the surficial environment as chemically and mechanically resistant detrital grains with greater densities than most common rock-forming minerals. Inspection and analysis of these grains in heavy-mineral concentrates provides valuable information on mineralisation and bedrock geology, complementary to that derived from fine-fraction stream-sediment samples. Traditionally, this technique has been applied to precious metals, gems, and tin and tungsten minerals, which can be identified visually in the field. More recently, multi-element chemical analysis of heavy-mineral concentrates has become widely used. The technique is widely used in first-pass (area selection) exploration where heavy ore minerals are anticipated. Such is the case at Equador and Juazeirinho.

The vendor has used this approach, panning a heavy mineral concentrate from an active stream bed. The concentration is threefold via stream action (saltation and concentration), pan concentration, and low-intensity mag separation, providing an optimised sample for analysis. A substantial enrichment in the reporting values can be expected in the appropriate geological environment, such as downstream of (topographically below) historical workings or a yet-to-be-identified mineralisation.

The Company will undertake fieldwork to test and confirm the results and the projects for potential niobium, tantalum, rare earth, and lithium mineralisation. Laboratory analysis of routine exploration samples, including pan-concentrates, is required to determine whether the projects have the potential to host mineralisation.

Nothing observed causes Summit and the Competent Person to question the accuracy or reliability of the provided pan-concentrate results. Summit has not independently validated the former owner's results and is not to be regarded as reporting, adopting, or endorsing those estimates. The Company is encouraged by the geology and the results, but no quantitative or qualitative mineralisation assessment has been completed. It is possible that following further evaluation and/or exploration work the confidence in the prior reported Exploration Results may be reduced.

Full disclosures are attached in JORC Table (Appendix 2).

# **Lithium Tenements (Package 2)**

Summit has acquired legal ownership and title over twelve Exploration Permits and two Applications for Exploration covering 18,519.44 hectares in the northeastern Lithium Belt in Minas Gerais, Brazil. The lithium package comprises two project areas, Hercules North and Hercules South, in the Araçuaí orogen, which currently holds Brazil's largest pegmatite-hosted lithium resources.

Minas Gerais is a tier-1 mining destination, and the Araçuaí Orogen is the heart of Brazil's lithium potential. The Minas Gerais State Government has recently facilitated mining and exploration in the Lithium Valley to support a vertically integrated lithium industry development, from mining to battery production. This commitment underscores the region's strategic importance and further enhances Summit's prospects for success.





23 April 2024

#### Background Geology - Minas Gerais State

The northeastern portion of Minas Gerais contains the world's greatest concentration of complex granitic pegmatites, which are especially noted for producing gem beryl, chrysoberyl, topaz, tourmaline, and kunzite. The lithium pegmatites of the East Brazil Lithium Belt lie primarily within the Neoproterozic Araçuaí Fold Belt, which consists largely of metamorphosed sediments and volcanics that have been intruded by younger Neoproterozoic I-type granites and Neoproterozoic to Cambrian age peraluminous S-type granites commonly referred to as G1 to G5. The lithium deposits throughout the belt are typically associated with pegmatite intrusions in close proximity to G4 granites. Mineral occurrences associated with the deposits include spodumene, beryl, niobium, tantalum, tin and tourmaline, many of which have been identified by the Geological Survey of Brazil.

#### Field Investigations – Hercules North and South Projects

The Projects, which have not previously undergone exploration for lithium, were targeted based on several key characteristics, including their location within the 'Lithium Valley' in Minas Gerais state, general proximity to G4 granites and known lithium deposits, pegmatites and lithium pathfinder mineral occurrences (tourmaline, beryl, etc., and the presence of artisanal mining and leucogranites.

Leucogranites are considered the ideal geological setting for lithium concentration due to their low iron and magnesium content, higher potential lithium fertility, and association with hydrothermal activity. Several leucogranites were identified during reconnaissance, many featuring graphic textures that develop when lithium is added to the melt.

Artisanal mines were identified in several Hercules tenements, with numerous pegmatite-related mineral occurrences and recorded pegmatites. Most notably, Hercules North lies adjacent to a 1938 registered mining tenement that produced tourmaline and beryl from pegmatite. The pegmatite trends from the historical working onto the Hercules North tenement.

Minerals commonly associated with lithium-bearing pegmatites were observed at Hercules North and South Projects, including coarse tourmaline, biotite, muscovite, rose quartz, and feldspar. The fieldwork, thus, confirmed that many pegmatites identified within and adjacent to Hercules Projects exhibited similar characteristics to those found at nearby spodumene projects, such as Sigma's Grota do Cirlo mine and Lithium Ionic's deposits.

#### **Transaction Terms**

The material terms of the binding terms sheets entered into by the Company in respect to the Lithium Project and the Niobium / REE Projects are set out below.

# **Lithium Projects**

Vendors: RTB & MPL

Consideration:

- (i) **Upfront Cash Payment:** AUD\$100,000 cash payment payable on completion of the acquisition of the tenements.
- (ii) Cash Payment 2: AUD\$100,000 cash payment, payable upon achieving a 5-metre intersection at a minimum of 1% lithium;

23 April 2024

- (iii) Cash Payment 3: \$AUD\$100,000 cash payment payable upon achieving a 10-metre intersection at a minimum of 1% lithium.
- (iii) Royalty: A 2% NSR granted to the vendors or their nominees.

The consideration to be issued to RTB & MPL will be issued in equal proportions.

### **Niobium / REE Projects**

Vendor: SAS

- (i) **Upfront Cash Payment:** AUD\$225,000 cash payment payable to SAS or its nominees on completion of the acquisition of the tenements;
- (ii) SUM Share Issuance: Subject to shareholder approval, to issue SAS or its nominees, 6,000,000 fully paid ordinary shares in SUM (Shares) within two months from the date of entering into the agreement (50% of the Shares will be escrowed for 6 months from the date of issue); and (iii) Royalty: A 2% NSR granted to SAS or its nominees.

The binding terms sheets otherwise contain standard terms and conditions for agreements of this nature.

The binding terms sheets are unconditional; completion is expected on 29 April 2024.

Table 2 – Tenement packages to be acquired by commodity.

Package 1	Area (Ha)	Status	Project Name	Commodity	State	Ownership	Tenement ID
1	475.53	Granted	Juazeirinho	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	846060/2024
2	533.89	Granted	Equador	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	848075/2024
3	476.5	Granted	Aratapira	REE/Nb/Ta	Minas Gerais	Sandro Arruda Silva Ltda	830140/2024
4	337.74	Granted	Aratapira	REE/Nb/Ta	Minas Gerais	Sandro Arruda Silva Ltda	830141/2024
5	381.11	Granted	Aratapira	REE/Nb/Ta	Minas Gerais	Sandro Arruda Silva Ltda	830142/2024
6	297.57	Granted	T1	REE/Nb/Ta	Minas Gerais	Sandro Arruda Silva Ltda	830796/2024
7	343.92	Granted	T2	REE/Nb/Ta	Minas Gerais	Sandro Arruda Silva Ltda	830797/2024
8	1913.24	Granted	Santa Sousa	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	848091/2024
9	1988.39	Granted	Santa Sousa	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	846062/2024
10	1999.48	Granted	Santa Sousa	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	846063/2024
11	1999.99	Granted	Santa Sousa	REE/Nb/Ta	Paraíba	Sandro Arruda Silva Ltda	846064/2024
	10,747.36						

Package 2 Area (Ha) Status **Project Name** Commodity State **Tenement ID Owership** RTB Geologia & 298,49 1 Granted Hercules South Lithium Minas Gerais 832418/2023 Mineracao Ltda RTB Geologia & 990,91 Granted 832419/2023 Hercules South Lithium Minas Gerais Mineracao Ltda RTB Geologia & Granted 3 249,36 Hercules South Lithium Minas Gerais Mineracao Ltda 832420/2023 RTB Geologia & 4 97,87 Granted Hercules South Lithium Minas Gerais 832421/2023 Mineracao Ltda RTB Geologia & Minas Gerais 5 337,8 Granted Hercules South Lithium 832422/2023 Mineracao Ltda RTB Geologia & 6 997,19 Granted Hercules South Minas Gerais 832423/2023 Lithium Mineracao Ltda



23 April 2024

	2971,62						
1	1987,77	Application	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Ltda	832225/2023
2	1940,25	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranaf Ltda	832433/2023
3	1923,09	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Lida	832434/2023
4	1942,5	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Itda	832435/2023
5	1898.54	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Lida	832436/2023
6	1950.66	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Itda	832796/202
7	1980.38	Granted	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Lida	832797/2023
8	1924.63	Application	Hercules North	Lithium	Minas Gerais	Mineracao Paranal Itda	832798/202
	15,547.82						

Approved for release by the Board of Summit Minerals Limited.

- ENDS --

# For More Information:

Gower He
Managing Director
info@summitminerals.com.au

T: +61 8 9426 0666

**Chloe Hayes** 

Media & Investor Relations chloe@janemorganmanagement.com.au

T: +61 4 5861 9317

Additional information is available at www.summitminerals.com.au.



23 April 2024

#### **About Summit Minerals Limited**

Summit Minerals Limited is an Australian-focused ASX-listed battery mineral exploration Company with a portfolio of projects in demand-driven commodities. It is focused on systematically exploring and developing its projects to delineate multiple JORC-compliant resources.

Summit's projects include the Castor Lithium Project in the prolific James Bay District, Quebec, Canada; the Stallion REE Project in Ponton River WA; and, the Phillips River Lithium Project in Ravensthorpe WA. Through focus, diligence and execution, the board of Summit Minerals is determined to unlock previously unrealised value in our projects.

### **Competent Person Statement**

The information related to Exploration Results is based on data compiled by Jonathan King, a Competent Person and Member of The Australian Institute of Geoscientists. Jonathan King is a director of Geoimpact Pty Ltd. Jonathan King has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Jonathan King consents to the inclusion in presenting the matters based on his information in the form and context in which it appears.

# **Forward-Looking Statements**

This announcement contains 'forward-looking information based on the Company's expectations, estimates and projections as of the date the statements were made. This forward-looking information includes, among other things, statements concerning the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by using forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions and that the Company's results or performance may differ materially. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to materially differ from those expressed or implied by such forward-looking information.

23 April 2024

# Appendix 1 – Geochemical assays (Sandro Arruda Silva Ltda)



#### Relatório de Análises 0100/24

Proposta Comercial: PC0046/24

Data de Publicação:

18/03/2024

Identificação Conta	
Cliente: SANDRO ARRUDA DA SILVA LTDA	CNPJ/CPF: 33975600/0001-24

Nº Amostra: 0100/24 - AMOSTRA EQUADOR - 2				
Tipo de Amostra:	Minério em Geral	Data Recebimento: 13/03/2024		
N° O.S.:	OS0037/24			

#### Resultados Analíticos

Curva de Calib	Curva de Calibração Específica para Minério de Nióbio via XRF (Quantitativo)						
Análise	Resultado	Data Análise					
Al2O3	0,044 %	18/03/2024					
BaO	0,010 %	18/03/2024					
CaO	0,010 %	18/03/2024					
CeO2	0,669 %	18/03/2024					
Cr2O3	0,135 %	18/03/2024					
Fe2O3	27,211 %	18/03/2024					
K20	0,013 %	18/03/2024					
La2O3	0,388 %	18/03/2024					
MgO	0,010 %	18/03/2024					
MnO	1,544 %	18/03/2024					
Na2O	2,083 %	18/03/2024					
Nb2O5	30,340 %	18/03/2024					
Nd2O3	0,112 %	18/03/2024					
P205	0,332 %	18/03/2024					
PbO	0,010 %	18/03/2024					
Pr2O3	0,010 %	18/03/2024					
SiO2	5,116 %	18/03/2024					
SnO2	0,379 %	18/03/2024					
SO3	0,063 %	18/03/2024					
SrO	0,010 %	18/03/2024					
Ta2O5	15,085 %	18/03/2024					
ThO2	0,010 %	18/03/2024					
TiO2	22,509 %	18/03/2024					
U3O8	0,100 %	18/03/2024					
ZrO2	0,097 %	18/03/2024					

Determinação da Umidade

1/4

ASIC Services - Alex Stewart International

Avenida Conselheiro Nébias 522 - Bairro Encruzilhada - Santos - SP - Brazil Telefone: +55 13 3224 4055 Web: www.asicservices.com



23 April 2024



# Relatório de Análises 0100/24

Proposta Comercial: PC0046/24

Análise	Resultado	Data Análise	
Umidade	0,704 %	15/03/2024	

	Varredura Multielementar via XRF (Qualitativo	)
Análise	Resultado	Data Análise
Ag2O	0,188 %	18/03/2024
Al2O3	0,097 %	18/03/2024
As2O3	0,017 %	18/03/2024
Au	0,013 %	18/03/2024
BaO	0,026 %	18/03/2024
CaO	0,137 %	18/03/2024
CdO	5,153 ppm	18/03/2024
CeO2	0,397 %	18/03/2024
Co3O4	0,056 %	18/03/2024
Cr2O3	0,060 %	18/03/2024
Cs2O	0,006 %	18/03/2024
Fe2O3	22,496 %	18/03/2024
Ga2O3	0,140 %	18/03/2024
Gd2O3	0,043 %	18/03/2024
GeO2	0,005 %	18/03/2024
HfO2	0,062 %	18/03/2024
IrO2	0,087 %	18/03/2024
La2O3	0,063 %	18/03/2024
MnO	6,374 %	18/03/2024
Nb2O5	23,018 %	18/03/2024
Nd2O3	0,052 %	18/03/2024
P2O5	0,292 %	18/03/2024
PbO	0,075 %	18/03/2024
PtO2	4,172 %	18/03/2024
Rh	0,001 %	18/03/2024
Sb2O3	0,004 %	18/03/2024
SeO2	0,010 %	18/03/2024
SiO2	8,362 %	18/03/2024
Sm2O3	0,012 %	18/03/2024
SnO2	0,324 %	18/03/2024
SO3	0,155 %	18/03/2024
SrO	0,004 %	18/03/2024

2/4



23 April 2024



#### Relatório de Análises 0100/24

Proposta Comercial: PC0046/24

	Varredura Multielementar via XRF (Qualitativo	p)
Análise	Resultado	Data Análise
Ta2O5	15,451 %	18/03/2024
Tb4O7	0,107 %	18/03/2024
TeO2	0,013 %	18/03/2024
ThO2	0,177 %	18/03/2024
TiO2	15,628 %	18/03/2024
U	0,753 %	18/03/2024
WO3	0,591 %	18/03/2024
Y2O3	0,151 %	18/03/2024
ZnO	0,025 %	18/03/2024
ZrO2	0,293 %	18/03/2024

#### Foto da Amostra





23 April 2024



# Relatório de Análises 0099/24

Proposta Comercial: PC0046/24

Data de Publicação: 18/03/2024

Identificação Conta	
Cliente: SANDRO ARRUDA DA SILVA LTDA	CNPJ/CPF: 33975600/0001-24

Nº Amostra: 0099/24 - AMOSTRA JUAZEIRINHO GAUSS					
Tipo de Amostra:	Minério em Geral	Data Recebimento: 13/03/2024			
Nº O.S.:	OS0037/24				

#### Resultados Analíticos

Curva de Calibração Específica para Minério de Nióbio via XRF (Quantitativo)					
Análise	Resultado	Data Análise			
Al2O3	1,636 %	18/03/2024			
BaO	0,010 %	18/03/2024			
CaO	0,343 %	18/03/2024			
CeO2	0,358 %	18/03/2024			
Cr2O3	0,137 %	18/03/2024			
Fe2O3	26,421 %	18/03/2024			
K2O	0,048 %	18/03/2024			
La2O3	0,224 %	18/03/2024			
MgO	0,010 %	18/03/2024			
MnO	1,958 %	18/03/2024			
Na2O	2,134 %	18/03/2024			
Nb2O5	35,554 %	18/03/2024			
Nd2O3	0,123 %	18/03/2024			
P2O5	0,695 %	18/03/2024			
PbO	0,010 %	18/03/2024			
Pr2O3	0,007 %	18/03/2024			
SiO2	8,318 %	18/03/2024			
SnO2	0,443 %	18/03/2024			
SO3	0,065 %	18/03/2024			
SrO	0,010 %	18/03/2024			
Ta2O5	11,798 %	18/03/2024			
ThO2	0,010 %	18/03/2024			
TiO2	8,279 %	18/03/2024			
U3O8	0,102 %	18/03/2024			
ZrO2	8,560 %	18/03/2024			

Determinação da Umidade

1/4



23 April 2024



# Relatório de Análises 0099/24

Proposta Comercial: PC0046/24

Análise	Resultado	Data Análise	
Umidade	0,086 %	18/03/2024	

Varredura Multielementar via XRF (Qualitativo)		
Análise	Resultado	Data Análise
Ag2O	0,196 %	18/03/2024
Al2O3	1,692 %	18/03/2024
Au	0,026 %	18/03/2024
BaO	0,046 %	18/03/2024
CaO	0,310 %	18/03/2024
CdO	5,925 ppm	18/03/2024
CeO2	0,253 %	18/03/2024
CI	0,007 %	18/03/2024
Co3O4	0,052 %	18/03/2024
Cr2O3	0,251 %	18/03/2024
Cs2O	0,004 %	18/03/2024
Eu2O3	0,040 %	18/03/2024
Fe2O3	22,799 %	18/03/2024
Ga2O3	0,096 %	18/03/2024
Gd2O3	0,036 %	18/03/2024
GeO2	0,003 %	18/03/2024
HfO2	0,108 %	18/03/2024
IrO2	0,088 %	18/03/2024
K2O	0,042 %	18/03/2024
La2O3	0,041 %	18/03/2024
MnO	8,586 %	18/03/2024
Nb2O5	26,851 %	18/03/2024
Nd2O3	0,036 %	18/03/2024
NiO	0,042 %	18/03/2024
P2O5	0,276 %	18/03/2024
PbO	0,462 %	18/03/2024
PtO2	2,959 %	18/03/2024
Rh	0,002 %	18/03/2024
Sb2O3	0,010 %	18/03/2024
SeO2	0,016 %	18/03/2024
SiO2	11,875 %	18/03/2024
SnO2	0,408 %	18/03/2024

2/4

Avenida Conselheiro Nébias 522 - Bairro Encruzilhada - Santos - SP - Brazil Telefone: +55 13 3224 4055 Web: www.asicservices.com



23 April 2024

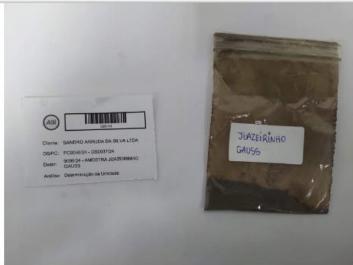


# Relatório de Análises 0099/24

Proposta Comercial: PC0046/24

Varredura Multielementar via XRF (Qualitativo)			
Análise	Resultado	Data Análise	
SO3	0,098 %	18/03/2024	
SrO	0,023 %	18/03/2024	
Ta2O5	11,433 %	18/03/2024	
Tb4O7	0,190 %	18/03/2024	
TeO2	0,013 %	18/03/2024	
ThO2	0,151 %	18/03/2024	
TiO2	5,807 %	18/03/2024	
U	0,891 %	18/03/2024	
V2O5	0,024 %	18/03/2024	
WO3	0,641 %	18/03/2024	
Y2O3	0,524 %	18/03/2024	
ZnO	0,006 %	18/03/2024	
ZrO2	2,515 %	18/03/2024	

#### Foto da Amostra





23 April 2024



# Relatório de Análises 0098/24

Proposta Comercial: PC0046/24

Data de Publicação: 18/03/2024

Identificação Conta			
	Cliente: SANDRO ARRUDA DA SILVA LTDA	CNPJ/CPF:	33975600/0001-24

	Nº Amostra: 0098/24 - AMOSTRA JUAZERINHO 7000 GAUSS		
Tipo de Amostra:	Minério em Geral	Data Recebimento: 13/03/2024	
Nº O.S.:	OS0037/24		

#### Resultados Analíticos

Curva de Calibração Específica para Minério de Nióbio via XRF (Quantitativo)		
Análise	Resultado	Data Análise
Al2O3	3,458 %	18/03/2024
BaO	0,010 %	18/03/2024
CaO	3,105 %	18/03/2024
CeO2	5,513 %	18/03/2024
Cr2O3	0,105 %	18/03/2024
Fe2O3	44,290 %	18/03/2024
K20	0,102 %	18/03/2024
La2O3	4,821 %	18/03/2024
MgO	0,315 %	18/03/2024
MnO	1,123 %	18/03/2024
Na2O	0,010 %	18/03/2024
Nb2O5	10,701 %	18/03/2024
Nd2O3	0,943 %	18/03/2024
P2O5	5,536 %	18/03/2024
PbO	0,010 %	18/03/2024
Pr2O3	0,010 %	18/03/2024
SiO2	18,398 %	18/03/2024
SnO2	0,350 %	18/03/2024
SO3	0,010 %	18/03/2024
SrO	0,010 %	18/03/2024
Ta2O5	2,248 %	18/03/2024
ThO2	1,271 %	18/03/2024
TiO2	10,182 %	18/03/2024
U3O8	0,455 %	18/03/2024
ZrO2	0,219 %	18/03/2024

Determinação da Umidade

1/4



23 April 2024



# Relatório de Análises 0098/24

Proposta Comercial: PC0046/24

Análise	Resultado	Data Análise	
Umidade	0,194 %	18/03/2024	

Varredura Multielementar via XRF (Qualitativo)		
Análise	Resultado	Data Análise
Ag2O	0,411 %	18/03/2024
Al2O3	4,361 %	18/03/2024
As2O3	0,032 %	18/03/2024
BaO	0,020 %	18/03/2024
CaO	1,598 %	18/03/2024
CeO2	4,894 %	18/03/2024
CI	3,346 ppm	18/03/2024
Co3O4	0,056 %	18/03/2024
Cr2O3	0,140 %	18/03/2024
Cs2O	0,004 %	18/03/2024
Er2O3	0,081 %	18/03/2024
Fe2O3	24,668 %	18/03/2024
Ga2O3	0,034 %	18/03/2024
HfO2	0,008 %	18/03/2024
IrO2	0,020 %	18/03/2024
La203	2,195 %	18/03/2024
MgO	1,681 %	18/03/2024
MnO	4,737 %	18/03/2024
Na2O	0,017 %	18/03/2024
Nb2O5	7,848 %	18/03/2024
Nd2O3	1,615 %	18/03/2024
NiO	0,024 %	18/03/2024
P205	5,303 %	18/03/2024
PtO2	0,760 %	18/03/2024
RbO2	6,600 ppm	18/03/2024
Rh	0,003 %	18/03/2024
RuO2	0,002 %	18/03/2024
Sb2O3	0,012 %	18/03/2024
SeO2	0,002 %	18/03/2024
SiO2	19,787 %	18/03/2024
SnO2	0,221 %	18/03/2024
SrO	0,003 %	18/03/2024

2/4



23 April 2024



# Relatório de Análises 0098/24

Proposta Comercial: PC0046/24

Varredura Multielementar via XRF (Qualitativo)			
Análise	Resultado	Data Análise	
Ta2O5	2,670 %	18/03/2024	
Tb4O7	0,028 %	18/03/2024	
TeO2	0,033 %	18/03/2024	
ThO2	1,608 %	18/03/2024	
TiO2	11,846 %	18/03/2024	
U	0,170 %	18/03/2024	
WO3	0,129 %	18/03/2024	
Y2O3	2,012 %	18/03/2024	
Yb2O3	0,203 %	18/03/2024	
ZnO	0,062 %	18/03/2024	
ZrO2	0,647 %	18/03/2024	

#### Foto da Amostra





23 April 2024



# Centro de Tecnologia Mineral do IFRN

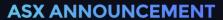
Centro de Tecnologia Mineral Prof. José Yvan Pereira Leite Rua Manoel Lopes Filho, 733 Walfredo Galvão, Currais Novos - RN, EP 59380-000

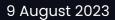
Contato: 84 4005-4117 Ramal: 5480 E-mail: ctmineral@ifrn.edu.br

CT Mineral Sample

# **EOUADOR - 1**

EQUADOR - I					
Óxidos	%	Elementos	%		
Fe2O3	38,19	Fe	26,71		
TiO2	23,48	Ti	14,08		
Ta2O5	18,08	Та	14,81		
Nb2O5	14,33	Nb	10,02		
MnO	2,53	Mn	1,96		
Au	0,88	Au	0,88		
PtO2	0,81	Pt	0,70		
WO3	0,74	W	0,59		
CaO	0,23	Ca	0,16		
Co3O4	0,21	Co	0,15		
Cr2O3	0,18	Cr	0,12		
K20	0,06	K	0,05		
Y2O3	0,06	Y	0,04		
NiO	0,05	Ni	0,04		
SnO2	0,04	Sn	0,03		
U3O8	0,03	U	0,03		
ZnO	0,03	Zn	0,02		
MoO3	0,02	Mo	0,01		
PdO	0,02	Pd	0,02		
BaO	0,01	Ba	0,01		
1	0,01	1	0,01		
Rh2O3	0,01	Rh	0,01		







# Appendix 2: JORC Code, 2012 Edition- Section 1 – Brazil Acquisitions Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples	Limited sampling information and results were provided for Equador and Juazeirinho Projects: Package 1, where the Vendor panned a heavy mineral concentrate from approximately 5 kilograms of active drainage channel.
	should not be taken as limiting the broad meaning of sampling.	Low-intensity magnetic separation was used to reduce ferromagnetic contaminants in the sample before it was submitted to the laboratory.
		The panned concentrates were sent to the Alex Stewart International Laboratories (Sao Paulo), an iso-accredited laboratory, where the samples were dried, pulverised, and pressed into standard pellets before XRF spectrometry measurements were carried out. Radioisotope sources (109Cd and 241Am) were used for sample excitation, while X-ray spectra were acquired using a Si(Li) detector coupled with adequate electronics.
		The typical size of a briquette for XRF spectrometry is 30 to 40 mm in diameter and involves about 5g of sample and 1g of binder.
		The sampling results were released to SAS (Vendor) on 13/3/2024. The results have not been disclosed previously.
		Assaying a pan-concentrate derived from stream sediment sampling is an appropriate exploration strategy for the geological environment being considered.
		Formal copies of the results are available in Appendix 1. Historical information is not available for all other projects, which are not discussed further.
		The project datum is WGS84/UTM Zone 24 South.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples were collected from the active channel of ephemeral drainages within a 1m radius of the initial sample point.
	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.	The samples were washed to produce a concentrate using industry-standard practice, and then low-intensity magnetics were used to screen the sample further.
		The strategy is appropriate when heavy minerals related to ore systems are suspected as being present. The detrital heavy minerals concentrate in drainage lines, providing optimal sample media that reflect the immediate environment.
		The results have not been disclosed previously.  The Competent Person believes the chosen sampling method is appropriate for early-stage exploration projects where mineralisation is expected due to the relative abundance of historical workings in elevated positions (i.e. above the sample location) and drainage systems that are not flushed regularly, promoting the accumulation of heavy minerals in drainage networks.





9 August 2023

Criteria	JORC Code explanation	Comment
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling performed
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling performed
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling performed
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No drilling performed
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	No drilling was performed. The samples were photographed.  First pass exploration, no resources identified.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	No drilling performed
	The total length and percentage of the relevant intersections logged.	No drilling performed
Sub- sampling	If core, whether cut or sawn and whether quarter, half or all cores taken.	No drilling performed
techniques and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No drilling performed
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Assaying a pan-concentrate derived from stream sediment sampling is an appropriate exploration strategy for the geological environment being considered.
		Alex Stewart International do Brasil has its XRF calibrated with specific curves with certified samples of International standards for Iron, Copper, Manganese, Tantalum, Niobium, Titanium, Tin, Aluminum, and Silicon, ensuring more accurate and effective results.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The laboratory inserted certified standards into the sample stream as page of its QA process. Due to the limited number of samples, no field duplicates or certified blank samples were included.
	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.	Given the geological environment and early- stage exploration of the projects, the sampling practices were suitable, including low-intensity magnetic separation to concentrate further select heavy minerals, which were then submitted for analysis.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes were considered appropriate for the grain size, geological environment and project exploration stage.
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.	An iso-certified laboratory analysed the submitted concentrates, Alex Stewart. The laboratory techniques described below are appropriate for the style of mineralisation and apply to the three samples submitted to Alex Stewart.
		Samples were dried, pulverised, and pressed into standard pellets before XRF spectrometry measurements. Radioisotope sources (109Cd and 241Am) were used for sample excitation,





9 August 2023

Criteria	JORC Code explanation	Comment
		while X-ray spectra were acquired using a Si(Li) detector coupled with adequate electronics.  Alex Stewart International do Brasil has its XRF calibrated with specific curves with certified samples of International standards for Iron, Copper, Manganese, Tantalum, Niobium, Titanium, Tin, Aluminum, and Silicon, ensuring more accurate and effective results.  An independent geologist chose the analytical methods adopted for the projects.  Little is known about the CT Minerals sample except its location and result. The vendor provided the Information, and the CP has not validated the result.
	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.	No tools were employed in the field.
	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.	Laboratory standards were inserted for internal QC checks.
Verification of sampling	The verification of significant intersections by either independent or alternative company personnel.	No verification was undertaken.
and assaying	The use of twinned holes.	No drilling undertaken
1	Discuss any adjustment to assay data.	No adjustments were made to the Alex Stewart data
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	No drilling performed
	Specification of the grid system used.	The project datum is Latitude and Longitude/UTM Zone 24 South.
	Quality and adequacy of topographic control.	Digital elevation captured by GPS with an accuracy of 10 metres.
Data spacing and	Data spacing for reporting of Exploration Results.	Reconnaisance level exploration. Spacing is anticipated to be wide. 24
distribution	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.	Spacing was sufficient
	Whether sample compositing has been applied.	No sample compositing was carried out.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Sampling was from ephemeral drainages downslope of strike ridges. The drainages initially flow away from the ridges and then parallel the regional grain in the lower stream orders. Most structures parallel ridge trends.  Orientation is not critical for stream sediment sampling.
	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.	No drilling performed
Sample security	The measures taken to ensure sample security.	No information is available for the sample security.

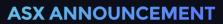


Criteria	JORC Code explanation	Comment
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits were conducted.

# Section 2 Reporting of Exploration Results – Castor Lithium Project

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

Criteria	JORC Code explanation	Comment
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The announcement highlights the tenement and the company details from which the assets will be acquired.
		Except for two applications, all tenements are granted. The commodity-based tenement packages in Minas Gerais and Paraiba States, Brazil, cover a landholding of 29,266.88 Hectares (292.67 km2).
		The company is acquiring 100% of both packages. The Vendor is to retain a 2% NSR for each package. No encumbrances are known.
	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.	Titles remain with the vendors and will be transferred after completion of the transaction. No encumbrances are known.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The two projects (Equador and Juazeirinho) and the remainder of packages 1 and 2 remain relatively unexplored by modern methodologies.
		The result from a located point sample by CT Minerals is known.
		The vendor, SAS, provided all the results discussed, which have not been disclosed previously.
		The Competent Person believes the chosen sampling method is appropriate for early-stage exploration projects where mineralisation is expected due to the relative abundance of historical workings in elevated positions (i.e. above the sample location) and drainage systems that are not flushed regularly, promoting the accumulation of heavy minerals in drainage networks.
		The Competent Person accepts the accuracy or reliability of the provided pan-concentrate results.
Geology	Deposit type, geological setting and style of mineralisation.	The Paraiba projects, including Equador and Juazeirinho, are situated in Borborema Pegmatitic Province (BPP) in Northeast Brazil. The province is one of the world's most important sources of tantalum, REE and beryllium, as well as producing significant quantities of gemstones, including aquamarine, morganite, and the high-quality turquoise blue "Paraíba Elbaite".
		The Boqueirão granitic pegmatite is broadly widespread over the BPP and belongs to the lithium-cesium-tantalum (LCT) family. It is enriched in Li, Rb, Cs, Be, Sn, Ta, Nb, B, P, and F. Similar to pegmatites of the Lithium Vally, the Boqueirão granitic pegmatite is related to granites of the late to post-orogenic phase, labelled as G4 granites.
		The area captured by the various projects needs more modern systematic exploration, and lithium exploration has yet to be undertaken.





9 August 2023

	SUMMIT
$\overline{\mathbf{M}}$	MINERALS
	LTD

Criteria	JORC Code explanation	Comment
		The projects can produce lithium, niobium, tantalum and PGEs. Other precious metal exploration is worthy of further consideration.
Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:  easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole downhole length and interception depth hole length	No drilling was performed.  Not applicable as no drilling performed
	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.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cutoff grades are usually Material and should be stated.	Raw numbers reported
	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.	Partial Rare Earth Oxide = $CeO_2 + La_2O_3 + Y_2O_3 + Eu_2O_3 + Ga_2O_3 + Gd_2O_3 + Nd_2O_3 + Pr_2O_3 + Yb_2O_3$
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results.	Pegmatite intrusion widths vary from metre to several metres in scale and are traceable over 100s of metres.
intercept lengths		Identified rare earth oxide and niobium anomalies lie downstream of pegmatite invading metasediment or migmatite, which forms strike ridges within the Equador and Juazeirinho Projects.
		The source of the PGE mineralisation remains poorly understood and is26 orthy of greater consideration.
		Encouraging first-pass exploration, no resources established.
		The relationship between mineralisation widths and length will be developed as exploration proceeds.
	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	No drilling performed
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').	No drilling performed
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 drillhole collar locations and appropriate sectional views.	Appropriate figures are included in this release.



9 August 2023

Criteria	JORC Code explanation	Comment
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 avoiding misleading reporting of Exploration Results.	The reporting level is balanced and appropriate for early-stage exploration. The results obtained justify further work on the project.
		The Competent Person believes the chosen sampling method is appropriate for early-stage exploration projects where mineralisation is expected due to the relative abundance of historical workings in elevated positions (i.e. above the sample location) and drainage systems that are not flushed regularly, promoting the accumulation of heavy minerals in drainage networks.
		The Competent Person also believes the chosen analytical method was suitable given the speciality of the chosen lab, with its XRF calibrated with specific curves and certified samples of International standards for Iron, Copper, Manganese, Tantalum, Niobium, Titanium, Tin, Aluminum, and Silicon, ensuring more accurate and effective results.
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.	To the Company's knowledge, no material exploration data or information has been omitted from this release.
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	The company will broaden existing geochemical approaches, including stream sediments and soils.
		Artisanal workings will be mapped and sampled before drilling.
		The company will look to engage select remotely sensed technologies, including LiDAR and magnetics, to assist with field program planning and execution.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Suitable diagrams are provided. After Summit finalises future work, all information in the announcement will be updated and released to the market.





info@summitminerals.com.au



L1/389 Oxford Street Mount Hawthorn WA 6016



www.summitminerals.com.au