# Independent Technical Report for the Tiros Ti+REE Project, Minas Gerais, Brazil

Developed by GE21 Consultoria Mineral on behalf of:

## Resouro Strategic Metals

Effective Date: 12th January 2024

Qualified Person: Ednie Rafael Fernandes, BSc Geology, MAIG

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# 1 SUMMARY

GE21 Consultoria Mineral trading as GE21 was engaged by Resouro Strategic Metals (RSM) to prepare an Independent Technical Assessment Report (ITAR) collating the works completed to date supporting the future works program. Resouro is presently a publicly listed company on the TSXV (RSM) and the FSE (BU9) and was founded in 2020. The Company is 90% owner of the subsidiary Brazil Copper Mineração Ltda who is 100% owner of the project with the remaining 10% owned by its Brazilian partner RBM Consultoria Mineral.

The report describes the RSM owned Tiros project (the project), the regional and local geology, the historical exploration of the asset, present exploration and the use of funds raised that will be used for the purpose of exploration and evaluation of the project and recommendations associated with the project.

Tiros (project) is located approximately 317 km West-North-West of Belo Horizonte, the sixth (6) largest city in Brazil and the capital of Minas Gerais, with the target commodities of interest being Titanium are Rare Earth Elements (REE's). The Project comprises 24 granted exploration licenses which have a total area of approximately 43312 hectares. The Project also includes one application for mining permit.

The closest town to the Project area is Tiros with a population of approximately 8000 which has established infrastructure and amenities to support mineral exploration. The town is within close proximity of major federal highways, major rail infrastructure. The tenements are accessible from sealed roads with the exception of landholder entry ways that are used to access their agricultural lands and the exploration sites.

The project sites are predominately cropping lands with typical sub-tropical bushland along roads where not cleared from grazing. The region that covers the area is inserted in the geomorphological domain known as the São Francisco Plateau, which is characterized by a set of tabular surfaces, configured as plateaus supported by sedimentary covers, delimited by well-marked erosional edges, distinguishing land with a preserved surface those with recessed surfaces.

Mineralization at the Tiros project is due to a lateritic process enriching epiclastic rocks and the erosion products of volcanic rocks enriched in titanium and rare earth elements. REE and titanium mineralization are hosted in sandstones and conglomerates of the Capacete Formation, belonging to the Mata da Corda Group. Titanium is mainly associated with the mineral anatase, originated from the alteration of perovskite. REE are suspected to be also associated with the perovskite. This mineral with formula $CaTiO_3$, was affected by weathering close to surface. The calcium ion was put into solution by meteoric waters, leaving the anatase crystals with many voids. This allowed the migration of the REE to nearby clays where they were captured through weak bonds.

The project areas have until 2023 had reasonable regional exploration activities and only minor physical exploration on ground. In 2023 Resouro and RBM came to a commercial agreement regarding the Tiros project and exploration work began which included chemical reanalysis of samples from historic drilling and at the time of writing this report RSM was undertaking a new auger, air core and diamond drilling campaign with positive results showing high grades of REE

and Titanium although the project area does not have a mineral resource estimate that confirms to the NI-43101 standard.

Based on the evaluation of the Project as outlined in this Report, the author is of the opinion the project has potential for success and recommends additional work to (a) define a mineral resource estimate in accordance with NI 43-101 standard, and (b) assess the metallurgical characteristics of the mineralization.

## UNITS, SYMBOLS AND ABBREVIATIONS

Unless otherwise stated, the units of measurement in this Report are all metric in the International System of Units ("SI"). All monetary units are expressed in Canadian Dollars("CAD"), unless otherwise indicated. The historical data is mostly recorded in the UTM projection SA690 Zone 21 South, however some maps use the projection SIRGAS 2000 Zone 21S.

| Main Abbreviations | |
|---|---|
| AIG | Australian Institute of Geoscientists |
| ANM | Agência Nacional de Mineração (National Mining Agency) |
| BSA | Bis trimethylsilyl acetamide |
| CAD$ | Canadian dollars |
| DNPM | Departamento Nacional de Produção Mineral (National Mining Agency) |
| km | Kilometre |
| m | Metre |
| MAIG | Member of the Australian Institute of Geoscientists |
| NI 43-101 | National Instrument 43-101 – Standard of Disclosure for Mineral Projects |
| PPM | Parts Per Million |
| QA/QC | Quality Assurance and Quality Control |
| QEMSCAN | Quantitative Evaluation of Minerals by Scanning Electron Microscopy |
| QP | Qualified Person |
| REE | Rare Earth Elements |
| SEM | Scanning Electron Microscopy |
| t. | Tonnes |
| Ti. | Titanium |
| XRD | X-ray Powder Diffraction |

# 2 INTRODUCTION

GE21 has been commissioned by Resouro Strategic Metals Inc. to prepare an Exploration Results Technical Report for the Tiros Project in Minas Gerais, Brazil, in accordance with the directives of NI 43-101.

The Tiros Project is an initial stage exploration project focused on Titanium and Rare Earth Elements with 24 active exploration licenses and 1 mining rights application.

Ednie Rafael Fernandes is the Qualified Person (QP) with respect to the objectives of this report. Fernandes visited the property on the 5th and 6th of October 2023. On the site visit, some auger drill collar was located, its recorded coordinates validated with a handheld GPS, and the core was inspected in the onsite core storage facility.

## 2.1 Sources of Information and Data

The QP relied on exploration and technological data supplied by Resouro to produce this report.

The QP has reviewed and evaluated the exploration data pertaining to the Tiros project areas provided by Resouro and their consultants and have drawn his own conclusions.

The geological, mineralization and exploration techniques (items 5 to 13) used in this report are taken from reports and internal memorandums prepared or obtained by Resouro from public sources or previous operators reports. A reasonable amount of confirmatory testing and verification has been accomplished. Although GE21 believes that all the information provided in this report is accurate, it is possible that some problems were not detected, and may have been used in this evaluation. GE21 does, however, represent that the information was evaluated and put together in good faith.

The status of the exploration applications under which Resouro holds title to the mineral rights for these properties has been investigated by GE21 only by consulting the systems of ANM (the federal agency of mineral control), which reports the properties as regular and in process of cession to Brazil Copper Mineração Ltda.

The Effective Date of January 12$^{th}$, 2024, is based on the receipt date for the Project database.

## 2.2 Qualifications, Experience, and Independence

GE21 is a specialized, independent mineral consulting company. The geological evaluation has been conducted by Ednie Rafael Fernandes, who is a member of the Australian Institute of Geoscientists (AIG) is a Qualified Person as defined by NI 43-101 and the JORC standards.

## 2.3 Qualified Persons

The QP responsible for this independent Technical Report is Mr. Ednie Rafael Fernandes.

Mr. Fernandes is a geologist and member of the Australian Institute of Geoscientists (“MAIG”) and has sufficient experience that is relevant to the styles of mineralization and types of deposit under consideration to be considered as a QP, as defined by the NI 43-101. Mr. Fernandes has over 12 years’ experience working with exploration and mining projects.

Neither GE21, nor the Author of this Technical Report, have, or have had, any material interest invested in Resouro or any of its related entities. GE21's and the Author relationship with Resouro is strictly professional, consistent with that held between a client and an independent consultant. This report was prepared in exchange for payment based on fees that were stipulated in a commercial agreement. Payment of these fees is not dependent on the results of this report. The Effective Date of this report is January 12th, 2024. The Author have relied on information provided by Resouro which was provided in a database with full access given to the QP.

# 3 RELIANCE ON OTHER EXPERTS

This report does not contain reliance on other experts relating to disclosure of legal, political, environmental or tax matters.

# 4 PROPERTY DESCRIPTION AND LOCATION

## 4.1 Project Description & Ownership

Tiros is an initial-staged exploration project located in Minas Gerais State, Brazil, which contains REE plus Ti mineral deposit known as the Tiros Project (Figure 4-1).

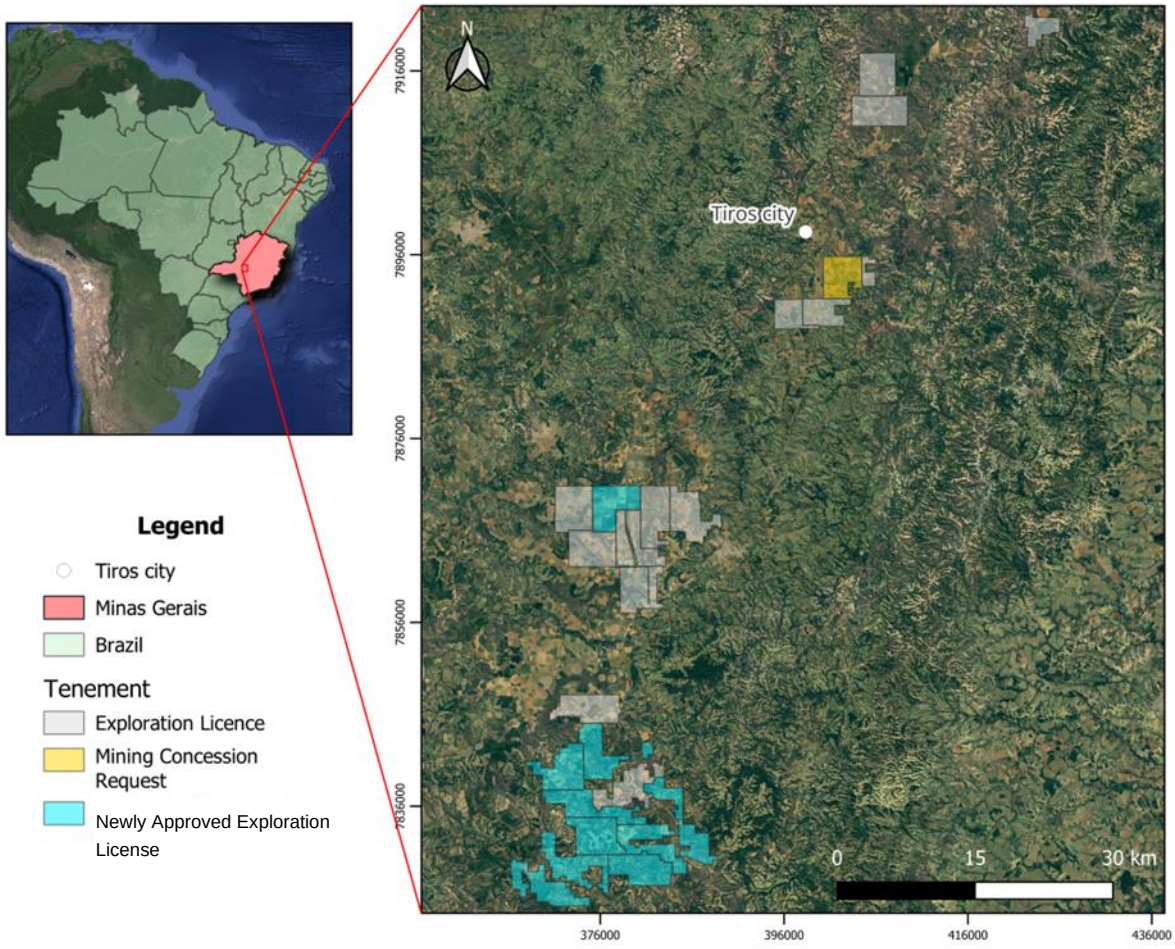


***Figure 4-1: Tiros Project Location Map.***

## 4.2 Mineral Tenure

The Tiros Project comprises 24 granted exploration licenses which have a total area of approximately 43312 hectares. The Project also includes one application for mining concession (831.045/2010). At the time of writing this report, the planned drill plan (see section 10) has the required permits to conduct the works required in the current drill plan, namely in tenement 831045/2010 with future works in the remaining tenements under investigation.

| Tenement | Area (ha) | Status | Municipalities | Holder | Assignee | Grant Date | PER Due* | Renewal Date* | FER Due* | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 830.026/2021 | 1,998.88 | Exploration Permit | Campos Altos, Santa Rosa da Serra, São Gotardo | RODRIGO DE BRITO MELLO | Brazil Copper Mineração Ltda | 29/12/2021 | 30/10/2024 | N/A | 29/12/2024 | |
| 832.023/2023 | 1,999.78 | Exploration Permit | Rio Paranaíba | RODRIGO DE BRITO MELLO | Brazil Copper Mineração Ltda | 22/11/2023 | 23/09/2026 | N/A | 22/11/2026 | |
| 832.601/2023 | 1,995.56 | Exploration Permit | Campos Altos | RODRIGO DE BRITO MELLO | Brazil Copper Mineração Ltda | 29/12/2023 | 29/10/2026 | 29/10/2026 | 29/12/2026 | |
| 831.314/2021 | 1,972.27 | Exploration Permit | Tiros | LEONARDO LOPES SOUZA MELLO | N/A | 29/11/2021 | 30/09/2024 | N/A | 29/11/2024 | Assigned to Brazil Copper on Dec 10th, 2023 |
| 831.237/2021 | 1,885.16 | Exploration Permit | Tiros | LEONARDO LOPES SOUZA MELLO | N/A | 27/01/2022 | 28/11/2024 | N/A | 27/01/2025 | Assigned to Brazil Copper on Dec 10th, 2023 |
| 831.045/2010 | 1,735.69 | Mining Concession Request due | Tiros | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 31/08/2010 | N/A | N/A | N/A | Deadline for Mining Concession request is October 24th, 2024 |
| 833.082/2014 | 1,280.47 | Exploration Permit | Tiros | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 26/07/2016 | N/A | N/A | N/A | Final exploration report under analysis |
| 833.083/2014 | 365.86 | Exploration Permit | Tiros | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 26/07/2016 | N/A | N/A | N/A | Final exploration report under analysis |
| 830.450/2017 | 871.55 | Exploration Permit | Tiros | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 26/07/2018 | 8/11/2023 | N/A | 8/11/2026 | |
| 830.915/2018 | 1,055.16 | Exploration Permit | Tiros | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 4/05/2021 | 2/08/2024 | N/A | 1/10/2024 | |
| 831.390/2020 | 1,995.44 | Exploration Permit | São Gotardo | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 11/03/2021 | 2/08/2024 | N/A | 1/10/2024 | |
| 831.720/2020 | 1,981.41 | Exploration Permit | Campos Altos | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 24/03/2021 | 2/08/2024 | N/A | 1/10/2024 | |
| 830.027/2021 | 1,986.59 | Exploration Permit | Campos Altos, Santa Rosa da Serra | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |
| 832.026/2023 | 1,984.17 | Exploration Permit | Rio Paranaíba, São Gotardo | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 28/09/2023 | 30/07/2026 | N/A | 28/09/2026 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 832.223/2023 | 1,988.13 | Exploration Permit | Rio Paranaíba | RBM CONSULTORIA MINERAL EIRELI | N/A | 22/11/2023 | 23/09/2026 | N/A | 22/11/2026 | |
| 832.226/2023 | 1,999.86 | Exploration Permit | Campos Altos, São Gotardo | RBM CONSULTORIA MINERAL EIRELI | N/A | 22/11/2023 | 23/09/2026 | N/A | 22/11/2026 | |
| 832.029/2023 | 1,978.98 | Exploration Permit | Rio Paranaíba, São Gotardo | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 28/09/2023 | 30/07/2026 | N/A | 28/09/2026 | |
| 832.027/2023 | 1,999.96 | Exploration Permit | Rio Paranaíba | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 26/09/2023 | 28/07/2023 | N/A | 26/09/2026 | |
| 832.025/2023 | 1,998.62 | Exploration Permit | Rio Paranaíba, São Gotardo | RBM CONSULTORIA MINERAL EIRELI | Brazil Copper Mineração Ltda | 28/09/2023 | 30/07/2026 | N/A | 28/09/2026 | |
| 832.604/2023 | 1,999.79 | Exploration Permit | Campos Altos | RBM CONSULTORIA MINERAL EIRELI | N/A | 29/12/2023 | 29/10/2026 | 29/10/2026 | 29/12/2026 | |
| 832.620/2023 | 1,990.14 | Exploration Permit | Campos Altos | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |
| 832.621/2023 | 1,998.28 | Exploration Permit | Campos Altos, Santa Rosa da Serra, São Gotardo | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |
| 832.624/2023 | 1,998.75 | Exploration Permit | Campos Altos | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |
| 832.625/2023 | 1,998.43 | Exploration Permit | Campos Altos, Ibiá | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |
| 832.627/2023 | 1,989.29 | Exploration Permit | Campos Altos | RBM CONSULTORIA MINERAL EIRELI | N/A | 12/01/2024 | 12/11/2026 | 12/11/2026 | 12/01/2027 | |

***Table 4-2: Mining Rights Overview for Tiros Project***

| | |
|---|---|
| PER Due | Deadline for a company to submit a **Partial Exploration Report** to the ANM and request extension of the exploration period |
| Renewal Date | Date in which the ANM granted the extension of the exploration period |
| FER Due | Deadline for a company to submit a **Final Exploration Report** to the ANM. After approval of the FER the company moves to the Mining Concession request phase |

### 4.3 Royalties

All mining permits in Brazil are subject to state and landowner royalties, pursuant to article 20, § 1, of the Constitution and article 11, "b", of the Mining Code. In Brazil, the Financial Compensation for the Exploration of Mineral Resources (Compensação Financeira por Exploração Mineral - CFEM) is a royalty to be paid to the Federal Government at rates that can vary from 1% up to 3.5%, depending on the substance. It is worth noting that CFEM rates for mining rare earth elements are 2%. CFEM shall be paid (i) on the first sale of the mineral product; or (ii) when there is mineralogical mischaracterization or in the industrialization of the substance, which is which is considered "consume" of the product by the holder of the mining tenement; or (iii) when the products are exported, whichever occurs first. The basis for calculating the CFEM will vary depending on the event that causes the payment of the royalty. The landowners' royalties could be subject of a transaction, however, if there's no agreement to access the land or the contract does not specify the royalties, article 11, §1, of the Mining Code sets forth that the royalties will correspond to half of the amounts paid as CFEM.

Except for the royalties to be paid to the government (CFEM) or to the landowner in case the company does not decide to purchase the land where mining is set to occur, no other royalty is due any previous owner.

The Author is not aware of any other royalties, back-in rights or other agreements and encumbrances to which the project may be subject. The Author is also not aware of any environmental liabilities or other risks that may prevent Resouro from carrying out future work, nor any other significant factors and risks that may affect access, title, or the right or ability to perform work on the project.

### 4.4 Ownership

A definitive agreement was signed between Resouro Inc and RBM Consultoria Mineral Ltda on July 31st, 2023. The summary of the terms of this agreement is given below.

- The Tiros Agreement terms required a three-stage payment for the acquisition of 100% of the issued and existing shares of Tiros Stratmet Pty Singapore ("TSPS"), in exchange for a total of 1,642,000 shares of Resouro. TSPS is the sole owner of 100% equity on Brazil Copper Mineração, to be renamed Tiros Minerais Estratégicos Ltda ("TMEL"). All RBM's Mineral Rights related with the Tiros Project were transferred to TMEL. The stages are related to (i) the conclusion of the scoping study with the issuance of 315,000 (three hundred and fifteen thousand) Resouro Shares, (ii) Pre-feasibility with the issuance 550,000 (five hundred and fifty thousand) Resouro Shares, and (iii) Definitive Feasibility Study with the issuance 777,000 (seven hundred and seventy-seven thousand) Resouro Shares to RBM.
- 10% equity on TMEL should be transferred to RBM with a Free Carried Interest until the decision to mine at Resouro's sole discretion.

An Addendum to this agreement was signed on October 9th, 2023, whereas RBM waives the requirements for the transfer of 90% of the title holder equity (Brazil Copper Mineração, to be renamed

Tiros Minerais Estratégicos Ltda) to Resouro, in exchange for the 1,642,000 shares or Resouro, subject to the escrow periods established in accordance with the listing entities.

Additionally, RBM is entitled to receive 750,000 performance rights in Resouro, which will be converted in Shares upon successful accelerated acquisition of the Tiros Singapore (TSPS) shareholding. TSPS was the sole shareholder of Brazil Copper and 10% of BC's shares were transferred to RBM prior to the Resouro arrangement.

### 4.5 Environmental Studies, Permitting and Social or Community Impact

RSM is committed to taking a zero harm, practical and consultative approach to Environmental, Social and Governance (ESG). The RSM leadership team have a long credible history of delivering successful mutually beneficial mining projects and recognise the importance of sustainable, ethical, and safe practices in the communities it works within and to its employees and stakeholders.

RSM are committed to development of modern ESG practices and respect the link between leading ESG practices and project acceptance. RSM is authorised to conduct mineral exploration in the areas it operates and adherence to legislation, governmental and corporate standards.

RSM is committed to achieving its part in the United Nations sustainable development goals (SDG) and will undertake assessment of the project in compliance to practically achieving its part in these goals in the communities we work. This will include:

- Establishment of environmental monitoring programs.
- Detailed environmental and community studies through the various project lifecycle.
- Frequent and transparent community, landholder, and stakeholder engagement.
- Development program to achieving the relevant goals of the SDG.
- Training of team members in sustainability in operations and Zero harm practices to safety and health.
- Promote a company culture that promotes diversity and inclusion for successful outcomes.
- Respect and acknowledge the cultures, customs and values of people in communities where RSM operates.
- Promote mutually beneficial relationship of sustainable and symbiotic relationships between agriculture, mining and communities.

# 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

## 5.1 Accessibility

The tenements are accessible from sealed roads except for landholder entry ways to access their lands which are also used for access to the exploration sites.

## 5.2 Climate

The climatic conditions of Tiros are characterized by a tropical climate. During the winter season, there is a significant decrease in precipitation levels as compared to the summer months. Köppen and Geiger classify this climate as Aw. The average annual temperature in Tiros is 23 °C. Precipitation here is about 1681 mm per year.

The region of Tiros is characterized by a temperate climate, and the summer season presents some challenges in terms of precise categorization. In terms of precipitation, the month with the lowest amount of rainfall is July, recording a mere 12 mm in its entirety. This denotes an exceptionally dry period within that particular time frame. The month of December experiences the highest amount of precipitation, with an average value of 299 mm.

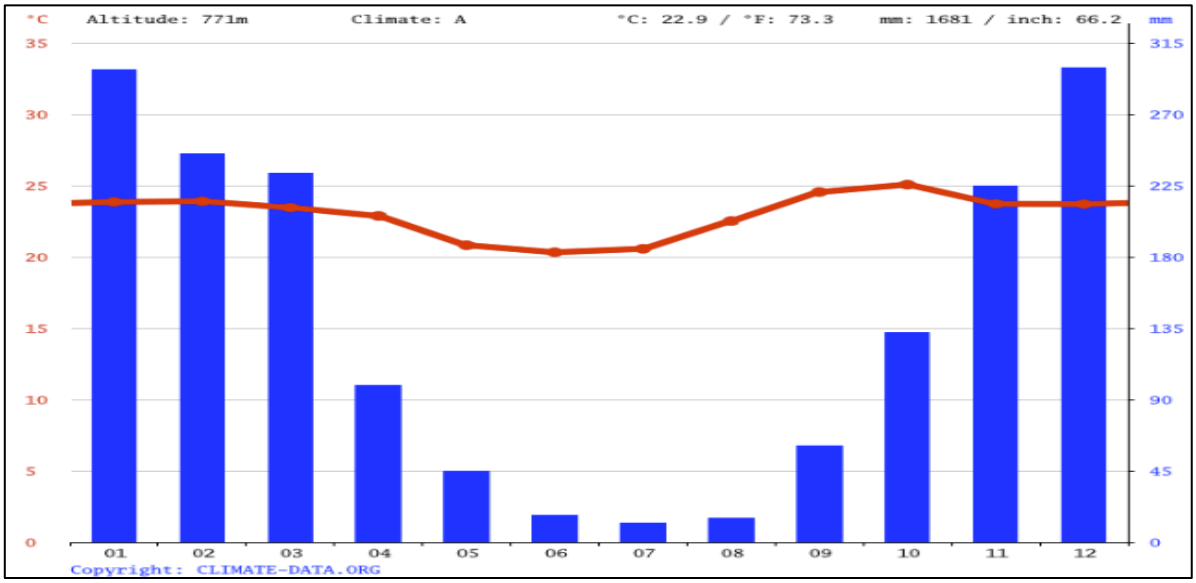


***Figure 5-1: Typical climate data of the project area***

## 5.3 Local Resources

Tiros (project) is located approximately 317 km West-North-West of Belo Horizonte, the sixth (6) largest city in Brazil and the capital of Minas Gerais, with the target commodities of interest being

Titanium are Rare Earth Elements (REE's). The closest town to the Project area is Trios with a population of approximately 8000.

### 5.4 Infrastructure

The project is located within the Tiros region which has established infrastructure and amenities to support mineral exploration. The town is within close proximity of major federal highways, high voltage power and major rail infrastructure.

### 5.5 Physiography

The region that covers the area is inserted in the geomorphological domain known as the São Francisco Plateau, which is characterized by a set of tabular surfaces, configured as plateaus supported by sedimentary covers, delimited by well-marked erosional edges, distinguishing land with a preserved surface those with recessed surfaces. The project typical height above sea level is between ~1200m in higher plateaus areas and ~900m in lower eroded valleys.

Looking over the tenements in general can be described as a plateau which are typically cleared and used as cropping farmlands. The plateaus are generally surrounded by eroded valleys that are semi-uncleared containing moderately dense native and non-native flora that can be seen from satellite and shown in Figure 6-3. The plateau preserves the Capacete formation which contains the mineralised target materials whereas the eroded valleys separate the remaining plateau and only contain minor proportion of the mineralized material.

## 6 HISTORY

### 6.1 Vicenza

The exploration history of the areas that make up the project begins in 2010, with Águia Metais Ltda, focusing on phosphate. In 2011, Águia Metais Ltda established a partnership with Vicenza, a Brazilian mineral explorer who held a number of exploration assets across the globe, composing an exploration project called Projeto Mata da Corda, totalling 142 mineral rights, of which some of the areas listed in this report was part. From 2013 onwards, the exploration turned to titanium.

From 2010 to 2017 there was extensive geological mapping covering the Capacete Formation. This mapping was based on the geophysical interpretation and field work. The main source of geophysical data used was the aeromagnetic and radiometric survey conducted by the state government agency "Codemig", using an aircraft flying at 100 m altitude, with flight lines NS, separated by 400 m each. Interval between readings was 0.1 second for mag and 1 second, spectrometer.

Vicenza and RBM Consultoria Mineral used mainly the Analytical Signal technique, to show the zones of maximum magnetic intensity, and the Thorium image, to define the limits of the Capacete Formation. The geophysical signature of this formation is usually of high magnetics and high presence of thorium radiation, but at the southern tip of the project are this pattern changes, with presence of

thorium but without high magnetism. This region has not been mapped previously as Capacete formation and still needs to be confirmed, using field work, as being potential for titanium and REE.

Figure 6-1 shows the overall project, using both geophysical images. The first map, at left, is made by the project tenements over the Thorium radiometric image and with the present mapping of the Capacete Formation. The Analytical Signal image, at the right, is very similar, except for the southern zone of the project.

Noteworthy is that the Patos formation has the same geophysical signature as the Capacete Formation. Field criteria is used to differentiate both units.

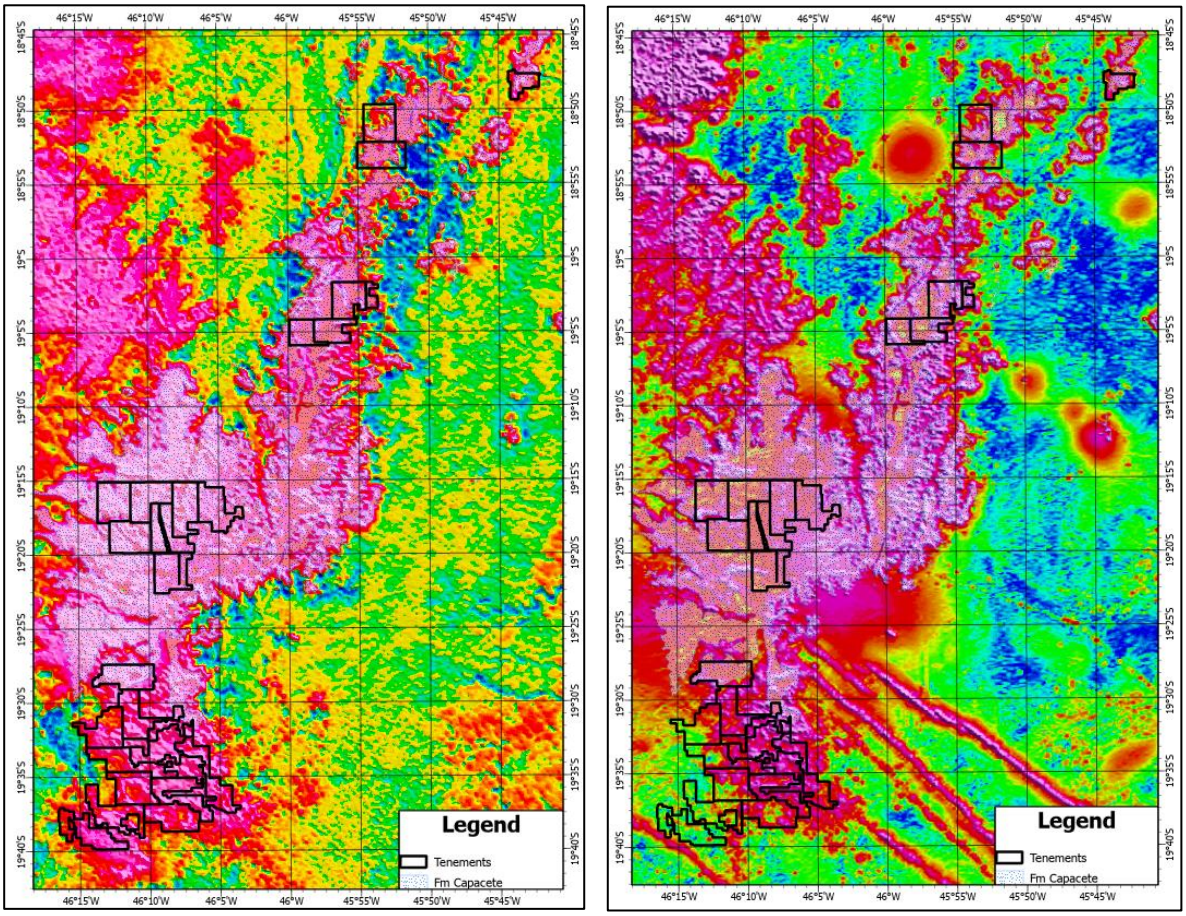


***Figure 6-1: Aeromagnetic images – Thorium and Mag (analytical signal)***

Besides the aeromagnetic data, other surveys were conducted by the different operators over the project region. GPR (ground penetration radar) was used with success to define the stratigraphic continuity of the Capacete formation, under the overburden. The data allows interpreting the thickness of the overburden quite clearly, with best results shown at the edges of plateaus. One of the lines had a large portion of the survey totally blind. This is believed to be result higher moisture in clays due to an irrigated coffee plantation. As a result, GPR was considered to be an effective

auxiliary tool to be used during the dry season and avoiding irrigated areas. The shows the results of one of these lines with its correspondent interpretation.

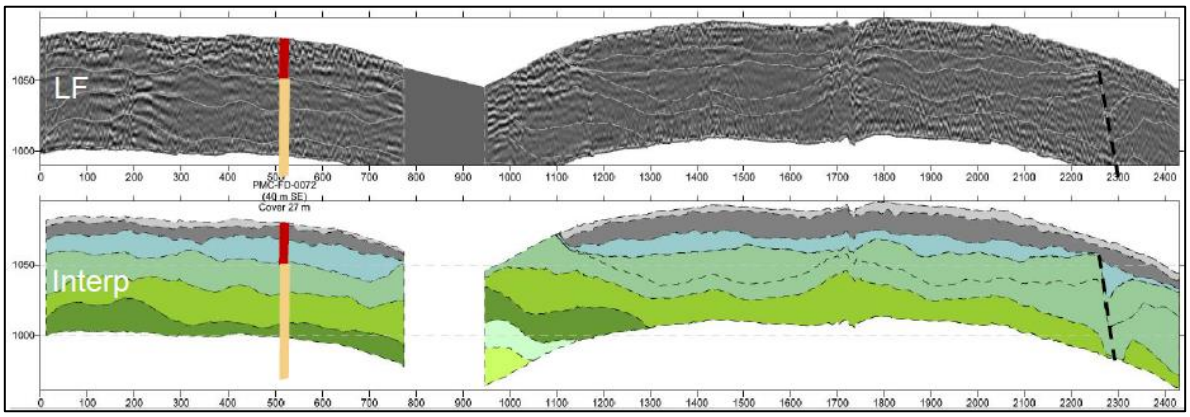


**Figure 6-2: GPR profile with the interpretation.**

During this period, Vicenza carried out 1 diamond drill hole (PMC-FD-0074) in the project area (Figure 6-3: Diamond drilling location map) on permit 831045/2010 in HQ (6.3 cm) diameter, vertically and reaching 82.45m. All drilled material was sampled and placed in core box; nothing being discarded. No trajectory deviation measures were taken and drillhole collar were topographically surveyed by handheld GPS.

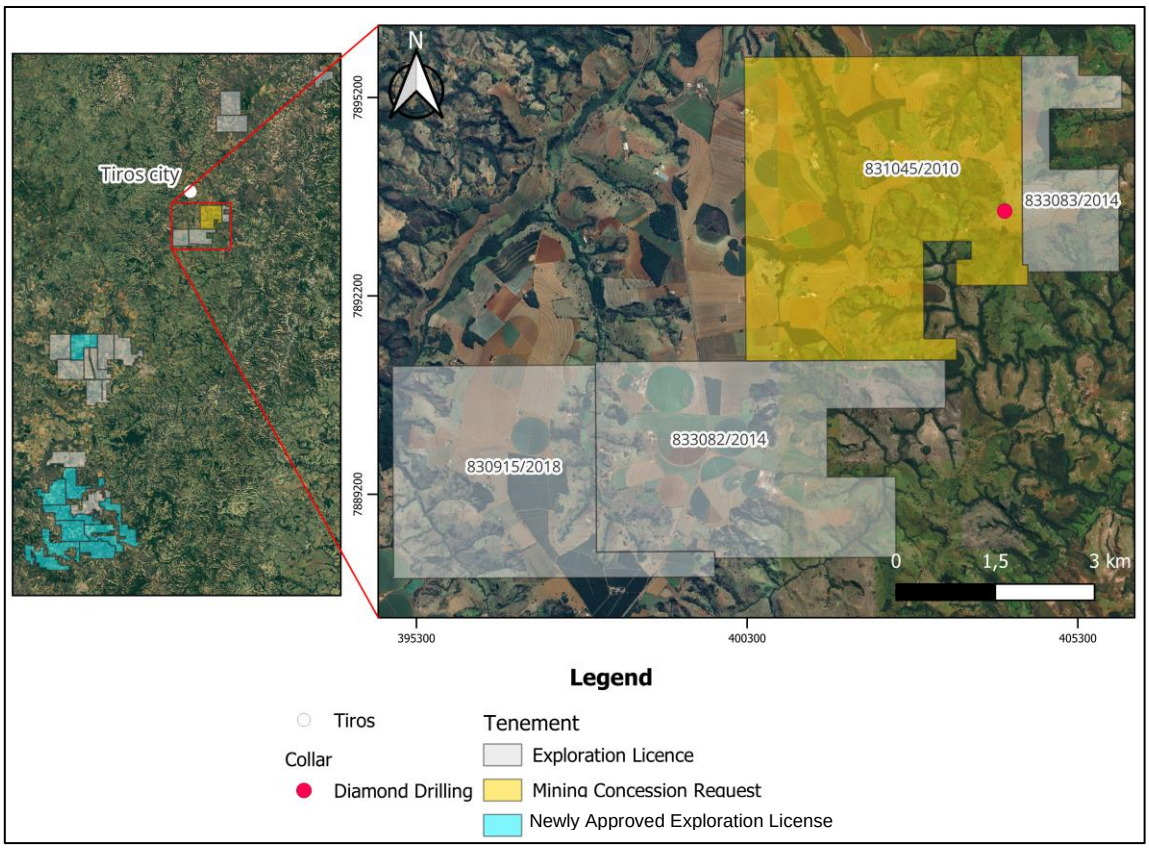


***Figure 6-3: Diamond drilling location map***

The diamond drilling recovery conference consisted of verifying advance and recoveries recorded in the core boxes and drilling bulletins. This verification was undertaken by measuring with tapeline the core present in the boxes. Vicenza applied adequate recovery control procedure and the recovery values was inside acceptable limits.

After the conference, the cores were marked for longitudinal cutting on a diamond test saw. Before the cores were sawed, the boxes were placed side by side, two by two, so that the core could be photographed for later storage in digital media.

Then, the sawn cores were placed back in their respective boxes, always in the same way, that is, with the sawn left side placed below the sawn right side, both with the sawn sides facing upwards. With this, the part sampled is always the right side (top) of the core, which avoids bias (trend) in the sampling (and in the results).

The geological parameters of the cores were described and noted in appropriate logs, by the project geologist, who simultaneously marked and identified the intervals to be sampled on the edge of the box channels. The intervals and numbering of samples were also noted in the drilling logs, along with the geological parameters. The length of the samples varies from 1.1 to 1.2 meters, with an average

of 1.16m. Thus, 64 samples were generated in total, which were then sent in batches for chemical analysis by the SGS Geosol laboratory, located in Vespasiano-MG, using the ICP-MS, ICP-OES and X-ray Fluorescence methods. Notably standard and blank (thin and thick) control samples were inserted every 40 samples analysed.

The results of this drill hole produced and average of 12.4% $TiO_2$, 0.33% REE and 0.68% $P_2O_5$ as summarised in Table 6-1

| Drillhole | From (m) | To (m) | Thickness (m) | $TiO_2$ (%) | HREE (%) | LREE (%) | REE Total (%) | $P_2O_5$ (%) |
|---|---|---|---|---|---|---|---|---|
| PMC-FD-0074 | 22.60 | 71.00 | 48.40 | 12.40 | 0.02 | 0.31 | 0.33 | 0.68 |
| including | 24.90 | 32.10 | 7.20 | 23.30 | 0.03 | 0.69 | 0.71 | 0.88 |

***Table 6-1: Chemical Analysis Results for Historical Drill Hole PMC-FD-0074***

Following the diamond drill hole Vicenza conducted various metallurgical test work using samples from the Capacete target, including the hole FD-072. The aim of this test work was to obtain an anatase concentrate. A 29.6 kg sample of conglomerate, at 24.9% TiO2 was used for a process route including: desliming, magnetic concentration of the coarser fractions (>325 mesh) at low and high intensities, gravimetric concentration using a heavy media method. Leaching with HCl was performed on the physical concentrate reducing impurities. The resulting concentrate assayed at the SGS Laboratories, showed 86% TiO2 with Uranium at 63 ppm and Thorium at 145 ppm. Figure 6-4: Increase in the TiO2 grade according to the different beneficiation steps. Following these encouraging results Vicenza enters into a partnership with Iluka, one of the worlds largest mineral sand product miners, founded in 1998 and having exploration assets in most countries across the globe with operating mines predominately in Australia.

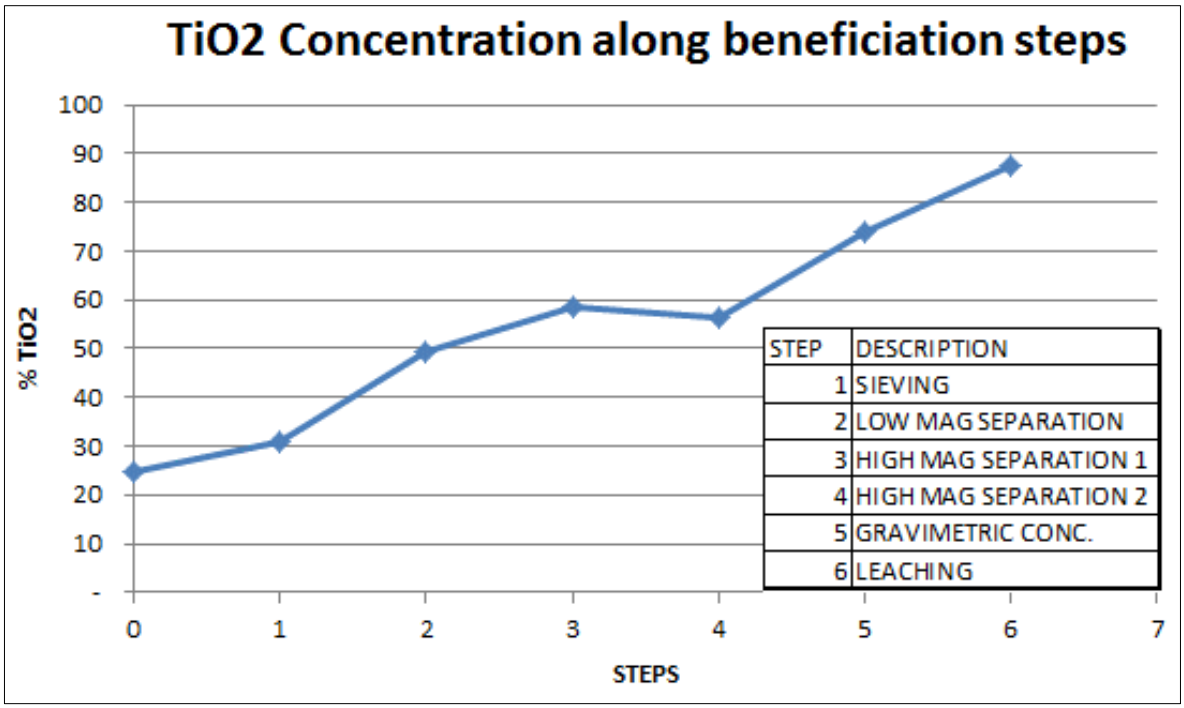


***Figure 6-4: Increase in the TiO2 grade according to the different beneficiation steps***

***Figure 6-5: Drilling equipment in operation in borehole PMC-FD-0074.***


***Figure 6-6: Drilling core from borehole PMC-FD-0074 showing magnetic conglomerate from the Capacete Formation.***

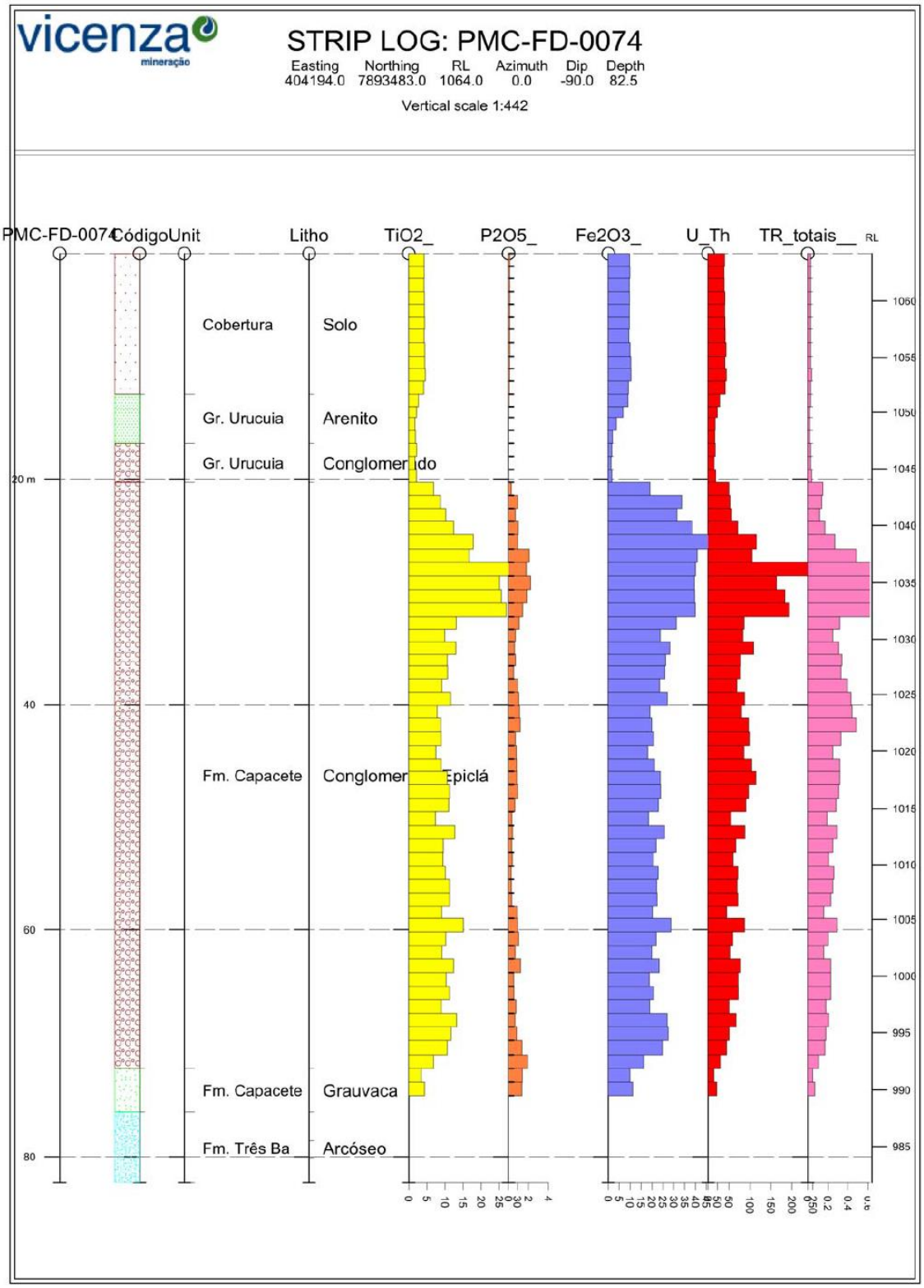


***Figure 6-7: Geological Log for Historical Drill Hole PMC-FD-0074 in Tiros Project.***

## 6.2 Vincenza and Iluka Joint Venture

Following the positive news from Vincenza's metallurgical test work and the joint venture with Illuka, the new enterprise drilled, between 2016 and 2017, 20 Aircore holes in the project area in tenements 833082/2014 and 833083/2014 (shown in Figure 6-8) totalling 1,225m with depth of the holes varied from 35 to 60m. All Aircore holes were vertical and undertaken in 75mm diameter and the collars were topographically surveyed by handheld GPS.

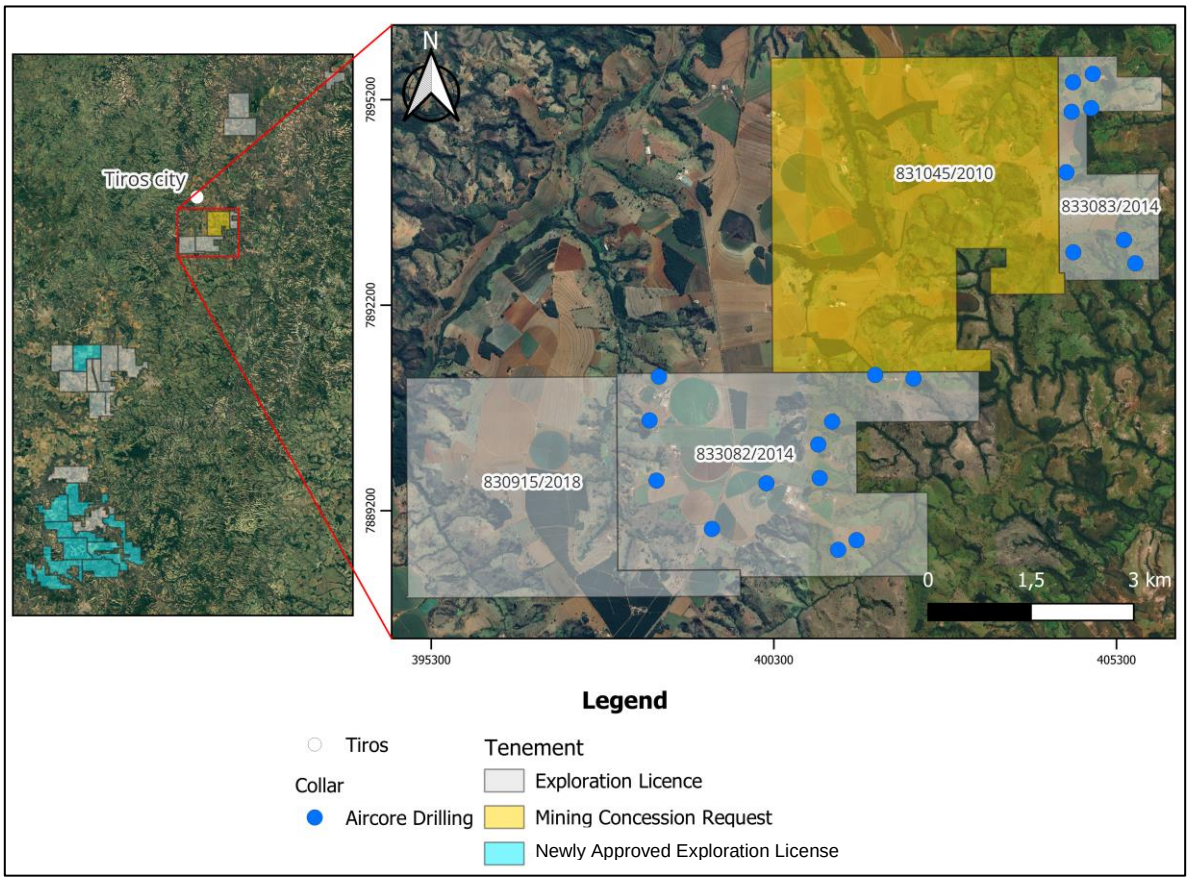


***Figure 6-8: Aircore drilling location map.***

Geological parameters, such as lithology, oxidation, colour and presence of fragments, were described every 1 m in the geological database, however Information about recovery checking procedures and packaging of samples is not available.

All drilled material was sampled, with no material discarded. The sample size was 1m and they were initially analysed by Iluka-Vicenza JV only with a portable XRF model Niton Gold Xlt3. The database contains 443 samples with grades of oxides $TiO_2$, $Al_2O_3$, $Cr_2O_3$, $Fe_2O_3$, MnO and $P_2O_5$ obtained using the XRF. This was the database used for the final exploration reports presented to ANM.

Results of these samples are summarised below (Table 6-2) in indicating high grades of titanium and rare earth are present and consistent with the single Vincenza diamond drill hole completed. Notably hole AC-TIR-001 was a failed hole and AC-TIR-006, AC-TIR-007, AC-TIR-015, AC-TIR-017 and AC-TIR-019 did not contain mineral or were at very low levels indicating a potential orebody boundary was identified or the drill holes were too shallow to reach the orebody in these areas.

| HoleID | X | Y | Z | AZIMUTH | DIP | Interval FROM | Interval TO | Average TREO ppm | Average TiO2% |
|---|---|---|---|---|---|---|---|---|---|
| AC-TIR-002 | 400968.7 | 7889678 | 1071.211 | 0 | 90 | 36 | 42 | 1986 | 10.23 |
| AC-TIR-003 | 399395.8 | 7888934 | 1096.954 | 0 | 90 | 44 | 48 | 3082 | 13.01 |
| AC-TIR-004 | 398587.7 | 7889640 | 1076.711 | 0 | 90 | 37 | 51 | 4125 | 11.83 |
| AC-TIR-005 | 398485.3 | 7890519 | 1070.696 | 0 | 90 | 36 | 47 | 2530 | 11.71 |
| AC-TIR-008 | 401777.8 | 7891183 | 1079.7 | 0 | 90 | 44 | 55 | 3382 | 15.77 |
| AC-TIR-009 | 402337.5 | 7891131 | 1048.104 | 0 | 90 | 13 | 28 | 4873 | 17.00 |
| AC-TIR-010 | 400946.7 | 7890168 | 1066.318 | 0 | 90 | 26 | 39 | 4599 | 16.73 |
| AC-TIR-011 | 401150.6 | 7890502 | 1048.662 | 0 | 90 | 11 | 53 | 4116 | 16.47 |
| AC-TIR-012 | 404669.6 | 7892974 | 1074.331 | 0 | 90 | 51 | 60 | 5521 | 17.12 |
| AC-TIR-013 | 405408.4 | 7893153 | 1033.307 | 0 | 90 | 29 | 36 | 2865 | 8.78 |
| AC-TIR-014 | 404568.9 | 7894139 | 1049.344 | 0 | 90 | 31 | 35 | 2629 | 10.06 |
| AC-TIR-016 | 404644.8 | 7895023 | 1052.623 | 0 | 90 | 30 | 51 | 3334 | 11.23 |
| AC-TIR-018 | 404954.4 | 7895577 | 1047.773 | 0 | 90 | 22 | 33 | 4933 | 14.25 |
| AC-TIR-020 | 401239.3 | 7888629 | 1044.091 | 0 | 90 | 13 | 27 | 5495 | 15.19 |

***Table 6-2 Vicenza and Illuka drilling detail.***

Metallurgical studies from these drill holes assay was undertaken and focussed on anatase concentrate production. The joint venture performed many characterization studies such as QEMSCAN, MLA, SEM, BSE and XRD. Metallurgical work comprised assay by size fraction and MLA and XRD analysis. The material was run through a mechanical (wet tables) concentration process, and the tailings and product streams analysed separately using QEMSCAN.

In summary the test work conducted using a traditional mineral sands recovery method on the +53 µm material produced better recoveries in the upper mineralised levels, known as the Strongly Oxidised Material (SOX) producing a 45-47% TiO2 & 28-53% anatase with the Moderately Oxidised Material (MOX) producing a 23-41%TiO2 & 22-35% anatase. Based on this type of test work the metallurgical recoveries were calculated as 19% of the TiO2 content and 41% of the anatase content. Iluka estimated with these results if a pure anatase concentrate is obtained through reduction in gangue material, the grade of the product would be 90.5% TiO2 for the WOX and 89.6% TiO2 for the MOX material. In 2017 the joint venture between Iluka and Vincenza was ended.

## 6.3 RBM Exploration

Following the completion of the joint venture between Iluka and Vicenza, Vincenza underwent financial difficulties which prevented it to continuing with the exploration activities. The areas were

later transferred to RBM Consultoria Mineral in exchange for services of their technical director, Rodrigo Mello. RBM kept the areas in good order, expanding the property acquiring new licenses based on the available data, undertaking various desktop studies and a major chemical re-analysis of samples program was developed using the Iluka drill samples.

In 2021 a chemical reanalysis of samples from historic drilling was conducted. From the original 443 samples, 224 samples plus 30 control samples (blanks, standards and duplicates) were analysed using the ICP method (determination of 48 elements by fusion with lithium metaborate, including REE) were selected for re-assaying. Intervals defined as mineralized by the portable XRF were selected. A sub-sample with about 1 kg from each sample in the interval was obtained through a Jones quarter and sent to the laboratory SGS-Geosol in Belo Horizonte, together with 30 QAQC samples. The method chosen was the ICP OES/MS which, besides the oxides tested by Iluka, included 34 more elements, including most Rare Earths elements.

The results showed in relation to TiO2 (Figure 6-9, Figure 6-10, Figure 6-11, Figure 6-12), that a clear bias was detected between XRF and ICP. ICP is known to be more accurate than portable XRF for assays on these types of ore bodies samples due to a more efficient opening with lithium metaborate fusion used in the ICP process. The ICP TiO2 results were 16% higher than the original ones with the mean for the XRF results in the mineralized areas producing 11.6 TiO2% with the results from the ICP being 15.8%. The Outliers presented in Figure 6-9 are believed to be associated to misplaced sample results or poorly executed XRF assays. The results also indicate, the underestimation of $TiO_2$ levels is less pronounced at lower levels.

Following the completion of this work RBM entered into an agreement with Resouro Strategic Metals in July 2023 and started a drilling and metallurgical testing program immediately.

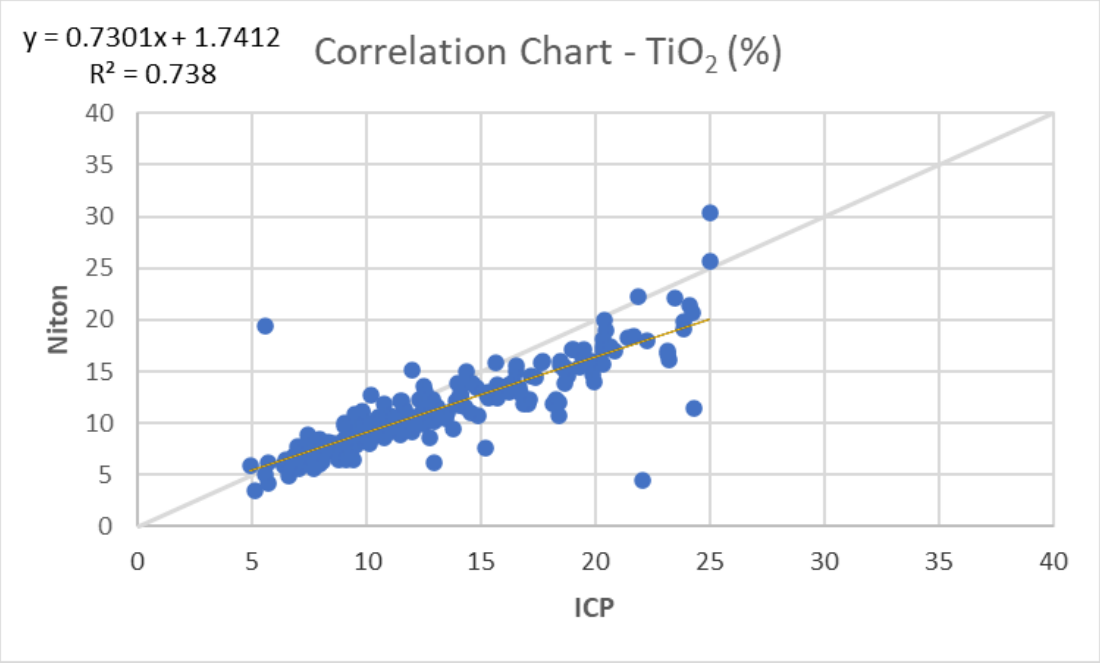


***Figure 6-9: Resampling program comparative analysis plots for $TiO_2$ – Portable XRF Versus ICP: Correlation Chart.***

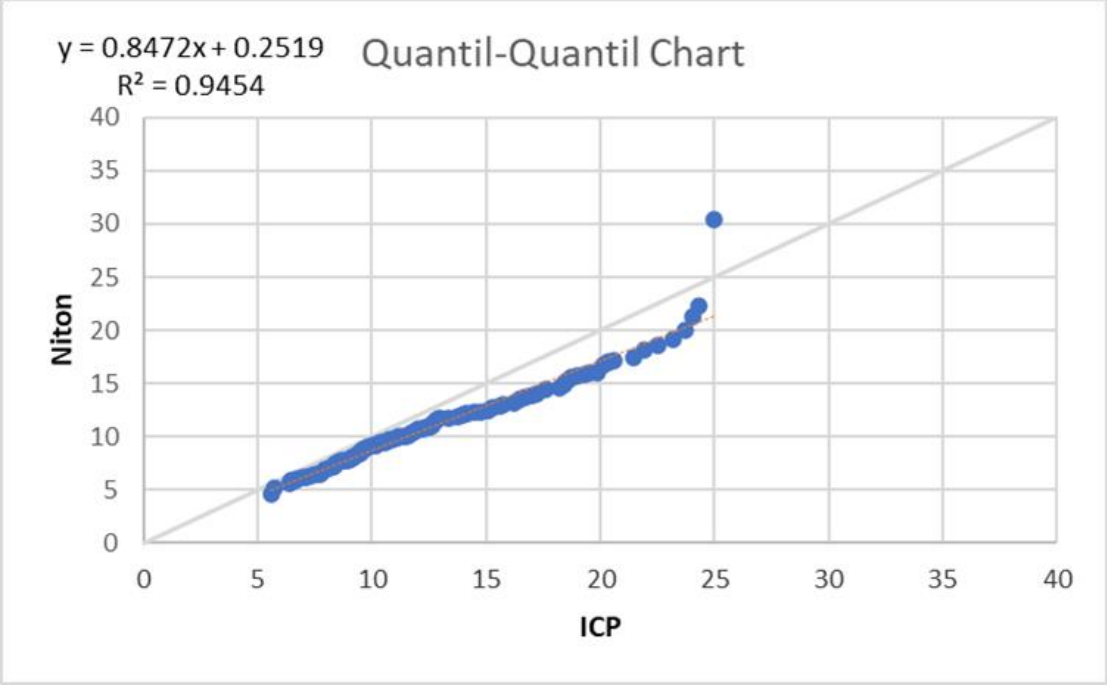


***Figure 6-10: Resampling program comparative analysis plots for $TiO_2$ – Portable XRF Versus ICP: Quantil-Quantil.***

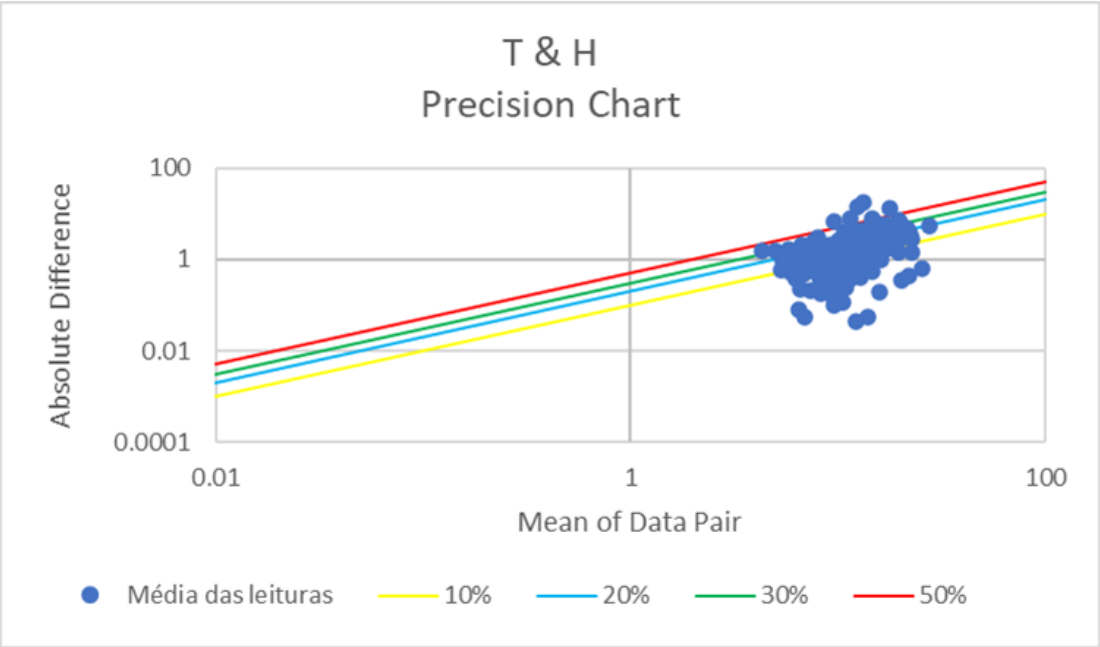


***Figure 6-11: Resampling program comparative analysis Precision Chart plots for $TiO_2$ – Portable XRF Versus ICP***

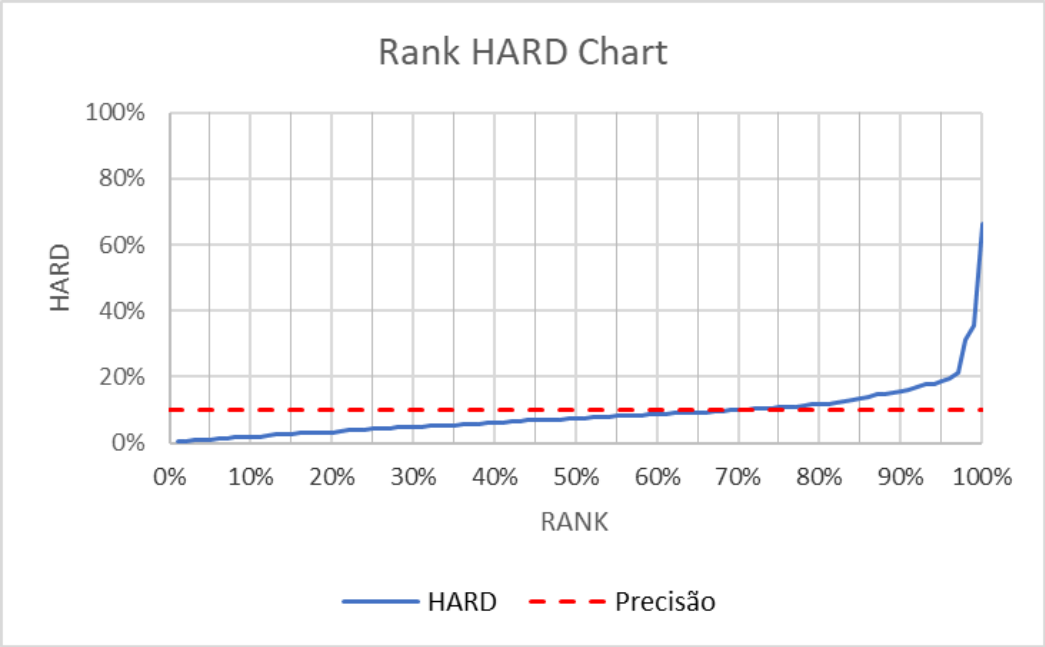


***Figure 6-12: Resampling program comparative analysis Rock HARD plots for $TiO_2$ – Portable XRF Versus ICP***

# 7 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The São Francisco Craton is made up of a complex arrangement of high-grade metamorphic terrains (gneisses, granitoids and granulites) of Archean age, granite-greenstone type associations and belts of Paleoproterozoic supracrustal rocks, as well as plutonic rocks with great compositional variety, exposed in the extreme south of the Cráton (Cinturão Mineiro) and in the northeast portion, in the state of Bahia. The Craton is largely covered by Proterozoic and Phanerozoic sedimentary rocks attributed to the São Francisco Basin. In its surroundings, two mobile folded belts were developed that exerted compression on its eastern (Araçuaí Fold Belt) and western (Brasília Fold Belt) edges, causing ductile-brittle deformations, which affected it, as well as its coverings, represented in the domain of the São Francisco Basin (Figure 7-1)

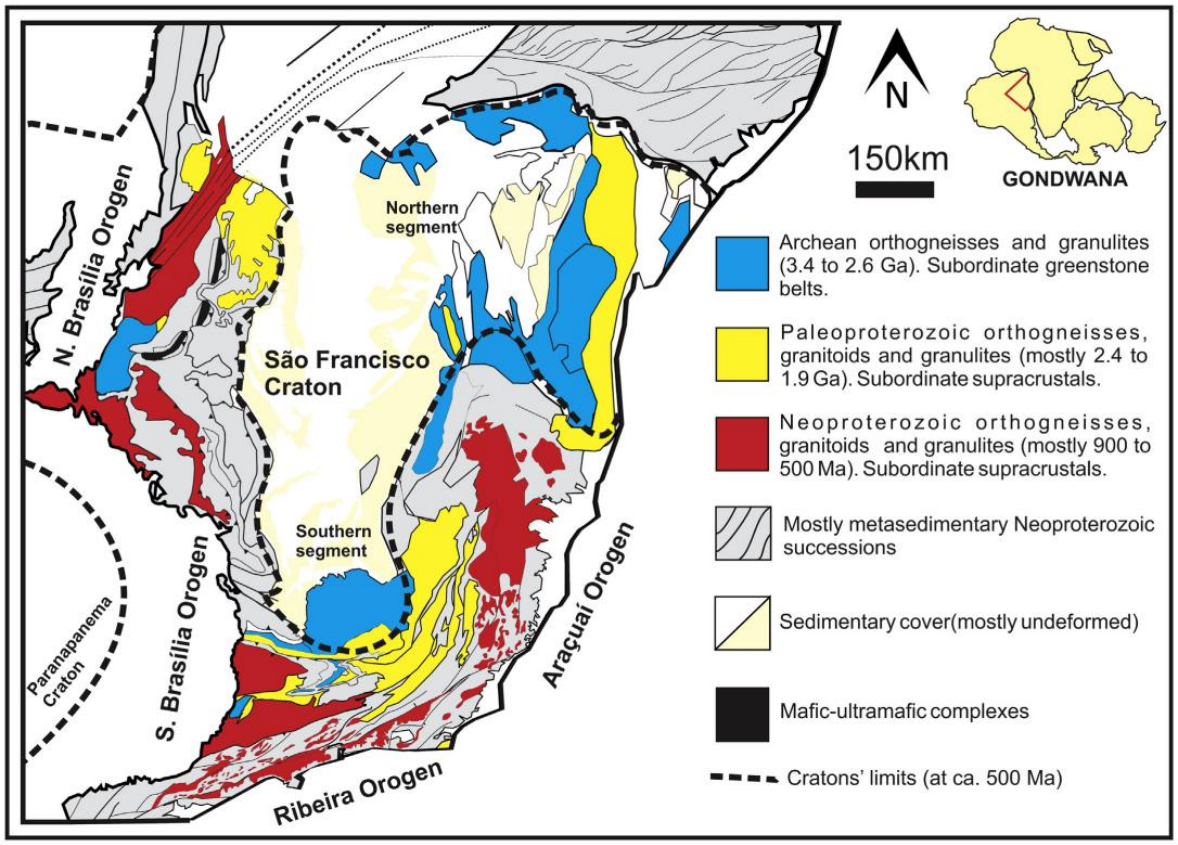


***Figure 7-1: Regional geological context.***

The São Francisco Basin has an area of 350,000 km² and covers a large part of Minas Gerais. It is of the polycyclic intracratonic type, little deformed in its central portion and deformed at its edges. The filling of the basin, from the base to the top, occurred through successive sequences, namely: Rift Supersequence (Paleoproterozoic to Mesoproterozoic) constituted by the Espinhaço Supergroup and

the Araí Group; Intracratonic Supersequence (neoproterozoic), represented by the Paranoá and Macaúbas groups and Intracratonic/Antepaís Supersequence (neoproterozoic), constituted by the Bambuí Group. The Permocarboniferous (Santa Fé Group) and Cretaceous (Areado, Mata da Corda and Urucuia) units are grouped by the Sanfranciscana Supersequence in accordance with Zalán & Romeiro Silva (2007).

The Brasília Fold Belt of Neoproterozoic age is more than 1,100 km long. Developed during the Brasiliano Cycle (Almeida et al., 1977) on the southern edge of the São Franscisco Craton, this belt represents a complex belt of folds and thrust faults with tectonic and metamorphic vergences towards the Craton (Fuck et al., 1994). Structurally, it presents two distinct trends: a northern one, with a NE orientation and a southern one with a NW orientation, with the same geotectonic evolution, although with different characteristics. The meeting of the two branches marks a large regional structure defined as the Syntax of the Pyrenees (Araújo Filho, 1999) which consists of WNW-SSE lineaments, located at the same latitude as the Federal District.

During the Late Cretaceous, they were housed in the Brasília Belt SW of the São Francisco Craton, a set of ultrapotassic alkaline rocks. Among these groups, the Alto Paranaíba Alkaline-Carbonatitic Province, which is made up of numerous sub-volcanic bodies of kamafugites and kimberlites, with rare lamproites; large alkaline-carbonatite-phoscoritic plutonic complexes such as those of Catalão, Serra Negra, Salitre, Araxá and Tapira; and a voluminous set of spills and kamafugite pyroclastic deposits from the Mata da Corda Group.

Subsequently, the Capacete Formation represents the sedimentation of the erosion product of these rocks, therefore, it also has great prospective potential. In petrographic sheets of sandstones and lithic, epiclastic conglomerates, detrital apatite cemented grains have often been found, in addition to fragments of phosphorites.

### 7.2 Local Project Geology

In the project area, as shown in figure 12-2 the following lithostratigraphic units were differentiated and mapped, from base to top: Bambuí Group, Areado Group, Mata da Corda Group, Laterite Cover and Alluvial Deposit. There is a NNE-directed band that encompasses the rocks of the Mata da Corda Group, represented by the Capacete formation, which generally have a lateritic cover and are exposed only on the slopes of the plateaus.

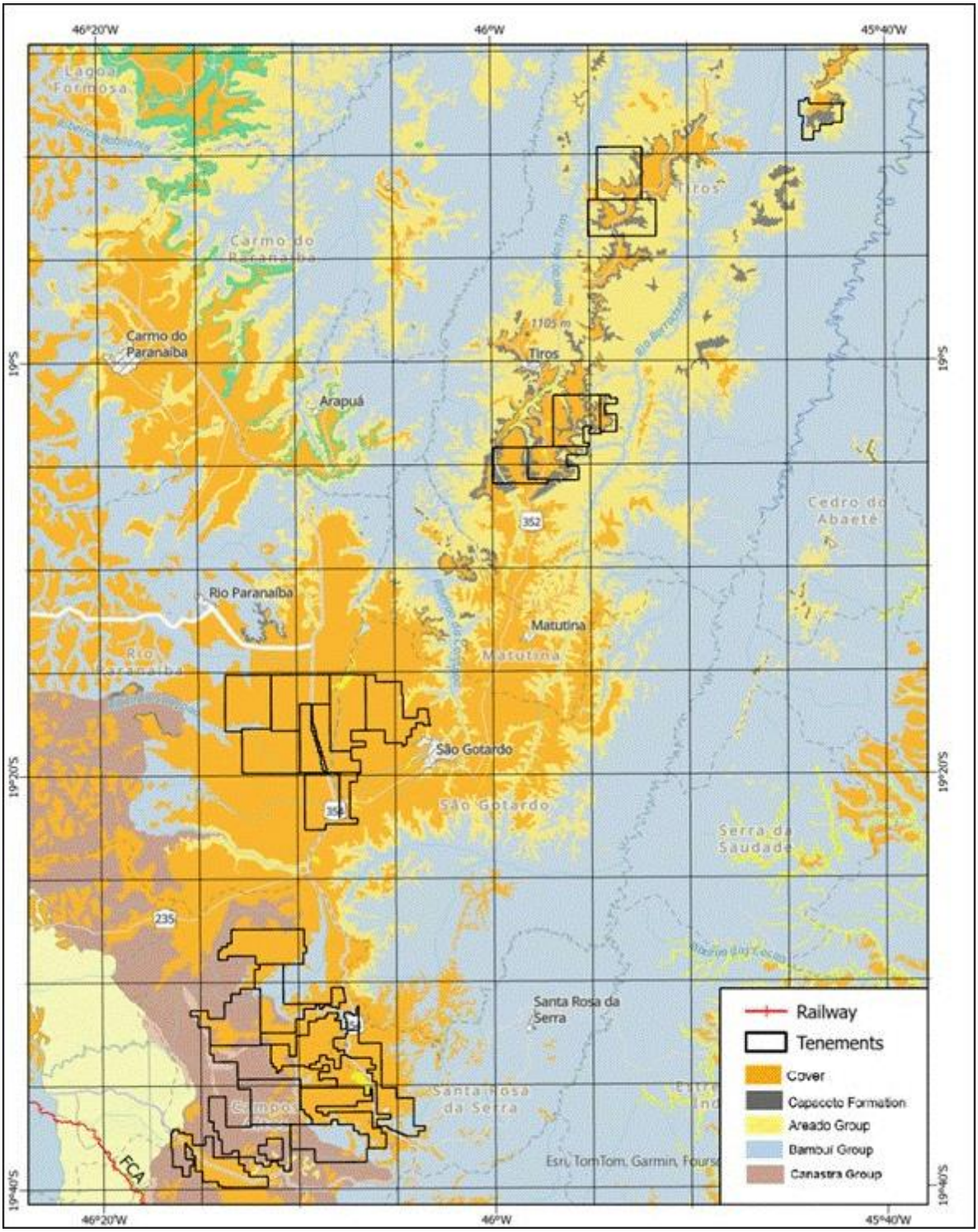


***Figure 7-2: Local geological map.***

The undivided Bambuí Group (Paraopebas Subgroup) is represented by a pink claystone and siltstone, with disseminated white mica, of detrital origin, and plane-parallel lamination marked by the variation from clay and silty to silty-sandy planes.

The Areado Group is characterized by sandstones from the Três Barras Formation, essentially composed of quartz with fine to medium sand grain size. There is stratification marked by particle size variation, both for levels of coarse sand with rare granules, and for levels of fine sand grain size. In some outcrops, cross-stratifications up to 3 m thick were observed, characterizing them as an aeolian environment.

The Mata da Corda Group is represented in the area by epiclastic rocks (sandstone and conglomerate) of the Capacete Formation (Figure 7-3). The sandstone is friable, magnetic, composed of quartz, fragments of volcanic rocks and heavy minerals, such as magnetite and ilmenite, with medium to coarse sand grain size, with flat-parallel stratification marked by granulometric and compositional variation, presenting strata richer in quartz and others richer in fragments of volcanic rock and heavy minerals.

***Figure 7-3: Outcrop of epiclastic rocks in roadside ravine.***

The conglomerate (Figure 7-4) is friable, magnetic, composed of a quartz matrix, fragments of volcanic rock and heavy minerals, such as magnetite and ilmenite, in medium to coarse sand grain size, and with clasts predominantly of volcanic rock of grain size up to boulders, with plane-parallel stratification marked by granulometric and compositional variation, presenting strata richer in quartz and others richer in fragments of volcanic rock and heavy minerals.


***Figure 7-4: Conglomerate hand sample from the Capacete Formation.***

The changes in the epiclastic formations of the Capacete Formation result in a saprolite (Figure 7-5) with a reddish to purplish colour, magnetic, clayey, with a mottled appearance, with disseminated kaolinite, possibly from the alteration of the volcanic fragments. Saprolite samples show low levels of $P_2O_5$, but high concentrations of $TiO_2$ and REE.

The laterite cover occurs at the top of the plateaus and develops through the evolution of weathering over the rocks of the Mata da Corda Group. Outcrops are observed on the edges of the plateaus, with a break in relief. The laterite is reddish, weakly magnetic, beige, non-magnetic, with a clayey matrix, with quartz fragments and goethite nodules.

Alluvial deposits are composed of ancient and recent alluvium, with fine to coarse sand, clays and mainly varied colluvium.

***Figure 7-5: Saprolite outcrop from the epiclastic rocks of the Capacete Formation.***

## 7.3 Regolith

Understanding the variability of weathered profile across the area and in different lithologies, proved to be key for guiding the metallurgical test work. A comprehensive study on the geochemical results of the AC and core drilling combined with the results of the mineralogical study, led to the separation of the weathered profile into 4 distinct zones based on visual and geochemical characteristics. The main oxide used for the definition is CaO. Other oxides as $K_2O$, $SiO_2$, $Al_2O_3$, MgO, $Fe_2O_3$ and LOI are also used to assist defining the boundaries. Along all the weathering profile, Ti shows positive correlation with $Fe_2O_3$, BaO, V, MnO, Nb, La, Nd, Hf, Nb, Ta, Th and U, and an inverse correlation with SiO2.

SOX (Strongly Oxidized Saprolite) – It is the topmost layer of Capacete in any complete profile. Thickness varies from a few meters up to almost 40m. Typically weathering has completely removed CaO and $K_2O$, resulting in high kaolinite, very low mica content and anatase enrichment. Later this layer was also named Red for sampling purposes. It is red and displays no structures.

MOX (Moderately Oxidized Saprolite) - The MOX zone is characterized by a slight increase in CaO, $K_2O$, $SiO_2$ and slight decreases in $Al_2O_3$ levels. Kaolinite is almost absent, and micas account to up to 45% in mineral abundance. CaO is still the best indicator of the weathering stage, but the other oxides are increasingly more important for identifying transition zones. It displays a range of green tones with reddish mottling, and relatively well-preserved rock structures.

WOX (Weakly Oxidised Saprolite – or Sap Rock) - The WOX zone is a transition between fresh and weathered sediment, and its definition is imprecise. The mineralogical study showed samples with approximately 50% micas, small amounts of K-feldspar and no kaolinite. Grey is the dominant colour and structures are well preserved.

FRS – (Fresh Rock) - Fresh "rock" was arbitrarily defined as having CaO > 8%, which is when calcite is present and reacts with weak HCl. The average $TiO_2$ is 6%, $Fe_2O3$ is 14%, CaO is 12% (ranging from 7 to 22%) and $P_2O_5$ is 1%.

The following definitions are an attempt to define the layers based solely on geochemistry. This is intended to assist in differentiating samples collected during drilling.

SOX: CaO < 0.15% and $K_2O$ < 2%

MOX: 0.15 < CaO < 0.5% and 2% < $K_2O$ < 5%

WOX: 0.5% < CaO < 8%

FRS: CaO > 8% and LOI >10%

### 7.4 Mineralization

Mineralization at the Tiros project is due to a lateritic process enriching epiclastic rocks and the erosion products of volcanic rocks enriched in titanium and rare earth elements. REE and titanium mineralization are hosted in sandstones and conglomerates of the Capacete Formation, belonging to the Mata da Corda Group. Titanium is mainly associated with the mineral anatase, originated from the alteration of perovskite. REE are suspected to be also associated with the perovskite. This mineral with formula $CaTiO_3$, was affected by weathering close to surface. The calcium ion was put into solution by meteoric waters, leaving the anatase crystals with many voids. This allowed the migration of the REE to nearby clays where they were captured through weak bonds. The upper part of the mineralized zone is known as being of higher grade for both titanium and REE which should be the effect of the leaching of gangue elements due to weathering.

Importantly, the project area does not have a NI 43-101 compliant report to provide information relating to the length, width, or depth of the mineralised zone, however generally of the areas drilled within the total 477 square kilometres of the Tiros Project, the mineralised zone has been found to contain similarly consistent titanium and rare earth grades which is consistent with the geological knowledge of the Capacete Formation.

# 8 DEPOSIT TYPES

The Tiros project can be defined as a lateritic type of deposit, in which a rock enriched of certain elements is subject to leaching by meteoric waters and have some elements of interest concentrated close to the surface.

In relation to the anatase, the main paradigm is the Tapira deposit, situated 127 km to the SW of Tiros. The geology there is made of plutonic rocks (whereas Tiros is made of epiclastic rocks of volcanic origin) but the magma source is similar. The geochemical signature is also similar, with TiO2 grades in the order of 12 -14% and REE anomalous.

Lateritic deposits with REE enriched close to surface are more common. In Brazil, there is the Serra Verde deposit and the recently discovered deposits on the dome of Poços de Caldas. The former is a product of enrichment of granite and the latter, of carbonatite.

# 9 EXPLORATION

There has been no exploration completed over the tenements since ownership by Resouro.

# 10 DRILLING

In 2023 following the RBM and Resouro Strategic Metals agreement an exploration program was planned and commenced in September 2023. This included work program included chemical reanalysis of the remaining samples from historic drilling and a new auger, Aircore and diamond drilling campaign (Figure 10-1).

At the time of writing this report Resouro had completed 257m over 25 auger holes, 1,562m over 30 Aircore holes and, 1,634m over 26 Diamond holes.

Assays from the present drilling campaign had returned the first batches of 518 samples with most of the hole assays still pending laboratory results. The first samples received are shown in the sections below.

To date no topographic survey was carried out in the project with SRTM data used for exploration with the drill hole collars being topographically surveyed by handheld GPS.

## 10.1 Auger Drilling

The auger drilling campaign at the time of writing this report totalling to date 120.50m in 13 auger drill holes of 4 inches diameter, with the depth of the holes varied from 6 to 15m in tenement 831045/2010. Drilling was undertaken following a standard operating procedure of the auger equipment and drilled to maximum physical depth of the machinery.

Geological parameters, such as lithology, oxidation, colour and presence of fragments, recorded in every 1m, with all drilled material being captured, bagged and labelled for sample preparation in the Resouro workshop. Samples in the Resouro workshop were weighed, dried, manually crushed, re-weighed and sent for sampling to the SGS Geosol laboratory in Belo Horizonte, Brazil being the closest accredited laboratory. Samples in the laboratory followed a standard procedure for sampling which included, weighting, drying, screening, sorted, split, attritioned and analysed.

Results from the Resouro 518 assays received at the time of writing this report included Aircore and auger results. The auger results received are summarised in (Table 10-1) showing the deposit contains high levels of titanium consistent with historical drilling and high levels of rare earth consistent with the work undertaken by RBM. Results also indicated the material ore zone is consistent with that known in historical exploration although the results did indicate the lower-level thickness of the ore zone of this deposit was not reached in the auger drilling program. Holes FT06, FT08, FT12 and FT13 are excluded from these results as no mineralisation was detected indicating these holes may have identified a boundary of the orebody or were too shallow to make contact with the orebody.

The results of the auger program indicated the geological interpretation and method of exploration is appropriate highlighting the interface between the physical dimensions and geological profiles is consistent with the geological understanding of the Capacete Formation.

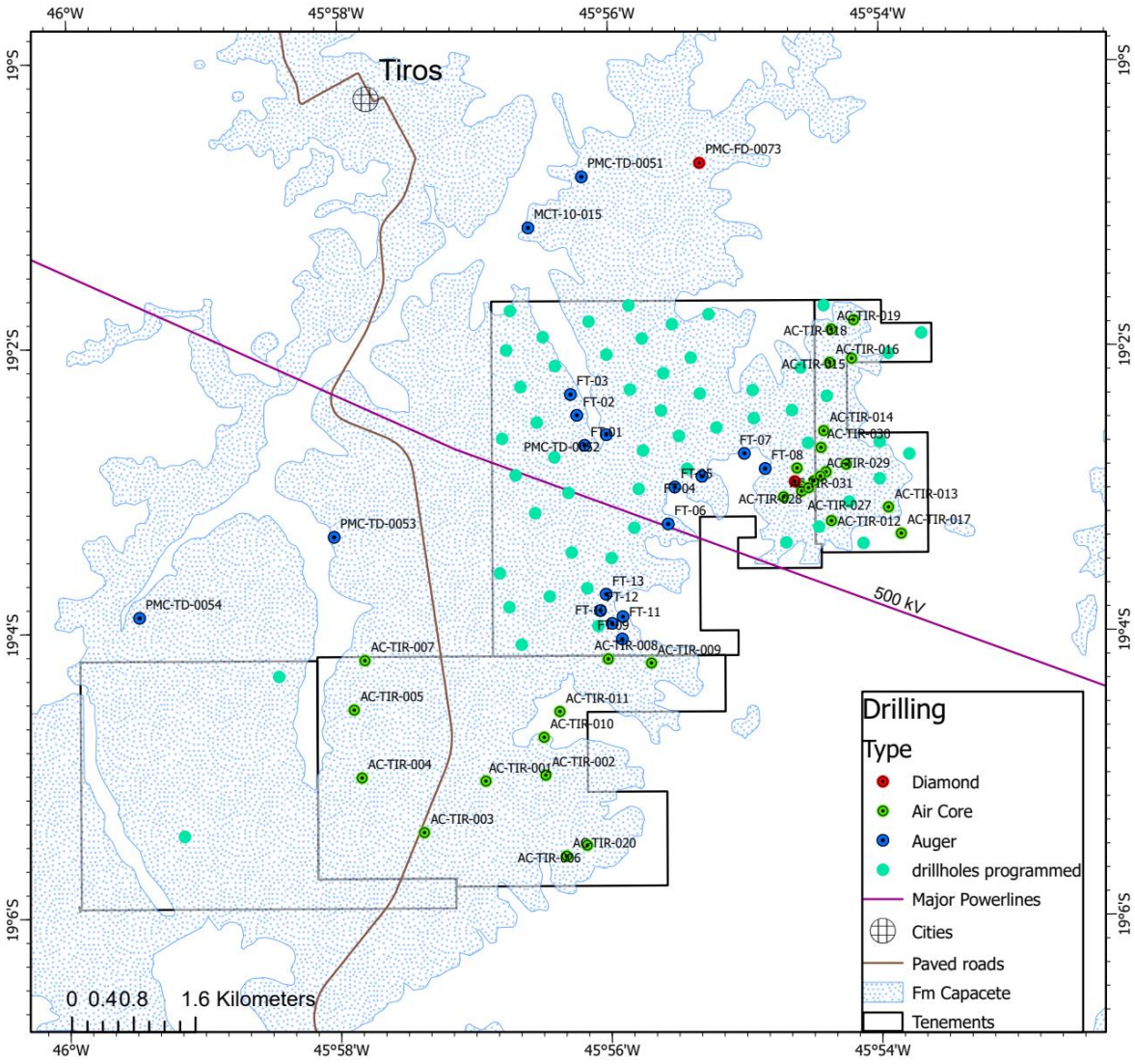


***Figure 10-1 Resouro 2023 Auger, Diamond and Aircore drilling location.***

| HoleID | X | Y | Z | AZIMUTH | DIP | Interval FROM | Interval TO | Average TREO ppm | Average TiO2% |
|---|---|---|---|---|---|---|---|---|---|
| FT-01 | 401470.1 | 7893949 | 1002.723 | 0 | 90 | 0 | 6 | 4189 | 20.56 |
| FT-02 | 401368.3 | 7894337 | 997.0978 | 0 | 90 | 0 | 11 | 5253 | 15.26 |
| FT-03 | 401286 | 7894607 | 997.0582 | 0 | 90 | 0 | 6 | 4058 | 15.03 |
| FT-04 | 402991 | 7893548 | 1027.228 | 0 | 90 | 3 | 15 | 6699 | 19.41 |
| FT-05 | 402639.2 | 7893409 | 1018.939 | 0 | 90 | 2 | 9 | 3455 | 10.92 |
| FT-07 | 403540.6 | 7893845 | 944.0546 | 0 | 90 | 0 | 2 | 3610 | 10.82 |
| FT-09 | 401958.9 | 7891441 | 1039.084 | 0 | 90 | 3 | 11 | 5768 | 16.03 |
| FT-10 | 401827.6 | 7891643 | 1001.096 | 0 | 90 | 7 | 10 | 3143 | 8.76 |
| FT-11 | 401967.7 | 7891730 | 1033.299 | 0 | 90 | 0 | 10.5 | 7181 | 10.47 |
| FT-14 | 404435.9 | 7911032 | 1040.91 | 0 | 90 | 12 | 15 | 662 | 9.37 |
| FT-15 | 404013.3 | 7911081 | 1034.5 | 0 | 90 | 3 | 16 | 1846 | 9.92 |
| FT-16 | 403803.7 | 7911334 | 988.3385 | 0 | 90 | 0 | 13 | 1546 | 7.2 |
| FT-18 | 405538.3 | 7910684 | 1022.839 | 0 | 90 | 2 | 9 | 2508 | 7.66 |
| FT-19 | 405670.3 | 7910407 | 1021.412 | 0 | 90 | 0 | 11 | 4131 | 8.78 |
| FT-20 | 405796.2 | 7910196 | 1037.287 | 0 | 90 | 6 | 7 | 223 | 6.14 |
| FT-21 | 404814.6 | 7914113 | 892.66 | 0 | 90 | 0 | 2 | 1882 | 4.65 |
| FT-23 | 404683.3 | 7915151 | 912.154 | 0 | 90 | 0 | 11 | 5155 | 14.03 |
| FT-24 | 404434.8 | 7915040 | 916.733 | 0 | 90 | 0 | 15 | 3885 | 13.01 |
| FT-25 | 406423.4 | 7915087 | 1012.846 | 0 | 90 | 0 | 12 | 8150 | 20.1 |

***Table 10-1: Results of the Resouro auger drilling campaign.***

## 10.2 Aircore Drilling

The Aircore drilling campaign at the time of writing this report totalling to date 1,562 m over 30 Aircore drill holes of ~100mm diameter, with the depth of the holes varying from ~40m to ~85m. Drilling was undertaken following a standard operating procedure of the Aircore drilling equipment and undertaken by an Drillbell Sondagens LTDA. Drilling depth was chosen to reach the hard conglomerate materials which was identified by the driller and the field geologist.

All drilled material is captured, bagged and labelled in 1m intervals for sample preparation in the Resouro workshop. Samples in the Resouro workshop were weighed, dried, manually crushed, re-weighed with geological parameters, such as lithology, oxidation, colour and presence of fragments, recorded. Samples where then sent for sampling to the SGS Geosol laboratory in Belo Horizonte, Brazil being the closest accredited laboratory. Samples in the laboratory followed a standard

procedure for sampling which included, weighting, drying, screening, sorted, split, attritioned and analysed.

Results from the 518 assays received to date included 4 Aircore hole which are summarised in Table 10-2 showing the deposit contains high levels of titanium consistent with historical drilling and high levels of Rare earth consistent with the work undertaken by RBM. Results also indicated the material ore zone is consistent with that known in historical exploration although the results did indicate the end of holes may have intersected a potential fake floor of the orebody as mineralisation was found to the end of the hole.

The results of the Aircore program indicated the geological interpretation and method of exploration is appropriate although bands of higher-grade materials within the 1m assay results is not yet known to be consistent or otherwise.

| HoleID | X | Y | Z | AZIMUTH | DIP | Interval FROM | Interval TO | Average TREO ppm | Average TiO2% |
|---|---|---|---|---|---|---|---|---|---|
| ACTIR-21 | 404223.1 | 7893656 | 1035.208 | 0 | 90 | 29 | 43 | 4340 | 12.13 |
| ACTIR-22 | 404275.9 | 7893424 | 1017.652 | 0 | 90 | 23 | 58 | 4120 | 10.35 |
| ACTIR-23 | 404861.8 | 7893705 | 1058.431 | 0 | 90 | 29 | 57 | 4585 | 12.74 |
| ACTIR-24 | 404686.3 | 7893661 | 1064.445 | 0 | 90 | 34 | 78 | 5739 | 15.44 |

***Table 10-2: Results of the Resouro Aircore drilling campaign.***

### 10.3 Diamond Drilling

The diamond drilling campaign at the time of writing this report totalling to date 1,634 m in 26 diamond drill holes of 63.5mm diameter, with the depth of the holes varied from ~40m to ~85m. Drilling was undertaken following a standard operating procedure of the diamond drilling equipment and undertaken by an experienced drilling contractor. Drilling depth was chosen to reach the hard conglomerate materials which was identified by the driller and the field geologist.

All drilled material is captured, bagged and labelled in 1m intervals for sample preparation in the Resouro workshop. Samples in the Resouro workshop were weighed, dried, manually crushed, re-weighed with geological parameters, such as lithology, oxidation, colour, and presence of fragments, recorded. Samples where then sent for sampling to the SGS Geosol laboratory in Belo Horizonte, Brazil being the closest accredited laboratory. Samples in the laboratory followed a standard procedure for sampling which included, weighting, drying, screening, sorted, split, attritioned and analysed.

At the time of writing this report no Resouro diamond drill holes had yet been received.

## 10.4 Density

Since ore and overburden are both friable material, density estimates were obtained from outcrops of both lithologic types in road cuts near the city of Tiros. A hole of approximately 30 x 30 x 30 cm is dug and the material excavated was weighted at a precision scale. The volume of the material is taken from filling the hole with water, after covering it with canvas. The division of the weight by the volume produced an estimate of 1.43 g/cm$^3$ for overburden and 1.73 g/cm$^3$ for the SOX mineralized zone. This process is shown in Figure 10-2.

***Figure 10-2: Pictures of the methodology for density estimation used for weathered rock.***

## 10.5 Recovery

Sample recovery in the Aircore and diamond drilling at the time of this report was negatively affected by clay and wet materials. The wet materials required additional recovery time to collect the full samples to ensure sampling accuracy. This process did impact drilling productivity with recovery calculated on each 1m interval. Recovery control of the perforated material was carried out by comparing the weight of the sample with the theoretical weight calculated from bibliographic density values. Notably the database received by GE21 for historic drilling does not contain borehole recovery data.

# 11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Per the drilling section of this report all drilled material is captured, bagged, and labelled in 1m intervals for sample preparation in the Resouro workshop. Samples in the Resouro workshop were weighed, dried, manually crushed, split into 2kg samples, re-weighed with geological parameters, such as lithology, oxidation, colour, and presence of fragments, recorded. Samples where then sent for sampling to the SGS Geosol laboratory in Vespasiano, Brazil. SGS Geosol are an ISO9001, 14001, 17025 accredited laboratories.

Upon receipt SGS undertake sample preparation for laboratory analysis and includes weighing on receipt, drying, two crushing stages, splitting and pulverization to reach a final aliquot of 250g at -150# granulometry. Chemical analysis is then undertaken using the ICP OES/MS analytical method, which consists of the determination of 48 elements by fusion with lithium metaborate.

According to information from Resouro, the batch of samples from the historical Aircore survey campaign was sent to the laboratory with blank, standard, and duplicate control samples, totalling 15% of the samples analysed.

The chemical analyses of the control samples are not included in the database received by GE21 and, therefore, were not evaluated. The QAQC program was implemented from the second batch (57% of the samples analysed) and consists of 2 blanks, 2 field duplicates and 3 standards every 50 samples, totalling 14% of the samples. The standards used are low and high grade and are manufactured by Intertek from kamafugites from the Patos Formation, with a matrix very similar to the conglomerate from the Capacete Formation. It is also planned to carry out coarse and pulp duplicates, in addition to secondary analytical laboratory check assay. With this, the aim is to reach a total of 20% control samples.

It is the authors opinion that the sample preparation, security, and analytical procedures are adequate for the purpose being served.

# 12 DATA VERIFICATION

Data verification activities carried out by GE21 included a site visit by Geologist Ednie Fernandes on the 05th and 06th of October 2023, accompanied by the Resouro team. This site visit included a discussion of previous reports that described historical work and Resouro exploration on the property. Some information obtained from the various technical reports were verified and confirmed on the site visit, except for historical collar locations.

During the field visit it was possible to see the cores from diamond drillhole PMC-FD-0074 and samples from the auger drilling in the core shed located in the city of Tiros (Figure 12-3).

Four auger collar locations were checked in the field (Figure 12-4). The landmarks are visible but do not contain identification plates with hole information (Figure 12-5 to Figure 12-9). It is typical that landmarks associated with drilling identification methods are fragile and can be damaged and lost over time due to the passage of vehicles, animals, or agricultural machinery. The location of holes in pastures and roads makes it difficult to place more permanent landmarks, however GPS was used to verify these markings with records.

The original historical diamond and Aircore drill collars were not observed in the field.

It was possible to observe the operation of an Aircore drilling in the new campaign. This campaign had not yet been inserted into the received database at the time of writing this report due to pending laboratory samples.

It is the authors opinion the process observed was adequate and typical for the purposes of this technical report.


***Figure 12-1: Drill core storage shed.***


***Figure 12-2: Diamond drill hole PMC-FD-0074: a) and b) Diamond drill hole PMC-FD-0074 core boxes; c) SOX zone on the left and MOX zone on the right; d) SOX zone detail; e) MOX zone detail.***


***Figure 12-3: Auger drill holes: a) arrangement of samples in the drilling shed separated by hole; b) sample ID on the outside of the plastic bag; c) sample ID on the inside of the plastic bag.***

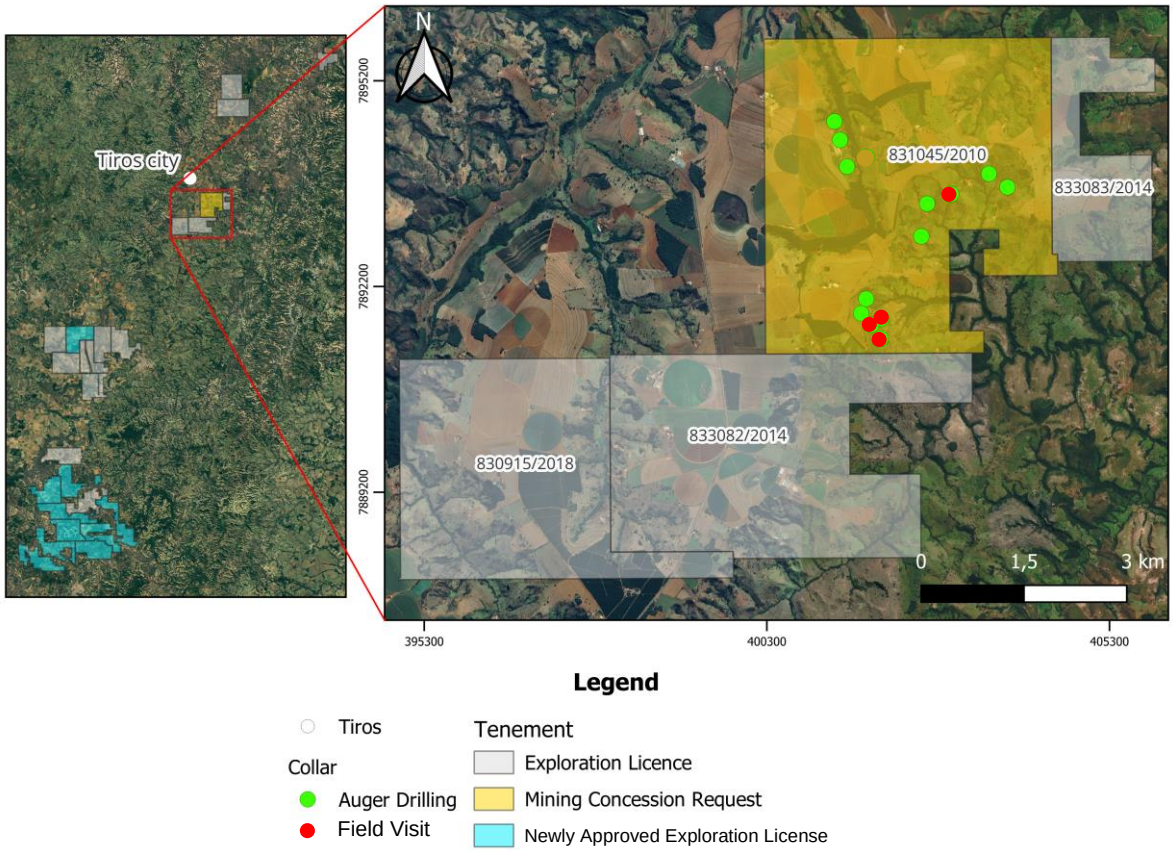


***Figure 12-4: Field visit points.***

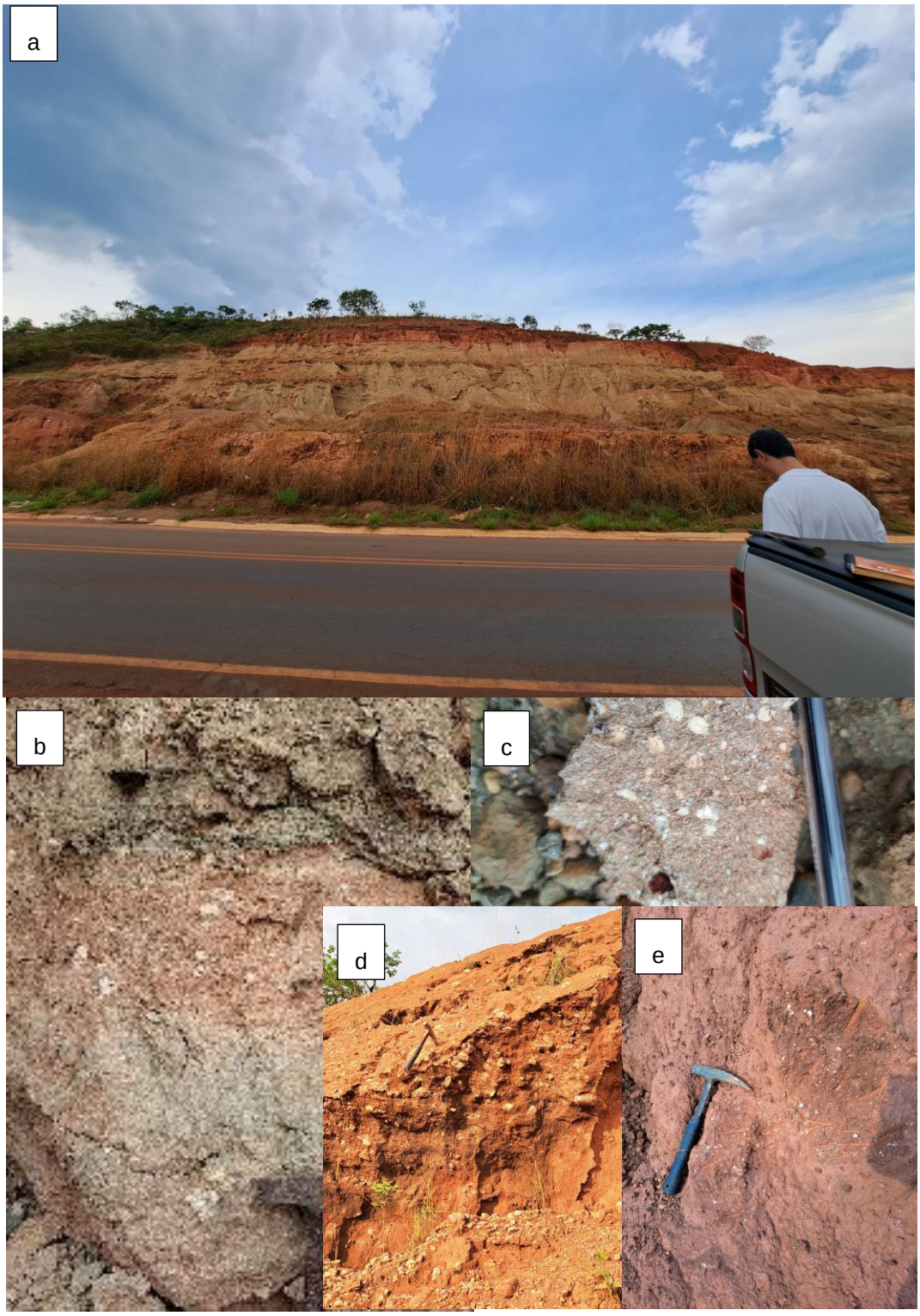


***Figure 12-5: Capacete Formation: a) outcrop next to the Tiros city; b) and c) MOX zone; d) and e) SOX Zone.***

*Figure 12-6: Auger drill hole FT-04.*

*Figure 12-7: Auger drill hole FT-09.*

***Figure 12-8: Auger drill hole FT-10.***

***Figure 12-9: Auger drill hole FT-11.***

# 13 MINERAL PROCESSING AND METALLURGICAL TESTING

In late September 2023 RSM submitted to Prosper (previously Nomos laboratory) who is a respected metallurgical test-work laboratory based in the state of Rio de Janeiro, Brazil, a 207kg composite sample made up from 242 samples from 19 historic drill holes including multiple samples from a variety of different zones across the Tiros Project. The scope of work was related to determine if preliminary recovery results and the production of an anatase concentrate and a REE concentrate.

The samples were screened from material passing 600 mesh, leached at 80 degrees Celsius using a 40ml of 0.5 mole Ammonium Sulphate $(NH_4)2SO_4$ with pH starting at 3.5 and finishing at 4.5, with an average pH of 4.

Results of the work are summarised in below in Figure 13-1:

| (NH4)2SO4 0.5M 40ml | Ce | DY | Er | Eu | Gd | Ho | La | Lu | Nd | Pr | Sm | Tb | Tm | Y | Yb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Head Grade ppm | 1685.5 | 22.8 | 7.6 | 19.3 | 48.0 | 3.3 | 703.2 | 0.5 | 548.1 | 164.9 | 80.0 | 5.3 | 0.9 | 73.5 | 4.7 |
| Leached Grade ppm | 289.3 | 13.8 | 5.3 | 9.0 | 23.8 | 2.1 | 156.2 | 0.3 | 226.7 | 53.0 | 32.2 | 3.3 | 0.4 | 51.3 | 2.9 |
| Leached Recovery | 17% | 60% | 69% | 46% | 50% | 62% | 22% | 63% | 41% | 32% | 40% | 62% | 43% | 70% | 61% |

***Figure 13-1: Preliminary REE and $TiO_2$ Concentrate Metallurgy Work***

Following this successful work samples, additional samples were sent to the laboratories ANSTO, in Australia, and Anzaplan in Germany with the scope of work focused on the REE concentrate production. No material results of this work have been received at the time of writing this report.

It is not yet known if the results are representative of the project which will be determined following further exploration.

## 14 MINERAL RESOURCE ESTIMATES

There are no known resource estimates on the project area that a compliant with NI-43101

## 15 ADJACENT PROPERTIES

No known historical estimates of mineral resources on adjacent property are known to RSM at present.

## 16 OTHER RELEVENT DATA AND INFORMATION

## 17 INTERPRETATION AND CONCLUSIONS

Tiros is an early-stage mineral exploration project with historical drilling and preliminary metallurgy work. Since its first discovery in 2013 the assets geological knowledge has progressed significantly with the present drilling program and target resource indicating a substantial REE and Titanium project of large-scale potential with latest results reporting a number of key intersections including;

- 38 metres at 6,444 ppm TREO with 1,524 ppm NdPr and 17.5% $TiO_2$ from 40m (Aircore);
- 34 metres at 4,216 ppm TREO with 1,020 ppm NdPr and 10.6% $TiO_2$ from 24m (Aircore);
- 28 metres at 4,585 ppm TREO with 1,012 ppm NdPr and 12.7% $TiO_2$ from 29m (Aircore);
- 12 metres at 8,150 ppm TREO with 1,575ppm NdPr and 20% $TiO_2$ from surface (Auger);
- 10.5 metres at 7,181 ppm TREO including 2,222ppm NdPr and 17.5% $TiO_2$ from surface (Auger);
- 14 metres at 4,340 ppm TREO with 911 ppm NdPr and 12.1% $TiO_2$ from 29 m (Auger).

The project areas have completed a reasonable level of drill hole data density and reliability with results indicating the orebody is relatively homogenous. The model indicates a reasonable level of geological understanding is known of the local and regional geology satisfying the Qualified Person that the deposit should achieve an NI 43 -101 compliant report with increased drilling density.

The QP was satisfied that the drilling and assay process meets international practices although notes that the QA/QC procedures were not presented.

The preliminary metallurgical test work at Prosper laboratories indicates when compared to industry peers that the assets recoverability is possible and allowing a path to possible reasonable economic extraction. It is noted no preliminary market suitability of the products has been assessed and will be required to achieve a reasonable economic extraction. It should be noted that the preliminary metallurgy work is based on early drilling and a more representative sample of the areas should be assessed if the project was advanced by the owners.

RSM are developing a strong understanding of the project, the region and its community and are building a robust and experienced team to assess the optimal exploration strategy to achieve successful outcomes. The asset is believed to have strong potential for a successful outcome due to:

- high-grade titanium and REE in comparison to other known assets.
- positive recovery preliminary work.
- strong rare earth and titanium forecast markets.

The "Effective Date" for the current Technical Report of January 12th, 2024.

The Qualified Person for this report is Ednie Rafael Fernandes. Mr. Fernandes visited the project on October 05th to 06th, 2023, and was responsible for developing this report. Mr. Fernandes is a geologist, member of the Australian Institute of Geoscientists and has over 12 years of experience in working with mining projects.

The Author is of the opinion that mineral exploration program and planned works in development follows, in part, the mineral industry best practices and the work undertaken to date is appropriate for the early stages of exploration. Notably the drilling follows appropriate procedures, but GE21 did not have access to these procedures and was unable to monitor the work being carried out in the field. There is a conventional QA/QC program in course, and this was not evaluated by GE21.

GE21 was commissioned by Resouro Strategic Metals Inc. to prepare an Exploration Results Technical Report for the Tiros Project in Minas Gerais, Brazil, in accordance with the directives of NI 43-101 and GE21 is satisfied it has met the needs of this scope.

# 18 RECOMMENDATIONS

Based on the evaluation of the Project as outlined in this Report, the author recommends additional work to (a) define a mineral resource estimate in accordance with NI 43-101 standard, and (b) assess the metallurgical characteristics of the mineralization.

It is recommended that Resouro undertake two phases of work with phase 2 advancing contingent on positive results in phase 1.

1. Phase 1 Preliminary Works

    a. Undertake a reassessment of the data collected in previous research campaigns, including drilling of twin holes and other geostatistical supported approaches that would confirm the grades and thicknesses of mineralization and the assay results obtained in the previous campaigns.

    b. Reanalyse the remaining 50% of historical Aircore samples by the ICP method.

    c. Raise the coordinates of the drill hole collars with precision GPS.

    d. Determine the economic potential of the asset to determine if phase 2 should proceed.

2. Phase 2 Advanced Works

    a. Carry out a topographic survey of the project area.

    b. Perform further density tests on the lithologies of interest.

    c. Conduct further exploration “scout holes” and infill drilling to define a mineral resource estimate for the Project in accordance with NI 43-101 Code, including demonstrating preliminary and reasonable prospects for economic extraction, with sufficient flexibility to support the evaluation of both bulk-tonnage and mining methods.

    d. Undertake mineralogical and preliminary metallurgical studies to demonstrate the potential recoveries and subsequent economic extraction of payable metals, such as in support of the production of concentrates for export or in support of secondary processing. Also carry out the characterization of the presence of U and Th in REE concentrates.

    e. Determine if the asset meets investment hurdles to undertake further studies.

***Table 18-1*** and ***Table 18-2*** provides a basic breakdown of the forecast associated exploration expenditure for each recommended phase. All costs included are in Canadian dollars (CAD$).

| Phase 1 – Preliminary Works Program | Allocation of Funds |
|---|---|
| Exploration Related Activities | 489,600 |
| Operations Personnel | 239,607 |
| **TOTAL** | **729,207** |

***Table 18-1: A breakdown of the forecast Phase 1 Preliminary Works Program expenditure***

| Phase 2 – Advanced Works Program | Allocation of Funds |
|---|---|
| Exploration | 32,457 |
| Metallurgical Test work | 997,472 |
| Studies | 2,494,766 |
| Operations Personnel | 923,502 |
| Capital Items | 100,750 |
| Permitting and Landholder Compensation | 196,149 |
| **Total Project Related Expenditure 2024** | **5,002,793** |
| **Corporate Expenditure 2024 (Board, Executives, Listing and Maintenance, Overheads)** | **2,885,324** |
| **TOTAL** | **7,888,117** |

***Table 18-2: A breakdown of the forecast Phase 2 Advanced Works Program expenditure subject to the successful completion of phase 1.***

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## 20 DATE AND SIGNATURE PAGE

| | |
|---|---|
| **Report Prepared for** | **Resouro Strategic Metals** |
| **Report issued by** | **Ednie Rafael M. De C. Fernandes** |
| **Report Information** | This report, titled "**Independent Technical Report for the Tiros Ti+REE Project, Minas Gerais, Brazil**" ("Technical Report"), having an effective date of 12th January 2024, was prepared on behalf of Resouro Strategic Metals Inc. by Ednie Rafael Fernandes, and signed by him,<br><br>**Dated at Belo Horizonte, Brazil, this 20h February 2024** |
| **Author and Reviewer Signatures** | Ednie Rafael M. De C. Fernandes, MAIG<br>[redacted]<br><br>Reviewed by Porfirio Cabaleiro Rodriguez, FAIG, CBRR<br>[redacted] |

# 21 APPENDIX A - CERTIFICATE OF QUALIFIED PERSON

I, Ednie Rafael, MAIG, (#7974), as an author of the technical report titled “Independent Technical Report for the Tiros Ti+REE Project, Minas Gerais, Brazil”, dated February 20th, 2024, with an effective date of January 12th, 2024, prepared for Resouro Strategic Metals Inc, do hereby certify that:

1) I am a Geologist and Associate Consultant for GE21 Consultoria Mineral, which is located on Avenida Afonso Pena, 3130, 12th floor, Savassi, Belo Horizonte, MG, Brazil - CEP 30130-910.
2) I am a graduate of the Federal University of Minas Gerais, located in Salvador, Brazil, and hold a Bachelor of Science Degree in Geology.
3) I am a Professional enrolled with the Australasian Institute of Geoscientists (“AIG”) - (“MAIG”).
4) I am a professional geologist, with more than 12 years’ relevant experience in exploration geology and have sufficient experience that is relevant to the styles of mineralization and types of deposit under consideration to be considered as a QP.
5) I am a "qualified person" as that term is defined in NI 43-101 (the "Instrument").
6) I am independent of Resouro Strategic Metals Inc (issuer) and there is no circumstance that could in the opinion of a reasonable person aware of all relevant facts, interfere with the qualified person’s judgment.
7) I have no prior involvement with the property that is the subject of this Report. The relationship with the Issuer was solely for professional works in exchange for fees based on rates set by commercial agreement. Payment of these fees is in no way dependent on the results of the Technical Report.
8) I am responsible for all sections of this Technical Report.
9) I did personally inspect the properties between October 5th and 6th, 2023.
10) As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report that I have authored and am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11) I have no personal knowledge, as of the date of this certificate, of any material fact or material change which is not reflected in this Technical Report.

Belo Horizonte, Brazil, February 20th, 2024.

[redacted]

Ednie Rafael Moreira de Carvalho Fernandes, MAIG