

# Technical Report on the Rio Madeira Exploration Project, Rondonia, Brazil Report for NI 43-101

**Canary Gold Corp.**

Effective Date:  
August 31<sup>st</sup>, 2024

Signature Date:  
August 31<sup>st</sup>, 2024

Prepared by:  
**RBM Consulting Ltda**

**Qualified Person:**  
Rodrigo Mello, FAusIMM.



## TABLE OF CONTENTS

<b>1. SUMMARY .....</b>	<b>4</b>
<b>2. INTRODUCTION .....</b>	<b>7</b>
2.1 TERMS OF REFERENCE .....	7
2.1.1 Personal Inspection .....	8
2.1.2 Qualification of the Author .....	8
<b>3. RELIANCE ON OTHER EXPERTS .....</b>	<b>8</b>
<b>4. PROPERTY DESCRIPTION AND LOCATION .....</b>	<b>8</b>
4.1 PROJECT OWNERSHIP .....	8
4.2 AGREEMENTS, ROYALTIES AND ENCUMBRANCES .....	11
4.3 ENVIRONMENTAL LIABILITIES AND PERMITTING .....	14
<b>5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY .....</b>	<b>14</b>
5.1 ACCESSIBILITY AND INFRASTRUCTURE .....	14
5.2 PHYSIOGRAPHY, CLIMATE AND VEGETATION .....	15
5.3 LOCAL RESOURCES .....	17
<b>6. HISTORY .....</b>	<b>18</b>
<b>7. GEOLOGICAL SETTING AND MINERALIZATION .....</b>	<b>19</b>
7.1 REGIONAL GEOLOGY .....	19
7.2 LOCAL GEOLOGY .....	21
7.3 MINERALIZATION .....	24
<b>8. DEPOSIT TYPES .....</b>	<b>24</b>
<b>9. EXPLORATION .....</b>	<b>25</b>
9.1 MOTIVATION .....	25
9.2 INTRODUCTION .....	25
9.3 TARGET GENERATION .....	26
9.4 GROUND PENETRATION RADAR SURVEY .....	28
9.5 REMOTE SENSING AND DATA INTEGRATION .....	29
9.6 TOMOGRAPHY GEOPHYSICS .....	31
9.7 DRILLING AND SAMPLING PLAN .....	34
9.8 TARGET SELECTION .....	35
<b>10. DRILLING .....</b>	<b>36</b>
<b>11. SAMPLE PREPARATION, ANALYSES AND SECURITY .....</b>	<b>36</b>
<b>12. DATA VERIFICATION .....</b>	<b>37</b>
<b>13. MINERAL PROCESSING AND METALLURGICAL TESTING .....</b>	<b>37</b>
<b>14. MINERAL RESOURCE ESTIMATES .....</b>	<b>37</b>
<b>15. MINERAL RESERVE ESTIMATES .....</b>	<b>37</b>
<b>16. MINING METHODS .....</b>	<b>37</b>
<b>17. RECOVERY METHODS .....</b>	<b>38</b>
<b>18. PROJECT INFRASTRUCTURE .....</b>	<b>38</b>
<b>19. MARKETING STUDIES AND CONTRACTS .....</b>	<b>38</b>
<b>20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT .....</b>	<b>38</b>
<b>21. CAPITAL AND OPERATING COSTS .....</b>	<b>38</b>

<b>22. ECONOMIC ANALYSIS.....</b>	<b>38</b>
<b>23. ADJACENT PROPERTIES.....</b>	<b>38</b>
<b>24. OTHER RELEVANT DATA AND INFORMATION.....</b>	<b>38</b>
<b>25. INTERPRETATION AND CONCLUSIONS.....</b>	<b>38</b>
<b>26. RECOMMENDATIONS.....</b>	<b>39</b>
<b>27. REFERENCES.....</b>	<b>41</b>
<b>28. DATE AND SIGNATURE PAGE.....</b>	<b>42</b>

## LIST OF FIGURES

<i>Figure 1: Location Map.....</i>	<i>9</i>
<i>Figure 2: Distribution of the Tenements.....</i>	<i>10</i>
<i>Figure 3: Applications affected by the Border Zone Properties not affected by this law are the following:.....</i>	<i>12</i>
<i>Figure 4: Map of the properties outside the Border Zone.....</i>	<i>13</i>
<i>Figure 5: Local Infrastructure.....</i>	<i>15</i>
<i>Figure 6: Aerial view, looking NW, in the direction to the Madeira River (Mello, 2022).....</i>	<i>16</i>
<i>Figure 7: Aerial view of Porto Velho with its fluvial port in front (July 2007).....</i>	<i>17</i>
<i>Figure 8: Photo of the gold rush in the 80s, with dredging barges crowded in rich spots in the Madeira River.....</i>	<i>19</i>
<i>Figure 9: Flood basin simplified schematic environmental model – Latrubesse et al.....</i>	<i>20</i>
<i>Figure 10: Time scale for the Cenozoic Era (Geologic Society of America).....</i>	<i>21</i>
<i>Figure 11: Geological Map of the Property.....</i>	<i>22</i>
<i>Figure 12: Photo at river bank, showing the Mocururu layer covered by a sand/clay overburden.....</i>	<i>23</i>
<i>Figure 13: Photograph of a typical block of Mocururu (Source: Velasquez Spring, 2007).....</i>	<i>23</i>
<i>Figure 14: Block diagram with the interpretation of the structural framework of the property.....</i>	<i>23</i>
<i>Figure 15: ASTER elevation data, plotted to emphasise features in the 100-150m range.....</i>	<i>27</i>
<i>Figure 16: Isometric view, showing river course incising ESE trending resistant basement unit (Google Earth view).....</i>	<i>28</i>
<i>Figure 17: Map with the location of the GPR line paths, with the profile of the SW line.....</i>	<i>28</i>
<i>Figure 18: GPR profile of the SE segment of the NE survey line.....</i>	<i>29</i>
<i>Figure 19: GPR profile of the NW segment of the NE survey line.....</i>	<i>29</i>
<i>Figure 20: Image IHS JERS-1/Landsat 7 (1994). Property shown in black polygons.....</i>	<i>30</i>
<i>Figure 21: SRTM image with the tenements in red (2023).....</i>	<i>31</i>
<i>Figure 22: Map of the surveyed lines (2023).....</i>	<i>32</i>
<i>Figure 23: Example of well-defined Mocururu horizon.....</i>	<i>33</i>
<i>Figure 24: Example of a possible paleochannel, without the presence of the Mocururu level over it.....</i>	<i>33</i>
<i>Figure 25: Example of possible paleochannel with missing Mocururu layer over it.....</i>	<i>34</i>
<i>Figure 26: Photograph of the sonic rig to be used at the Madeira Project (Scervini 2023).....</i>	<i>34</i>
<i>Figure 27: Examples of core obtained using Sonic drilling (Hill 2022).....</i>	<i>35</i>
<i>Figure 28: Location of the sample collected by the author.....</i>	<i>36</i>

## LIST OF TABLES

<i>Table 1: Budget proposed – Summary.....</i>	<i>7</i>
<i>Table 2: Madeira Project Mineral Properties.....</i>	<i>9</i>
<i>Table 3: Applications affected by the Border Zone.....</i>	<i>11</i>
<i>Table 4: Claims outside the Border Zone.....</i>	<i>13</i>
<i>Table 5: Average local Climate Parameters (<a href="https://en.climate-data.org">https://en.climate-data.org</a>).....</i>	<i>16</i>
<i>Table 6: Gold production from Rio Madeira – estimates (Bastos, DNPM).....</i>	<i>18</i>
<i>Table 7: Satellite images used in this work.....</i>	<i>29</i>
<i>Table 8: Unit Costs for Budget.....</i>	<i>40</i>
<i>Table 9: Chronogram of the exploration program proposed with expenditures per item.....</i>	<i>40</i>

## 1. SUMMARY

RBM Consultoria Mineral Ltda (RBM) was retained by Canary Gold Corp. (Canary Gold or the Company) to prepare an independent Technical Report on the Rio Madeira Exploration Project located on Canary Gold's consolidated tenement package (CTP or Property) in Rondônia, Brazil. The purpose of this Technical Report is to support the disclosure of the geological context and exploration thesis as part of the required qualifying listing requirements for the property as of the 31st of August 2024. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). The Qualified Person (QP) signing off for this report is Rodrigo Mello, FAusIMM, who visited the properties in November 2022. Mr. Mello has extensive experience with gold exploration and development, especially in the Amazon region, thus attending to the requirement of relevant experience and professional affiliation to act as Qualified Person for the Madeira Project.

The CTP is held by New Frontiers Mineração Ltda (New Frontiers), a Brazilian exploration company. The CTP is made up of eight exploration license applications, five of those occurring within the Border Zone (the 150 km strip bordering the international frontier in Brazil, where foreigners have some limitations to operate) and three are outside. The total area of the project is 68,445 hectares. After the permit concession, Canary will be able to explore for up to six years, when a positive exploration report must be submitted to keep the mineral rights.

The Madeira Valley sits in the Amazon rainforest zone, although most of the area has been deforested due to logging and cattle grazing. The short proximity to the state of Rondonia, Porto Velho, and the construction of two hydroelectric dams at the Madeira River are positive factors for project development if mineralization is found.

This project is currently in the conceptual stage. New Frontiers and Canary Gold have not collected any samples on the property; therefore, no mineral resources have been estimated. One outcrop situated 4.5 km from the property border was sampled by the author, as discussed in Section 11.

The foundation for this project is based on historic gold production in the Madeira Valley gold province, as well as geological reasoning. Gold production in this area has been poorly documented due to smuggling activities; however, it is estimated that approximately 7 million ounces of gold have been produced in the province since the gold rush of the 1980s. Even now, artisanal mining using dredges in the Madeira River is a common sight. The regional information regarding gold discoveries does not guarantee that Canary Gold will achieve similar results from this property.

### Property Description and Ownership

The project consists of eight (8) properties, all currently in the Exploration Permit Applications phase, covering a total area of 68,445 hectares. All titles are registered under the name of New Frontiers Mineração Ltda, a private entity based in Brazil. Three of these properties are temporary blocked, due to interference with power lines. However, this is a restriction relatively easy to resolve through existing procedures established by the National Agency of Mining (ANM). Generally, correspondence with the ANM indicating that the company will respect the required security limit around the power lines is sufficient for the granting of an Exploration Permit. Alternatively, the company may choose to apply for a reduction in the area that corresponds to the zone potentially affected by the power lines. In any case, any possible area reduction in the area resulting from power line restrictions is not considered materially significant.

### Geology and Mineralization

According to records from the Brazilian government (DNPM – now ANM), over 1.6 million ounces of gold were mined from the primary Rio Madeira drainage between 1979 and 1995. Based on its research, Canary Gold proposes that potentially economic gold resources may exist within the influence of the current and paleo-drainages associated with the greater Madeira River System. However, regional or historical information regarding gold discoveries does not guarantee that Canary Gold will achieve similar results from its property.

Available reports concerning the Madeira River drainage system of Rondônia located within in the Amazon floodplain were reviewed and compared with sediment-hosted resources globally. The well-known Witwatersrand paleo-placers serve as the best analogues from a sedimentological perspective and their relative sedimentary characteristics, and

---

similarities have been analysed. The most significant agreement lies in the orogenic control over the supply of sediments that are shed from mountain belts into low-lying floodplains.

Low-grade gold-mineralized sediments which comprise sand and small-pebble gravels have been entrapped and reworked over several phases throughout millions of years. The metallic gold exists as both fine and visible grains (VG) within the sediments, across the target area. Concentration of gold occurs primarily at Miocene-Basement contact. While mineralization is significant, only gold has been systematically analysed to date.

It can be anticipated that structural controls on bedrock and paleo topography have led to formations where heavy minerals, including gold, have been concentrated into potentially more discrete economic zones, that remain predicted but yet undiscovered. These areas may contain additional metals – minerals alongside the targeted gold mineralization. The targeted interval, although not exposed, is predicted to occur (supported by geophysical studies) beneath a more recent sedimentary cover at depths ranging from 15 to 60 meters below the current land surface. Consequently, this style of mineralization has largely gone undetected and was avoided by previous miners.

Much of the floodplain was previously covered by a laterally persistent bed that has weathered into a durable, lateritic horizon (known locally as Mocururu) which contains finer-grained gold in potentially economic concentrations.

Beneath this layer, the pre-Mocururu sedimentary interval is also believed to be gold-bearing, likely at potentially mineable – economic depths for shallow surface mining activities although this undoubtedly requires further detailed investigation. The sedimentary horizons hosting gold mineralization may also contain concentrations of magnetite or possibly radioactive elements which could be detected using geophysical exploration techniques.

The description above outlines a plausible geological scenario wherein particulate gold was likely sourced from mineralized bedrock upstream over tens of millions of years. This particulate gold was then distributed by the Madeira drainage system initially within braid plains, and ultimately within broader migratory meander belts during periods of lower alluvial discharge. These processes alternated over the past 23 million years, approximately, during seasonal wet or dry climatic phases.

The entire target area and its surroundings may have been blanketed with gold-bearing sediments that were subsequently exhumed and reworked into younger deposits, including the Mocururu terraces. The outcome resulted in a disconnected series of abandoned oxbow lakes and meandering stream point bars formed during low discharge events. Low-grade alluvium was reworked into channels and bars throughout recent history since the Miocene epoch. The accessible, high-grade remnants at the surface have likely been depleted by artisanal mining activity (*garimpeiros*, as locally called), primarily along the current, modern Madeira River, with little evidence of this activity preserved in the landscape.

### Exploration Status

The exploration targets include a duricrust bed known as Mocururu and the potential paleochannels of the Madeira River, both of which are covered by an overburden layer exceeding 20 meters in thickness. There are some outcrops of Mocururu along the river, which are only accessible during the dry season. During this time, the Qualified Person (QP) collected one sample of this rock located 4.5 km outside the tenements, which yielded a grade of 1.15 g/t Au. However the results of this sample do not guarantee that Canary Gold will achieve similar results from the property.

To define drill targets, two geophysical methods were employed by Canary Gold:

- **Ground Penetrating Radar (GPR):** This method, despite its limited penetration depth, revealed features that may indicate the presence of paleochannels.
- **Tomography (Resistivity 2D Profiles):** Building upon the anomalies identified by GPR, a total of 15 km of tomography lines were created with readings taken every 20 meters. This method effectively depicted the stratigraphic layers to a depth of 100 meters. The Mocururu layer is interpreted to occur in over 50% of the surveyed lines, while it is absent over anomalies thought to be paleochannels, as expected.

Remote sensing studies have also been conducted using various active and passive sensors, such as CBERS, Sentinel, Landsat, and Radar missions. Some of the identified targets suggest the presence of paleochannels, which warrant further field investigation.

---

The QP considers this project to be based on sound conceptual exploration models. It has notable merits and deserves follow-up activities. An exploration program is proposed, consisting of additional tomography lines, aerial magnetometry using drones, and diamond drilling with a sonic drill rig. This rig is capable of obtaining highly representative core samples from unconsolidated layers. The samples will be sent to Canada for sedimentology and placer mineralization studies.

### **Exploration Model**

The Canary Tenement Package has been consolidated as a prospective terrain whereby the targeted gold bearing formations may have been preserved and intact allowing their exploration with modern techniques, technology, and equipment. Preliminary and reconnaissance exploration activities completed to date over the CTP includes remote sensing, ground penetrating radar, and tomography (resistivity) geophysics, geological mapping which included some regional traverses to target the location and distribution of potentially favourable locations for gold concentration associated with bedrock unconformities, Mocururu terraces and/or paleochannels. The most significant target areas are those where the unconformity between Basement and Miocene is exposed within the bed and along the banks of the Madeira River, which is seldomly exposed and when it is it is in only the driest of months for a restricted period of only several weeks a year, generally in September or October. The entire extent of the basement unconformity appears to be prospective and requires systematic sampling by means of sonic/percussion or Air Core (AC) drilling to aid the delineation of and define where buried higher-grade concentrations of mineralization are likely to be located.

### **Interpretation and Conclusions**

The Qualified Person (QP) believes that this project holds significant merit, supported by the following key facts:

- The presence of alluvial gold in substantial deposits within the current course of the Madeira River is well-documented. However, the results of this sample do not guarantee that a gold deposit is present Canary Gold's project.
- Geophysical profiles (tomography) have revealed features of high resistivity material, interpreted to consist of laterite, locally known as Mocururu. This finding aligns with predictions made by the exploration model:
  - The laterite may appear as a continuous, horizontal layer with a thickness of 2 to 3 meters, lying beneath a clay/sand overburden layer that can reach depths of 10 to 20 meters.
  - Alternatively, it may exist as a large concentration of high-resistivity material, indicating the accumulation of Mocururu blocks in paleochannels that extend several hundred meters laterally. In such cases, the pervasive bed of in-situ Mocururu is absent, which is consistent with the paleochannel hypothesis, suggesting that the river may have eroded the Mocururu layer.

If these features are confirmed to be auriferous, they hold the potential for a discovery. These considerations are sufficient to suggest that the project has merit and warrants investment in mineral exploration, as recommended in this report.

### **Recommendations**

- **Conduct a Magnetic and Topographic Survey:** Utilize UAV drone technology to collect comprehensive magnetic and topographic data.
- **Develop a Sonic Drilling Program:** Implement a sonic drilling program to investigate the sedimentology of the gold accumulation and to establish the most effective drilling and sampling methods.
- **Define Sedimentology and Heavy Mineral Characterization Parameters:** Establish the necessary parameters for sedimentology and heavy mineral characterization.
- **Follow-Up Drilling:** Perform additional drilling to further delineate mineralization.
- **Conduct Metallurgical Testing Programs:** Execute metallurgical tests on representative mineralized samples to assess recovery methods and efficiencies.

- Perform a Preliminary Economic Study: Carry out a Preliminary Economic Study based on various conceptual mining scenarios to evaluate the project's viability.

This exploration program, suggested in this report, aims to demonstrate the feasibility of the exploration model. The proposed program is designed to last for six months and will include 750 meters of sonic drilling. A summarized budget for this program can be found in Table 1 and is further discussed in section 26.

**Table 1: Budget proposed – Summary**

	Six months
	CAD
Management	\$ 70,752
Field team	\$ 119,891
Air tickets	\$ 47,684
Pickup	\$ 52,316
Hotel / meals	\$ 14,496
Other field expenses	\$ 18,529
Drilling	\$ 331,063
Analysis ODM	\$ 125,000
Analysis SGS	\$ 51,090
sample transport	\$ 108,120
Consultants	\$ 10,000
Total	\$ 948,940

## 2. INTRODUCTION

This report was prepared as a National Instrument 43-101 Technical Report for Canary Gold Corp., on the Rio Madeira Gold Project (Project). The Company has an option agreement with New Frontiers for the Project, whereas Canary Gold may acquire up to 70% of the Property depending on certain payments and expenditures on explorations activities.

This report has been prepared for Canary Gold, a private company based in Vancouver, British Columbia. Canary Gold Corp. is currently in the process of completing a prospectus for an Initial Public Offering (IPO) and intends to list its shares on the Canadian Securities Exchange (CSE). The business address of Canary Gold Corp. is 551 Howe St., Suite 200, Vancouver, BC V6C 2C2.

### 2.1 Terms of Reference

This Technical Report has been prepared in connection with Canary Gold's intention to list on the Canadian Securities Exchange (CSE). The quality of the information, conclusions, and estimates contained herein is based on data supplied by New Frontiers, publicly available technical papers, and reports from the remote sensing and geophysical consultants engaged by Canary Gold. Previous reports consulted are listed in the Bibliography section.

This report adheres to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Best Practices and Reporting Guidelines for disclosing mineral exploration information, as well as the revised regulations for NI 43-101 Standards of Disclosure for Mineral Projects set forth by the Canadian Securities Administrators. Additionally, it complies with Companion Policy 43-101CP and Form 43-101F1 Technical Report Guidelines, as well as the Canadian Securities Exchange's 2023 Policy 2 – Qualifications for Listing.

The contractual mandate provided to RBM Consulting Ltda was to conduct a personal inspection (site visit) and undertake all necessary tasks and actions essential for a comprehensive assessment of the Madeira River Project (the "Project") to determine its potential for hosting economic base and/or precious metal mineralization. This included documenting the results of the site visit, field observations, and verifying existing historic geoscientific information to facilitate the development of a National Instrument 43-101 ("NI 43-101" or "43-101") report titled "Technical Report on the Rio Madeira Exploration Project, Rondonia, Brazil." The primary objective was to ascertain whether the project meets the criteria of a Qualifying Property, in alignment with the requirements for a public listing on the CSE Exchange in Canada.

### **2.1.1 Personal Inspection**

Mr. Mello visited the property from November 4<sup>th</sup> to 7<sup>th</sup>, 2022 in the company of Canary Gold and New Frontiers personnel. All areas were visited. Outcrops along the banks of the Madeira River, outside of the property but relevant to the exploration model considered, were also visited. One outcrop, situated at 4.5 km from the property border, was sampled. One rock sample was collected and sent to a commercial laboratory, as discussed in Section 12.

The author observed artisanal mining occurring on the Madeira River, where a few barges were operating. This type of mining is restricted to the river and does not imply the property, whose borders do not include any part of the river.

Since the completion of the 2022 property inspection, the author has continued to review updated satellite images and has continue to monitor exploration license applications to ensure the results of the 2022 property visit remain valid. No material change to the property or Canary Gold's mineral rights has been observed

### **2.1.2 Qualification of the Author**

Rodrigo Mello is an independent consultant, based in Belo Horizonte, Brazil. He has a BSc in Geology, from the Federal University of Minas Gerais. During the last 37 years, Mr. Mello worked continuously on mineral exploration and project development, mainly for gold projects, but also for copper, nickel, titanium and zinc. Representing AusIMM in Brazil since 2000, he authored or co-authored 21 NI 43-101 published on SEDAR+, on projects in Brazil, Argentina, Colombia and Chile.

## **3. RELIANCE ON OTHER EXPERTS**

RBM relied on exploration and technological data supplied by New Frontiers to produce this report. RBM has thoroughly reviewed and evaluated the exploration data pertaining to the Madeira project areas provided by New Frontiers and their consultants, and has drawn its own conclusions based on this information.

The geology, mineralization, and exploration techniques discussed in this report (items 5 to 13) are derived from reports and internal memorandums prepared or obtained by New Frontiers from public sources. These public reports can be accessed via the links provided in the Bibliography, Section 27, with particular emphasis on the Technical Report by Amazon Mining (Velasquez, 2007), which is of significant importance.

RBM has investigated the status of the exploration applications under which New Frontiers holds title to the mineral rights for these properties, consulting only the systems of the ANM (the federal agency for mineral control). According to ANM, these properties are reported as "regular" and belonging to New Frontiers. No further investigation was conducted, and RBM does not guarantee that any liabilities or litigation might prevent New Frontiers from transferring the mineral rights of these areas to Canary Gold, as stipulated in the terms of the agreement between the companies.

A reasonable amount of confirmatory testing and verification has been undertaken. Although RBM believes that all information provided in this report is accurate, it is possible that some issues were not detected and may have influenced this evaluation. Nevertheless, RBM asserts that the information has been evaluated and compiled in good faith.

## **4. PROPERTY DESCRIPTION AND LOCATION**

### **4.1 Project Ownership**

The project consists of eight (8) properties, all currently in the Exploration Permit Applications phase, covering a total area of 68,445 hectares. Three of these properties are temporarily blocked due to interference with power lines; however, this restriction is generally considered easy to resolve through existing procedures available from the National Agency of Mineral Production (ANM). Typically, correspondence with the ANM indicating that the company will respect the required security limit around the power lines is sufficient for the granting of an Exploration Permit. Alternatively, the company



may request a reduction in the area that corresponds to the zone potentially affected by the power lines. In any case, the possible area reduction due to power line restrictions is not deemed materially significant. The latitude and longitude coordinates for the center of the property are 9.3° S, 64.2° W

The figure 1 shows the location of the project:

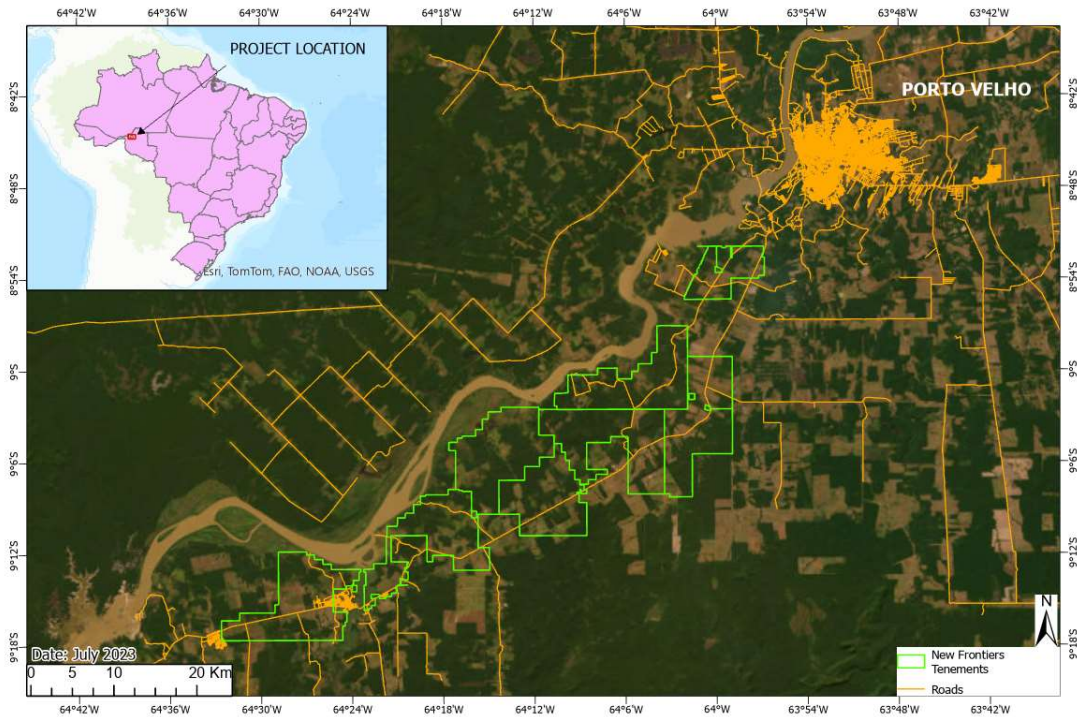
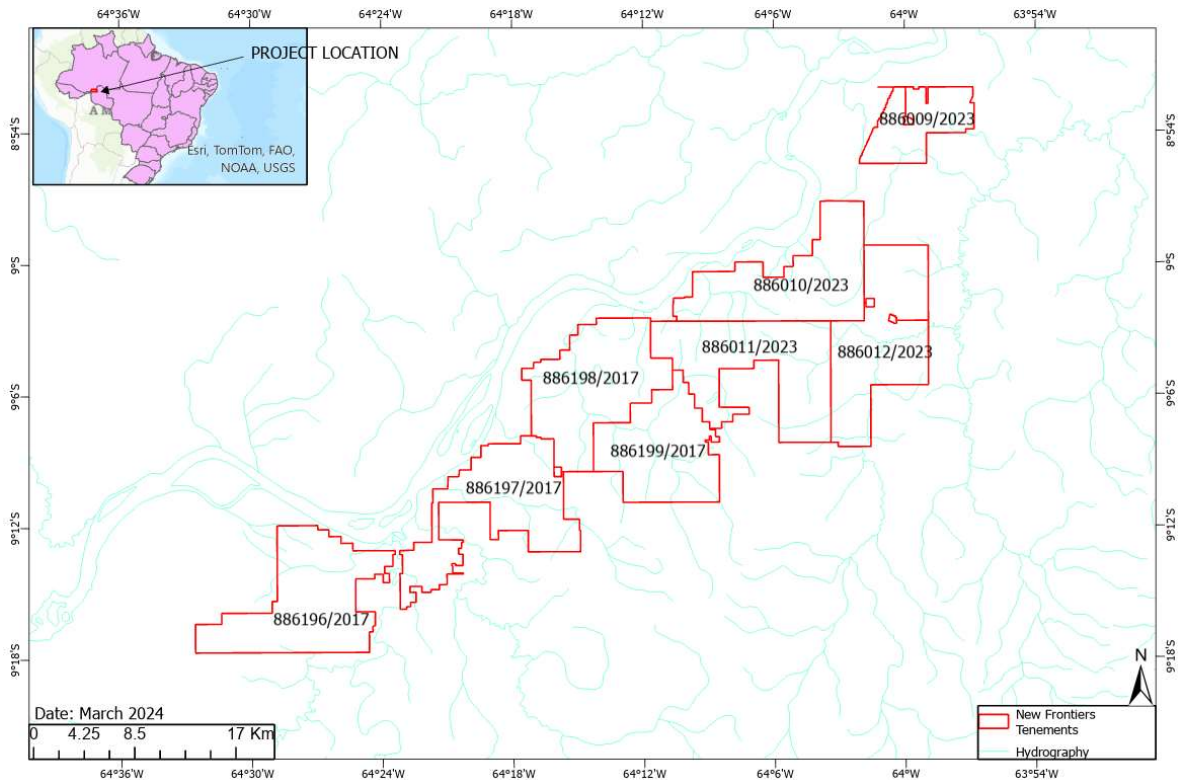


Figure 1: Location Map

Table 2: Madeira Project Mineral Properties

Title	AREA Ha	Phase	Last event
886196/2017	9,992.30	Exploration Permit Application	Information request published
886198/2017	9,441.94	Exploration Permit Application	Information request published
886199/2017	7,796.61	Exploration Permit Application	Information presented
886010/2023	9,023.45	Exploration Permit Application	Information request presented
886009/2023	4,133.33	Exploration Permit Application	Information request presented
886197/2017	8,815.65	Exploration Permit Application	Information presented
886011/2023	9,762.60	Exploration Permit Application	Information presented
886012/2023	9,479.51	Exploration Permit Application	Information presented



**Figure 2: Distribution of the Tenements**

According to Brazilian regulations, an application for an Exploration Permit guarantees the exploration rights for the designated area, unless another party has applied previously for the same property. There is no expiration date for the permit.

All applications for the properties have been made in the name of New Frontiers Mineração Ltda. Public information available on the ANM (National Agency of Mineral Production) website confirms that the areas are in good standing. RBM has verified in the ANM cadastre that there are no other applications for the areas covered by the processes listed in Table 2. Consequently, it is reasonable to assume that all Exploration Permits will be granted in the name of New Frontiers Mineração Ltda.

The first step in the Brazilian mining licensing process is to apply for an Exploration Permit (Requerimento de Pesquisa). This application must include a detailed project for the exploration work to be undertaken. The application is reviewed by the ANM, and if approved, the applicant is granted an Exploration Permit (Autorização de Pesquisa).

Exploration Permits are typically granted for an initial period of one to three years, with three years being the most common term for new permits. During this time, the applicant can conduct various exploration activities, including geological mapping, sampling, and drilling. After this period, the applicant must submit a partial report requesting an extension of up to three additional years. Therefore, a total term of six years is the most likely scenario for all areas after publication.

A final report (Relatório Final de Pesquisa) must be submitted to the ANM after this period. If the report is favourable and the mineral resources are deemed potentially economically viable, the applicant can then apply for a Mining License (Lavra). If no mineral resources are discovered during the exploration phase, the applicant may submit a negative final report (Relatório Final de Pesquisa Mineral Negativo) and relinquish the exploration license.

Mining Licenses are granted for an indefinite period; however, the license holder must meet certain conditions to maintain the validity of the license. These conditions include paying annual government licensing fees and complying with environmental regulations.

## 4.2 Agreements, Royalties and Encumbrances

Canary Gold and New Frontiers entered into an option agreement on March 6, 2023, which was amended on April 1, 2024. All monetary values are expressed in Canadian dollars.

- **Acquisition of Interest:** Canary Gold has the option to acquire up to an undivided 70% indirect interest in the properties.
- **Initial 49% Acquisition:** Canary Gold may acquire an initial 49% undivided interest in the properties by:
  - a. Over a four (4) year period, in four installments, commencing upon completion of the IPO, and continuing by April 1 of 2026 and 2027:
    - **First Installment:** Paying \$25,000 cash to New Frontiers and issuing shares with an aggregate fair market value of \$50,000 (paid).
    - **Second Installment:** Paying \$125,000 cash and issuing shares equivalent to \$100,000.
    - **Third Installment:** Paying \$200,000 cash and issuing shares equivalent to \$200,000.
    - **Fourth Installment:** Paying \$500,000 cash and issuing shares equivalent to \$500,000.
  - b. Incurring a total of \$5,000,000 in Exploration Expenditures.
    - **Additional 21% Indirect Interest:** Canary Gold may acquire an additional 21% indirect undivided interest in the properties (for a total of 70%) by:
      - Funding 100% of the costs associated with a Development Program necessary for delivering a preliminary economic assessment.
    - **Exploration Expenditure Adjustment:** If Canary Gold spends less than the specified Exploration Expenditures, it may pay the difference to New Frontiers to satisfy this condition.
    - **Technical Report Requirement:** Canary Gold must provide a technical report prepared in accordance with NI 43-101, which includes a mineral resource estimate for the property to New Frontiers.

Due to the stipulations of Brazilian Law 6.634/1979, the option to acquire the additional 21% indirect undivided interest will be formalized through a separate instrument. This law governs activities occurring within a belt of 150 km from the international border, referred to as the Border Zone (faixa de fronteira). Within this zone, foreign companies are limited to owning no more than 49% of the equity.

Other requirements for enterprises in the Zone are:

- The CSN (acronym in Portuguese for National Security Council) must approve the project;
- 2/3 of the workers must be Brazilians; and
- The majority of the management must be Brazilians.

Two thirds of the property seat within this as depicted in the figure below. One third of the property has no special restriction.

**Table 3: Applications affected by the Border Zone**

Process	AREA Ha
886196/2017	9,992.30
886198/2017	9,441.94
886199/2017	7,796.61
886197/2017	8,815.65
886011/2023	9,762.60
Total	45,809

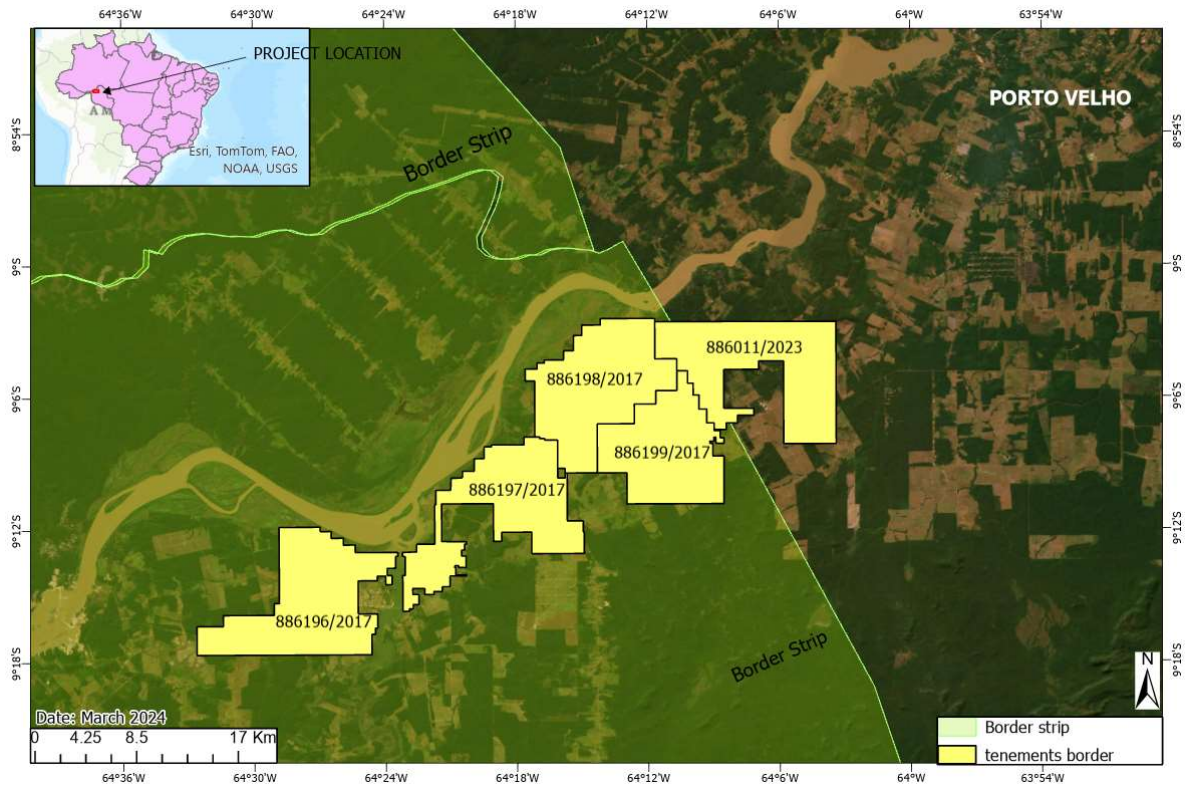


Figure 3: Applications affected by the Border Zone



Properties not affected by this law are the following:

Table 4: Claims outside the Border Zone

Process	AREA Ha
886010/2023	9,023
886009/2023	4,133
886012/2023	9,479
<b>Total</b>	<b>22,636</b>

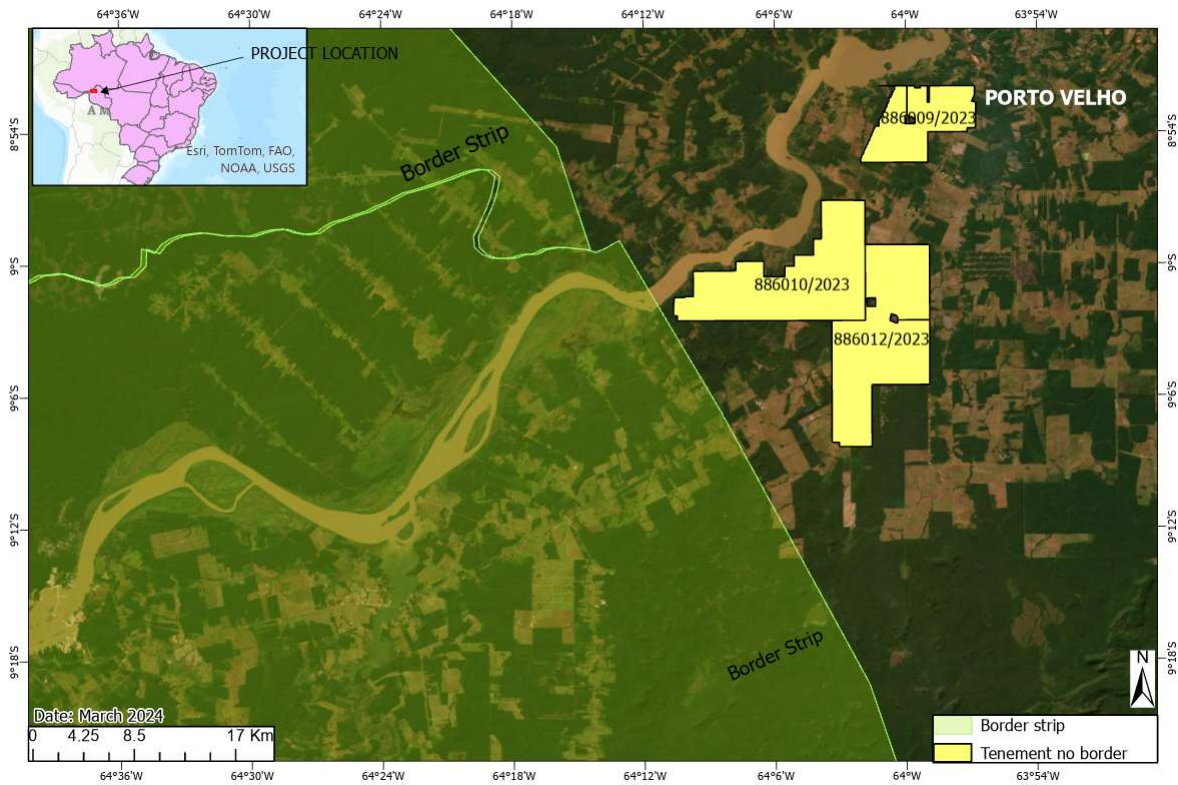


Figure 4: Map of the properties outside the Border Zone

There is no royalty clause in this agreement.

---

### 4.3 Environmental Liabilities and Permitting

According to our research, there is no evidence that New Frontiers or Canary Gold have caused any environmental liabilities. Deforestation in the area is primarily attributable to agricultural activities, particularly cattle grazing, along with observed timber extraction. Although artisanal mining has been noted in the vicinity, its impact has been limited. The exploration activities conducted by New Frontiers have had a low environmental impact; therefore, no past environmental liabilities are expected to affect this project.

For areas outside the Border Zone, the only necessary permitting process is the drilling permit, which is usually straightforward, unless deforestation is required. Initial drilling activities will be planned for areas that have already been deforested. Based on the results of the preliminary assessment, deforestation requests will be submitted to construct access roads and drilling pads. Efforts will be made to keep deforestation to a minimum, and any impacted areas will be promptly remediated.

Preliminary assessments indicate that surface ownership in the area is held by several individuals. Each landowner will need to be contacted, and agreements must be established to gain access to the area. Brazilian law provides for access to titleholders; however, resorting to judicial measures is a last option, as it can significantly delay exploration work. Generally, these types of agreements are reached without issue.

For areas within the Border Zone, in addition to the requirements mentioned above, special approval is required from the National Security Council. The Qualified Person (QP) is not aware of any projects that have been delayed by this Council.

**Author's Note:** *The areas situated within the Border Zone carry a higher risk factor compared to those outside it. The National Security Council has the authority to deny or delay the licenses required to develop the project. Additionally, the requirement for majority Brazilian ownership of the property may pose challenges in structuring the project.*

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

### 5.1 Accessibility and Infrastructure

The Property's limit sits 10 km southwest of Porto Velho. All areas can easily be accessed using the federal road BR-364.

The main source of energy in the region is hydroelectric power. The Jirau and Santo Antônio hydroelectric power plants are located near Porto Velho, and they provide a significant amount of the region's electricity.

The figure below shows the distribution of power lines and roads, in relation to the tenements held by Canary Gold. It is noted that two high-capacity power lines, 600 kv and 230 kv, are located at short distance to all areas of the project. The energy supply, obtained from the Madeira River is reliable and constant throughout the whole year.

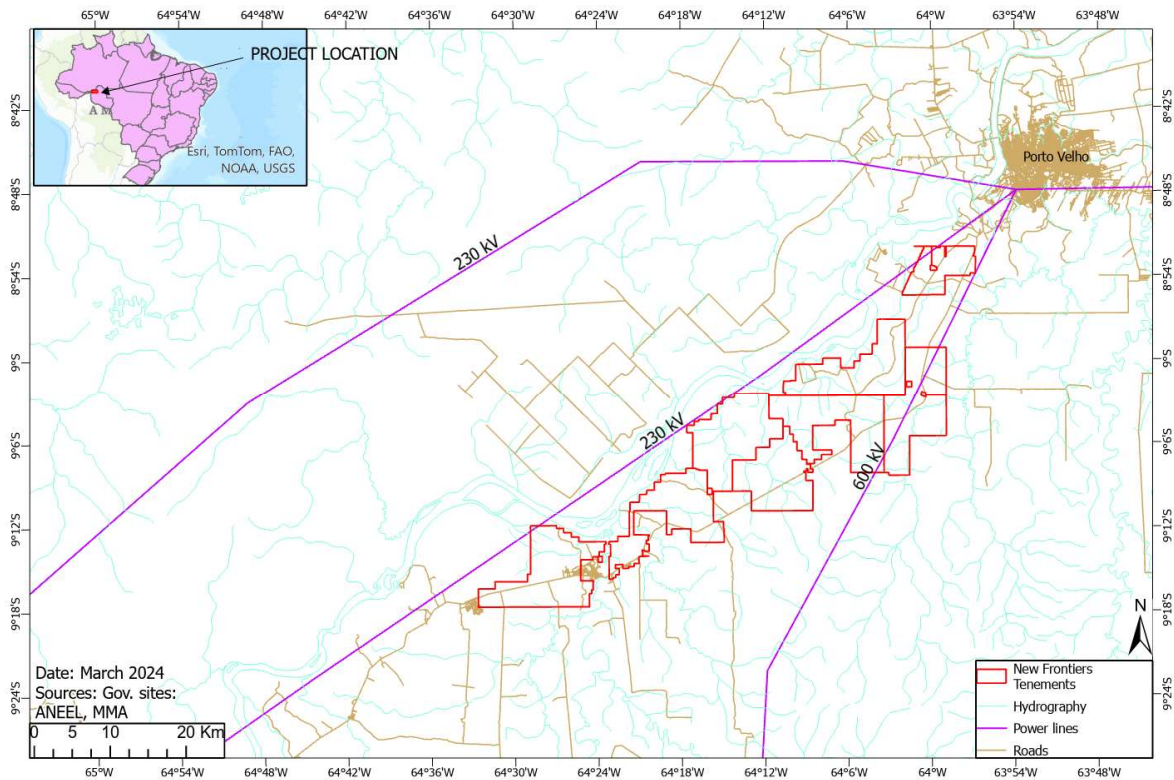


Figure 5: Local Infrastructure

## 5.2 Physiography, Climate and Vegetation

The project is located in the state of Rondônia, Brazil, which is part of the Amazon rainforest. The region is characterized by its flat topography, with an average elevation of 200 m. The climate is tropical, with average temperatures ranging from 25 to 30 degrees Celsius (77 to 86 degrees Fahrenheit). The vegetation is mostly rainforest throughout the state.

The region where the Project is located sits close to the state capital, the city of Porto Velho. Extensive deforestation is observed in that zone, due to agriculture and timber extraction.





Figure 6: Aerial view, looking NW, in the direction to the Madeira River (Mello, 2022)

A summary of climate parameters is given in the table below.

Table 5: Average local Climate Parameters (<https://en.climate-data.org>)

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	25.6 °C (78.1) °F	25.5 °C (77.9) °F	25.5 °C (78) °F	25.5 °C (78) °F	25.4 °C (77.7) °F	25.6 °C (78) °F	26.2 °C (79.1) °F	27.5 °C (81.5) °F	27.5 °C (81.5) °F	27 °C (80.6) °F	26.2 °C (79.2) °F	25.8 °C (78.5) °F
Min. Temperature °C (°F)	23.4 °C (74.1) °F	23.3 °C (74) °F	23.4 °C (74.1) °F	23.4 °C (74.1) °F	23 °C (73.4) °F	22.4 °C (72.3) °F	22.1 °C (71.8) °F	23 °C (73.4) °F	23.9 °C (74.9) °F	24 °C (75.2) °F	23.8 °C (74.8) °F	23.6 °C (74.5) °F
Max. Temperature °C (°F)	29.4 °C (84.9) °F	29.2 °C (84.6) °F	29.3 °C (84.7) °F	29.2 °C (84.6) °F	29 °C (84.2) °F	29.8 °C (85.6) °F	31.4 °C (88.5) °F	33.3 °C (91.9) °F	32.7 °C (90.8) °F	31.6 °C (88.9) °F	30.2 °C (86.4) °F	29.6 °C (85.3) °F
Precipitation / Rainfall mm (in)	311 (12)	321 (12)	323 (12)	224 (8)	137 (5)	46 (1)	23 (0)	44 (1)	96 (3)	164 (6)	230 (9)	297 (11)
Humidity(%)	90%	91%	91%	91%	88%	84%	74%	66%	76%	83%	88%	90%
Rainy days (d)	21	19	21	19	16	7	4	6	11	16	18	20
avg. Sun hours (hours)	7.6	7.3	7.0	6.5	6.7	8.1	9.4	9.9	9.2	8.7	7.9	7.6

Data: 1991 - 2021 Min. Temperature °C (°F), Max. Temperature °C (°F), Precipitation / Rainfall mm (in), Humidity, Rainy days. Data: 1999 - 2019: avg. Sun hours

The month of maximum warmth in a year is August. The average temperature during this period reaches up to 27.5 °C. In May, the average temperature is 25.4 °C. It is the lowest average temperature of the whole year.

The variation in precipitation between the months with the lowest and highest levels of rainfall is 300 mm, as observed. The average temperatures vary during the year by 2.1 °C.



The month with the highest relative humidity is March (90.85 %). The month with the lowest relative humidity is August (65.55 %). The month with the highest number of rainy days is March (27.80 days). The month with the lowest number of rainy days is July (5.00 days).

The best period to perform exploration is from April to November when precipitation is lower than 230 mm/month.

### 5.3 Local Resources

The target areas stretch over 80 km, parallel to the Madeira River. The closest point of the property to the state capital, Porto Velho, is 8 km. The farthest is 88 km. Therefore, all resources required for exploration and for project development will be obtained from Porto Velho, which has the following characteristics:

- 540,000 inhabitants, with an economy based on services and commerce.
- The city itself is relatively well-connected, with a good road network and an airport with daily flights to the major cities in Brazil. No international flights are available.
- There are a few major highways that connect Porto Velho to other parts of Brazil, including the BR-364, which runs from Cuiabá to Rio Branco.
- The city of Porto Velho has a good public transportation system, with buses and taxis available.
- Good infrastructure of hotels, telecommunications, hospitals, water treatment and other necessary items for a mining project.



Figure 7: Aerial view of Porto Velho with its fluvial port in front (July 2007)

## 6. HISTORY

History is here described as applying to the Madeira River Valley as a whole. The Property has no particular historical events which can be reported here. These areas were selected using the ANM official tool for application for an Exploration Permit, over free ground. No previous ownership is recorded in this system. Mineral production reported below are not related to the property. RBM and the JV partners have no information regarding previous production or mineral resources defined in the property. For the purposes mentioned in the National Instrument, this Property has no history to be reported.

Informal alluvial and colluvial gold mining in the Amazon region began in the late 1970s, when thousands of *garimpeiros* (informal miners) rushed into the Eastern Amazon basin in search of gold. In 1973, *garimpeiro* gold production from the Eastern Amazon basin was recorded at 5.9 tonnes. Just five years later, production had increased to 18 tonnes. Several new discoveries were made throughout the basin during this time, including those along the Rio Madeira. Some historical records of gold production from the Rio Madeira area are available, as shown in the table below.

**Table 6: Gold production from Rio Madeira – estimates (Bastos, DNPM)**

Year	Kg
1979	1,500
1980	1,200
1981	2,400
1982	4,500
1983	6,000
1984	4,000
1985	3,800
no info	
1990	9,610
1991	5,606
1992	4,285
1993	3,424
1994	3,400
1995	1,935
Total	51,660

*Authors note: The total recorded, as 1.66 million ounces of gold, is considered to be likely underestimated due to:*

- *The lack of records for several years since the start of the gold rush. Even today there is a substantial number of dredges operating in the river, as this QP was able to observe during the visit.*
- *Illegal selling of the gold produced by garimpeiros is a well-known problem for the authorities, with many police operations targeting gold smuggling.*
- *Low metallurgical recovery of the rudimentary extraction methods used.*

Modern exploration methods were employed with low intensity from the 1980s to the 1990s by major gold companies that conducted regional reconnaissance in the Madeira River Valley.

The first systematic work with public results conducted in the vicinity of the Madeira River, focusing on gold mineralization in its floodplains, was undertaken by the junior exploration company Amazon Inc. In 2007, a Technical Report adhering to the NI 43-101 standard was published by WGM Ltd. The exploration concept utilized by Amazon Inc. is somewhat similar to the approach being employed in the present work, though there are notable differences in the target modeling parameters.

Unfortunately, Amazon Inc. faced financial difficulties during the 2008-2012 financial crisis, which hindered its ability to complete sufficient exploration work to confirm or refute the potential for the large-scale discoveries that Canary Gold is currently targeting.



**Figure 8: Photo of the gold rush in the 80s, with dredging barges crowded in rich spots in the Madeira River**

## **7. GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1 Regional Geology**

The regional geology is characterized by sedimentary rocks that were deposited on the northwestern edge of the Central Brazilian Shield (Guaporé Craton). The sediments were formed during the Miocene to Pliocene periods, when the Andean Cordillera was uplifted during mountain building.

The underlying Precambrian basement is the Jamari Complex, which is composed of older granitoid intrusive and subordinate gneissic rocks. The older intrusive rocks belong to the Serra da Providencia Suite and are made up of monzogranite, biotite-syenogranite, charnockite, mafic rocks, and augen gneisses. The younger crystalline rocks (circa 1,387 Ma) are part of the Teotônio Intrusive Suite and are composed of alkaline intrusive (microcline granite, microcline quartz syenite, and syenogranite).

Much of the Jamari Complex is covered by Cenozoic sediments, locally called the Içá Formation. These sediments are composed of semi-consolidated arenite (locally ferruginous) interlayered with silt, clay, and sands. Holocene alluvium, composed of sands, silts, and gravel, overlies the Içá Formation.

The Figure 9 depicts the environmental model used for the sediments expected to host the auriferous mineralization at the Madeira project.

Figure 10 shows the time scale for the Cenozoic Era, where the Miocene, the period where the sediments of the unconsolidated sediments at the Madeira project were deposited. The main unconformity, at the base of the Miocene/top of the basement rocks, is the stratigraphic level supposedly concentrating gold mineralization.

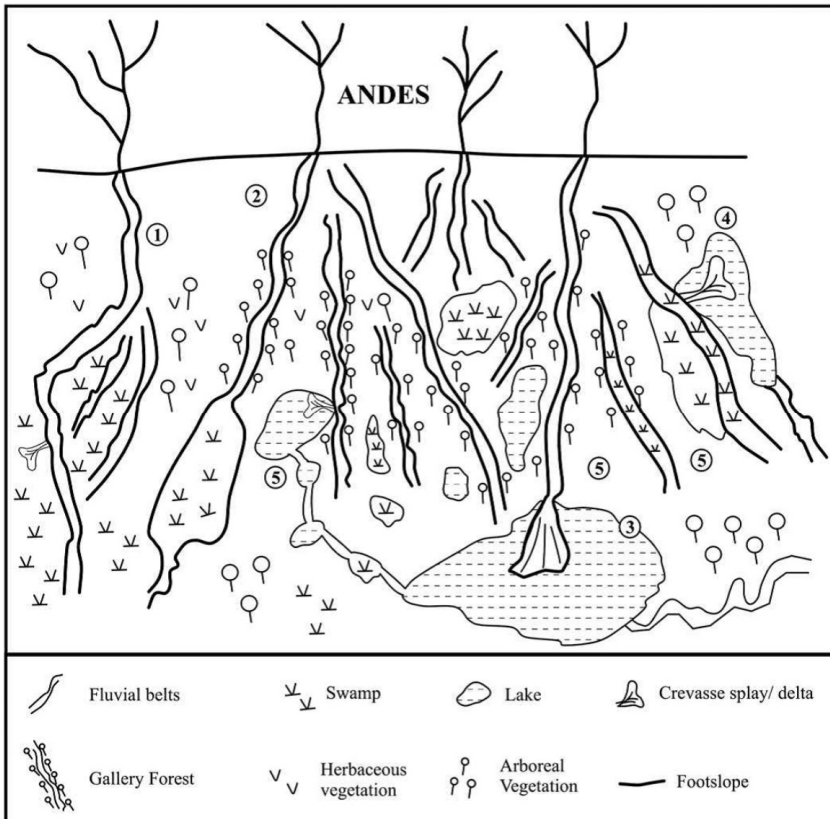
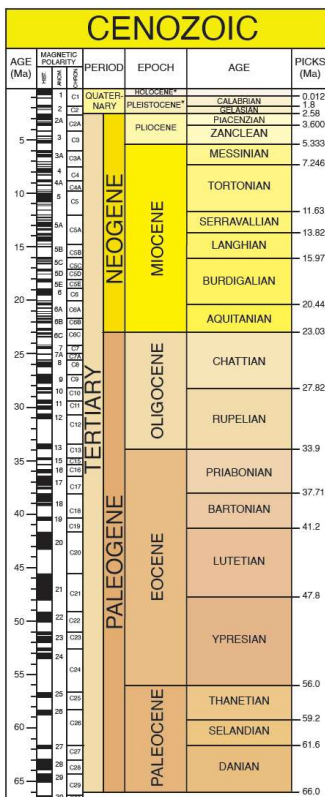


Figure 9: Flood basin simplified schematic environmental model – Latrubesse et al



---

**Figure 10: Time scale for the Cenozoic Era (Geologic Society of America)**

## 7.2 Local Geology

The study area is predominately covered by unconsolidated sediments of Holocene age. The thickness of these sediments as well as the underlying geology is inferred from available geophysical data calibrated with geological information from mapped and regionally correlated exposures along the banks of the active Madeira River extrapolated into this area.

In the mapped profiles along the active Madeira Riverbanks, the unconsolidated sediments are light grey to brownish in colour and comprise intervals of sand, silt, and clay which unconformably overlie variably ferruginized, semi-consolidated and indurated sedimentary rocks of the Içá Formation which in turn overlie crystalline basement. Near the active Madeira River the sedimentary profile is generally between 10-20m in thickness while away from the river margins the geophysical data suggests these formations may attain a thickness of up to a maximum of 50m from surface to crystalline basement.

Regionally, the presence of gold has been reported from various intervals through the entire recent – unconsolidated sedimentary profile and the underlying indurated sequence. However, regional information regarding gold presence does not guarantee that Canary Gold will achieve similar results from its property. Of particular interest, especially economically, is gold associated with the basal unconformity (Miocene on Basement), which at present manifests itself as either braid-plain facies polymictic to oligomictic conglomeratic and related arenitic formations (distal to source) and polymictic alluvial fan – pebble to cobble conglomerates and associated channel – point bar and over bank arenitic and argillitic deposits (more proximal to source) all of which have been variably, reworked, ferruginized (especially where they have been influenced by shallow) – lateritic processes related to ground-water fluctuation to form laterally persistent horizons, some two to five meters thick known locally as Mocururu.

Mocururu is described by various authors, where observed in exposures occurring within the bed of the active Madeira River as either:

- A carbonaceous arenite/conglomerate formation, a compact rock, poly mineral, with angular to subrounded grains of quartz (abundant), micas (biotite/muscovite), feldspar and chlorite cemented by carbonate (manganiferous siderite) with the surface often with a film of iron hydroxide and,
- A manganiferous to a manganiferous carbonaceous formation with manganese in the form of oxide-hydroxides along with significant kaolinite and goethite with rare feldspar while chlorite is absent. Texturally the rock is finely banded (0.5 to 0.8 mm) comprising oxide-hydroxides interbedded with sub millimetric, angular, quartz and metamorphic rock fragments (schist) or,
- A ferruginous arenite/conglomerate formation.

The geology of the basement of this layer of in consolidated sediments is described as formed by various granite plutons, separated by age or chemical composition in the geological map of the state. Canary considers that the basement geology will have little influence on the exploration model under investigation.



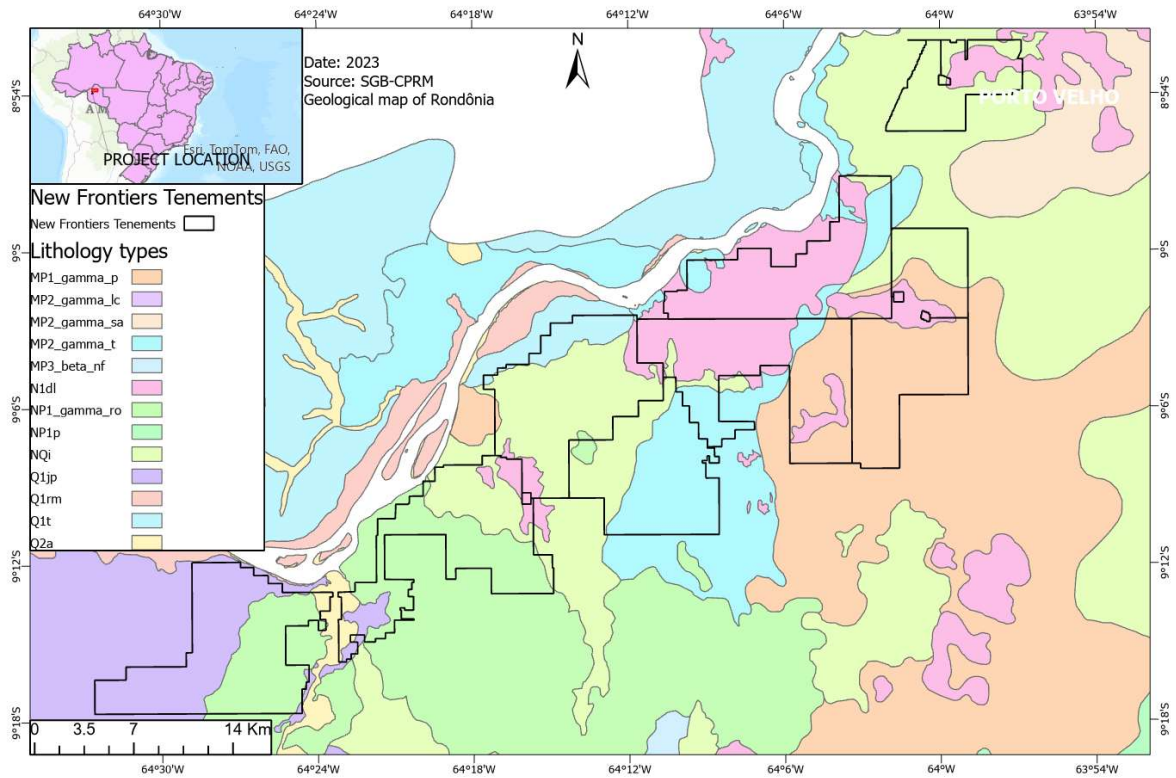


Figure 11: Geological Map of the Property



Figure 12: Photo at river bank, showing the Mocururu layer covered by a sand/clay overburden



Source: Velasquez Spring, 2007

Figure 13: Photograph of a typical block of Mocururu (Source: Velasquez Spring, 2007)

The Mocururu is made by hard, carbonaceous to manganiferous, or ferruginous, sandstones or conglomerates often some two to three metres in thickness occurring along the edges or in the beds of the paleo river channels.

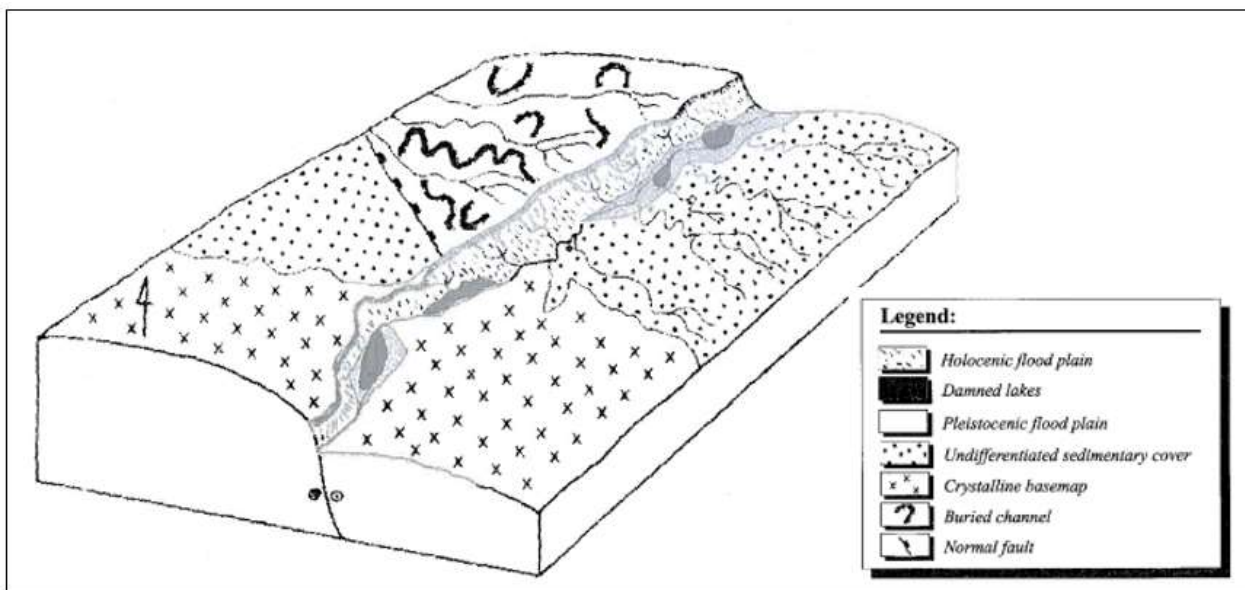


Figure 14: Block diagram with the interpretation of the structural framework of the property

---

The Figure 14 is a block diagram showing the holocenic flood plain of the Madeira River, with mid-channel and lateral accretion bars, besides residual and dammed lakes. To the northwest corner one can see the presumed gold-bearing fluvial meanders, once abandoned and later shallowly buried. The Madeira River is strongly controlled by the Madre de Dios-Itacoatiara lineament. (Source: Souza Filho et al., 1999).

### 7.3 Mineralization

As described in the previous section, the company is targeting economic gold mineralization associated with potentially buried and or preserved gold deposits associated with the various favourable sedimentary depositional sites (including Mocururu horizons, paleochannels and reworked material) interpreted to exist within the consolidated and unconsolidated 0-50 m thick sedimentary profile identified by the various reconnaissance geophysical programmes.

From an economic perspective the various targets, ranging from within, immediately below and above the laterally persistent flat lying 2-5 m thick Mocururu horizon and, volumetrically significant preserved paleochannels associated with the migration of modern braided Madeira River system and manifestations of the reworked products of the above deposits may potentially contain sufficient gold content to justify mining, earth moving (dredging) activities required for economic extraction to the maximum targeted depth of less than 50 m over considerable areas. Gold occurring in the semi-consolidated quartz rich sands that occur with overly the Mocururu and spatially related paleochannels up to the current surface can only improve production and reduce operating costs.

## 8. DEPOSIT TYPES

Many important gold occurrences and economic deposits of various ages throughout geological time, hosted in sedimentary basins and associated with conglomerates have been documented. The stratiform distribution of gold in conglomerates is suggestive of a syngenetic origin, and for the deposits most studied (Witwatersrand and Tarkwaian), despite compelling evidence of modifying factors over time suggestive of other possible genetic influences, the weight of evidence favours a paleoplacer interpretation. From an exploration and mining perspective studies of mineralogy and grain size have clearly demonstrated that the primary genetic factors of gold accumulation are sedimentary, and, in this context, sedimentological studies of these sediment hosted gold deposits become an essential tool of exploration. However, this is no guarantee that Canary Gold will achieve similar results from the property.

The economically important Witwatersrand and Tarkwa gold deposits are both contained within conglomerates related to fluvial sedimentary sequences which were formed in environments consistent with modern braided stream systems.

In the context described above the Primary Exploration Targets within the study area can best be described as:

- 1) The basal unconformity (Miocene on Basement), which at present manifests itself as either braid-plain facies polymictic to oligomictic conglomeratic and related arenitic formations (distal to source) Polymictic alluvial fan – pebble to cobble conglomerates as well as associated channel – point bar and over bank arenitic and argillitic deposits (more proximal to source) all of which have been variably, reworked, ferruginized lateritic processes related to ground-water fluctuation (same as for Bauxite deposits) to form the deposits locally known as Mocururu. It should be noted that this tectono-stratigraphic horizon crops out in the bed of the active Madeira River and is known to occur at, close to or within 50m of surface over a wide area extending several hundreds of kilometres from the active Madeira River in Rondônia state (Brazil) and Bolivia.
- 2) A secondary but unconstrained target is associated with sedimentary formations which occurring immediately below the Mocururu horizon which are reported to be gold-bearing and possibly reflect paleo depressions within the pre-Mocururu basement that have been preserved. The distribution of these targets is an unknown, but they would certainly be important if their presence can be confirmed within the depth limitations of the envisaged mining method.



- 3) A further third target, but by no means of lesser importance would be the reworked and reconcentrated products of the primary Mocururu. These targets would be manifested in alluvial deposits within the areas influenced by the meander migration of the Madeira River and its tributaries, examples of which are identified on air photos- vegetation maps – aster images etc as oxbow scars with vegetation anomalies. The location of these target areas has been highlighted on maps provided by previous workers where they were considered to be primary targets. They remain vitally important to the targeting process as their shape and curvature can clearly be used to define paleocurrent directions which is a vital vector for targeting areas of higher mineral concentration within sedimentary systems.

## **9. EXPLORATION**

### **9.1 Motivation**

The significant historical gold produced in the region is described as recovered primarily from the bed of the active, modern Madeira River and its immediate margins with most of the gold being associated with unconsolidated recent alluvial deposits with a minor contribution from the harder Mocururu when it was encountered during dredging operations.

The broader potential for additional economic mineralization contained within the 0-50 m thick sedimentary packages, largely concentrated within the extensive Mocururu layer and preserved paleochannels and other favourable sedimentary deposition sites across a much more extensive area, well away from the influence of the current Madeira River, however, has not seen wide recognition.

Building on a full review of academic and exploration reports published by previous explorers, New Frontiers was formed and completed regionally focused generative exploration to develop the current exploration thesis. The results of this work have culminated in the staking of the tenement package which is described in this report.

The areas originally staked by NF were selected as priority palaeodrainage targets after a detailed review of Aster elevation data and imagery over areas influenced by the active, modern Madeira River System.

### **9.2 Introduction**

As stated above, the present Rio Madeira drainage represents a very small percentage of the total area with potential for gold mineralization associated with paleochannels and Mocururu.

The Mocururu, given its physical characteristics which are dissimilar to the sediments containing them are viable targets for shallow geophysical techniques such as Ground Penetrating Radar and tomography methods.

The primary exploration targeting criteria included identification of areas where palaeodrainage may have been constrained between basement “highs” as well as areas where palaeodrainage may have migrated and meandered over a broader area. It was considered, from a sedimentological and geographical perspective that both target types were favourable sites for gold deposition.

The elevation data showed some geological units (basement features) that were clearly more resistant to erosion. These trends were assessed for “breach” points, which were interpreted to potentially mark potential palaeocourses.

In addition, the migrated “meander” areas were constrained within wider contemporaneous elevation highs. It was considered possible that the location of paleochannel positions could be constrained under cover by Ground Penetrating Radar in these areas.

Following tenement staking NF completed a series of reconnaissance Ground Penetrating Radar traverses which successfully identified the presence of the targeted stratigraphy and responses considered to be consistent with the Miocene/Basement unconformity as well as features with the geometry and signature consistent with paleochannels.

On the basis of these preliminary results further targets and prospective areas were identified and staked resulting in the consolidated land package covered by this report.

Subsequent ground reconnaissance, remote sensing and trial reconnaissance tomography has been progressed over the areas during 2022 – 2023 and these are described below in addition to a review of the initial target generation and ground penetration profile results.

### **9.3 Target Generation**

A review of ASTER elevation data and aerial imagery has highlighted palaeodrainage targets:

- a. Areas where palaeodrainage may have been constrained between basement “highs”.
- b. Areas where palaeodrainage may have meandered over a broader area.

The elevation data shows some geological units that are resistant to erosion. These trends were assessed for “breach” points, which may mark potential palaeocourses. The flat “meander” areas are constrained within wider contemporaneous elevation highs. It is possible that more constrained channel positions are present under cover in these areas.

This work led to the prioritization of some 100,000 hectares. This was prioritized with further work (ground truthing, auger drilling, GPR, land-access considerations). Final application areas focussed on pasture (or mixed pasture-timber where separation is not been feasible).

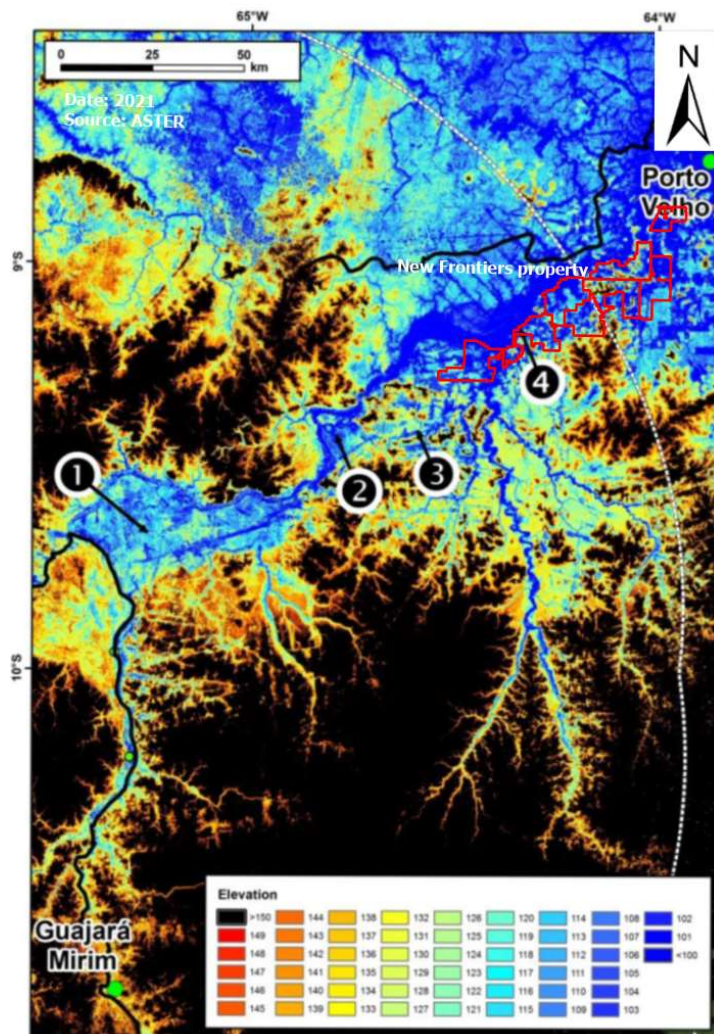


Figure 15: ASTER elevation data, plotted to emphasise features in the 100-150m range.

The following points are highlighted in Figure 15:

- Areas 1 and 2 mark localised flats where the Rio Madeira may have migrated.
- Area 3 has a series of embayment's which may mark constrained paleochannels
- Area 4 has flats where the channel position may have migrated widely.



Figure 16: Isometric view, showing river course incising ESE trending resistant basement unit (Google Earth view)

### 9.4 Ground Penetration Radar Survey

A survey using GPR (Ground Penetration Radar) was made along roads. An UltraGPR device with a 30 MHz antenna was used. The result, as shown in the figures below, is interpreted as indicative of several paleochannels of the Madeira River and smaller tributaries. These images were used to select the targets to use a more powerful method of geophysical survey, which is tomography. The zones highlighted with letters were selected as targets for paleochannel detection.

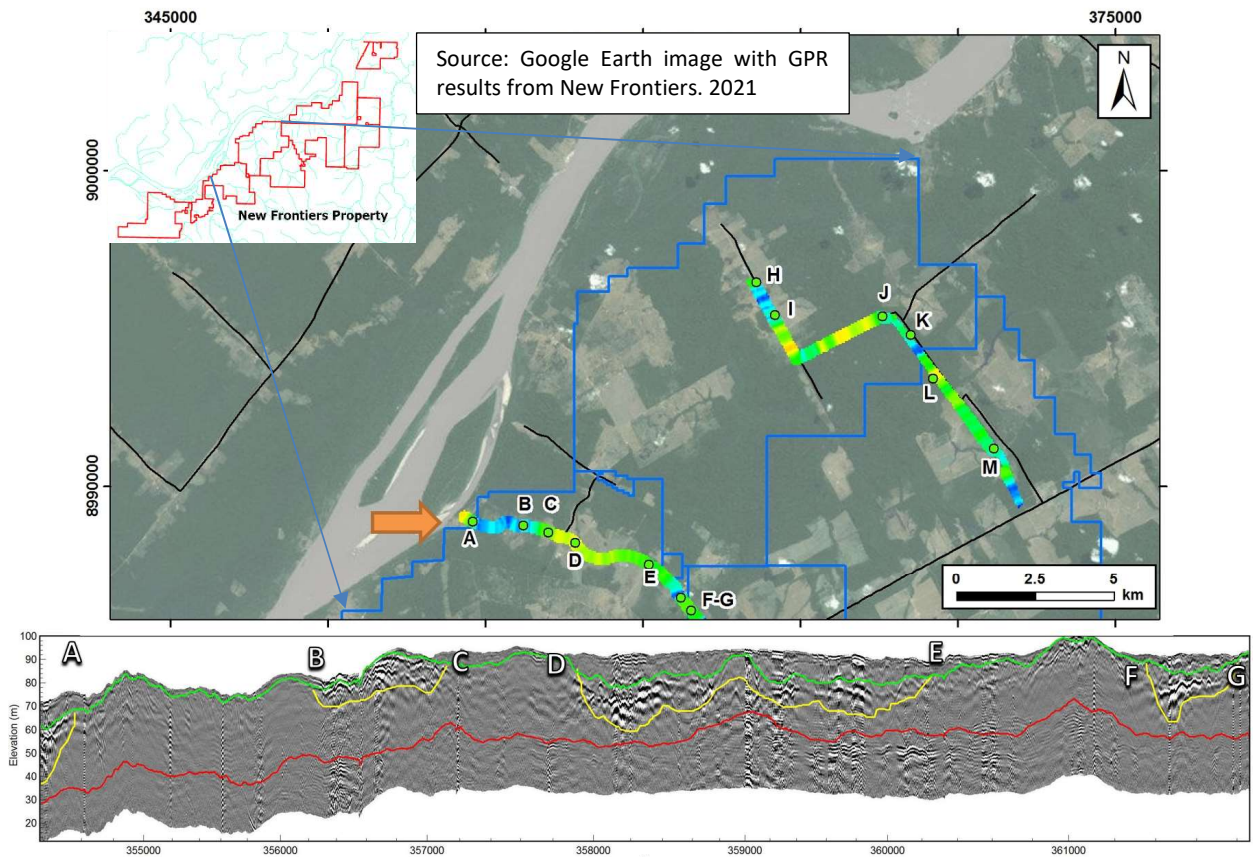


Figure 17: Map with the location of the GPR line paths, with the profile of the SW line



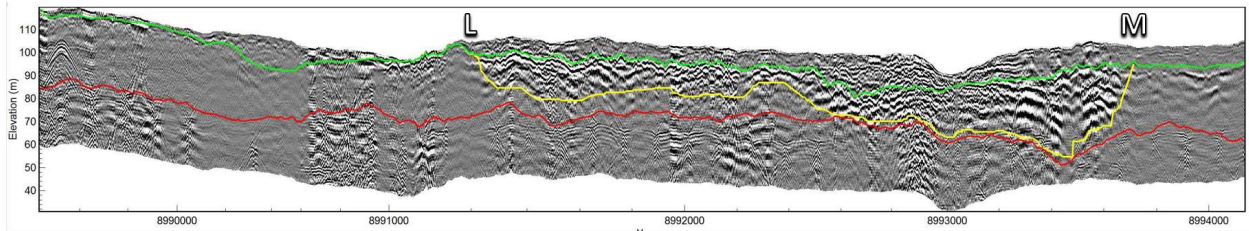


Figure 18: GPR profile of the SE segment of the NE survey line

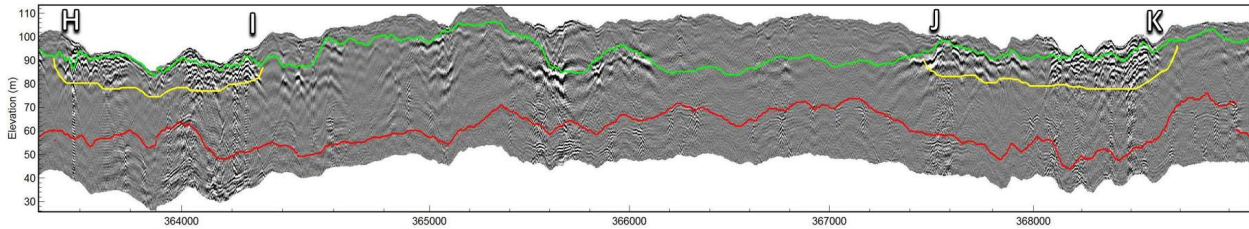


Figure 19: GPR profile of the NW segment of the NE survey line

In the Figure 17, the line SW shows features suggesting the presence of two narrow paleochannels (intervals B-C and F-G) and a large one, between lines D and E, with two kilometres width, compatible with the present river course width.

Figure 18 is the GPR profile of the Southeast part of the NE line. A large zone, with a 2 km width, is interpreted as a paleochannel of the Madeira River, which can be inferred between the letters L and M.

Figure 19, showing the GPR profile of the Northwest of the NE line, is interpreted as having two zones depicting minor branches of a paleo course of the Madeira River, with some 500 m in width, each (intervals H-I and J-K).

These profiles were considered as positive and were important in the decision for further investments in the Property.

### 9.5 Remote Sensing and Data Integration

A comprehensive analysis of several remote sensing images was performed, with the objective of selecting possible paleochannels zones. Secondary objectives were finding *garimpo* zones and zones with high clay and Fe<sup>3+</sup> presence (which might be associated with gold mineralization) and also to produce a better hydrography map, to assist field operations.

Table 7 shows the remote sensors used, with some details.

Table 7: Satellite images used in this work

Mission	Sensor	Image date	Spatial resolution (m)	Source
Landsat 1	MSI	09/1972	60	<a href="https://earthexplorer.usgs.gov/">https://earthexplorer.usgs.gov/</a>
Landsat 5	TM	07/1984	30	<a href="https://earthexplorer.usgs.gov/">https://earthexplorer.usgs.gov/</a>
Landsat 7	ETM <sup>+</sup>	08/1999	15	<a href="https://earthexplorer.usgs.gov/">https://earthexplorer.usgs.gov/</a>
Sentinel 2	MSI	08/2022	20	<a href="https://scihub.copernicus.eu/dhus/#/home">https://scihub.copernicus.eu/dhus/#/home</a>
CBERS – 4A	WPM	11/2022	2	<a href="http://www.dgi.inpe.br/">http://www.dgi.inpe.br/</a>
ALOS	RADAR	02/2007		<a href="https://search.earthdata.nasa.gov/">https://search.earthdata.nasa.gov/</a>
JERS - 1	RADAR	06/1994	17	<a href="https://gportal.jaxa.jp/gpr/">https://gportal.jaxa.jp/gpr/</a>
SRTM	RADAR	02/2000	30	<a href="http://www.dsr.inpe.br/topodata/">http://www.dsr.inpe.br/topodata/</a>

Few areas favoured by the occurrence of deposits indicative of the presence of paleochannels were found in the project areas. It is likely that the intense human activity de-characterized the landscape, especially deforestation, cattle grazing and artisanal mining. Radar images, however, were considered more effective in showing patterns which may be linked to paleochannels. These features were more evident in zones where the forest was not degraded.

The Figure 20 shows a composition between a JERS-1 and Landsat 7 bands, where some features resembling abandoned meanders are highlighted (ellipses in yellow) using the brightness and texture analysis. At the left margin of the Madeira River, where the forest is preserved, these features are easier to see.

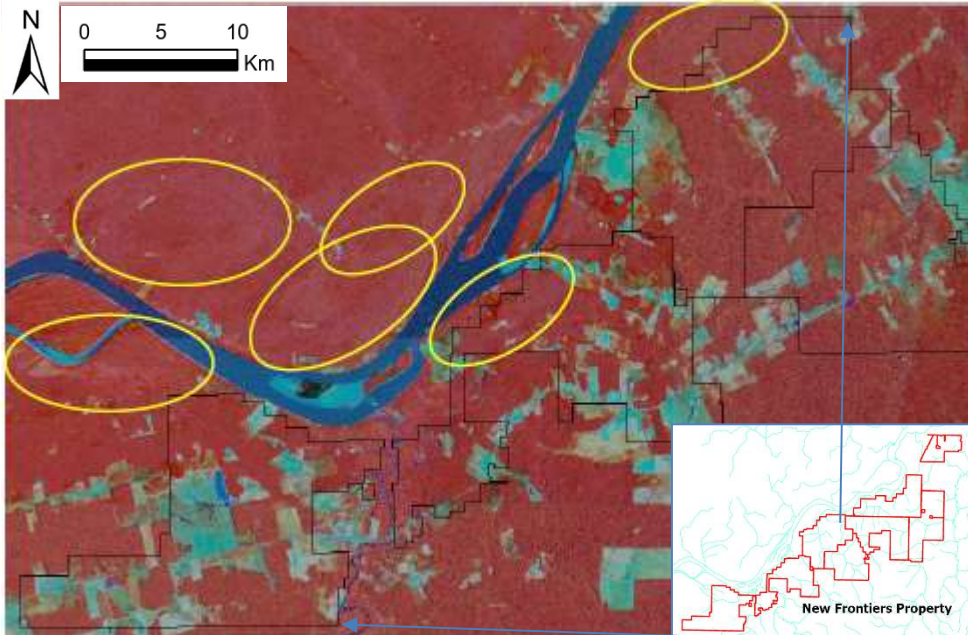
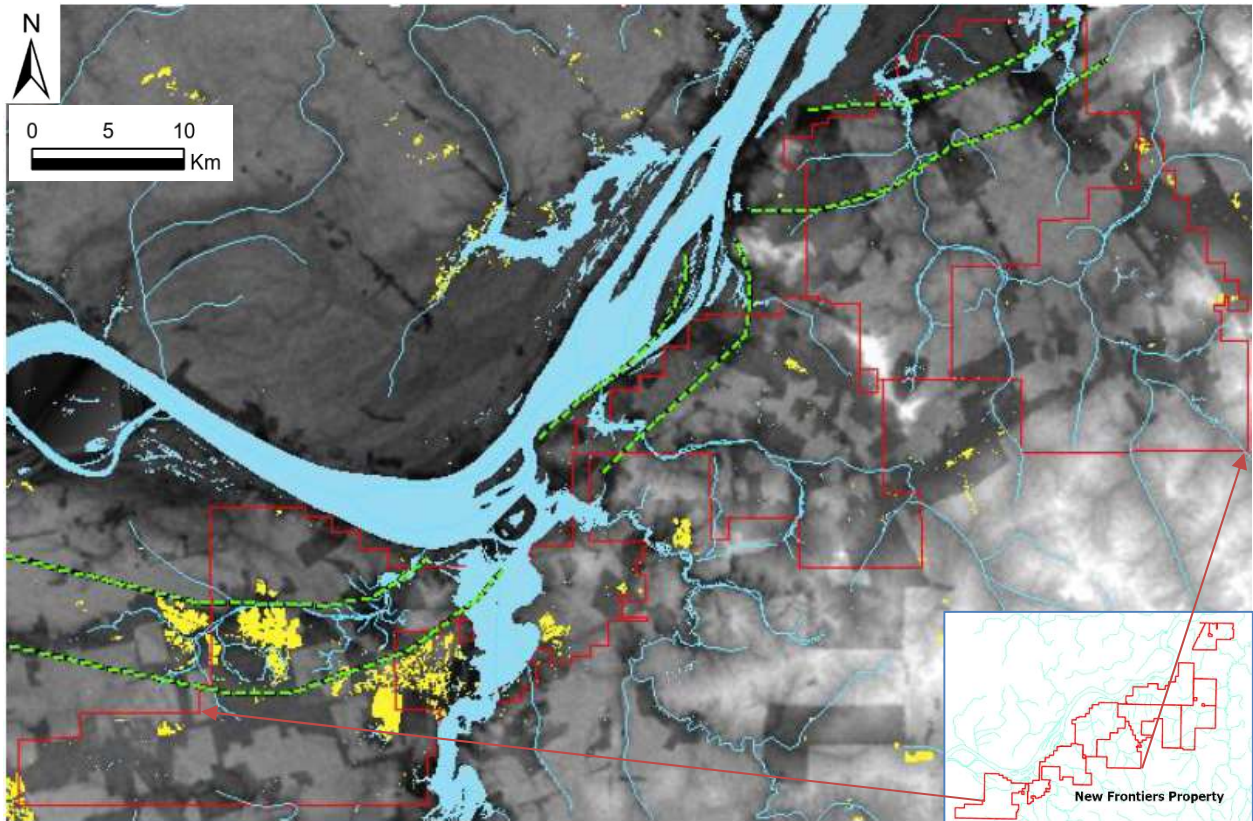


Figure 20: Image IHS JERS-1/Landsat 7 (1994). Property shown in black polygons



**Figure 21: SRTM image with the tenements in red (2023).**

In Figure 21, in yellow, the areas with high concentration of Fe+3 and clay minerals can be distinguished. The green lines represent a possible model for the paleochannel of the Madeira River.

The areas with the greatest potential, considering the concentrations of Fe+3 and Hy, the morphology of the drainage and the behaviour of the surface to the radar signal, are represented by Figure 21.

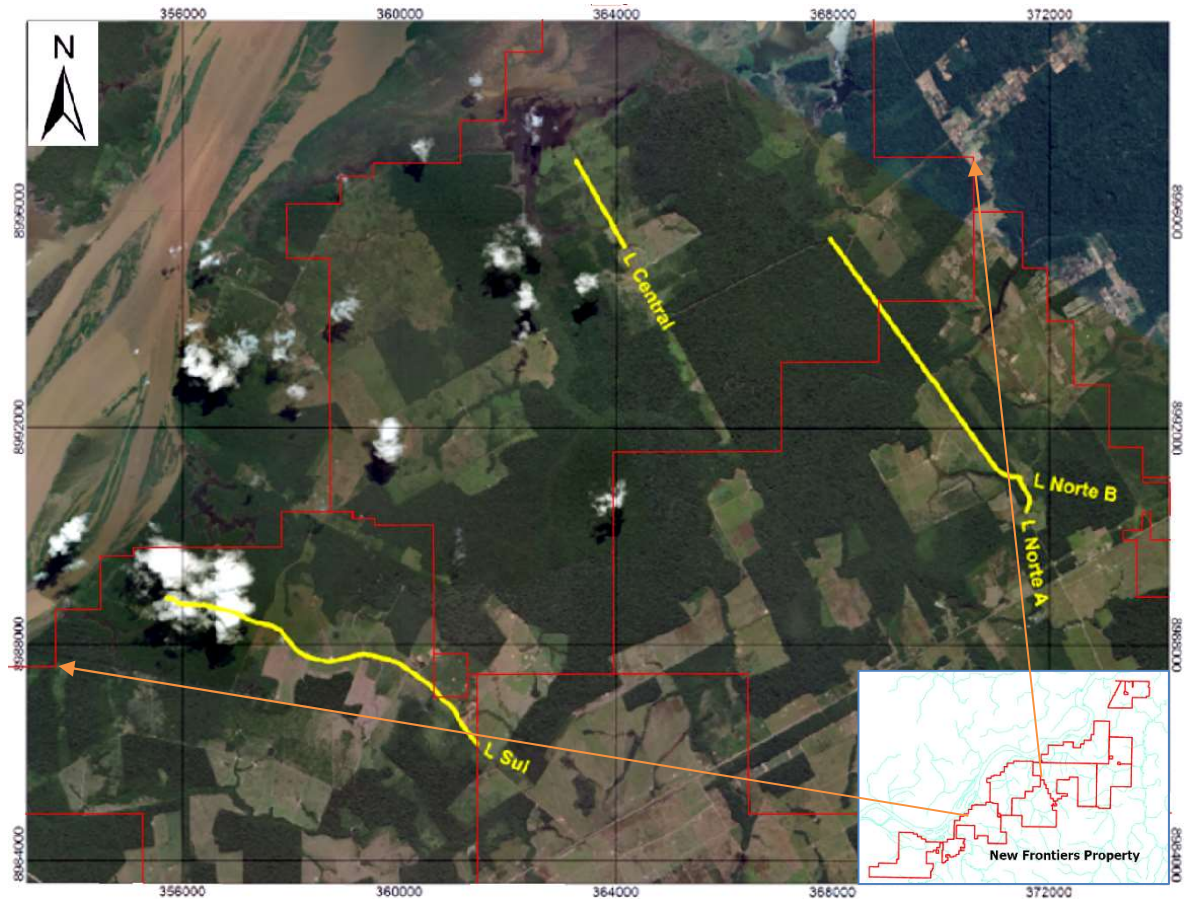
In general, each satellite type, after the digital processing, showed different responses and characteristics of the items of interest. Therefore, it can be concluded that the combined use of orbital data from different sensors, covering different regions of the electromagnetic spectrum, provided satisfactory results for the detection of two paleochannels.

## 9.6 Tomography Geophysics

In the period between May and June 2023, a geophysical survey was carried out, using the resistivity method, in an area located near the Jaci-Paraná city, in the state of Rondônia. The method of analysing resistivity data along 2 D or 3 D sections is called Tomography. The objective of this work was the exploration of Au in paleochannels and in duricrust horizons. Considering that the duricrust horizon (*Mocururu* beds) have expected higher resistivity than the clay and sandstone material that hosts it, the exploration hypothesis was that this level can be easily defined in contrast with the barren material. On the same line, paleochannels are expected to contain a significant amount of *Mocururu* blocks, therefore presenting a high resistivity anomaly. To be confirmed by drilling, the following figures appear to confirm these hypotheses.

Three geophysical lines were executed (Figure 22). These lines were planned to use the same GPR profiles. Zones with anomalies interpreted as paleochannels were selected, with some margin of operation, to verify the behaviour or the *Mocururu* layer.



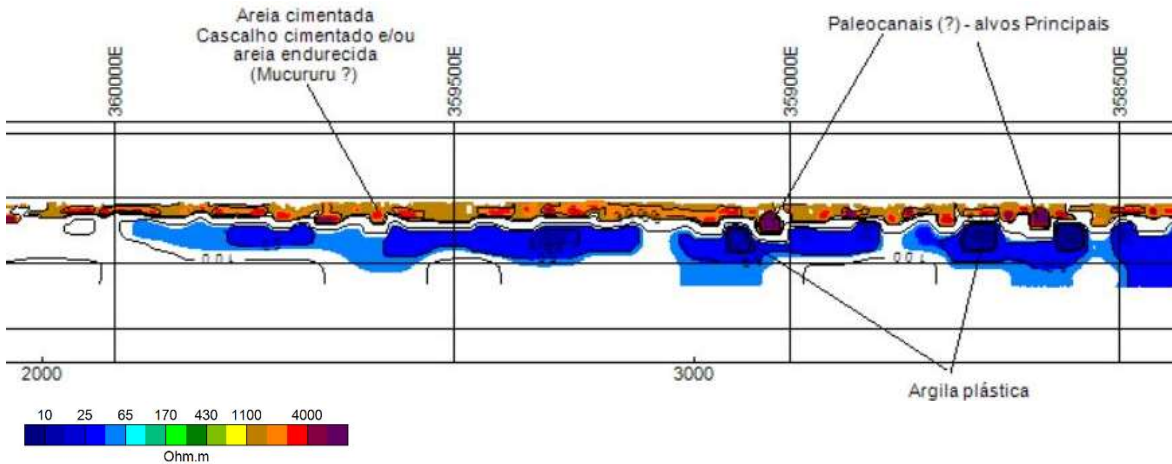


**Figure 22: Map of the surveyed lines (2023)**

The results obtained allowed identifying anomalous resistivity patterns interpreted as possibly associated with gold-bearing paleochannels and duricrust horizons.

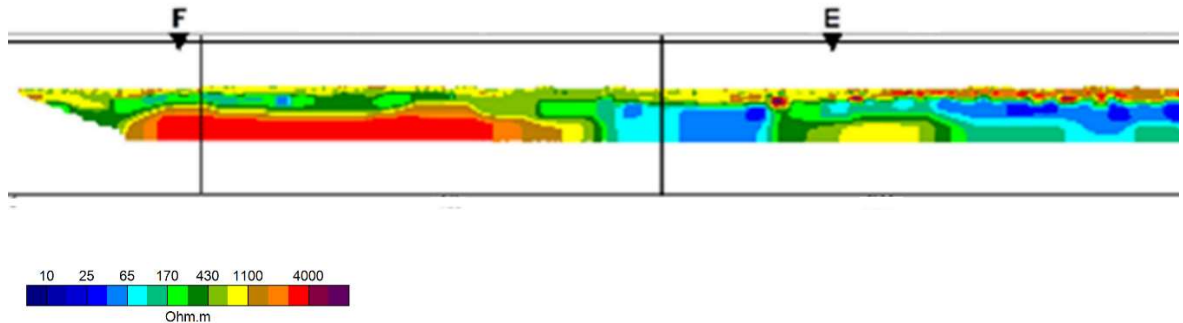
A surface pattern of resistivities greater than 2,000 Ohm.m (Figure 23, in red colour) was identified that could be related to the intermediate layer of the Rio Madeira Formation, composed of cemented gold-bearing gravels and sandstones, called *Mocururu* layer by prospectors. These anomalous patterns were considered targets of interest to be tested through drilling. The resistivity profile confirms the stratigraphy describe by Rizzoto et. All., whereas a low resistivity layers, with predominance of plastic clays, underly the *Mocururu* bed. A sandstone/silt layer, with average resistivity, covers this layer, with a thickness in the order of 10 – 20 m.





**Figure 23: Example of well-defined Mocururu horizon**

Anomalies of high to very high resistivities, occurring at greater depths than the Mocururu and with great lateral extension (300 meters to 1,000 meters), initially interpreted as associated with the presence of crystalline basement rocks, were suggested, in an alternative interpretation, as possibly related to the occurrence of extensive and deep paleochannels of the Madeira River. These anomalies are also indicated targets to be investigated by drilling. Figure 24 shows an example of this type of anomaly, deep and high resistivity pattern (in red colour). Its position can be seen in the Figure 17, in the southern line, between the points F and E. This anomaly has 1000 m in width.



**Figure 24: Example of a possible paleochannel, without the presence of the Mocururu level over it.**

A significant feature to support the hypothesis of these large anomalies of high resistivity being paleochannels, is the fact that the ubiquitous high anomaly level, interpreted as Mocururu, is absent from the zones immediately above these anomalies. Figure 25 shows this feature, with the Mocururu easily seen at the right of the figure, parallel to surface, and no such feature can be seen over the interpreted paleochannel.

This is compatible with the hypothesis that the river eroded the Mocururu level and reached depths but deeper than it, probably due to a higher energy period. The high resistivity is interpreted as due to the significant presence of Mocururu blocks in the paleochannel.

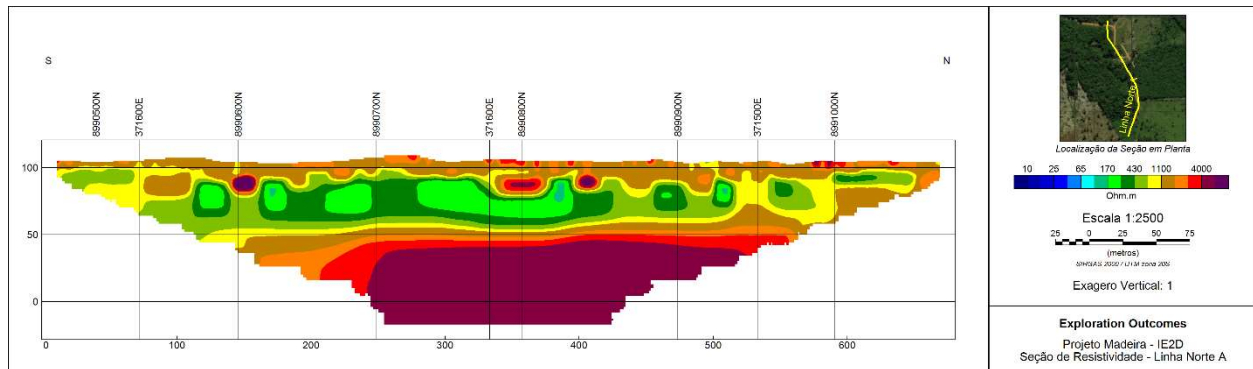


Figure 25: Example of possible paleochannel with missing Mocururu layer over it

## 9.7 Drilling and Sampling Plan

At the Project, the early generative exploration phases completed to date as well as those which are ongoing are aimed at generating and defining targets that can be tested for “proof on concept” by drilling and sampling the complete prospective sedimentary profile.

Sonic Drilling has been selected as the best technique available to fulfil the requirement of full, continuous, undisturbed sample recovery from surface to bedrock, which is estimated to be to a maximum of 50m depth from surface. Preliminary negotiations were already made in order to use the rig depicted in Figure 26 at the project.



Figure 26: Photograph of the sonic rig to be used at the Madeira Project (Scervini 2023)

The continuous core recovered through the Sonic Drilling method is ideal for both the detailed sedimentological logging required to characterise the sedimentary environments controlling deposition and distribution of heavy minerals included

gold and also importantly providing large samples suitable for qualitative and quantitative evaluation of the economic mineral content associated with heavy minerals through the profile. The photographs below show the quality of the core obtained using this method, on sand and clay, materials with poor recovery if using conventional methods.



**Figure 27: Examples of core obtained using Sonic drilling (Hill 2022)**

Other available methods for drilling and sampling like Reverse Circulation, Open Hole Percussion and Air Core Drilling have been considered but are not deemed suitable for the first reconnaissance stage of drilling and sampling as samples are disturbed and mixed by these techniques disqualifying the use of this technique for logging the in-situ sedimentary bedding and structural characteristics. Clearly once the geological and grade characteristics of the mineralization are determined these faster and more cost-efficient drilling and sampling techniques can be reconsidered in subsequent exploration and evaluation phases.

## 9.8 Target Selection

It is envisaged that generative exploration comprising the completion of further tomography profiles across the tenement package will continue soon after the availability of funds.

A series of priority targets for drill testing to establish “proof on concept” are being developed from work completed to date as well as planned work over the remainder of the land package. As described earlier in this report several priority drill targets have already been defined.

The mobilization date of the Sonic Drill Rig is dependent on permitting.

To maximize the information derived from material recovered from the planned Sonic Drill Programme the cores produced will first be photographed, dried, and laid out for detailed geological logging focusing on recording the sedimentological characteristics of the profile including sedimentary structures, composition, grain sizes and other important measures.

Following logging selected continuous intervals will be selected, either entirely or split for batching and submission to the Overburden Drilling Management (ODM) (<https://www.odm.ca>) for specialist analysis of heavy minerals and conventional



analyses. This will also allow careful consideration of sampling protocols for subsequent exploration and evaluation of the specific targets identified.

ODMs mineral processing techniques are versatile and have been utilized for qualitative and quantitative evaluations of heavy mineral sands, placers and tailings including:

- Economic mineral content of heavy mineral sands.
- Recoverable grade and grain size of gold in placers and tailings  
Grade and purity for a variety of industrial minerals.

## 10. DRILLING

Not applicable. As far as we know, the property has not been drilled to date.

## 11. SAMPLE PREPARATION, ANALYSES AND SECURITY

No samples have been collected in the area as of the date of this report. Since the mineralization is expected to be completely covered by sterile sediments, a lack of samples is expected for this stage of the work.

This QP collected one sample from an outcrop outside the tenements. It is located at 4500 m from one of the tenements, the 886009/2023. It was collected from a Mocururu exposure at the riverbank. Figure 28 depicts the position of this sample, in relation to the property.



**Figure 28: Location of the sample collected by the author**

The rock sample was collected and sent to the laboratory by the undersigned Qualified Professional (QP).

---

This sample was made of a single block of in-situ duricrust. It was sent by the author, using a courier, to the certified SGS/Geosol laboratories, at Vespasiano, MG.

There, it was crushed at 100% <3 mm, milled at 90% < 150# and then analyzed by fire assay / atomic absorption method. The laboratory reported QAQC results for one blank and four different gold standards, as part of its quality control routine. The QAQC results provided by the laboratory were checked against the certificates and found appropriate.

The sample showed a grade of 1.15 g/t Au. There are no guarantees that grades of this order may be found within the limits of the property.

## **12. DATA VERIFICATION**

In completing this report, the Author has reviewed relevant geological reports, government geological survey and geoscientific publications, and other public information as listed in Section 27 - References.

As part of the verification process, the Author has initiated the development of a Geographic Information Systems (GIS) database. As data were acquired and loaded into the database the Author reviewed and verified data, and whenever possible, cross-referenced data and information to ensure accuracy. The Project is an early-stage exploration project and currently has not established any 43-101 compliant mineral resource estimates. Section 27 - References.

Field observations made during the property inspection indicate lithological and other geoscientific field data described in recent and historic reports were accurately documented. All geological data disclosed in this technical report has been reviewed and verified by the Author as being accurate to the extent possible.

In the opinion of the Author, the Madeira Project exploration database is adequate for the purposes of this Technical Report.

The Geophysical work was preceded by meetings between this QP and the contractor AFC Geophysics when the technique to be applied, equipment and all other requirements were discussed. This QP thinks that AFC applied industry-standard protocols to ensure data integrity, compliant with CIM Mineral Exploration Best Practice Guidelines (CIM, 2018). The raw data interpretation was also performed with the Author's participation. Data processing was not followed by the QP but given the good reputation of the contractor, it is expected that it was done to a high standard.

## **13. MINERAL PROCESSING AND METALLURGICAL TESTING**

As this is an early stage project, this section is not applicable. There are no samples available for metallurgical testing.

## **14. MINERAL RESOURCE ESTIMATES**

Not applicable, due to the lack of drilling or sampling.

## **15. MINERAL RESERVE ESTIMATES**

Not applicable, due to the lack of drilling or sampling.

## **16. MINING METHODS**

This section is not applicable.

**17. RECOVERY METHODS**

This section is not applicable.

**18. PROJECT INFRASTRUCTURE**

This section is not applicable.

**19. MARKETING STUDIES AND CONTRACTS**

This section is not applicable.

**20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

This section is not applicable.

**21. CAPITAL AND OPERATING COSTS**

This section is not applicable.

**22. ECONOMIC ANALYSIS**

This section is not applicable.

**23. ADJACENT PROPERTIES**

There is no other formal gold exploration activity in adjacent properties.

**24. OTHER RELEVANT DATA AND INFORMATION**

There are no other relevant information to report.

**25. INTERPRETATION AND CONCLUSIONS**

The Qualified Person (QP) believes that this project has significant merit. The main facts supporting this opinion are:

- The presence of alluvial gold in deposits in the Madeira present course is ubiquitous.
- Rock samples from the lateritic horizon referred to as Moceruru (either in situ or from artisanal mining dumps) showed that it may be mineralized.
- Geophysical profiles (tomography) showed features of high resistivity material (interpreted as constituted of the laterite, locally called Moceruru) in the same feature as predicted by the exploration model:

- Either as a continuous, horizontal layer of 2-3 m thick, under a clay/sand overburden bed of 10-20 meters thickness
- Possibly present in large concentrations of high resistivity, compatible with an accumulation of Mocururu blocks, in paleochannels several hundred meters large. In these cases, the pervasive bed of in-situ Mocururu is not present, compatible with the paleochannel hypothesis, in which the river may have eroded the Mocururu layer.
- These considerations are enough to state that the project has merits and deserves a substantial investment in mineral exploration, as recommended in this report.
- However, it must be stressed that this project is in early conceptual stage, with no assay evidence that mineralized material of reasonable prospects of economic extraction is present at the areas. It is possible that the geophysical interpretation is not confirmed by drilling. And that the geological features which are believed to be auriferous, if confirmed by drilling, might have marginal or uneconomical grades. Other risks are related to the surface owners, which may not be receptive to the presence of the company on their land, requiring the force of the state to allow the access the area, what is time-consuming and risky. The risks associated with the areas inside the Border Zone are also significant, with possible delays or denials of the necessary permits to conduct exploration or mining.

## 26. RECOMMENDATIONS

A six-months work program is recommended to expose the interpreted potential of the Madeira project. A number of targets have already been defined by the geophysical survey. A sonic drilling campaign will investigate these targets, with 2,000 metres of drilling to be performed, in four months of work. 25% of the drilling core is expected to be of interest for mineralization controlled by placer-style mechanism. The company ODM (<https://www.odm.ca/>) specializes in this type of mineralization and has capabilities on a number of techniques related to heavy minerals accumulation: jiggling, panning, gold grain counting and sizing, SEM and MMSIMs methods, etc.

The samples will be shipped to Ottawa, Canada, for evaluation. 100% of the samples should also be tested by the metallic screen method of gold analysis, at the SGS-Geosol, in Vespasiano, Minas Gerais, Brazil.

The results will be interpreted with the help of a consultant with expertise in alluvial mineralization, using models like the Witwatersrand, in South Africa, or Tarkwa, in Ghana.

A suitable QA-QC program will be developed, concomitant with the drilling and assaying.

At the end of this work, a new NI 43.101 should be written. As this drilling is intended to be exploratory, over a very large area, the results will be used for the decision to go ahead with further investments.

The unit costs used for the budget is shown in Table 8 and the timing of such expenditures is depicted in Table 9. Unit costs are normally obtained in Brazilian reais (except for ODM costs, which are in Canadian dollars) and transformed using an exchange rate of R\$ 3.67/Can\$.

If this program is successful, a follow-up program would contain the following items, as a minimum requirement:

- Follow up drilling;
- Carry out metallurgical testing programs on representative mineralized samples; and
- Carry out a Preliminary Economic Study.

It is recommended that targets located in the three permits outside the Border Zone should be prioritized. Areas inside the Border Zone should be explored once added scrutiny is made about the additional requirements for projects within this zone.

**Table 8: Unit Costs for Budget**

Budget	Item	Unit	Number	Cost R\$/unit	Total R\$	Total CAD
HR	Overall Management	vb / month	1	50,000	50,000	13,624
	Operations management / Database	vb / month	1	40,000	40,000	10,899
	Geologist	vb / month	1	25000	25,000	6,812
	Technician	vb / month	2	9,000	18,000	4,905
	Helper	vb / month	4	5,000	20,000	5,450
	Legal & admin	vb / month	1	25,000	25,000	6,812
Logistics	Air tickets	unit	10	3,500	35,000	9,537
	Car	month	4	8,500	34,000	9,264
	Fuel & extras	vb / month	4	3,500	14,000	3,815
	Hotel	day	70	120	8,400	2,289
	Meals	day	70	70	4,900	1,335
	Admin support at Porto Velho	vb / month	1	15,000	15,000	4,087
	Field material / other	vb	1	2,000	2,000	545
Services	Drilling	m	750	1,800	1,350,000	367,847
	Drilling (mob/demob)	vb	2	135,000	270,000	73,569
	Analysis (ODM)	vb / assay	500	918	458,750	125,000
	Sample transport (to Ottawa)	vb per 800 kg	2	17000	34,000	9,264
	Consultant Sedimentology	day	4	9,175	36,700	10,000
	Sample transport (to Belo Horizonte)	vb per 800 kg	4	16300	65,200	17,766
	Chemical Analysis	MS assay	750	250	187,500	51,090
Total						

**Table 9: Chronogram of the exploration program proposed with expenditures per item.**

	Months						Total CAD
	1	2	3	4	5	6	
Management							\$ 70,752
Field team							\$ 119,891
Air tickets							\$ 47,684
Pickup							\$ 52,316
Hotel / meals							\$ 14,496
Other field expenses							\$ 18,529
Drilling							\$ 331,063
Analysis ODM							\$ 125,000
Analysis SGS							\$ 51,090
sample transport							\$ 108,120
Consultants							\$ 10,000
Total							\$ 948,940



## 27. REFERENCES

Bastos, J.F.S. 1988 Depósitos de Ouro do Rio Madeira, Rondônia in Carlos Schobbenhaus, and Carlos Eduardo Silva Coelho (Eds.) Principais Depósitos Minerais do Brasil, v. III DNPM, pp. 575-580.

Brito Neves, B.B., 2002. Main stages of the development of the sedimentary basins of South America and their relationships with the tectonic supercontinents. *Gondwana Research* 5 (n1), 175–196.

Costa, A.P., Carneiro, C.C., 2006. Rio Madeira Project – Mapping of Paleo-Drainage channels from remote sensing Images. Instituto de Geociências, UNICAMP. Campinas.

Rizzotto, G.J. & Quadros, M.L. do E.S. (2005). Geologia do Sudoeste do Craton Amazônico. In: Horbe, A>M.C. & Souza, V. da S. (Coords.). *Contribuições à Geologiada Amazônia*. Belém: SBG-Núcleo Norte, 2005. V.4, p. 69-84.

Souza Filho, W.M., Quadros, M.L.E.S., Scandolara, J.E., Silva Filho, E.P., and Reis, M.R. 1999. Compartimentação morfoestrutural e neotectônica do sistema fluvial Guaporé-Mamoré-Alta Madeira, Rondônia, Brazil. *Revista Brasileira de Geociências*, v. 29, No 4, pp. 469-476.

Latrubesse, E.M., Cozzuol M., Silva-Caminha, Rgsby, Absy, Jaramillo, 2010. The Late Miocene paleogeography of the Amazon Basin and the evolution of the Amazon River system. *Earth Science Reviews*, 99-124.

Velasquez Spring, 2007, Technical Review of the Rio Madeira Project. Watts, Griffis and McQuat Limited.

---

## 28. DATE AND SIGNATURE PAGE

I, Rodrigo Mello, FAusIMM, principal of RBM Consultoria Mineral, as author of the report entitled “Rio Madeira NI 43-101 Technical Report”, dated 31<sup>st</sup> August, 2024, do hereby certify that:

1. I am currently employed as principal at RBM Consultoria Mineral, with office at Rua Engenheiro Senna Freire 193, São Bento, Belo Horizonte, MG, Brazil.
2. I hold the following academic qualifications:
  - Graduation in Geology, at the Minas Gerais University, in 1985
  - Specialization (Computing), in the Goiás Catholic University, in 1999
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy (membership number 209332) and I am a registered Geologist with the Regional Council of Engineering, Minas Gerais, Brazil.
4. I have worked as a geologist and project manager for the minerals industry for 37 years, since my graduation.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of my education, affiliation and past relevant work experience, I fulfil the requirements of a Qualified Person as defined in this Instrument. My work experience includes 15 years as exploration geologist/manager working in Archean, Proterozoic, and Tertiary environments, 13 years as a mineral resource analyst working in the evaluation of gold, copper, zinc, nickel and silver deposits in nine different countries.
6. I am responsible for the preparation of all items in this report, entitled “Technical Report on the Rio Madeira Exploration Project, Rondonia, Brazil”, dated August, 31<sup>st</sup>, 2024, and effective date August, 31<sup>st</sup>, 2024. I visited the Rio Madeira property from November 4th to 7th, 2022.
7. I have no previous involvement with the Madeira Project or Canary Gold and New Frontiers Mineração.
8. I am not aware of any material fact, or change in reported information, in connection with the subject properties, not reported or considered by me, the omission of which makes this report misleading.
9. I am independent of the issuer, applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with both documents.

“signed”

Dated this August, 31<sup>st</sup>, 2024