

# NI 43-101 TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE ON THE CAPIM GROSSO GRAPHITE PROJECT, BRAZIL

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## CAPIM GROSSO GRAPHITE PROJECT, BRAZIL

### NI-43-101 TECHNICAL REPORT

Prepared by *Nico Scholtz* on behalf of:

***Gratomic Inc.***

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Author and QP: Mr. Nico Scholtz (Pr. Sci. Nat.)

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Signed on August 14, 2023



.....  
Nico Scholtz (*Pr. Sci. Nat.*)

Swakopmund

Namibia

## Certificate of Qualified Person

**Nico Scholtz (M.Sc., Pri. Sci. Nat.)**

I, Nico Scholtz, SACNASP, do hereby certify that:

1. I am an independent consultant with an address at P.O. Box 1316, Swakopmund, Namibia.
2. I am an M.Sc. graduate of Dept. Geology, University of the Free State, South Africa.
3. I am a Professional Geological Consultant and a member of the *South African Council for Natural and Scientific Professions (SACNASP)*, and have been a professional practicing geologist since 2004.
4. I have been actively involved in exploring for a similar style of mineralization that is the subject of the Report, for the past 15 years, incorporating greenfields and brownfields gold exploration in Africa, South America, North America and Asia. Work involved exploration program construction and management, planning and implementation of mineral exploration programs in the field, and report writing.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I am responsible for the preparation of all sections in the report titled, “NI 43-101 Technical Report on the Capim Grosso Graphite Project, Brazil” (the “Technical Report”) with a Report Effective Date of July 10, 2023.
7. I visited the project area on numerous occasions between 2021 and 2022 with the last visit taking place between Oct. 27 and Oct. 29, 2022.
8. I am an independent geological consultant who has been providing the Issuer with geological consulting services.
9. I am independent of the issuer applying all of the tests in Section 1.5 of NI43-101 Form F1 and companion policy 43-101CP.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed on this 14<sup>th</sup> day of August, 2023

“signed”

.....  
Nico Scholtz (*Pr. Sci. Nat.*)

M.Sc. Geology

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## Glossary of Technical Terms

<i>Archaean</i>	The oldest rocks of the Precambrian era, older than about 2,500 million years.
<i>As</i>	Arsenic
<i>Au</i>	Gold
<i>Auriferous</i>	Gold rich
<i>basement</i>	The igneous and metamorphic crust of the earth, underlying sedimentary deposits.
<i>C\$</i>	Canadian dollar
<i>carbonate</i>	A rock, usually of sedimentary origin, composed primarily of calcium, magnesium or iron and CO <sub>3</sub> . Essential component of limestones and marbles.
<i>CIM</i>	Canadian Institute of Mining, Metallurgy and Petroleum
<i>conglomerate</i>	A rock type composed predominantly of rounded pebbles, cobbles or boulders deposited by the action of water.
<i>craton</i>	Large, and usually ancient, stable mass of the earth's crust comprised of various crustal blocks amalgamated by tectonic processes. A cratonic nucleus is an older, core region embedded within a larger craton.
<i>CRM</i>	Certified reference material added to sample batches to verify assay laboratory results
<i>diamond drilling</i>	Method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit.
<i>dolomite</i>	A mineral composed of calcium and magnesium carbonate; a rock predominantly comprised of this mineral is also referred to as dolomite or dolostone.
<i>ET</i>	Exploration target
<i>fault</i>	A fracture or fracture zone, along which displacement of opposing sides has occurred.
<i>fold</i>	A planar sequence of rocks or a feature bent about an axis.
<i>Formation</i>	A laterally continuous rock unit with a distinctive set of characteristics that make it possible to recognize and map from one outcrop or well to another.
<i>gangue</i>	Gangue is the commercially worthless material that surrounds, or is closely mixed with, a wanted mineral in an ore deposit.
<i>gossan</i>	An iron rich secondary rock usually the result of weathering of a sulphide rich ore zone
<i>granite</i>	A generic term for coarse grained felsic igneous rocks, including granite.
<i>greenfields</i>	Early stage exploration
<i>greenstone</i>	A low-grade metamorphic rock that frequently contains green minerals such as chlorite, epidote, and talc, often derived from the metamorphism of basalt, gabbro, or diabase.
<i>ha</i>	hectares
<i>ICP</i>	Inductively Coupled Plasma analytical technique
<i>induced polarisation</i>	Induced polarization (IP) is a geophysical imaging technique used to identify the electrical chargeability of subsurface materials
<i>joints</i>	Regular planar fractures or fracture sets in massive rocks, usually created by unloading, along which no relative displacement has occurred.
<i>Ma</i>	Million years.
<i>mafic</i>	Descriptive of rocks composed dominantly of magnesium and iron rock-forming silicates.
<i>magnetic survey</i>	Magnetic surveys record spatial variation in the Earth's magnetic field.
<i>Mesoproterozoic</i>	Middle Proterozoic era of geological time, 1,600 to 1,000 million years ago.

<i>metamorphism</i>	Alteration of rock and changes in mineral composition, most generally due to increase in pressure and/or temperature.
<i>MRE</i>	Mineral Resource Estimate
<i>NI43-101</i>	National Instrument Standards for disclosure of Mineral Projects
<i>oxidation</i>	A chemical reaction in which substances combine with oxygen. For example, the combination of iron with oxygen to form an iron oxide.
<i>pegmatite</i>	A coarse crystalline igneous rock usually formed in the late stages of granite crystallisation
<i>Precambrian</i>	Pertaining to all rocks formed before Cambrian time (older than 545 million years).
<i>Proterozoic</i>	An era of geological time spanning the period from 2,500 to 545 million years before present.
<i>QAQC</i>	Quality assurance and quality control
<i>QP</i>	Qualified Person
<i>RC drilling</i>	(Reverse Circulation) A percussion drilling method in which the fragmented sample is brought to the surface inside the drill rods, thereby reducing contamination.
<i>satellite positioning system (global positioning system GPS)</i>	An instrument used to locate or navigate, which relies on three or more satellites of known position to identify the operator's location.
<i>schist</i>	A crystalline metamorphic rock having a foliated or parallel structure due to the recrystallisation of the constituent minerals.
<i>sedimentary</i>	Sedimentary rocks are types of rock that are formed by the accumulation or deposition of small particles and subsequent cementation of mineral or organic particles on the floor of oceans or other bodies of water at the Earth's surface.
<i>stratigraphy</i>	A branch of geology concerned with the study of rock layers and layering. It is primarily used in the study of sedimentary and layered volcanic rocks.
<i>stream sediment sampling</i>	The collection of samples of stream sediment with the intention of analysing them for trace elements.
<i>strike</i>	Horizontal direction or trend of a geological structure.
<i>supergene</i>	Supergene processes or enrichment are those that occur relatively near the surface as opposed to deep hypogene processes. Supergene processes include the predominance of meteoric water circulation with concomitant oxidation and chemical weathering.
<i>Supergroup</i>	The supergroup consists of a sequence of geological units
<i>tectonic</i>	Pertaining to the forces involved in, or the resulting structures of, movement in the earth's crust.
<i>TGC</i>	Total graphitic carbon
<i>TSX-V</i>	TSX Venture Exchange
<i>ultramafic</i>	Igneous rocks consisting essentially of ferromagnesian minerals with trace quartz and feldspar.
<i>US\$</i>	United States Dollar
<i>XRF</i>	X-ray fluorescence

**IMPORTANT NOTICE**

This Report was prepared exclusively for Gratomic Inc. by Qualified Person (QP) Mr. Nico Scholtz. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in the QPs services and is based on: i) information available at the time of preparation, ii) data supplied by public sources, and iii) the assumptions, conditions and qualifications set forth in the Report. The Report is intended to be used by Gratomic Inc. only, subject to the terms and conditions of its contract with the QP. Any other use of, or reliance on the Report by any third party is at that party's sole risk.

## **1. SUMMARY**

### **1.1 Introduction**

Nico Scholtz, an independent geological consultant has been requested by Gratomic Inc. (the “Issuer” or “Gratomic”) to complete a technical report and mineral resource estimate that is in accordance with National Instrument 43-101 (“NI 43-101”) (the “Report”) on the Capim Grosso Graphite Project (the “Report”), comprising 10 Exploration permits and one Mining Permit for a total of 14,794.70 ha within the Bahia State of northeastern Brazil.:

This Technical Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators’ National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (30 June 2011 and amendments 25 February 2016).

### **1.2 Purpose of the Technical Report**

Gratomic Inc. is a publically traded, mineral exploration company focused on the acquisition, exploration and development of projects in Brazil, Namibia and Canada. This 43-101 is completed in order to provide a NI43-101 compliant mineral resource estimate on the Capim Grosso Graphite Project located in the Bahia State of northeastern Brazil. The Report has been prepared in accordance with NI 43-101 Standards for Disclosure for Mineral Projects and incorporated the following:

- Literature and historical data review.
- Review of work completed to date by license holder.
- NI43-101 compliant Mineral Resource Estimate
- Recommendations for future exploration programs and budget.

### **1.3 Previous NI43-101 Technical Reports**

This Report, inclusive of the Mineral Resource Estimate, is the current NI 43-101 Technical Report and Mineral Resource Estimate on the Project, prepared for the Issuer, Gratomic Inc. A previous report was completed by Mr. Nico Scholtz titled “NI43-101 Technical Report on the Capim Grosso Graphite Project, Brazil” with effective date of 29 Oct. 2022.

### **1.4 Effective date**

The Effective Date of the Technical Report is July 10, 2023. and the Mineral Resource Estimate is July 15, 2023.

### **1.5 Qualification of the consultant**

Mr. Nico Scholtz (“QP”), is an independent geological consultant. Mr. Scholtz (Pr. Sci. Nat. 400299/07), by virtue of his education, experience, and professional association, is considered to be a Qualified Person (“QP”), as the term is defined by NI 43-101 and specifically sections 1.5 and 5.1 of NI 43-101CP (Companion Policy). Mr. Scholtz is responsible for the preparation of all sections of the Report.

The results of the Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Gratomic and the Consultant. The Consultant is being paid a fee for his work in accordance with normal professional consulting practices.

### **1.6 Personal Inspection (site visits)**

At the request of the Issuer, Mr. Nico Scholtz (Pr. Sci. Nat.), Qualified Person for the Report, completed multiple personal inspections (site visits) to the Project between 2021 and 2022. These site visits included the following:

- 10 to 15 July 2021 – General reconnaissance of project
- 15 to 21 August 2021 - QP for rock grab sampling, mapping and trench program implementation.
- 8 to 13 March 2022 - QP for diamond drilling and trenching
- 27 to 29 October 2022 - General reconnaissance of project

Trenching is currently ongoing on the Capim Grosso Project on Exploration Permit 872160/2016 with Gratomic Geologist and field personnel on site.

### **1.7 Sources of information**

Nico Scholtz (QP), prepared the Report for Gratomic Inc. (the Issuer). The information, conclusions, opinions, and estimates contained herein are based on information available to the Author at the time of preparation of the Report.

### **1.8 Reliance on other experts**

The Report has been prepared by the Author for the Issuer, Gratomic Inc. The Author has not relied on any other report, opinion or statement of another expert who is not a qualified person, or on information provided by the Issuer concerning legal, political, environmental or tax matters relevant to the Report.

### **1.9 Property Description and location**

The 37.27 km<sup>2</sup> in size Capim Grosso project is located within the Bahia State of Brazil. A centre point of the property in WGS84 (UTM 24S) is 391214 mE and 8748311 mS.

#### **1.9.1 Tenure**

The QP has not independently verified, nor are they qualified to verify, the legal status of the licence. The present status of tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. The Report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation.

Table 1.1 Tenure of the Capim Grosso Project licenses (source: Gratomic, 2023).

Capim Grosso project Licences						
License Number	Area (ha)	Material	Phase	License Holder	Expiration date	Renewal conditions
870180/2012	426,93	Graphite	Mining permit (pending)	Zumbi Mineração	Not applicable	No applicable
871799/2017	663,14	Phosphate and limestone	Exploration Permit	Zumbi Mineração	25/10/2025	Report on work completed
872180/2016	599,61	Iron ore	Exploration Permit	Zumbi Mineração	30/09/2024	Report on work completed
872160/2016	363,29	Quartzite	Exploration Permit	Zumbi Mineração	01/10/2023	Report on work completed
871802/2017	778,13	Phosphate and limestone	Exploration Permit	Zumbi Mineração	25/10/2025	Report on work completed
872181/2017	896,96	Phosphate	Exploration Permit	Zumbi Mineração	07/03/2026	Report on work completed
870468/2023	1,972.55	Copper and iron	Exploration Permit	Zumbi Mineração	10/05/2026	Additional 3 years, based on report
870770/2022	1,722.48	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870771/2022	1,967.45	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870772/2022	850.17	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870754/2022	1,771.90	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report

### 1.9.2 Agreements

Gratomic has acquired 100% of the rights and interests in and to the “Capim Grosso Property” comprising 6 mineral right (refer Table 1.1) located in Capim Grosso, Brazil pursuant to the Agreement with Zumbi Mineração Brazil (“Zumbi”) and the shareholders of Zumbi (collectively the “Vendors”). In consideration for a 100% interest in the Capim Grosso Property, Gratomic paid CAD \$ 200,000 to the Vendors and issued to the Vendors an aggregate of 3,840,580 common shares, at a deemed price of \$1.38 per share, subject to a resale restriction expiring on April 9, 2022. In addition, 2,845,671 of the common shares issued are subject to a twelve (12) month resale restriction expiring on December 8, 2022. The Vendors retained a 3% gross smelter return royalty in respect of all minerals processed from the Capim Grosso Property, other than graphite, on the terms and conditions set forth in a gross smelter royalty agreement dated December 8, 2021.

Moreover, Zumbi Mineração (then a wholly owned subsidiary of Gratomic) has applied for, at ANM (National Mining Agency of Brazil), and was granted, the following additional Exploration Permits in areas contiguous and near the original Capim Grosso claims, which were unclaimed for mineral rights:

- 48062.870468/2023-61
- 48062.870770/2022-38
- 48062.870771/2022-82
- 48062.870772/2022-27
- 48062.870754/2022-45

Gratomic has also acquired 100% of the rights and interests in and to the properties known as the “Jacobina Prospect” and the “Igrapiuna Prospect” comprising mineral claims 870162/2019, 870163/2019 and 870599/2019 (2,782.01 Ha) located in the State of Bahia, BA, Brazil (the “Property”). The Property is within 30 kilometres of its Capim Grosso graphite project located within the Bahia State of Brazil. The Company issued 1,262,865 shares as partial consideration for the Property. The 1,262,865 shares issued were valued at \$1.40 for a total value of \$1,768,011. The shares issued are subject to a hold period expiring October 11, 2022 and 420,955 of the shares are subject to an additional resale restriction until February 10, 2023 with a further 420,955 shares subject to an additional resale restriction until June 10, 2023.

### 1.9.3 Surface Rights

According to the Brazilian Mining Code, it is not necessary for the license holder to have agreements with land owners. While such access agreements are not required, Gratomic has attained good relations with land owners whom have given their support for exploration efforts on the Capim Grosso Project.

### **1.10 Environmental liabilities and permits**

The Capim Grosso Project has no environmental liabilities and is not located in any of Brazil's Protected Areas or so called "Conservation Units". The Capim Grosso Project have been issued with a *Mineral Research Authorization* by the city hall, Municipal Ordinance number 899/2021, published in December-01-2021 with validity of 3 (three) years. No other permits are required in order to conduct exploration on the Capim Grosso Project.

### **1.11 Significant risk factors**

The principal risk to the future of the Project is getting the licenses renewed. However, the QP's experience suggests that this risk is minimised if the Issuer continues to show progress on working the licence area with additional mineral exploration programs. To the extent known by the Author, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.

### **1.12 Accessibility, Climate, Local Resources and Infrastructure**

The predominant climate is tropical, hot, and semi-humid, with two well-defined seasons: a rainy one (between October and March) and a dry one (from April to September). The average annual rainfall (rainfall) is 700 mm. The average annual temperature varies between the maximum temperatures reaching up to 35 °C and the minimum 21 °C. The project is located within a low to medium rainfall area with no surface water except in the creeks.

The vegetation in the area is represented by fields, savannas, and gallery forests. The "cerrado" is the corresponding biome of the mapped area, characterized by the occurrence of grasses, shrubs, and spaced trees, such trees have thick bark, crooked trunks, and roots deep. Currently, the vegetation is replaced by pastures planted in extensive areas. An anthropogenic area with intense livestock activity, razed relief with some elevations highlighted in the relief. The secondary roads leading to the Property are well maintained and accessible year round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.

Access to the Capim Grosso Project, departing from Salvador, the capital of the state of Bahia, is via the federal highway BR-324 to the city of Feira de Santana, in a route of about 100 km on a paved highway. From the latter city, paved highway BR-116 is followed to the north to the city of Tanquinho, for 20 km. The BR-324 paved highway is hereafter followed to Capim Grosso for 160 km. From the town of Capim Grosso, the project is reached via paved highway BR-404, towards Juazeiro for about 7 km. At this point of the highway, an all weather gravel road is followed to the east, for approx. 5 km to the project boundary. The total route is 291 km paved highway and about 5 km of gravel road.

### 1.13 History

The Vendors of the project have completed the following exploration work prior to Gratomic's involvement:

- Airborne geophysical data interpretation
- Grab sampling
- Geological mapping
- 10 x Trenches completed with associated assays
- 3 x Diamond drillholes completed with associated assays
- Stream and soil sediment surveys
- Geophysical: Resistivity and Induced Polarization (IP)

The three preliminary drillholes and 10 shallow trenches was completed over a 1 km section of the graphite mineralisation on Capim Grosso. Assay results show total graphitic carbon (TGC) of between 6.79 % TGC over 2.5 m to 20.95 % TGC over 2.4 m in surface trenching. Drilling results of 26.47 % TGC over 1 m have been obtained (these are not true widths of mineralisation). The QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

### 1.14 Geological Setting and Mineralisation

The Capim Grosso graphite project is located within the São Francisco Craton (SFC). The SFC is a tectonic domain surrounded by Neoproterozoic orogens. Its southern sector is composed by Archean crust, with age between 3.5 and 2.6 Ga, that is formed mostly by granite-gneisses and greenstone belts constituted by mafic-ultramafic, intermediate-felsic volcanic and volcanoclastic rocks with terrigenous sediments. Graphite at Capim Grosso is set within NW-SE striking ultramafic units.

### 1.15 Deposit Types

The Capim Grosso project is classed as natural flake graphite occurrence.

### 1.16 Recent Exploration

Gratomic completed the following exploration work between 2021 and 2023 on the Capim Grosso Project:

1. Geological mapping
2. Trenching (63 trenches for 3,830.55 m)
3. Diamond drilling (34 drillholes for 4,784.10 m)
4. Metallurgical test work
5. Bulk density determinations
6. Exploration target (using the parameters as set out in *NI43-101 Section 2.3(2) (b)*)

7. Mineral Resource Estimate in compliance with NI43-101
8. Ongoing trenching on Exploration Permit 872160/2016

### 1.16.1 Ongoing exploration

The exploration completed to date by Gratomic resulted in the generation of an Exploration Target (Section 9) and NI43-101 compliant Mineral Resource Estimate (Section 14).

The Exploration Target contains a lower and upper range. The upper range is based upon visual identification of graphite mineralisation either on surface or in trenches excavated by Gratomic to date. Based upon the location of these graphite occurrences either along strike or within similar strike lithologies (parallel bodies) the QP is of the opinion that additional drilling within the upper range localities (blue rectangles in map below) has the potential to intercept graphite mineralisation to the same extent and grade that has been drilled within the lower range exploration target (red rectangles in image below). Gratomic has advised that a follow up drill program will target the upper range exploration target areas.

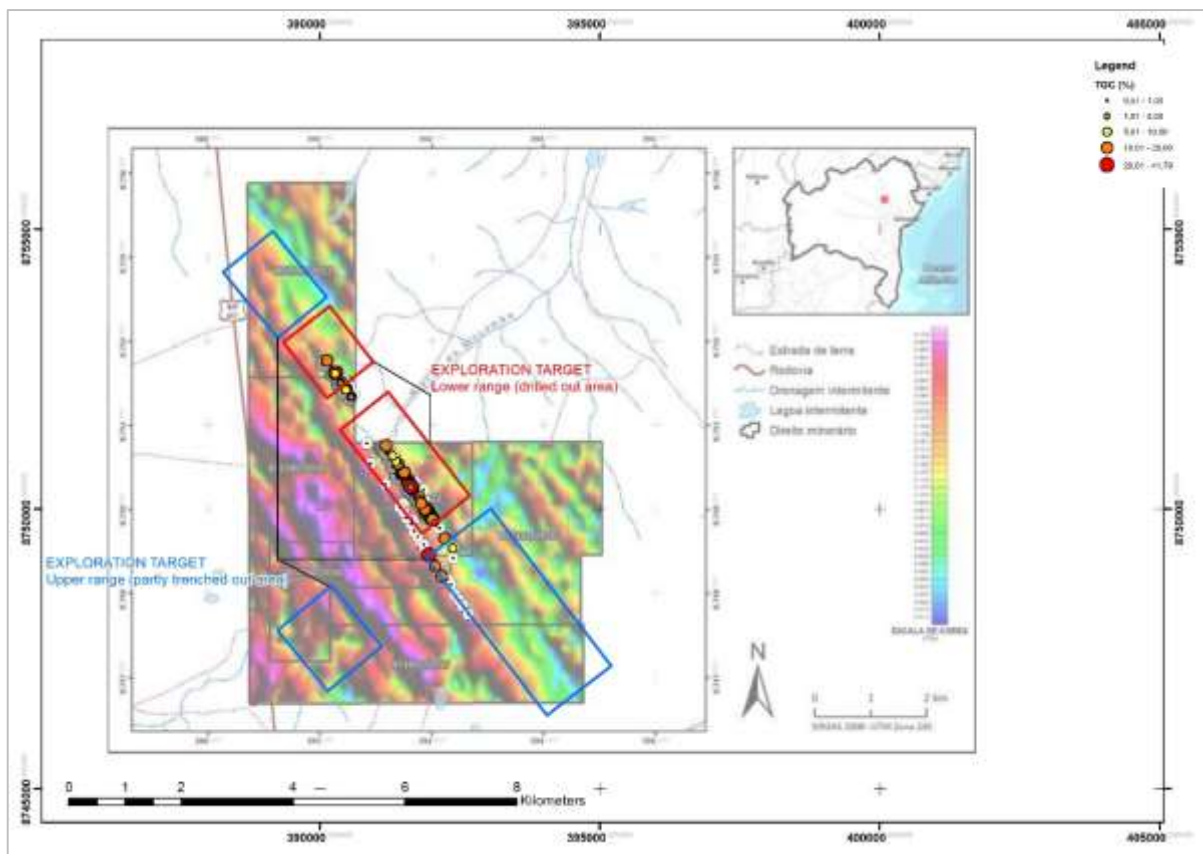


Figure 1.1 Exploration Target location (lower range exploration target in red is 2,200 m in extent along the NNW strike direction and upper range is approx. 10,000 m + 2,200 m total strike extent in blue) at the Capim Grosso Project (source: QP).

### **1.17 Drilling and trenching**

Gratomic drilled a total of 4,784.10 metres of Diamond Drilling (“DD”) from 34 drillholes from 2021 to 2023 and excavated 63 trenches for 3,830.55 m on the following licenses:

- 871799/2017 (Exploration permit)
- 872180/2016 (Exploration permit)
- 870180/2012 (Mining permit)
- 872160/2016 (Exploration permit)
- 872181/2016 (Exploration permit)

While drill holes were not downhole surveyed for deviation due to limited deviation changes expected, all drill hole collars were surveyed by a land surveyor using DGPS. The topographic surface was modelled into a digital elevation model (“DEM”) using unmanned drone photogrammetric survey data, collected at a 200 m grid spacing and 50 m station spacing along flight lines. The survey was conducted by Axial Engenharia, a specialist survey company, based in Brazil.

Trenching is currently ongoing on the Capim Grosso Project on Exploration Permit 872160/2016 with Gratomic Geologist and field personnel on site.

### **1.18 Sample preparation and analyses**

The QP reviewed the sample preparation, analysis and security for the current exploration work completed by Gratomic. from 2021 to 2023.

Based on the Author’s examination of the sampling and assay methods, and the QA/QC protocols implemented by Gratomic as well as past operators, the Author is of the opinion that the data and information collected is of good quality, adequate for this stage of exploration on the Property and for the purposes of the Report.

### **1.19 Data verification**

The QP, Mr. Nico Scholtz, responsible for all sections in the Report, has relied upon the data supplied by Gratomic Inc., previous Project owner (Zumbi) and additional information obtained through public sources. Mr. Scholtz was able to verify methodology and data used in the current mineral resource estimate for the Capim Grosso Graphite Project (Section 14).

Additional data used in the Report was generated independently by the Author either as a literature review or obtained during fieldwork. Gratomic has been entirely cooperative in supplying the Author with all the information and data requested and there were no limitations or failures to conduct the verification.

The Author is of the opinion that the procedures and QA/QC controls, data and information that has been made available and reviewed by the Author, is acceptable in support of the Mineral Resource Estimation which forms part of the Report and adequate for the purposes of the Report as described in Section 2.1.

### **1.20 Mineral Resource Estimate**

The approach and methodologies applied in the MRE are in accordance with the definition of a current Mineral Resource Estimate as defined by NI 43-101 and following the Canadian Institute of Mining, Metallurgy and Petroleum CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines as amended (CIM, 2019). The three-dimensional (3D) geological and mineralization models were constructed using Geosoft Target™ (“Target”). The statistical and geostatistical analyses and grade estimation was done using the same software. Mr. Nico Scholtz, M.Sc. Hons. (Geology), Pr. Sci. Nat. (400299/07), is the QP for the current MRE.

#### **1.20.1 Mineral Resource Estimate Risks**

Risks which may reasonably affect the MRE are related to ongoing exploratory drilling to increase mineral resource confidence (*i.e.*, exploration risk).

#### **1.20.2 Exploration data used in MRE**

A total of 4,784.10 metres of Diamond Drilling (“DD”) from 34 drill holes and 2,125.65 m of trench excavation from 33 trenches, totalling 675 assays (excluding CRMs) were used to estimate the Current Capim Grosso Mineral Resource. Mineral Resources are not Reserves and, as such, do not have demonstrated economic viability.

#### **1.20.3 Mineral Resource Estimate details**

A Mineral Resource by CIM definition is that part of a deposit that has a reasonable and realistic prospect for eventual economic extraction. No input parameters, metal prices or mining and processing cost estimates were used to define the cut off grade, which is based upon the QP’s experience.

The Mineral Resources was constrained to the Total Mineral Resource Wireframe, and is reported at a cut-off of 2 % Total Graphitic Carbon, which is based on the QPs experience from similar projects within Africa. A geological loss factor was not incorporated (see Table below)..

Table 1.2 NI43-101 compliant Inferred Mineral Resource Estimate (2 % TGC grade cut off) for drilling and trenching completed between 2021 and 2023. Note that the grades are weighted averages. Mineralization is open at depth and along strike (rounded).

	<u>Mineralization (t)</u>	<u>TGC Grade (%)</u>	<u>Graphite (t)</u>
<b>Total</b>	7,965,211	5.86	466,670

1. *The independent Qualified Person for the Mineral Resource Estimate, as defined by NI 43-101, is Mr. Nico Scholtz (Pr. Sci. Nat - 400299/07). The effective date of the Mineral Resource Estimate is July 15, 2023.*
2. *Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this Mineral Resource Estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured, however it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*
3. *Mineral Resources are stated at a cut-off grade of 2 % TGC and no vertical depth cut off*
4. *Estimates have not been rounded*
5. *The Mineral Resource Estimate was prepared following the CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (November 29, 2019).*
6. *The applied average specific gravity (2.86 t/m<sup>3</sup>) was determined on the basis of bulk density measurements by Gratomic Geologists on site.*

### 1.21 Interpretation and Conclusions

Nico Scholtz, an independent geological consultant has been requested by Gratomic Inc. (the “Issuer” or “Gratomic”) to complete a technical report and mineral resource estimate that is in accordance with National Instrument 43-101 (“NI 43-101”) (the “Report”) on the Capim Grosso Graphite Project (the “Report”), comprising 10 Exploration permits and one Mining Permit for a total of 14,794.70 ha within the Bahia State of northeastern Brazil. The Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators’ National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (30 June 2011 and amendments 25 February 2016). The exploration work completed by Gratomic to date warrants additional expenditure and confirms the exploration potential of the Capim Grosso project.

### 1.22 Recommendations

The Author has proposed an initial exploration budget over 24 months of US\$ 1,650,000 (spent over two stages within 24 months) to include the following (the budget is a recommendation and excludes overheads such as director salaries, flights/transport and other corporate expenses):

1. Stage 1: Infill drilling and trenching
2. Stage 2: Feasibility Studies

In order to update the Inferred Mineral Resource to higher mineral resource estimate category prepared in accordance with the requirements of NI43-101, the following is needed:

- Improve geological and sampling evidence across the mineralisation such as decreasing general drillhole and trenching spacing to below 50 m along section lines
- Determination of weathered and fresh zones from drilling data and whether oxidation plays a role in metallurgy
- Bulk density calculation of the weathered (saprolite) zone in addition to ongoing bulk density of the fresh zone
- The core quality in the weathered zone is in many case poor and duplicate sampling can therefore result in erroneous results. Duplicate QAQC is therefore only recommended on good quality intact core.
- In order to generate quality core, NQ3 and HQ3 (triple tube) drilling is advised
- Core orienting in order to obtain structural data from drillcore
- Downhole surveys of drillholes to investigate possible hole deflections at depth
- Metallurgical testing in oxides as well as fresh zones
- Complete mine or production scenario studies as part of pre feasibility and feasibility studies

## 2. INTRODUCTION

### 2.1 Scope and Purpose of the Report

Nico Scholtz, an independent geological consultant has been requested by Gratomic Inc. (the “Issuer” or “Gratomic”) to complete a technical report and mineral resource estimate that is in accordance with National Instrument 43-101 (“NI 43-101”) (the “Report”) on the Capim Grosso Graphite Project (the “Report”), comprising 10 Exploration permits and one Mining Permit for a total of 14,794.70 ha within the Bahia State of northeastern Brazil. The Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators’ National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (30 June 2011 and amendments 25 February 2016).

### 2.2 Purpose of the report

Gratomic Inc. is a publically traded, mineral exploration company focused on the acquisition, exploration and development of projects in Brazil, Namibia and Canada. This 43-101 is completed in order to provide a NI43-101 compliant mineral resource estimate on the Capim Grosso Graphite Project located in the Bahia State of northeastern Brazil. The Report has been prepared in accordance with NI 43-101 Standards for Disclosure for Mineral Projects and incorporated the following:

- Literature and historical data review.
- Review of work completed to date by license holder.
- Mineral Resource Estimate
- Recommendations for future exploration programs and budget.

The QPs field investigations included the following:

1. General reconnaissance
2. Trench and diamond drilling overview

The following is important with regards to data used in the Report:

- All data was captured in WGS84 UTM zone 24S using a *Garmin* handheld GPS.
- All maps are set in True North (TN).

### 2.2 Previous NI43-101 Technical Reports

This Report, inclusive of the Mineral Resource Estimate, is the current NI 43-101 Technical Report and Mineral Resource Estimate on the Project, prepared for the Issuer, Gratomic Inc. A previous report was completed by Mr. Nico Scholtz titled “NI43-101 Technical Report on the Capim Grosso Graphite Project, Brazil” with effective date of 29 Oct. 2022.

### **2.3 Effective Date**

The Effective Date of the Technical Report is July 10, 2023, and the Mineral Resource Estimate is July 15, 2023.

### **2.4 Qualifications of the Consultant**

Nico Scholtz works as independent geological consultants and QP. The Report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is not dependent on the results of the Report.

### **2.5 Personal Inspection (Site visit)**

At the request of the Issuer, Mr. Nico Scholtz (Pr. Sci. Nat.), Qualified Person for the Report, completed multiple personal inspections (site visits) to the Property between 2021 and 2022. These site visits are noted below. Trenching is currently ongoing on the Capim Grosso Project on Exploration Permit 872160/2016 with Gratomic Geologist and field personnel on site.

- 10 to 15 July 2021 – General reconnaissance of project
- 15 to 21 August 2021 - QP for rock grab sampling, mapping and trench program implementation.
- 8 to 13 March 2022 - QP for diamond drilling and trenching
- 27 to 29 October 2022 - General reconnaissance of project

### **2.6 Sources of Information**

Nico Scholtz prepared the Report for Gratomic. The information, conclusions, opinions, and estimates contained herein are based on information available to the author at the time of preparation of the Report. For the purpose of the Report, agreement details and title ownership, the author has relied on the legal opinion provided by Gratomic. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are neither false nor misleading at the date of the Report.

The Authors received the following documentation from the license Holder:

1. Data files including reports and maps

The present status of tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. The Capim Grosso licenses are noted in the table below. Additional information also can be taken directly from the ANM (governmental agency) website:

- <https://sistemas.anm.gov.br/SCM/Extra/site/admin/dadosProcesso.aspx>

Table 2.1 Tenure of the Capim Grosso project (source: Gratomic, 2023).

Capim Grosso project Licences						
License Number	Area (ha)	Material	Phase	License Holder	Expiration date	Renewal conditions
870180/2012	426,93	Graphite	Mining permit (pending)	Zumbi Mineração	Not applicable	No applicable
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### **3. RELIANCE ON OTHER EXPERTS**

The Report has been prepared by the Author for the Issuer, Gratomic Inc. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to NS at the time of preparation of the Report.
- Assumptions, conditions, and qualifications as set forth in the Report.

The Author has not relied on any other report, opinion or statement of another expert who is not a qualified person, or on information provided by the Issuer concerning legal, political, environmental or tax matters relevant to the Report.

Except for the purposes legislated under provincial securities laws, any use of the Report by any third party is at that party's sole risk.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1 Background Information on Brazil

The Federal Republic of Brazil is situated in the South America continent and bordered on the east by the Atlantic Ocean. In the west side shares borders with Colombia, Peru, Bolivia, Paraguay, and Argentina. Also, Brazil shares borders with Uruguay to the south, and Venezuela, Guiana Suriname and French Guiana to the north (Figure 4.1).



Figure 4.1 Location of Capim Grosso project in Central Brazil (source: *ARCGIS*<sup>®</sup> online resources).

### 4.2 Property Location

The 147.94 km<sup>2</sup> in size Capim Grosso project (comprising 11 licenses) is located within the Capim Grosso Municipality within the Bahia State of Brazil. A centre point of the property in WGS84 (UTM 24S) is 391214 mE and 8748311 mS.

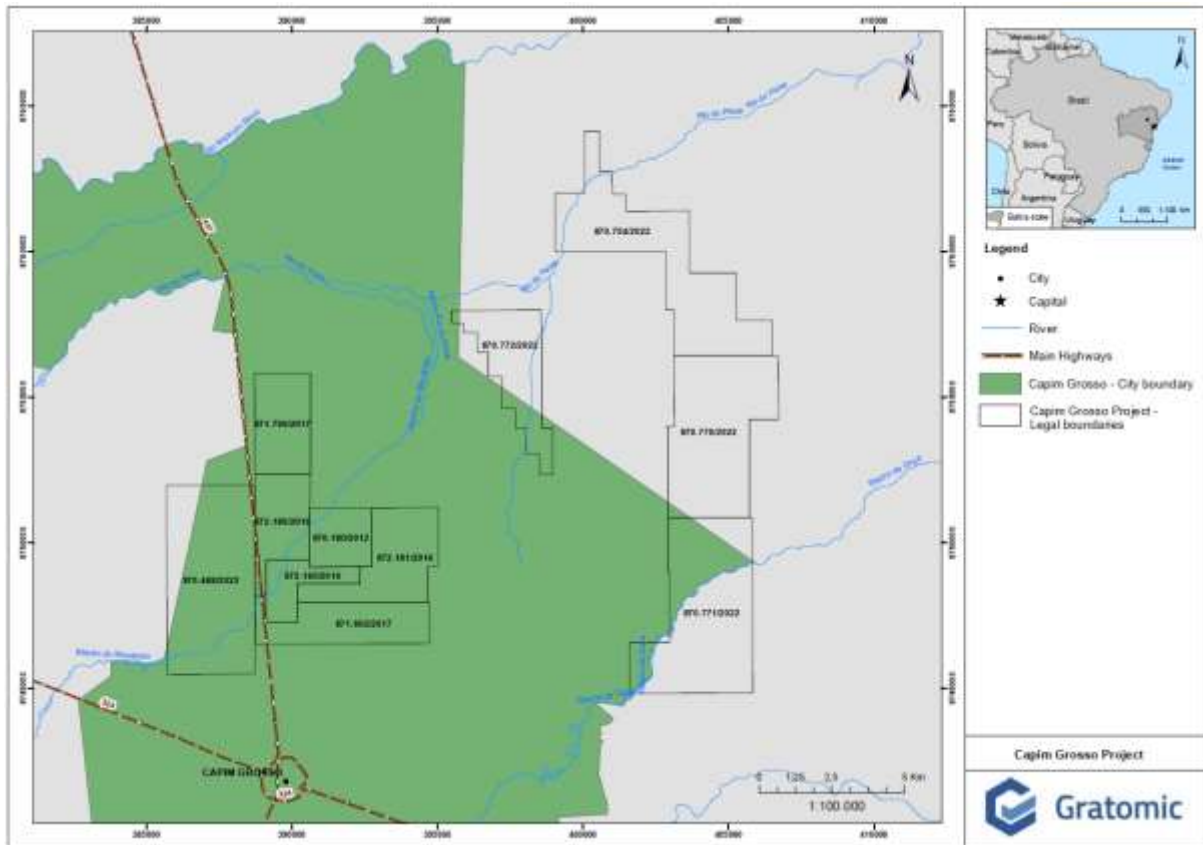


Figure 4.2 Location of eleven (11) Capim Grosso project licenses in Bahia State of Brazil (source: Gratomic).

### 4.3 Mineral Tenure

The present status of the tenements listed in the Report is based on information as well as copies of documents provided by the licence holder. Additional information also can be take directly from the ANM (governmental agency) website:

- <https://sistemas.anm.gov.br/SCM/Extra/site/admin/dadosProcesso.aspx>

The Report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation.

Table 4.1 Tenure of the Capim Grosso project (source: Gratomic, 2023).

<b>Capim Grosso project Licences</b>						
<b>License Number</b>	<b>Area (ha)</b>	<b>Material</b>	<b>Phase</b>	<b>License Holder</b>	<b>Expiration date</b>	<b>Renewal conditions</b>
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872180/2016	599,61	Iron ore	Exploration Permit	Zumbi Mineração	30/09/2024	Report on work completed
872160/2016	363,29	Quartzite	Exploration Permit	Zumbi Mineração	01/10/2023	Report on work completed
871802/2017	778,13	Phosphate and limestone	Exploration Permit	Zumbi Mineração	25/10/2025	Report on work completed
872181/2017	896,96	Phosphate	Exploration Permit	Zumbi Mineração	07/03/2026	Report on work completed
870468/2023	1,972.55	Copper and iron	Exploration Permit	Zumbi Mineração	10/05/2026	Additional 3 years, based on report
870770/2022	1,722.48	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870771/202	1,967.45	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870772/2022	850.17	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report
870754/2022	1,771.90	Iron and graphite	Exploration Permit	Zumbi Mineração	14/09/2025	Additional 3 years, based on report

#### 4.4 Surface Rights

According to the Brazilian Mining Code, it is not necessary for the license holder to have agreements with land owners. While such access agreements are not required, Gratomic has attained good relations with land owners whom have given their support for exploration efforts on the Capim Grosso Project.

#### 4.5 Property Boundary Demarcation

Boundary coordinates for the Project were obtained from the license Holder. Boundary positions are “paper marked”.

#### 4.6 Agreements, Licence Numbers and Rights on the Property

Gratomic has acquired 100% of the rights and interests in and to the “Capim Grosso Property” comprising 6 mineral right (refer Table 4.1) located in Capim Grosso, Brazil pursuant to the Agreement with Zumbi Mineração Brazil (“Zumbi”) and the shareholders of Zumbi (collectively the “Vendors”). In consideration for a 100% interest in the Capim Grosso Property, Gratomic paid CAD \$ 200,000 to the Vendors and issued to the Vendors an aggregate of 3,840,580 common shares, at a deemed price of \$1.38 per share, subject to a resale restriction expiring on April 9, 2022. In addition, 2,845,671 of the common shares issued are subject to a twelve (12) month resale restriction expiring on December 8, 2022. The Vendors retained a 3% gross smelter return royalty in respect of all minerals processed from the Capim Grosso Property, other than graphite, on the terms and conditions set forth in a gross smelter royalty agreement dated December 8, 2021.

Moreover, Zumbi Mineração (then a wholly owned subsidiary of Gratomic) has applied for, at ANM (National Mining Agency of Brazil), and was granted, the following additional Exploration Permits in areas contiguous and near the original Capim Grosso claims, which were unclaimed for mineral rights:

- 48062.870468/2023-61
- 48062.870770/2022-38
- 48062.870771/2022-82
- 48062.870772/2022-27
- 48062.870754/2022-45

Gratomic has also acquired 100% of the rights and interests in and to the properties known as the “Jacobina Prospect” and the “Igrapiuna Prospect” comprising mineral claims 870162/2019, 870163/2019 and 870599/2019 (2,782.01 Ha) located in the State of Bahia, BA, Brazil (the “Property”). The Property is within 30 kilometres of its Capim Grosso graphite project located within the Bahia State of Brazil. The Company issued 1,262,865 shares as partial consideration for the Property. The 1,262,865 shares issued were valued at \$1.40 for a total value of \$1,768,011. The shares issued are subject to a hold period expiring October 11, 2022 and 420,955 of the shares are subject to

an additional resale restriction until February 10, 2023 with a further 420,955 shares subject to an additional resale restriction until June 10, 2023.

#### **4.7 Environmental Liabilities and Permits**

The QP is unaware of any environmental liabilities on the project area. In order to continue with exploration, the Capim Grosso Project have been issued with a *Mineral Research Authorization* by the city hall, Municipal Ordinance number 899/2021, published in December-01-2021 with validity of 3 (three) years. No other permits are required in order to conduct exploration on the Capim Grosso Project.

#### **4.8 Social Aspects and access**

The Capim Grosso project is located in the rural community of Lajedo in the city of Capim Grosso, Bahia. The project has always been developed in communication and proximity to the community, where Gratomic received approval from most of the residents in an amicable fashion, to carry out the geological survey and project development. In one particular property, Gratomic had difficulty to access the residents and obtain the necessary authorization, but was able to compensate with data from contiguous areas. In such cases, if the access to the area is crucial and no amicable resolution can be achieved, the prospecting company can take the subject to court, and local legislations ensure that access is granted (Gratomic pers. Comm., 2023).

#### **4.9 Project Obligations**

The Municipal Ordinance, number 899/2021, provides the below obligations to be followed by the mining permit holder (Gratomic Permit no. 870180/2012):

1. Submit an updated Mineral Research authorization according to the DNPM protocol dated 10-24-2017 (according to DNPM);
2. Operate the enterprise according to the Enterprise Characterization report and documentation submitted to the Secretary of Works, Urban Planning, Environment and Tourism;
3. Require the Secretary of Urbanism and Environment Works for an Environmental License, in case of modification of the facilities – Project or process for mining operation;
4. Carry out Environmental Education actions, periodically, with employees aiming at sustainable practices and respect for legal norms;
5. Provide semi-annual reports to SOUAMA on environmental education activities, risk monitoring and activities carried out in the field;
6. Comply with the schedule established in the PGRS and CER; Present a certificate of procedural regularity – 180 days;

After the studies and analysis of the purpose of this authorization and before the mining procedures, the company must submit and/or comply with the PRAD/RAD (activities report) to SOUMA. It's necessary

for renewal of the license, to request in the city hall on time of 180 days before expiration date of the license.

The exploration permit holder (all other Gratomic Permits in the Capim Grosso area) is obliged to:

- Start the exploration work:
  - Within 60 (sixty) days of publication of the Exploration Permit in the Federal Official Gazette, if the holder is the owner of the land or has agreed with it the value and payment method of the indemnities;
  - Within 60 (sixty) days of the judicial entry into the exploration permit area, when the evaluation of compensation for occupation and damage caused is processed in court.
- Not to interrupt the works, without justification, after they have started, for more than 03 (three) consecutive months, or for 120 accumulated and non-consecutive days.
- Carry out research work in the area defined in the Permit;
- Promptly communicate to the ANM the start or restart, and interruptions of work, as well as the occurrence of another useful mineral substance, not contained in the exploration permit area.

Present annually the Declaration of Investment in Exploration permit area.

- Pay the Annual Fee per Hectare on the last business day of July, if the permit was published in the 1st semester, and on the last business day of January, if the permit was published in the 2nd semester of the previous year;
- Respect the rights of third parties, compensating for damages and losses caused;
- Be liable for damages caused to the environment;
- Submit a report on the work carried out, prepared by a geologist or mining engineer, within the period of validity of the authorization;
- Remove mineral substances extracted from the area only for analysis and industrial tests, unless authorized by the ANM, to dispose of commercial quantities, under the conditions specified by this Body.

#### **4.10 Significant Risk Factors**

To the extent known of the QP, there are no significant factors and risks that may affect access, title, or the right or ability to perform work on the property. The only risk is the non-compliance with the conditions of the licenses or deadlines for sending reports to the national mining agency and payment of mining titles.

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

### 5.1 Accessibility

The 37,27 km<sup>2</sup> in size Capim Grosso project is located at the center east portion of the Bahia province, 280 km from the port of Salvador, at the province capital, and 166 km from Feira de Santana, the province’s second largest city. The secondary roads leading to the property are well maintained and accessible year-round. It is only on the property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.

### 5.2 Climate

The predominant climate is tropical, hot, and semi-humid, with two well-defined seasons: a rainy one (between October and March) and a dry one (from April to September). The average annual rainfall (rainfall) is 700 mm. The average annual temperature varies between the maximum temperatures reaching up to 35 °C and the minimum 21 °C. The project is located within a low to medium rainfall area with no surface water except in the creeks.

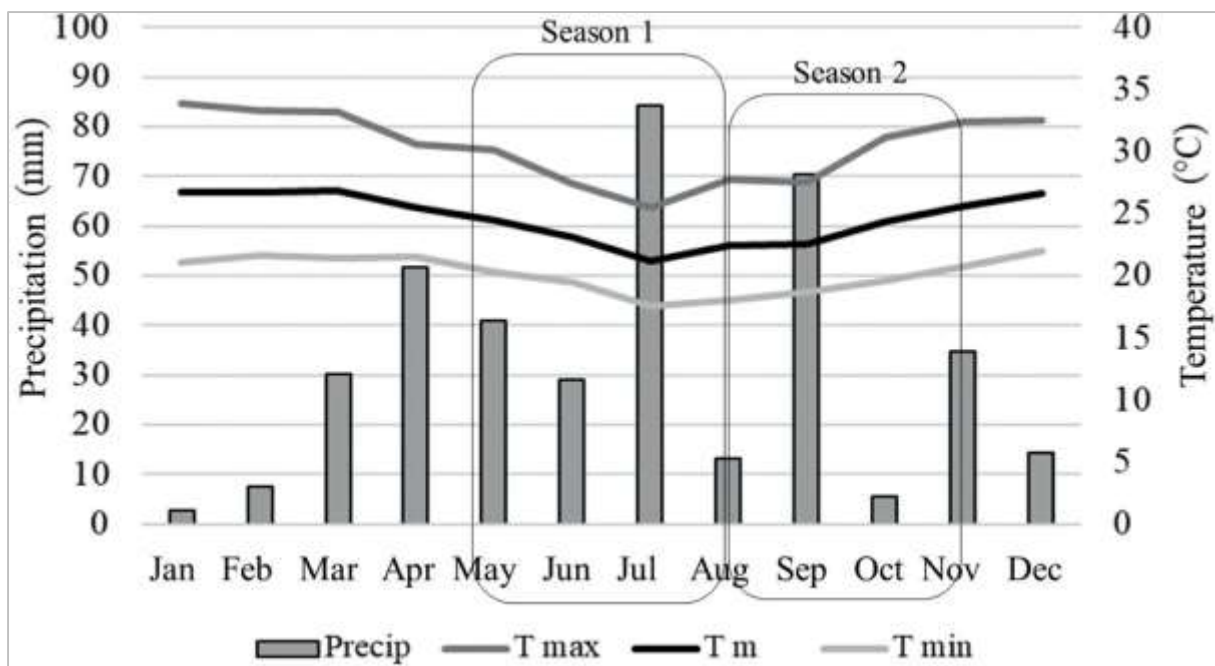


Figure 5.1 Temperature and precipitation monthly variation in the Feira de Santana area. (Source: Dos Santos Barroso *et al.*, 2018).

The vegetation in the area is represented by fields, savannas, and gallery forests. The “cerrado” is the corresponding biome of the mapped area, characterized by the occurrence of grasses, shrubs, and spaced trees, such trees have thick bark, crooked trunks, and roots deep. Currently, the vegetation is replaced by pastures planted in extensive areas. An anthropogenic area with intense livestock activity, razed relief with some elevations highlighted in the relief. The secondary roads leading to the Property

are well maintained and accessible year round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle.



Figure 5.2 Panoramic view of the Capim Grosso area (source: QP).

### **5.3 Operating Season**

The QP knows of no operating limitations within the Project.

### **5.4 Brazil Resources**

Officially known as the Federative Republic of Brazil, Brazil is a nation that is located in both South and Latin America. The country has an approximate area of 8.2 million square kilometers, which makes it the fifth-largest nation in the world by size. The country is home to many natural resources including mining, hydropower, and petroleum.

### **5.5 Infrastructure and Availability of Exploration Requirements**

The Capim Grosso project is located 280 km from the port of Salvador, at the province capital, and 166 km from Feira de Santana, the province's second largest city. The secondary roads leading to the Property are well maintained and accessible year-round. It is only on the Property itself where access is restricted to farm and gravel tracks that may require a 4x4 vehicle. The Project is located within a low to medium rainfall area with no surface water.

The nearest railway siding is located at Salvador, 280 km to the east of the project. Labour is available from nearby regional towns and settlements. Potential tailings storage areas, waste disposal areas, heap leach pads, and potential processing plant sites can only be supplied after an Environmental

Impact Assessment has been completed. Salvador should be able to supply most exploration requirements and comply with all sustenance supplies.

The town of Capim Grosso is situated 10 km from the Project, with an estimated population of 26,000 inhabitants (2010 Census). Electricity is provided by the concessionaire “Companhia de Eletricidade do Estado da Bahia”, in addition to the city offering other infrastructures, such as:

- Hospital
- Fire department
- Civil Policing
- Hotels and Restaurants.

### **5.6 Topography**

The topography of the area is flat lying with minor rolling hills. The topographical heights above mean sea level varies between 420 m in the southwest and southeast to 360 m in the northern parts.

## 6. HISTORY

### 6.1 Prior Ownership

The Capim Grosso Project was acquired by Zumbi Mineração in 2012.

### 6.2 Prior Work

The vendor of the project has completed the following exploration work prior to Gratomic Inc's involvement (Zumbi, 2020):

- Airborne geophysical data interpretation and grab sampling
- Geological mapping
- 10 x Trenches completed with associated assays
- 3 x Diamond drillholes completed with associated assays
- Stream and soil sediment surveys
- Geophysical: Resistivity and Induced Polarization (IP)

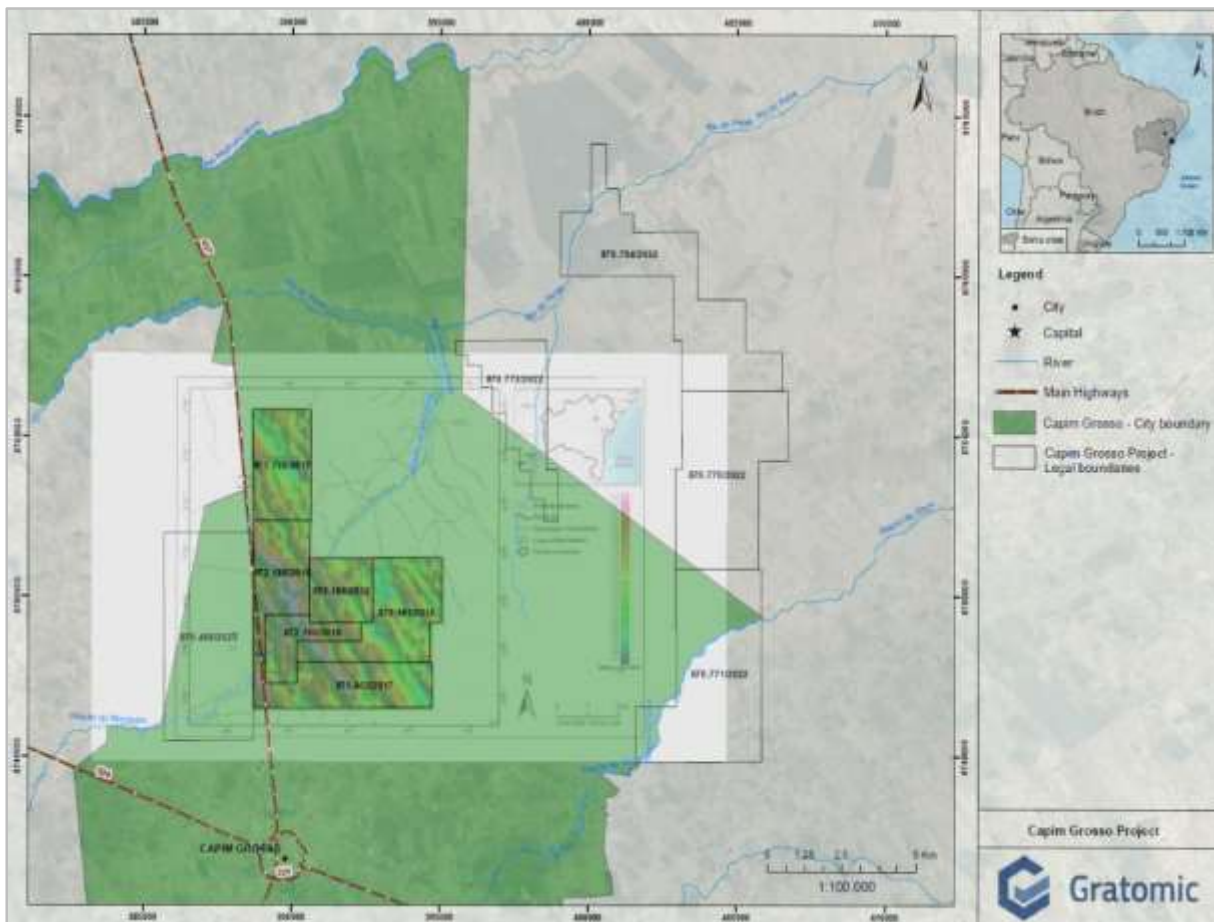


Figure 6.1 Location of prior work on 6 licenses located due north of the Capim Grosso town (licenses are indicated by magnetic data infill) with respect to current Gratomic licenses in the Capim Grosso area (source: Gratomic).

Table 6.1 Summary of exploration work completed by Zumbi (Zumbi, 2020).

<b>Works</b>	<b>Quantity</b>	<b>Unit</b>
Geological mapping	24,5	km
Surveying	24,5	km
Geological point	161	unit
Rock (grab) samples	86	unit
Petrographic descriptions	15	unit
Stream Sediments samples	71	unit
Soil samples	261	unit
Chemical analysis (ICP + FA)	418	unit
Magnetometry surveying	24,5	km
IP - Resistivity surveying	24	km
Exploratory drilling (holes)	3	unit
Exploratory drilling (total length)	600	m
Trenching	10	unit

### 6.2.1 Airborne geophysical data interpretation

The airborne geophysical data are part in the Caldeirão Grande SC.24-Y-D-I and Gavião SC.24-Y-D-II sheets, subject to high resolution aerogeophysical studies (LASA/PROSPECTORS, 2006), inserted within the limits of the Andorinha - Ipirá - Piritiba Aerogeophysical Survey project, Companhia Baiana de Pesquisa Mineral (CBPM), 2003. The information was extracted from the Magnetometric and Gamma-spectrometric data (Zumbi, 2020). The Aerogeophysical Survey of the Andorinha-Ipirá and Piritiba area covered an area of 14,670.00 km<sup>2</sup>, making a total of 66,574.00 linear kilometers of survey, using a fixed-wing aircraft as an aerogeophysical platform, containing an aerogeophysical multisystem configured by magnetic methods (cesium vapor sensor, with a resolution of 0.001 nT) and gamma spectrometric (256 spectral channels/2048 cubic inch crystal).

The parameters used to carry out the aerial survey are the following:

- Spacing between production lines of 250 meters; spacing between control lines of 2,500 meters;
- Flight direction of E-W production lines and direction of N-S control lines;
- Interval between consecutive geophysical measurements with an interval of 0.1 second (magnetometer) and 1.0 second (gamma spectrometer);
- Flight height of 100 meters; and Astech CA-12 channel GPS navigation system.

This Aerogeophysical Survey was carried out through subcontracting by LASA Engenharia e Prospecções S.A. to Companhia Baiana de Pesquisa Mineral - CBPM. The Geosoft software Oasis Montaj Version 5.1.8 was used to process the data from the aerogeophysical survey.

### 6.2.2 Grab sampling

The QP received information for eleven (11) grab samples which varied in graphitic carbon content from 2.89 % TGC to 20.6 % TGC (Zumbi, 2020). The QP does not have information pertaining to grab sampling QAQC protocols and historical exploration data should therefore not be relied upon.

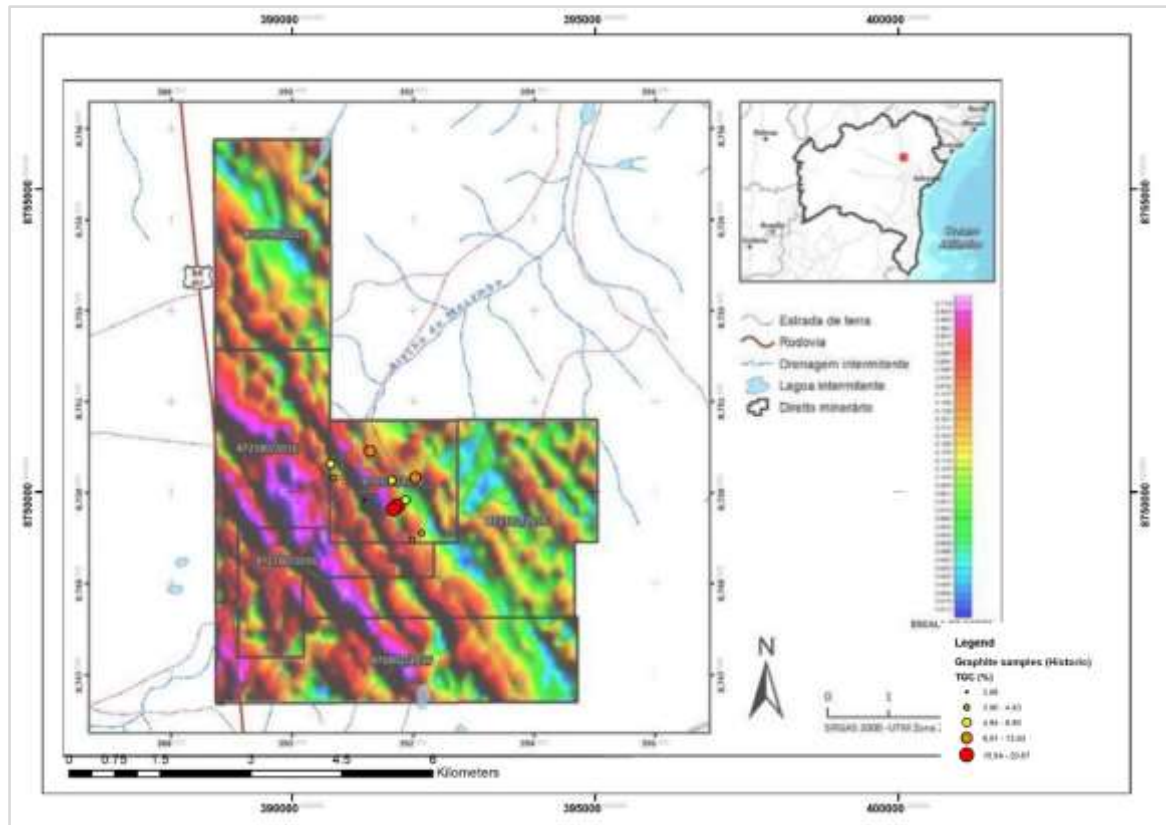


Figure 6.2 Historical grab samples (TGC % assays) on Analytical signal magnetic data. The QP does not have information pertaining to grab sampling QAQC protocols and historical exploration data should therefore not be relied upon (source: QP).

### 6.2.3 Geological mapping, trenching and drilling

Geological mapping was completed in order to refine trench and drill targeting on the Capim Grosso Project. The three diamond drillholes and 10 trenches was completed over a 1 km part of the known mineralisation on the Capim Grosso project. Assay results show total graphitic carbon (TGC) of between 6.79 % TGC over 2.5 m to 20.95 % TGC over 2.4 m in surface trenching. Drilling results of 26.47 % TGC over 1 m have been obtained (not true widths of mineralisation). The QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

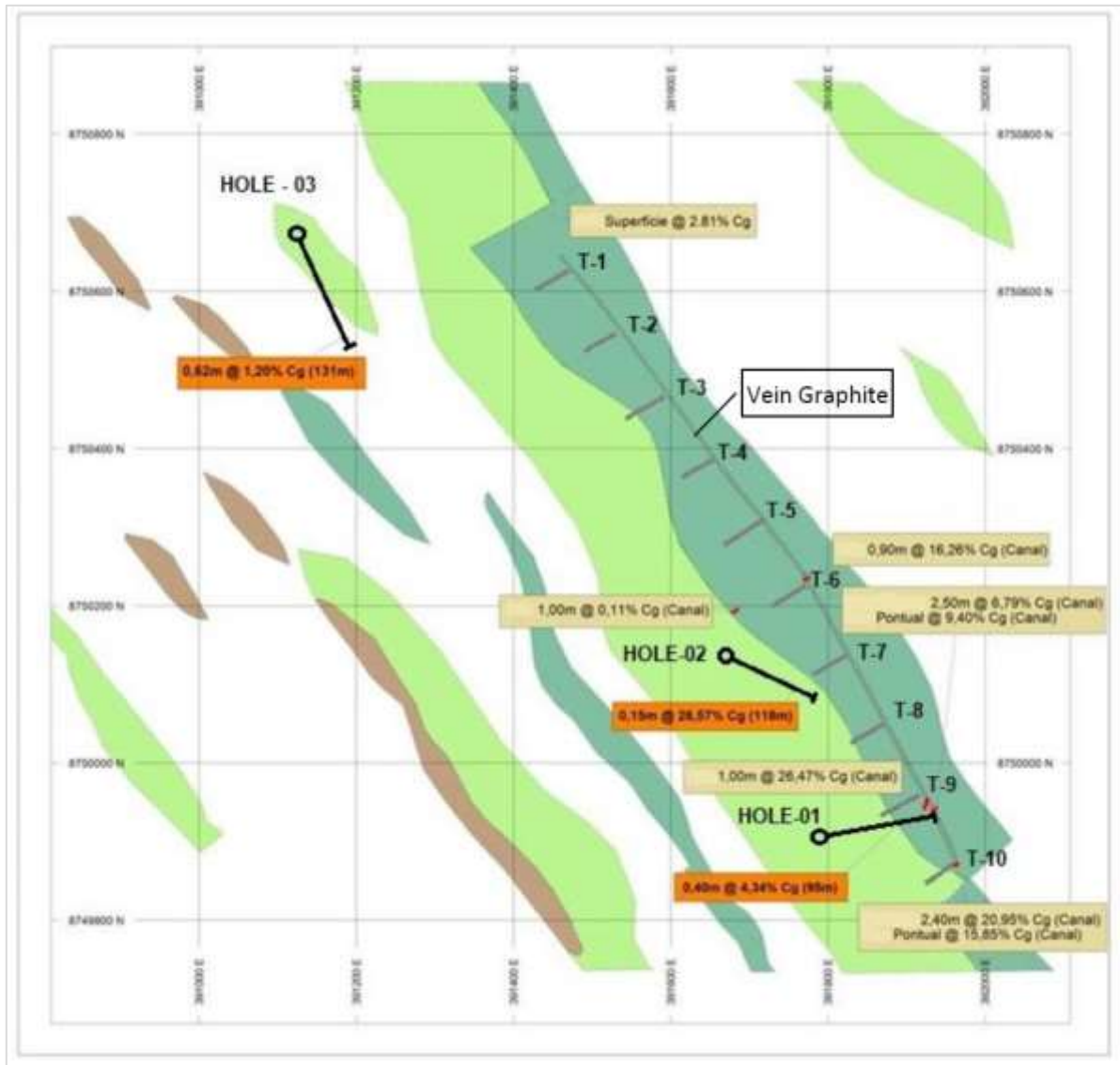


Figure 6.3 Historical trenching and drilling data portrayed on local geological mapping. The QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (Zumbi, 2020).

#### 6.2.4 Stream sediment and soil sampling

The work of this campaign started in October 2017. The geochemical survey through the collection of 67 sediment samples of the current and the results indeed anomalous values Co, Cr, Ni, Cu, V and Au (Zumbi, 2020). However, the QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

### 6.2.5 Ground geophysical surveys (Resistivity and Induced Polarization)

Ground geophysical surveys over the Capim Grosso Project was completed in two campaigns:

1. Ground magnetic survey carried out by the vendor (Zumbi)
2. Induced Polarization and RES – Resistivity survey carried out by the company Libaneo & Libaneo, and the processing, interpretation and control of the data collected were the responsibility of the company Reconsult Geophysics.

While the report by Zumbi (2020) outlines some of the work completed, the maps are difficult to reproduce due to a lack in coordinates. However, the IP 3D survey (the QP is not certain if this is a pole dipole survey) was completed over the known graphite mineralization and some conductive zones were delineated. However, the QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon.

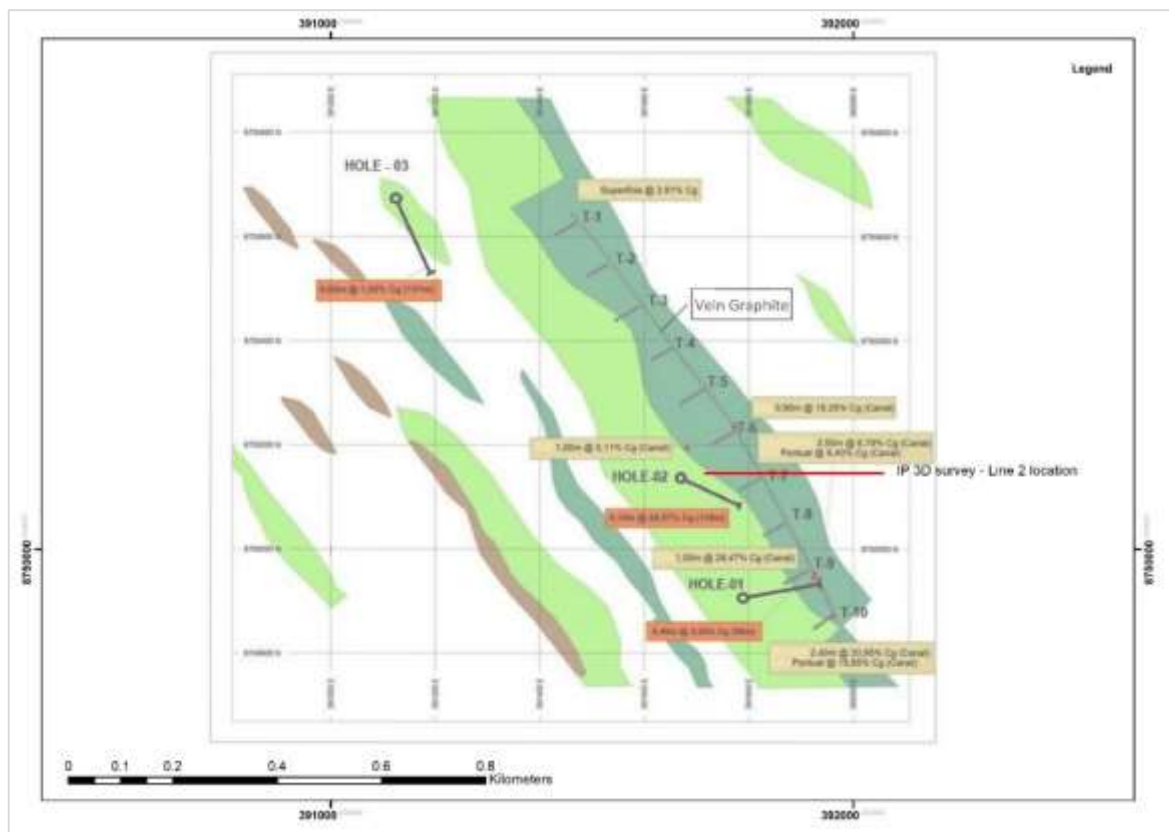


Figure 6.4 Location of 3d IP survey Line 2 over the known graphite mineralization on the Capim Grosso Project. The QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (source: Zumbi).

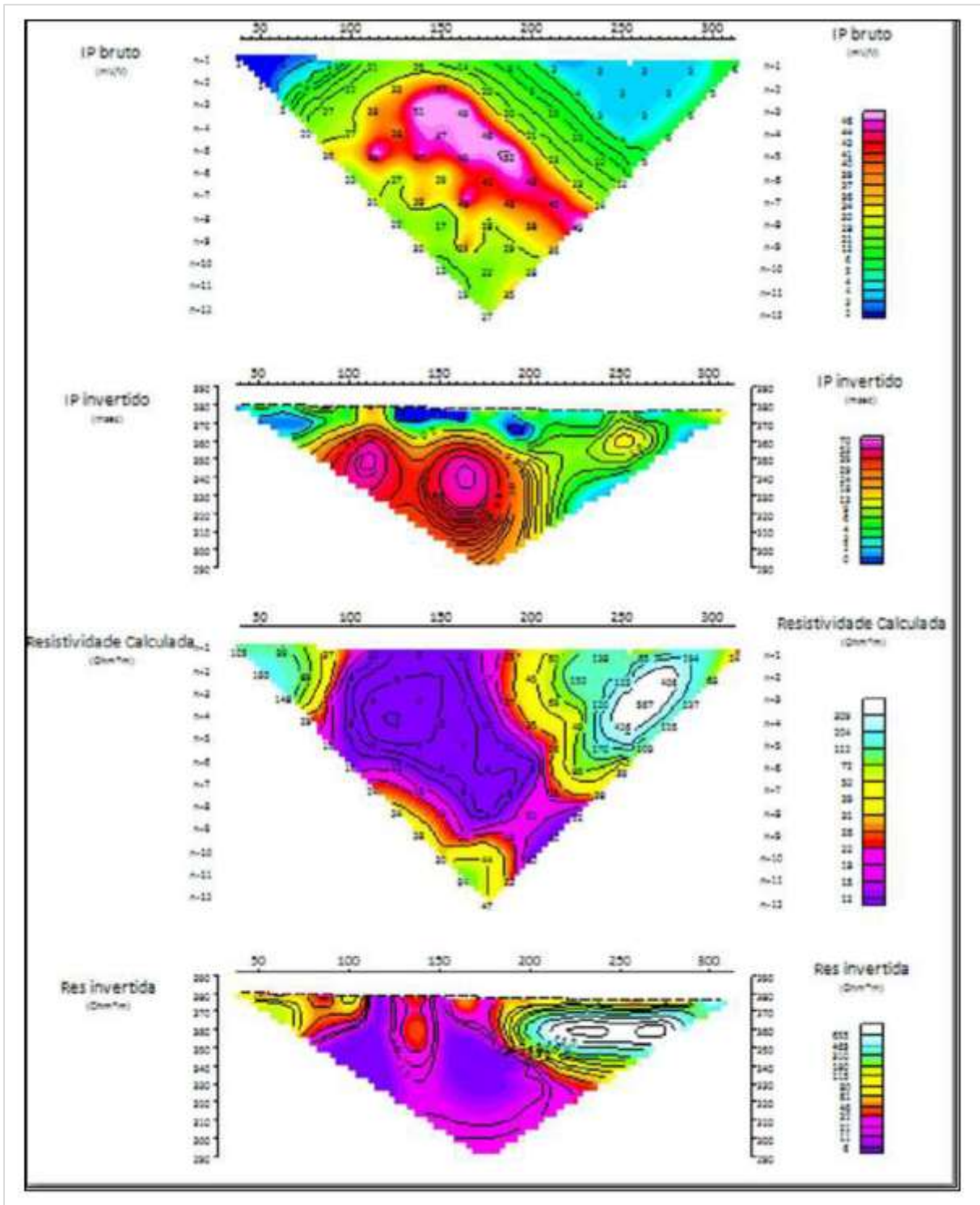


Figure 6.5 IP survey Line 2 data on the Capim Grosso Project showing a conductor picked up at approx. 130 m from the survey start in the west. From top to bottom: (i) gross induced output data; (ii) inverted induced polarization data, (iii) gross electrical resistivity data (iv) inverted electrical resistivity data. The QP does not have information pertaining to QAQC protocols and historical exploration data should therefore not be relied upon (source: Zumbi).

### **6.3 Historical Mineral Resources and Reserves**

There are no historical mineral resources or reserves.

### **6.4 Production**

No production has been disclosed.

## 7. GEOLOGICAL SETTING AND MINERALIZATION

The geology of Brazil includes cratonic basement rock from the Precambrian overlain by sedimentary rocks and intruded by igneous activity, as well as impacted by the rifting of the Atlantic Ocean.

Much of the Brazil's underlying lithologies were formed during the Precambrian, including the São Francisco Craton which outcrops in Minas Gerais and Bahia. In the Mesoproterozoic, the Rio de la Plata Craton (beneath southern Brazil), the vast Amazonia Craton, and the small São Luis Craton and sections of the Congo Craton which form the basement rock of much of Brazil were joined with Africa.

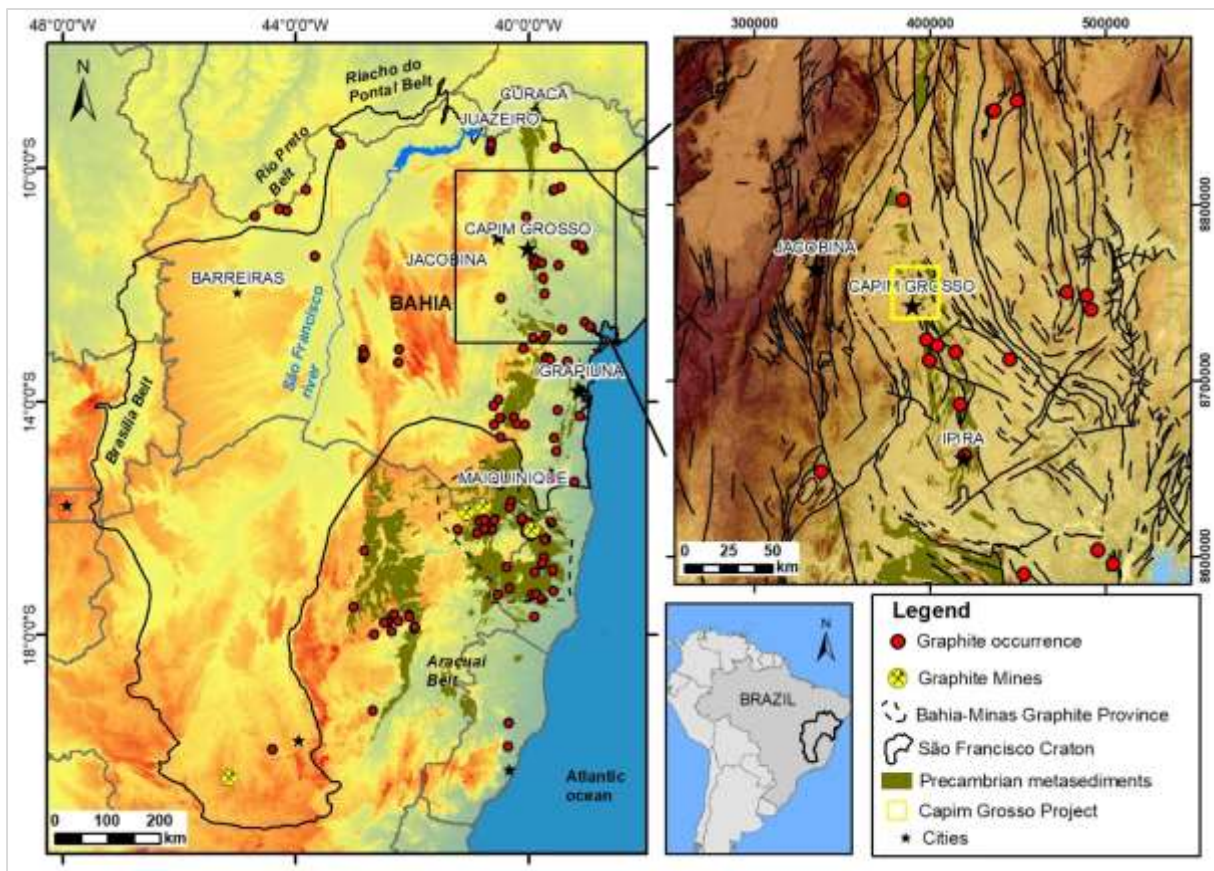


Figure 7.1: Graphite occurrences in Bahia State and Capim Grosso asset (source: GEOSGB, 2022).

### 7.1 Regional Geological Setting

The Capim Grosso graphite project is located within the São Francisco Craton (SFC). The SFC is a tectonic domain surrounded by Neoproterozoic orogens. Its southern sector is composed by Archean crust, with age between 3.5 and 2.6 Ga, that is formed mostly by granite-gneisses and greenstone belts constituted by mafic-ultramafic, intermediate-felsic volcanic and volcanoclastic rocks with terrigenous sediments. Graphite at Capim Grosso is set within NW-SE striking ultramafic units.

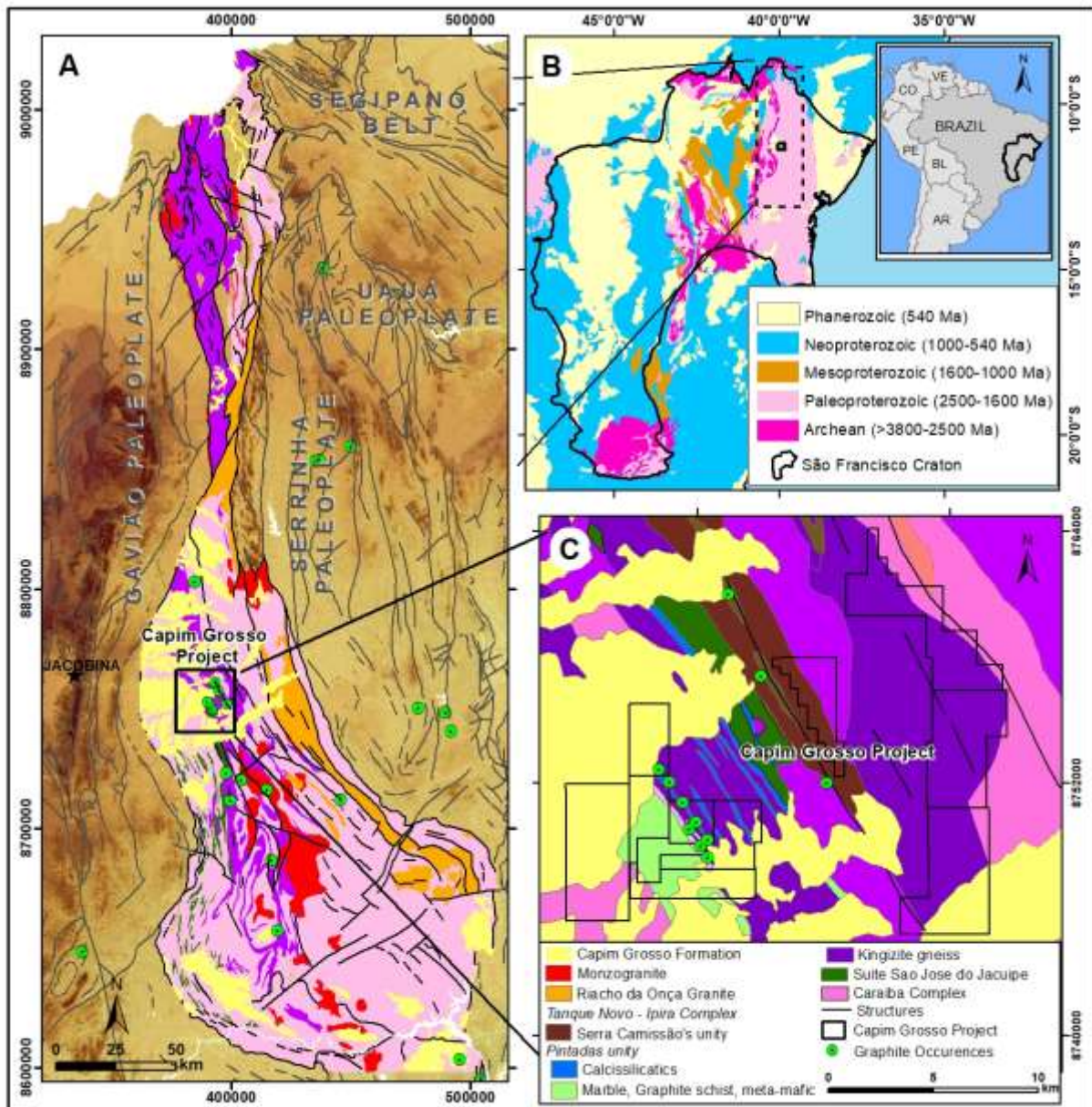


Figure 7.2 The tectonic and geochronological framework of Bahia with the location of the Capim Grosso Project (source: Gratomic).

## 7.2 Local Geological Setting

The local geological setting of the Capim Grosso Project comprises Archean-Paleoproterozoic basement rocks (covered by recent Cenozoic sediments) which includes (Delgado and Pedreira, 2010):

1. The Tanque Novo-Ipirá Complex which is composed of by high-grade gneiss, calcssilicates, graphite gneisses and pegmatites; and
2. São José do Jacuípe Suite is represented by mafic-ultramafic sequence, ranging from metagabro to serpentinite (Dunite).

### 7.3 Mineralization on the Capim Grosso project

Graphite mineralisation on the Capim Grosso Project is confined to interlayers of graphitic gneiss associated with alteration zones comprising kaolinite and epidote minerals. Mineralisation varies from a few cm up to 10 m in width. Some parts of the mineralisation appear to be vein-like graphite mineralisation, but overall the style of mineralisation is regarded as a flake type gneissic graphite. The graphite mineralisation over the aforementioned widths vary from high grade continuous blocks of graphite mineralisation to interlayers of graphite and country rock. The highest grade of mineralisation, to date, are from surface observations and trenching within the southern part of the project area. While the area has potential for base or even precious metal mineralisation, no evidence for these styles of mineralisation has been found.



Figure 7.3 Graphite mineralisation exposed by Gratomic Inc. trench CGT001 (20 to 22 m) grading 21.65 % TGC from the southern part of the Capim Grosso Project (source: QP).



Figure 7.4 Graphite mineralisation (41.79 % TGC) exposed by Gratomic Inc. trench CGT002 (23 to 24 m) from the southern part of the Capim Grosso Project (source: QP).



Figure 7.5 While near surface graphite mineralisation tends to be the highest grade, some mineralisation from Gratomic Inc. drilling yielded 23.61 % TGC from hole CGD001 (27.05 m to 28.65 m) (source: QP).



Figure 7.6 Graphite mineralisation from the Gratomic drilling on the Capim Grosso Project (Drillhole CGD002 130.25 m tot 130.69 m containing mineralisation of 8.42 % TGC) (source: QP).



Figure 7.7 Graphite mineralisation from the Gratomic drilling on the Capim Grosso Project (source: QP).

## 8. DEPOSIT TYPES

Graphite is an opaque, gray-black, and soft (1-2 on Mohs hardness scale) mineral with a metallic luster. It is characterized by a greasy feel, low density (2.09-2.23 g/cm<sup>3</sup>), high resistance to thermal shock, and high electrical conductivity. Inertness, compressibility, elasticity, and lubricity are other important physical properties (Simandi et al., 2015).

While most graphite is formed through the metamorphism of organic material in rocks, it also occurs in igneous rocks and is found as nodules inside of iron meteorites. There are three principal types of natural graphite), each occurring in different types of mineralisation (Simandi et al., 2015):

1. Crystalline flake graphite (or flake graphite for short) occurs as isolated, flat, plate-like particles with hexagonal edges if unbroken and when broken the edges can be irregular or angular;
2. Amorphous graphite occurs as fine particles and is the result of thermal metamorphism of coal, the last stage of coalification, and is sometimes called meta-anthracite. Very fine flake graphite is sometimes called amorphous in the trade;
3. Lump graphite (also called vein graphite) occurs in fissure veins or fractures and appears as massive platy intergrowths of fibrous or acicular crystalline aggregates, and is probably hydrothermal in origin.

Graphite mineralisation at the Capim Grosso Project comprises the crystalline flake graphite type.

Disseminated graphite flakes are in a variety of rocks including marble, paragneiss, iron formation, quartzite, pegmatite, syenite and, in extremely rare cases, serpentized ultramafic rocks. By far the most common hosts for economically significant crystalline flake deposits are paragneiss and marble that have been subjected to upper amphibolite to granulite facies metamorphism (Simandi et al., 2015).

## 9. EXPLORATION

Gratomic completed the following work on the Capim Grosso Project to date:

1. Geological mapping
2. Trenching (63 trenches for 3,830.55 m)
3. Diamond drilling (34 drillholes for 4,784.10 m)
4. Metallurgical test work
5. Bulk density determinations
6. Exploration target (using the parameters as set out in *NI43-101 Section 2.3(2) (b)*)
7. Mineral Resource Estimate in compliance with NI43-101
8. Ongoing trenching on Exploration Permit 872160/2016

### 9.1 Geological mapping

Geological mapping is ongoing on the Capim Grosso Project and is completed in order to determine surface lithological exposure with the main aim of locating graphite rich lithologies.

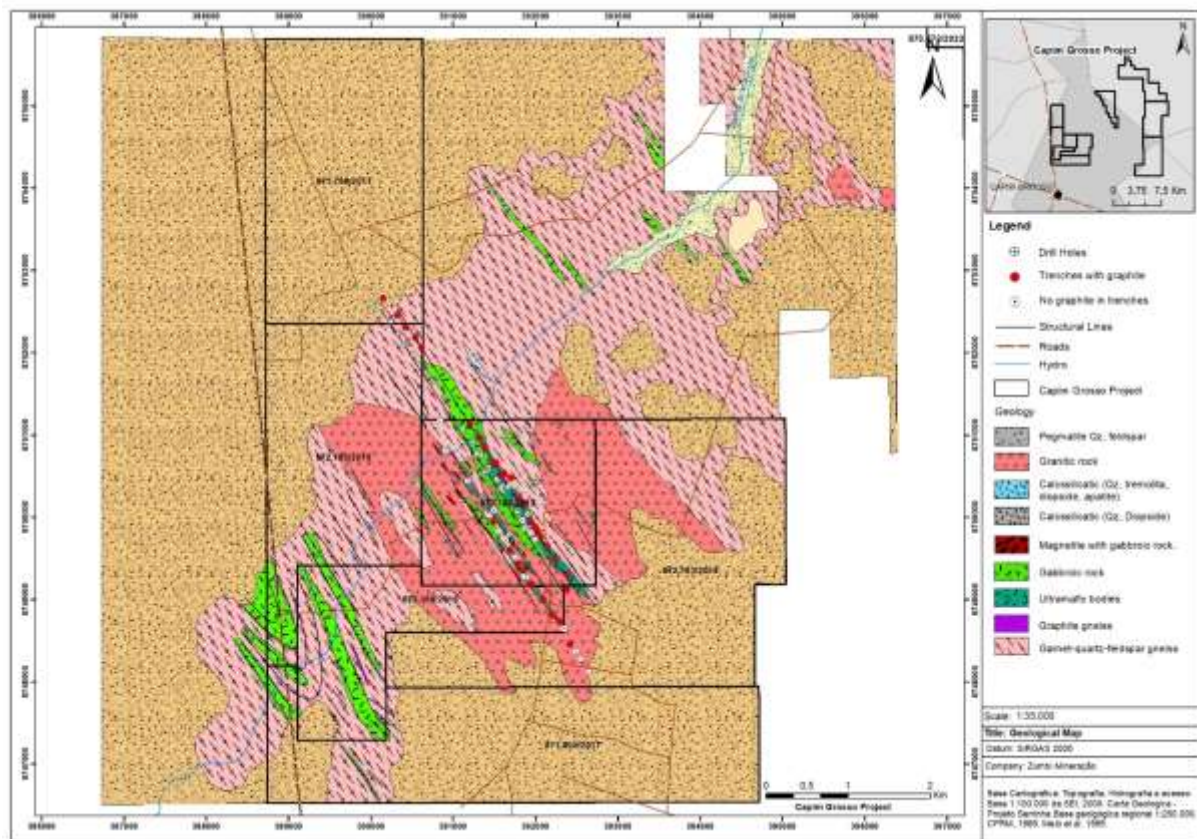


Figure 9.1 Geological Map of the main licenses within the Capim Grosso Project which received the drilling and trenching that forms the basis of this report (Source: Gratomic).

## 9.2 Trenching

The Gratomic trenching campaign aimed to investigate and confirm the graphite intercepted with historical trenching as well as surface expressions of graphite mineralization. In addition, the trenching campaign served as drill target generation. Most significant trenching and drilling assay results are discussed together in sections within Section 9.3.



Figure 9.2 Trenches were planned based upon historical data and surface trends observed (Source: QP).



Figure 9.3 Most of the trenches excavated were able to penetrate up to 2 or 3 m in depth and most intersected graphite mineralization (Source: QP).

Table 9.1 Sixty-three trenches have been excavated to date on the on the Capim Grosso project (Source: QP).

HOLE NAME	X_DGPS (WS84_UTM24S)	Y_DGPS (WS84_UTM24S)	Z_DGPS (m)	AZ (Deg.)	DIP (Deg.)	EOH (m)	DATE COMPLETED
CGT001	391993.40	8749887.50	381.070	245	0	44	16 August 2021
CGT002	391938.22	8749947.94	380.396	251	0	62	16 August 2021
CGT003	391488.62	8750089.20	381.865	253	0	67	16 August 2021
CGT004	391781.11	8750217.71	374.681	237	0	50	17 August 2021
CGT005	391591.74	8750501.12	373.166	242	0	60	17 August 2021
CGT006	391592.58	8750497.34	373.026	240	0	45	18 August 2021
CGT007	391493.06	8750646.22	372.068	253	0	26	18 August 2021
CGT008	391517.69	8750656.40	373.930	253	0	39	19 August 2021
CGT009	391412.60	8750794.72	370.600	265	0	32	19 August 2021
CGT010	391385.70	8750847.50	370.580	284	0	48	19 August 2021
CGT011	391675.87	8750373.97	372.693	235	0	73	20 August 2021
CGT012	391903.53	8750034.74	378.594	210	0	98	20 August 2021
CGT013	391878.03	8749861.50	383.901	265	0	41	20 August 2021
CGT014	391683.69	8749789.47	386.704	256	0	25	20 August 2021
CGT015	392027.03	8749816.81	383.450	246	0	66	21 August 2021
CGT016	392142.18	8749651.83	387.827	210	0	50	21 August 2021
CGT017	392478.39	8749165.90	394.366	70	0	111	22 August 2021
CGT018	391950.96	8749178.11	386.463	195	0	27	22 August 2021
CGT019	391948.67	8749190.73	387.376	215	0	40	23 August 2021
CGT020	391866.78	8749287.19	387.538	336	0	36	23 August 2021
CGT021	392386.28	8749312.04	393.265	220	0	41.7	23 September 2021
CGT022	392270.49	8749520.33	390.783	235	0	58.00	24 September 2021
CGT023	392059.04	8749773.43	383.749	230	0	54.20	24 September 2021
CGT024	391987.58	8749728.79	385.825	230	0	95.80	25 September 2021
CGT025	391947.62	8749807.41	382.965	230	0	73.80	26 September 2021
CGT026	391841.26	8749960.64	382.106	250	0	72.50	26 September 2021
CGT027	391864.12	8750163.61	375.659	225	0	103.40	29 September 2021
CGT028	391852.14	8750342.39	380.627	225	0	73.50	30 September 2021
CGT029	391697.88	8750478.93	374.116	225	0	145.95	2 October 2021
CGT030	391321.81	8750960.91	368.947	225	0	76.40	4 October 2021
CGT031	391206.48	8751141.63	368.986	240	0	47	5 October 2021
CGT032	390619.46	8752062.68	384.556	225	0	92.60	7 October 2021
CGT033	390425.15	8752311.33	384.851	220	0	83.75	8 October 2021
CGT034	390146.62	8752654.55	391.009	230	0	27.95	9 October 2021
CGT035	390320.63	8752456.69	383.727	230	0	64.90	10 October 2021
CGT036	390486.04	8752110.95	386.848	230	0	94.30	12 October 2021
CGT037	390838.65	8751187.48	377.867	230	0	65.00	13 October 2021

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CGT038	390907.07	8750813.58	372.332	240	0	41.90	14 October 2021
CGT039	391179.72	8750439.20	378.045	240	0	97.10	15 October 2021
CGT040	392075.03	8748984.87	390.984	235	0	60.30	16 October 2021
CGT041	391879.85	8749272.93	388.110	235	0	52.00	17 October 2021
CGT042	392197.54	8748812.24	394.837	235	0	45.30	18 October 2021
CGT043	392282.21	8748734.66	396.219	230	0	75.70	17 August 2022
CGT044	392349.36	8748645.05	396.231	230	0	65.00	18 August 2022
CGT045	392414.82	8748458.80	394.139	240	0	43.50	18 August 2022
CGT046	392490.03	8748366.45	395.459	240	0	52.5	19 August 2022
CGT047	392548.50	8748275.90	397.248	240	0	50.00	19 August 2022
CGT048	392648.68	8748118.68	399.559	240	0	57.00	20 August 2022
CGT049	391787.56	8749419.02	385.894	245	0	42.00	21 August 2022
CGT050	391847.81	8749356.17	387.476	215	0	40.00	21 August 2022
CGT051	391740.84	8749502.79	383.628	235	0	41.00	22 August 2022
CGT052	391685.15	8749601.25	385.576	240	0	43.00	22 August 2022
CGT053	391632.58	8749727.79	385.234	250	0	53.00	23 August 2022
CGT054	391552.94	8749840.29	384.295	235	0	72.00	24 August 2022
CGT055	391495.34	8749946.58	383.476	230	0	60.50	25 August 2022
CGT056	391433.96	8750028.68	381.881	225	0	58.00	25 August 2022
CGT057	391251.72	8751049.29	368.512	240	0	75.00	21 April 2023
CGT058	391457.43	8750735.65	370.587	240	0	69.00	22 April 2023
CGT059	391556.55	8750580.47	373.399	240	0	68.00	24 April 2023
CGT060	391720.81	8750295.60	374.847	240	0	56.00	26 April 2023
CGT061	391860.25	8750088.86	376.735	240	0	50.00	27 April 2023
CGT062	392105.45	8749693.93	386.420	240	0	64.00	28 April 2023
CGT063	392405.67	8749288.62	392.752	220	0	88.00	29 April 2023

Table 9.2 Best trenching intersections (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m) to date on the Capim Grosso project for drilling completed by Gratomic. While the trenches were excavated as close to perpendicular on strike of local lithologies, the dip of each trench cannot be perpendicular on a lithological dip and the below are therefore not true widths (source: QP).

HOLE	FROM (m)	TO (m)	LENGTH (m)	TGC_%	TGC_INTERVAL	DH_EAST (WS84_UTM24S)	DH_NORTH (WS84_UTM24S)
CGT001	20.00	22.00	2.00	21.65	2.00m @ 21.65 TGC_PERC	391974.37	8749878.62
CGT001	26.00	28.00	2.00	19.14	2.00m @ 19.14 TGC_PERC	391968.93	8749876.09
CGT002	8.00	10.00	2.00	27.30	2.00m @ 27.30 TGC_PERC	391929.71	8749945.01
CGT002	16.00	18.00	2.00	20.37	2.00m @ 20.37 TGC_PERC	391922.14	8749942.40
CGT002	23.00	24.00	1.00	41.79	1.00m @ 41.79 TGC_PERC	391916.00	8749940.29
CGT002	27.00	28.00	1.00	7.94	1.00m @ 7.94 TGC_PERC	391912.21	8749938.98
CGT004	14.00	15.00	1.00	16.20	1.00m @ 16.20 TGC_PERC	391768.95	8750209.81
CGT004	30.00	31.00	1.00	3.89	1.00m @ 3.89 TGC_PERC	391755.53	8750201.09
CGT005	35.00	36.00	1.00	11.39	1.00m @ 11.39 TGC_PERC	391560.39	8750484.46
CGT006	17.00	22.00	5.00	9.60	5.00m @ 9.60 TGC_PERC	391576.13	8750487.84
CGT006	32.00	36.00	4.00	7.42	4.00m @ 7.42 TGC_PERC	391563.14	8750480.34
CGT007	0.00	6.00	6.00	15.01	6.00m @ 15.01 TGC_PERC	391490.19	8750645.34
CGT007	14.00	22.00	8.00	8.97	8.00m @ 8.97 TGC_PERC	391475.84	8750640.95
CGT008	23.00	24.00	1.00	15.45	1.00m @ 15.45 TGC_PERC	391495.22	8750649.53
CGT009	3.00	5.00	2.00	14.29	2.00m @ 14.29 TGC_PERC	391408.62	8750794.37
CGT009	18.00	20.00	2.00	9.13	2.00m @ 9.13 TGC_PERC	391393.68	8750793.06
CGT010	20.00	24.00	4.00	6.34	4.00m @ 6.34 TGC_PERC	391364.35	8750852.82
CGT011	4.00	6.00	2.00	17.15	2.00m @ 17.15 TGC_PERC	391671.77	8750371.10
CGT011	33.00	34.00	1.00	18.57	1.00m @ 18.57 TGC_PERC	391648.43	8750354.75
CGT011	47.00	49.00	2.00	14.27	2.00m @ 14.27 TGC_PERC	391636.55	8750346.44
CGT012	38.00	42.00	4.00	14.96	4.00m @ 14.96 TGC_PERC	391883.53	8750000.10
CGT012	49.00	50.00	1.00	25.08	1.00m @ 25.08 TGC_PERC	391878.78	8749991.87
CGT012	57.00	59.00	2.00	19.91	2.00m @ 19.91 TGC_PERC	391874.53	8749984.51
CGT015	10.00	14.00	4.00	32.26	4.00m @ 32.26 TGC_PERC	392016.07	8749811.93
CGT015	18.00	19.00	1.00	12.39	1.00m @ 12.39 TGC_PERC	392010.13	8749809.29
CGT018	12.00	18.00	6.00	16.07	6.00m @ 16.07 TGC_PERC	391947.60	8749165.60
CGT019	19.00	21.00	2.00	29.95	2.00m @ 29.95 TGC_PERC	391937.20	8749174.40
CGT021	15.37	16.57	1.20	7.02	1.20m @ 7.02 TGC_PERC	392376.02	8749299.81
CGT022	17.20	18.40	1.20	11.38	1.20m @ 11.38 TGC_PERC	392255.91	8749510.12
CGT027	49.00	51.20	2.20	7.45	2.20m @ 7.45 TGC_PERC	391828.69	8750128.19
CGT027	79.40	82.90	3.50	10.32	3.50m @ 10.32 TGC_PERC	391806.74	8750106.23
CGT027	85.90	88.90	3.00	6.93	3.00m @ 6.93 TGC_PERC	391802.32	8750101.81
CGT029	91.70	95.00	3.30	28.46	3.30m @ 28.46 TGC_PERC	391631.87	8750412.92
CGT029	97.55	98.55	1.00	6.03	1.00m @ 6.03 TGC_PERC	391628.54	8750409.59
CGT029	114.55	118.95	4.40	17.01	4.40m @ 17.01 TGC_PERC	391615.32	8750396.37
CGT030	25.20	31.90	6.70	5.68	6.70m @ 5.68 TGC_PERC	391301.62	8750940.73
CGT031	26.50	28.50	2.00	18.57	2.00m @ 18.57 TGC_PERC	391182.67	8751127.88

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CGT032	40.05	48.05	8.00	3.12	8.00m @ 3.12 TGC_PERC	390588.31	8752031.53
CGT032	82.50	85.60	3.10	4.64	3.10m @ 4.64 TGC_PERC	390560.03	8752003.24
CGT033	26.00	26.80	0.80	4.01	0.80m @ 4.01 TGC_PERC	390408.18	8752291.11
CGT033	28.75	36.45	7.70	4.67	7.70m @ 4.67 TGC_PERC	390404.20	8752286.36
CGT033	74.60	75.90	1.30	4.77	1.30m @ 4.77 TGC_PERC	390376.78	8752253.69
CGT034	16.55	17.95	1.40	10.32	1.40m @ 10.32 TGC_PERC	390133.41	8752643.47
CGT035	30.30	30.80	0.50	3.25	0.50m @ 3.25 TGC_PERC	390297.23	8752437.05
CGT035	34.20	36.20	2.00	7.41	2.00m @ 7.41 TGC_PERC	390293.67	8752434.07
CGT035	37.85	49.05	11.20	8.72	11.20m @ 8.72 TGC_PERC	390287.35	8752428.76
CGT035	56.80	57.40	0.60	6.80	0.60m @ 6.80 TGC_PERC	390276.89	8752419.99
CGT036	46.40	47.00	0.60	6.95	0.60m @ 6.95 TGC_PERC	390450.27	8752080.93
CGT036	52.80	54.80	2.00	6.72	2.00m @ 6.72 TGC_PERC	390444.83	8752076.37
CGT036	67.80	71.60	3.80	7.22	3.80m @ 7.22 TGC_PERC	390432.65	8752066.14
CGT036	73.10	79.50	6.40	3.93	6.40m @ 3.93 TGC_PERC	390427.60	8752061.90
CGT036	87.90	89.20	1.30	9.78	1.30m @ 9.78 TGC_PERC	390418.21	8752054.03
CGT040	41.30	44.60	3.30	12.40	3.30m @ 12.40 TGC_PERC	392040.40	8748960.60
CGT042	22.60	27.00	4.40	15.15	4.40m @ 15.15 TGC_PERC	392178.20	8748798.70
CGT043	54.00	58.00	4.00	9.35	4.00m @ 9.35 TGC_PERC	392240.50	8748699.60
CGT045	15.50	16.50	1.00	4.04	1.00m @ 4.04 TGC_PERC	392401.00	8748450.80
CGT049	6.50	9.00	2.50	9.52	2.50m @ 9.52 TGC_PERC	391781.20	8749416.10
CGT050	31.00	33.00	2.00	8.31	2.00m @ 8.30 TGC_PERC	391829.70	8749330.40
CGT052	14.00	16.00	2.00	7.64	2.00m @ 7.64 TGC_PERC	391672.60	8749594.00
CGT052	16.00	17.00	1.00	5.01	1.00m @ 5.01 TGC_PERC	391670.90	8749593.00
CGT055	52.00	53.20	1.20	9.75	1.20m @ 9.75 TGC_PERC	391455.00	8749912.80
CGT058	12.00	13.50	1.50	5.70	1.50m @ 5.70 TGC_PERC	391446.39	8750729.27
CGT058	32.00	33.80	1.80	8.23	1.80m @ 8.23 TGC_PERC	391428.94	8750719.20
CGT058	44.00	48.00	4.00	9.79	4.00m @ 9.79 TGC_PERC	391417.59	8750712.65
CGT059	6.00	6.40	0.40	8.89	0.40m @ 8.89 TGC_PERC	391551.18	8750577.37
CGT059	32.00	40.00	8.00	14.15	8.00m @ 14.15 TGC_PERC	391525.37	8750562.47
CGT059	42.00	43.00	1.00	10.48	1.00m @ 10.48 TGC_PERC	391519.74	8750559.22
CGT059	48.00	48.40	0.40	5.80	0.40m @ 5.80 TGC_PERC	391514.81	8750556.37
CGT059	50.40	51.30	0.90	10.10	0.90m @ 10.10 TGC_PERC	391512.51	8750555.04
CGT060	4.00	5.00	1.00	10.84	1.00m @ 10.84 TGC_PERC	391716.91	8750293.35
CGT060	40.00	47.00	7.00	10.43	7.00m @ 10.43 TGC_PERC	391683.14	8750273.85
CGT061	19.00	20.00	1.00	5.57	1.00m @ 5.57 TGC_PERC	391843.36	8750079.11
CGT061	34.50	38.00	3.50	7.15	3.50m @ 7.15 TGC_PERC	391828.86	8750070.73
CGT062	18.00	19.70	1.70	8.26	1.70m @ 8.26 TGC_PERC	392089.12	8749684.51
CGT063	2.00	10.00	8.00	10.08	8.00m @ 10.07 TGC_PERC	392401.81	8749284.03
CGT063	45.20	46.70	1.50	8.93	1.50m @ 8.93 TGC_PERC	392376.13	8749253.42

**9.3 Diamond drilling**

The diamond drilling campaign aimed to investigate the occurrence of graphite below the oxidation profile as intersected with the trenching.



Figure 9.4 Diamond drilling on the Capim Grosso Project (Source: QP).



Figure 9.5 All Diamond drilling enclosures are fenced off with appropriate PPE signage on the Capim Grosso Project (Source: QP).

Table 9.3 Thirty-four drillholes have been completed by Gratomic on the Capim Grosso project to date (Source: QP).

HOLE NAME	X_DGPS (WS84_UTM24S)	Y_DGPS (WS84_UTM24S)	Z_DGPS (m)	EOH (m)	DIP (Deg.)	DATE COMPLETED
CGD001	391940.35	8749877.32	381.293	100.10	-58	6 December 2021
CGD002	391867.16	8749904.54	383.428	141.20	-60	18 December 2021
CGD003	391925.64	8749862.63	382.040	120.55	-60	28 January 2022
CGD004	391848.88	8749975.72	381.797	93.15	-60	3 February 2022
CGD005	391764.61	8750091.81	379.800	111.00	-60	12 February 2022
CGD006	391716.64	8750187.55	378.686	120.65	-60	18 February 2022
CGD007	391625.23	8750339.48	375.011	120.20	-60	28 February 2022
CGD008	391755.79	8750201.06	377.956	100.05	-60	6 March 2022
CGD009	391602.35	8750317.84	376.052	120.00	-60	14 March 2022
CGD010	391584.36	8750378.25	374.675	141.00	-60	19 March 2022
CGD011	391562.38	8750358.75	376.950	140.05	-60	23 March 2022
CGD012	391527.58	8750459.15	374.010	134.65	-60	3 April 2022
CGD013	391434.31	8750600.44	372.887	140.70	-60	2 April 2022
CGD014	391403.47	8750574.63	376.568	206.90	-60	19 April 2022
CGD015	391334.77	8750753.50	372.361	151.00	-60	16 April 2022
CGD016	391288.99	8750788.62	372.932	151.15	-60	29 April 2022
CGD017	391313.68	8750809.40	371.117	162.05	-60	2 May 2022
CGD018	391237.78	8750905.57	369.646	130.20	-60	12 May 2022
CGD019	391117.05	8751072.88	371.420	190.15	-60	22 May 2022
CGD020	390519.37	8751981.97	386.601	190.75	-60	27 May 2022
CGD021	390467.47	8752091.06	387.573	195.10	-60	5 June 2022
CGD022	390349.06	8752217.59	388.286	202.20	-60	13 June 2022
CGD023	390247.33	8752387.28	387.926	168.65	-60	22 June 2022
CGD024	390118.80	8752596.71	391.359	150.00	-60	27 June 2022
CGD025	390452.15	8752076.06	388.050	166.45	-60	3 July 2022
CGD026	390092.14	8752565.47	392.136	150.05	-60	11 July 2022
CGD027	391136.74	8751095.58	369.621	133.20	-60	21 October 2022
CGD028	391194.41	8750999.93	369.009	146.10	-60	28 October 2022
CGD029	391254.20	8750917.59	369.019	150.60	-60	11 November 2022
CGD030	391375.22	8750673.98	372.883	170.75	-60	26 November 2022
CGD031	391664.66	8750265.54	377.462	140.5	-60	23 November 2022
CGD032	391996.31	8749800.99	382.338	80.50	-60	30 November 2022
CGD033	392021.04	8749741.73	384.939	71.50	-60	14 December 2022
CGD034	392118.04	8749608.27	388.581	93	-70	12 December 2022

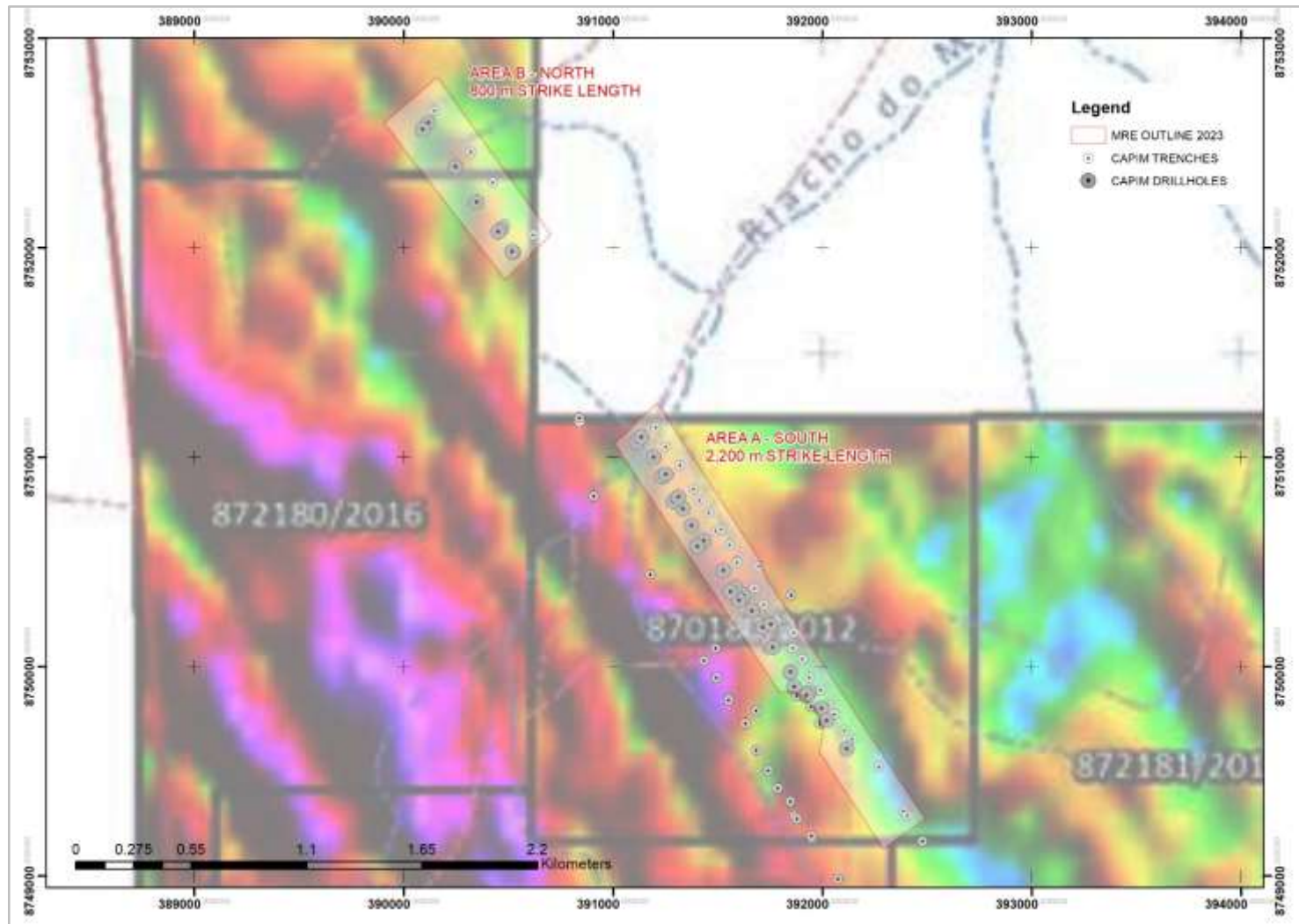


Figure 9.6 Drillholes and trenches completed to date on the Capim Grosso Project showing MRE areas on analytical signal magnetic data (Source: QP).

Table 9.4 Best drilling intersections (cutoff grade of 1 % TGC, min. grade of 3 % TGC and min interval length of 0.3 m) to date on the Capim Grosso project for drilling completed by Gratomic. The intervals are regarded as true width (or as close as possible to) due to the dip of drillholes being perpendicular on measured dip of geology (source: QP).

HOLE	FROM (m)	TO (m)	LENGTH (m)	TGC_%	TGC_INTERVAL	DH_EAST (WS84_UTM24S)	DH_NORTH (WS84_UTM24S)
CGD001	20.74	31.90	11.16	13.13	11.16m @ 13.13 TGC_PERC	391950.21	8749887.18
CGD001	37.37	38.55	1.18	10.11	1.18m @ 10.11 TGC_PERC	391954.57	8749891.55
CGD001	39.60	40.47	0.87	3.33	0.87m @ 3.33 TGC_PERC	391955.35	8749892.32
CGD001	40.84	41.32	0.48	3.08	0.48m @ 3.08 TGC_PERC	391955.74	8749892.72
CGD002	130.25	130.69	0.44	8.42	0.44m @ 8.42 TGC_PERC	391917.14	8749946.47
CGD003	71.93	73.53	1.60	6.72	1.60m @ 6.72 TGC_PERC	391953.50	8749886.00
CGD003	74.80	75.40	0.60	8.24	0.60m @ 8.24 TGC_PERC	391954.40	8749886.76
CGD003	79.85	81.83	1.98	3.21	1.98m @ 3.21 TGC_PERC	391956.60	8749888.61
CGD004	26.26	27.45	1.19	3.11	1.19m @ 3.11 TGC_PERC	391859.16	8749984.35
CGD004	63.95	65.01	1.06	3.76	1.06m @ 3.76 TGC_PERC	391873.58	8749996.44
CGD005	38.07	38.64	0.57	13.54	0.57m @ 13.54 TGC_PERC	391779.30	8750104.13
CGD005	40.00	41.58	1.58	11.13	1.58m @ 11.13 TGC_PERC	391780.23	8750104.92
CGD005	47.23	48.65	1.42	8.56	1.42m @ 8.56 TGC_PERC	391782.97	8750107.21
CGD005	79.24	79.56	0.32	9.13	0.32m @ 9.13 TGC_PERC	391795.02	8750117.33
CGD006	67.60	69.35	1.75	3.47	1.75m @ 3.47 TGC_PERC	391742.87	8750209.56
CGD006	72.55	73.38	0.83	3.91	0.83m @ 3.91 TGC_PERC	391744.59	8750211.00
CGD006	77.23	81.11	3.88	7.41	3.88m @ 7.41 TGC_PERC	391746.96	8750213.00
CGD007	16.40	17.76	1.36	3.84	1.36m @ 3.84 TGC_PERC	391631.77	8750344.97
CGD007	23.25	24.70	1.45	10.89	1.45m @ 10.89 TGC_PERC	391634.41	8750347.18
CGD007	50.25	56.25	6.00	3.95	6.00m @ 3.95 TGC_PERC	391645.62	8750356.59
CGD007	56.80	58.68	1.88	5.41	1.88m @ 5.41 TGC_PERC	391647.34	8750358.03
CGD007	64.98	65.91	0.93	6.13	0.93m @ 6.13 TGC_PERC	391650.30	8750360.51
CGD007	91.40	92.70	1.30	3.54	1.30m @ 3.54 TGC_PERC	391660.49	8750369.06
CGD008	6.20	16.05	9.85	5.00	9.85m @ 5.00 TGC_PERC	391760.05	8750204.64
CGD008	16.55	18.55	2.00	3.50	2.00m @ 3.50 TGC_PERC	391762.51	8750206.70
CGD009	66.67	71.75	5.08	5.61	5.08m @ 5.61 TGC_PERC	391628.86	8750340.08
CGD009	105.71	106.44	0.73	4.66	0.73m @ 4.66 TGC_PERC	391642.98	8750351.93
CGD009	107.55	108.17	0.62	3.60	0.62m @ 3.60 TGC_PERC	391643.66	8750352.50
CGD009	108.85	111.08	2.23	7.03	2.23m @ 7.03 TGC_PERC	391644.47	8750353.18
CGD010	3.45	4.05	0.60	3.88	0.60m @ 3.88 TGC_PERC	391585.80	8750379.46
CGD010	47.29	49.14	1.85	5.78	1.85m @ 5.78 TGC_PERC	391602.83	8750393.75
CGD010	91.65	99.85	8.20	5.38	8.20m @ 5.38 TGC_PERC	391621.04	8750409.03
CGD011	85.16	89.16	4.00	13.58	4.00m @ 13.58 TGC_PERC	391595.76	8750386.76
CGD011	90.16	92.05	1.89	8.83	1.89m @ 8.83 TGC_PERC	391597.27	8750388.03
CGD011	135.75	138.65	2.90	6.39	2.90m @ 6.39 TGC_PERC	391614.93	8750402.84
CGD012	55.15	60.06	4.91	8.27	4.91m @ 8.27 TGC_PERC	391549.64	8750477.66
CGD012	93.25	93.90	0.65	3.16	0.65m @ 3.16 TGC_PERC	391563.42	8750489.22
CGD012	99.60	101.50	1.90	3.99	1.90m @ 3.99 TGC_PERC	391566.09	8750491.46

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CGD012	102.31	103.18	0.87	8.07	0.87m @ 8.07 TGC_PERC	391566.93	8750492.17
CGD012	105.63	106.86	1.23	6.37	1.23m @ 6.37 TGC_PERC	391568.27	8750493.29
CGD013	64.16	65.73	1.57	3.31	1.57m @ 3.31 TGC_PERC	391459.19	8750621.31
CGD013	72.41	77.41	5.00	9.25	5.00m @ 9.25 TGC_PERC	391463.00	8750624.52
CGD013	78.41	81.20	2.79	3.11	2.79m @ 3.11 TGC_PERC	391464.88	8750626.09
CGD014	121.30	121.88	0.58	10.55	0.58m @ 10.55 TGC_PERC	391450.04	8750613.70
CGD014	171.11	172.40	1.29	6.56	1.29m @ 6.56 TGC_PERC	391469.26	8750629.83
CGD014	173.58	174.32	0.74	7.09	0.74m @ 7.09 TGC_PERC	391470.10	8750630.53
CGD015	70.50	78.40	7.90	9.46	7.90m @ 9.46 TGC_PERC	391363.28	8750777.42
CGD015	116.90	118.96	2.06	3.17	2.06m @ 3.17 TGC_PERC	391379.94	8750791.40
CGD016	63.40	68.70	5.30	4.62	5.30m @ 4.62 TGC_PERC	391314.29	8750809.84
CGD016	103.60	104.78	1.18	7.20	1.18m @ 7.20 TGC_PERC	391328.90	8750822.10
CGD016	107.46	108.88	1.42	6.62	1.42m @ 6.62 TGC_PERC	391330.42	8750823.38
CGD017	113.02	115.03	2.01	4.34	2.01m @ 4.34 TGC_PERC	391357.36	8750846.04
CGD018	120.65	122.48	1.83	4.98	1.83m @ 4.98 TGC_PERC	391284.35	8750944.64
CGD020	35.24	36.08	0.84	3.43	0.84m @ 3.43 TGC_PERC	390533.03	8751993.43
CGD020	73.91	74.91	1.00	4.13	1.00m @ 4.13 TGC_PERC	390547.87	8752005.88
CGD020	138.85	139.85	1.00	3.26	1.00m @ 3.26 TGC_PERC	390572.74	8752026.76
CGD020	150.45	151.25	0.80	3.80	0.80m @ 3.80 TGC_PERC	390577.15	8752030.45
CGD021	10.20	11.10	0.90	5.82	0.90m @ 5.82 TGC_PERC	390471.55	8752094.48
CGD021	43.25	44.20	0.95	3.03	0.95m @ 3.03 TGC_PERC	390484.22	8752105.11
CGD021	64.55	66.60	2.05	5.23	2.05m @ 5.23 TGC_PERC	390492.59	8752112.13
CGD021	112.25	113.07	0.82	7.24	0.82m @ 7.24 TGC_PERC	390510.63	8752127.27
CGD022	77.55	79.21	1.66	7.15	1.66m @ 7.15 TGC_PERC	390379.08	8752242.78
CGD022	79.75	80.75	1.00	5.57	1.00m @ 5.57 TGC_PERC	390379.79	8752243.38
CGD022	81.75	83.70	1.95	8.21	1.95m @ 8.21 TGC_PERC	390380.74	8752244.18
CGD022	88.30	91.30	3.00	3.89	3.00m @ 3.89 TGC_PERC	390383.45	8752246.45
CGD023	8.15	9.15	1.00	3.09	1.00m @ 3.09 TGC_PERC	390250.64	8752390.06
CGD023	79.95	80.81	0.86	4.74	0.86m @ 4.74 TGC_PERC	390278.12	8752413.12
CGD024	86.70	87.50	0.80	3.31	0.80m @ 3.31 TGC_PERC	390152.16	8752624.70
CGD024	92.48	93.28	0.80	3.76	0.80m @ 3.76 TGC_PERC	390154.37	8752626.56
CGD025	44.90	47.10	2.20	3.35	2.20m @ 3.35 TGC_PERC	390469.77	8752090.84
CGD025	70.10	71.17	1.07	4.95	1.07m @ 4.95 TGC_PERC	390479.20	8752098.76
CGD025	112.60	113.80	1.20	4.10	1.20m @ 4.10 TGC_PERC	390495.50	8752112.44
CGD025	115.24	118.24	3.00	3.47	3.00m @ 3.47 TGC_PERC	390496.86	8752113.58
CGD026	29.00	31.00	2.00	3.99	2.00m @ 3.98 TGC_PERC	390103.63	8752575.11
CGD026	57.46	59.06	1.60	8.44	1.60m @ 8.44 TGC_PERC	390114.46	8752584.19
CGD026	59.96	60.94	0.98	14.51	0.98m @ 14.51 TGC_PERC	390115.29	8752584.90
CGD026	69.75	71.35	1.60	6.25	1.60m @ 6.25 TGC_PERC	390119.16	8752588.14
CGD027	63.90	64.70	0.80	3.69	0.80m @ 3.69 TGC_PERC	391161.37	8751116.24
CGD028	60.30	62.02	1.72	5.78	1.72m @ 5.78 TGC_PERC	391217.83	8751019.58
CGD028	81.30	82.90	1.60	6.45	1.60m @ 6.45 TGC_PERC	391225.85	8751026.31
CGD028	113.05	114.75	1.70	5.30	1.70m @ 5.30 TGC_PERC	391238.03	8751036.53
CGD029	43.00	59.25	16.25	8.90	16.25m @ 8.90 TGC_PERC	391273.79	8750934.02
CGD029	60.18	62.00	1.82	5.00	1.82m @ 5.00 TGC_PERC	391277.60	8750937.23
CGD029	91.53	93.55	2.02	6.04	2.02m @ 6.04 TGC_PERC	391289.65	8750947.33
CGD030	80.09	86.18	6.09	7.44	6.09m @ 7.44 TGC_PERC	391407.06	8750700.70

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CGD030	124.80	128.00	3.20	5.84	3.20m @ 5.84 TGC_PERC	391423.63	8750714.61
CGD031	35.05	41.76	6.71	9.42	6.71m @ 9.42 TGC_PERC	391679.37	8750277.88
CGD031	68.10	75.30	7.20	5.82	7.20m @ 5.82 TGC_PERC	391692.12	8750288.59
CGD031	76.30	82.79	6.49	6.18	6.49m @ 6.18 TGC_PERC	391695.13	8750291.11
CGD031	95.25	98.52	3.27	6.82	3.27m @ 6.82 TGC_PERC	391701.77	8750296.68
CGD032	28.30	36.90	8.60	6.62	8.60m @ 6.62 TGC_PERC	392008.79	8749811.46
CGD032	38.80	40.95	2.15	3.28	2.15m @ 3.28 TGC_PERC	392011.58	8749813.80
CGD033	49.30	50.96	1.66	8.17	1.66m @ 8.17 TGC_PERC	392040.24	8749757.84
CGD033	51.35	53.05	1.70	11.01	1.70m @ 11.01 TGC_PERC	392041.03	8749758.50
CGD033	64.45	65.60	1.15	6.54	1.15m @ 6.54 TGC_PERC	392045.94	8749762.63
CGD034	39.95	41.55	1.60	6.87	1.60m @ 6.87 TGC_PERC	392128.71	8749617.23
CGD034	73.50	74.70	1.20	5.07	1.20m @ 5.07 TGC_PERC	392137.45	8749624.56

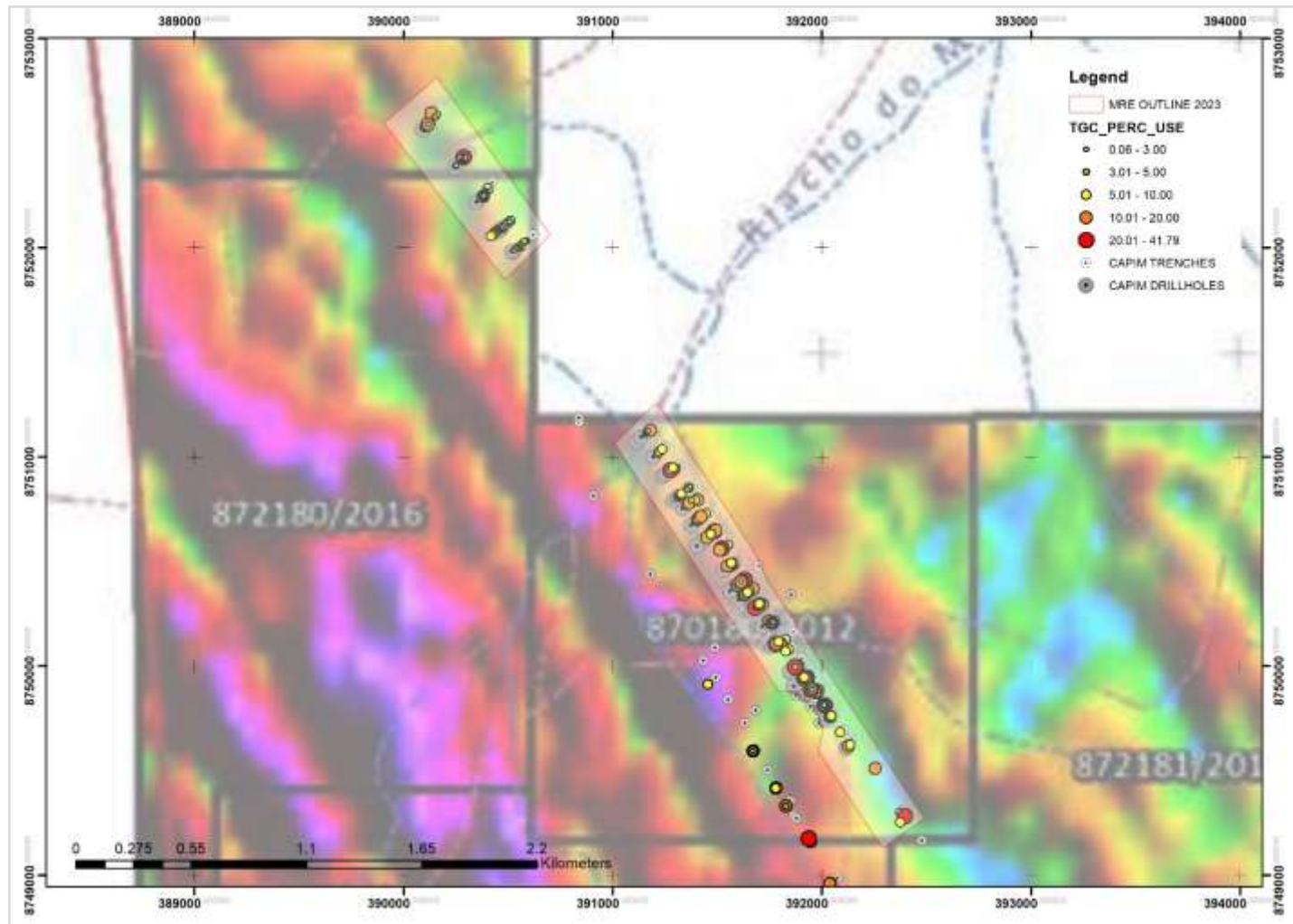


Figure 9.7 Drillholes and trenches completed to date on the Gratomic Capim Grosso Project showing TGC % as obtained from SGS Laboratories. Note that only the main Capm Grosso trend has received drilling to date. Background analytical signal magnetic data (Source: QP).

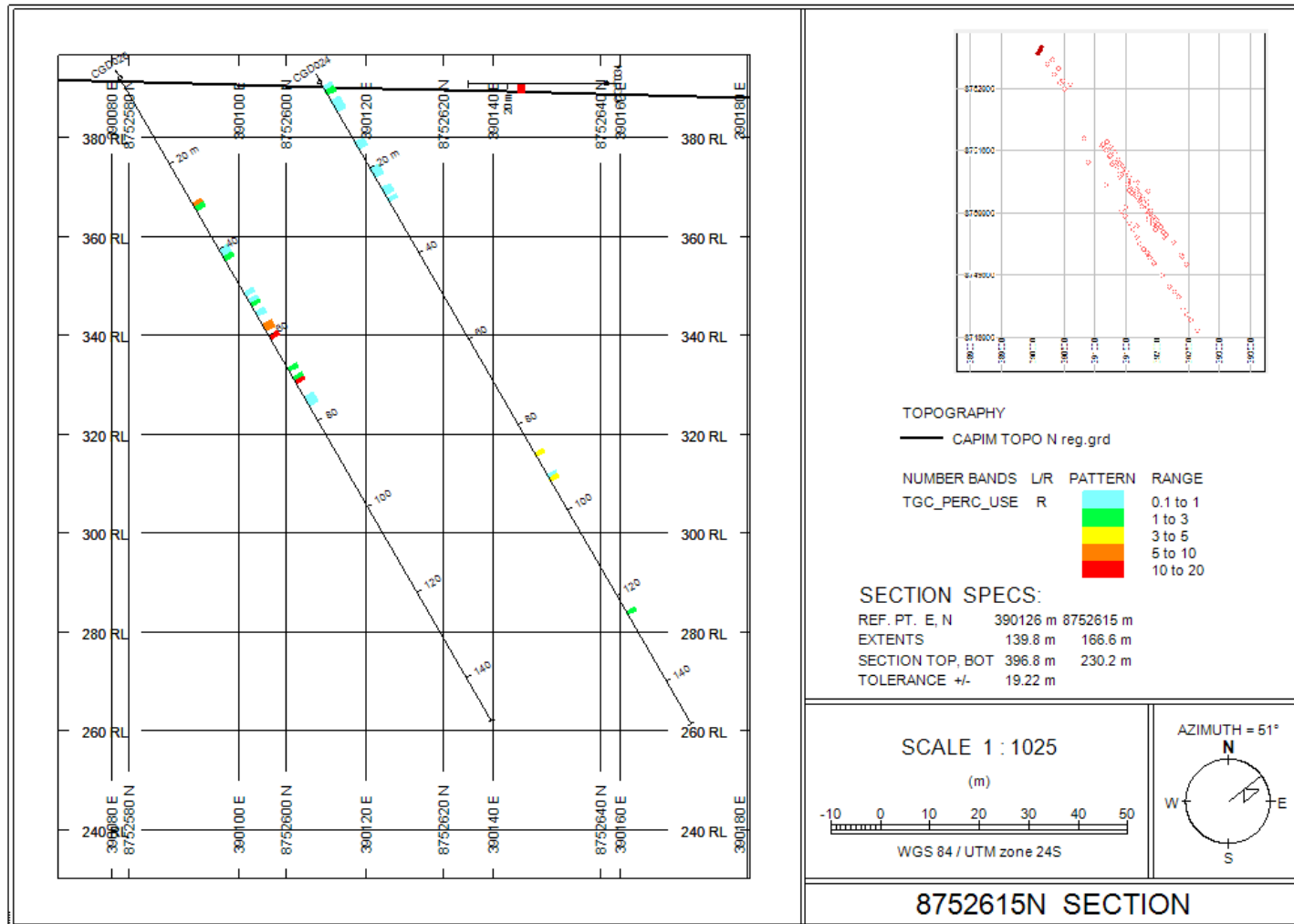


Figure 9.8 Drillhole section for hole CGD026 (northern block) showing TGC % intersection as well as insert map showing location of section. Note various grade intervals as per grade in legend (Source: QP).

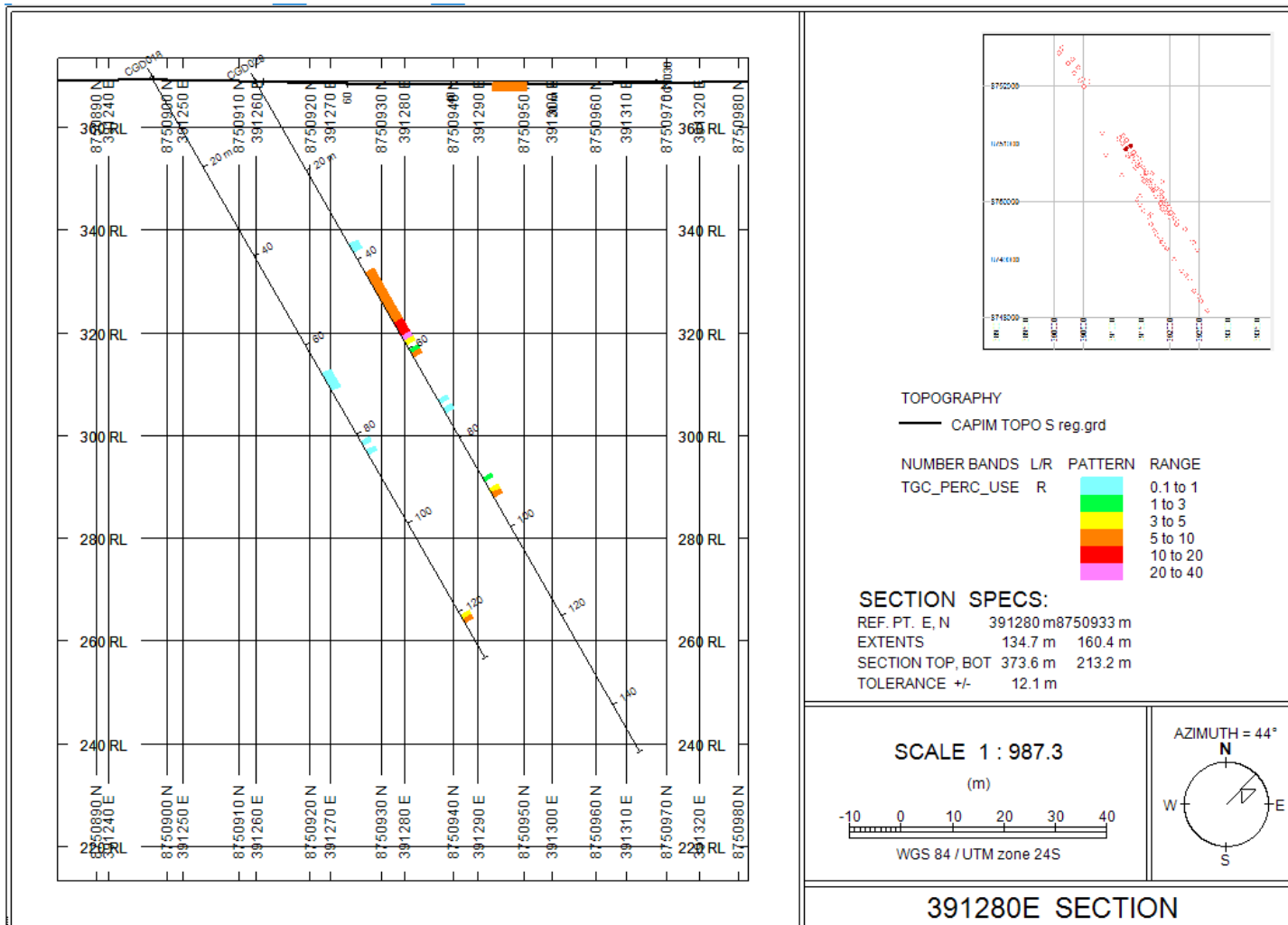


Figure 9.9 Drillhole section for hole CGD018 (southern block) showing TGC % intersection as well as insert map showing location of section. Note various grade intervals as per grade in legend (Source: QP).

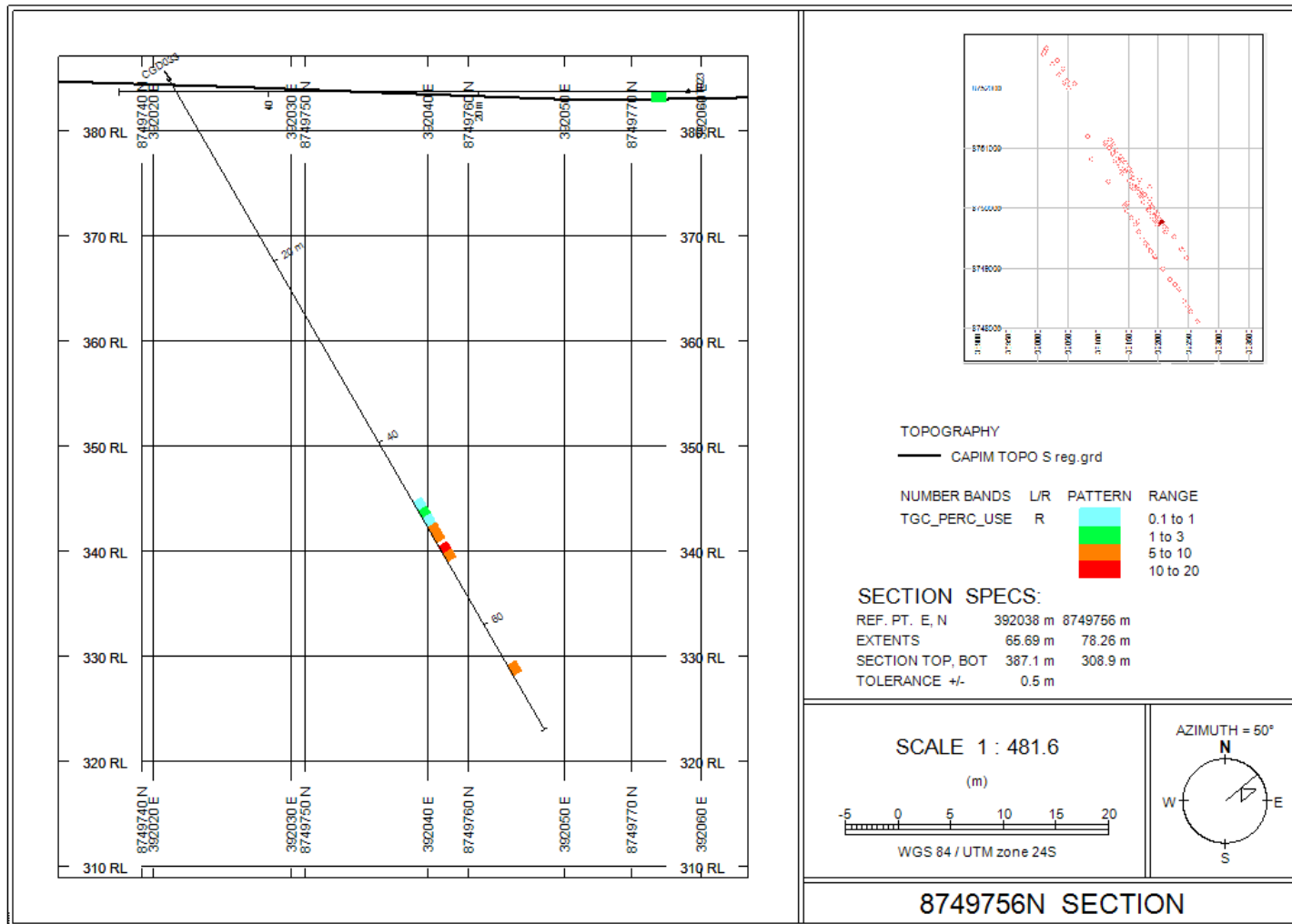


Figure 9.10 Drillhole section for hole CGD033 (southern block) showing TGC % intersection as well as insert map showing location of section. Note various grade intervals as per grade in legend (Source: QP).

### 9.3.1 Diamond drillhole sighting

Drillholes are being sighted using handheld GPS as well as tape measure and compass where applicable. Azimuth and dip of holes are determined using geological compass.



Figure 9.11 Drillhole azimuth line up by Gratomic Geologists (Source: QP).



Figure 9.12 Drillhole dip line up by Gratomic Geologists (Source: QP).

### 9.3.2 Diamond drillhole core boxes

Core boxes for diamond drilling are being manufactured on site by Gratomic personnel.



Figure 9.13 Drillhole dip line up by Gratomic Geologists (Source: QP).

### 9.3.3 Diamond drillhole core storage

Core boxes for diamond drilling are being stored on site in lockable sea containers in the Gratomic core yard, located on site.



Figure 9.14 Core yard and storage on the Capim Grosso Project (Source: QP).

### 9.3.4 Drillhole and trenching database

A comprehensive drillhole and trenching database is being maintained and updated regularly by Gratomic geologists. The QP reviews the database on a daily basis and is satisfied that the data is sufficient for its use in this Technical report.

### 9.3.5 Core recovery

Core loss is a relatively common occurrence during diamond drilling. Intersections to be used in a resource estimate should have a total core recovery (TCR) value of at least 85%, and preferably greater than 90%.

Core recovery for each hole drilled on the Capim Grosso Project was calculated as follows:

- Core recovery equals total length of core recovered divided by drilled length (core advance)

Table 9.5 Core recovery from the Gratomic drilling showing core recovered in total as well as core recovered over the graphite zones (source: Gratomic).

Hole	Total thickness of the graphite layers (m)	Average recovery in graphite layers (%)	Recovery full hole (%)
CGD001	17.1	89.06	94.04
CGD002	9.4	100.00	98.41
CGD003	3.05	100.00	98.05
CGD004	6.25	100.00	97.42
CGD005	10.6	100.00	98.66
CGD006	9.5	87.96	89.85
CGD007	17.75	93.42	96.67
CGD008	12.28	94.49	92.00
CGD009	10.4	95.81	90.00
CGD010	12.23	97.75	96.00
CGD011	12.98	98.84	95.00
CGD012	9.3	98.65	96.00
CGD013	20.01	95.67	97.00
CGD014	2.77	100.00	99.00
CGD015	10.01	94.74	99.00
CGD016	14.97	93.25	97.00
CGD017	5.26	97.43	98.00
CGD018	2.91	87.23	95.00
CGD019	0.37	100.00	97.00
CGD020	19.75	97.67	98.00
CGD021	25.83	96.67	98.00
CGD022	17.82	99.53	99.00
CGD023	7	99.79	96.00
CGD024	13.64	84.75	82.00

CGD025	14.38	95.24	95.00
CGD026	10.9	89.85	88.00
CGD027	12.11	98.81	97.00
CGD028	4.14	100.00	96.00
CGD029	24.07	96.49	97.00
CGD030	14.25	100.00	98.00
CGD031	27.93	99.06	96.00
CGD032	17.05	99.05	99.00
CGD033	5.64	91.19	94.00
CGD034	3.15	100.00	97.00
<b>Average</b>	<b>11.91</b>	<b>96.25</b>	<b>95.71</b>
Minimum	0.37	84.75	82.00
Maximum	27.93	100.00	99.00

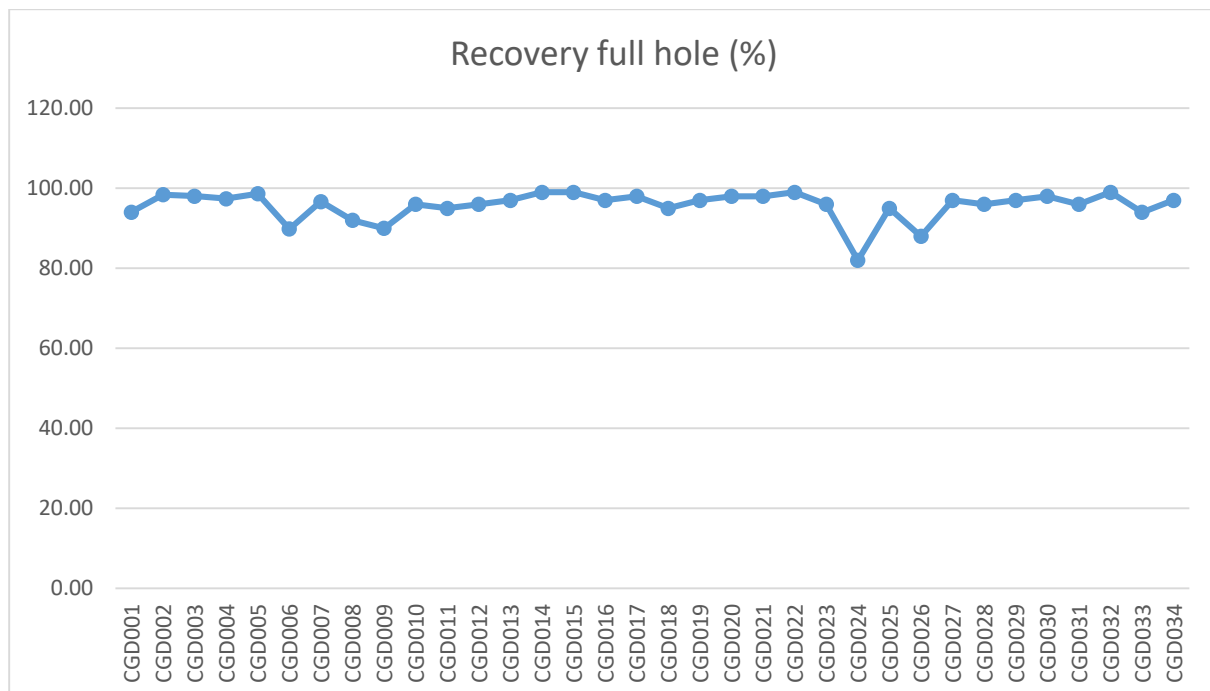


Figure 9.15 Core recover for holes drilled on the Capim Grosso Project to date (95.71 avg core recovery ranging between 82 % and 99 %) (source: Gratomic).

#### 9.4 Bulk density determinations

Gratomic has used the Archimedes method of bulk density determinations on fresh drillcore. To date, a total of 543 density measurements have been completed that provides an average value of 2.86.

### 9.5 Metallurgical test work

After obtaining chemical analysis results from SGS Geosol Brazil, SGS Lakefield (ON, Canada) has been commissioned to perform metallurgical tests on the first samples obtained from the trenching programs performed at the property (Gratomic press release Febr.7, 2022). SGS Lakefield has completed two scoping level flotation tests using two different flotation circuit configurations. A combined concentrate grade of 97.5% C(t) was achieved in one test with total carbon grades reaching as high as 98.6% in several particle-size fractions. The open circuit graphite recovery was 70.1%, approximately 20% of the graphite losses were associated with intermediated streams and most of these graphite units will report to the final concentrate during closed circuit operation. Optimization of rougher, and primary cleaning conditions are expected to reduce graphite losses to those tailings' streams. Based on the flotation results obtained to-date and experience with comparable graphite projects, a combined concentrate grade of 97% C(t) with a closed-circuit graphite recovery of 85-90% is projected. Further testing on additional samples and process optimization will be conducted to confirm these projections. It is the QPs opinion that while these tests are encouraging, further work on un-weathered material is required to compliment the metallurgical test work completed to date.

### 9.6 Exploration Target

An exploration target (comprising a lower and upper range) was completed in October 2022 by Nico Scholtz using the parameters as set out in *NI43-101 Section 2.3(2) (b)*. The lower range of the exploration target was calculated as follows:

- Verification of the trenching and drilling database
- Consideration for compositing and capping of grade
- Construction of topographic surfaces and solids (wireframes)
- Block model construction for drilled out areas only
- Cut-off grade selection to determine “reasonable prospects for economic extraction”
- Consideration for appropriate bulk density (fresh zone) based upon Archimedes method

The upper range of the exploration target was calculated as follows:

- Mineralisation host surface extent (on strike and parallel with drilled out areas) measured as per geophysical signatures outside drilled out areas
- Similar Cut-off grade and bulk density used as for lower range

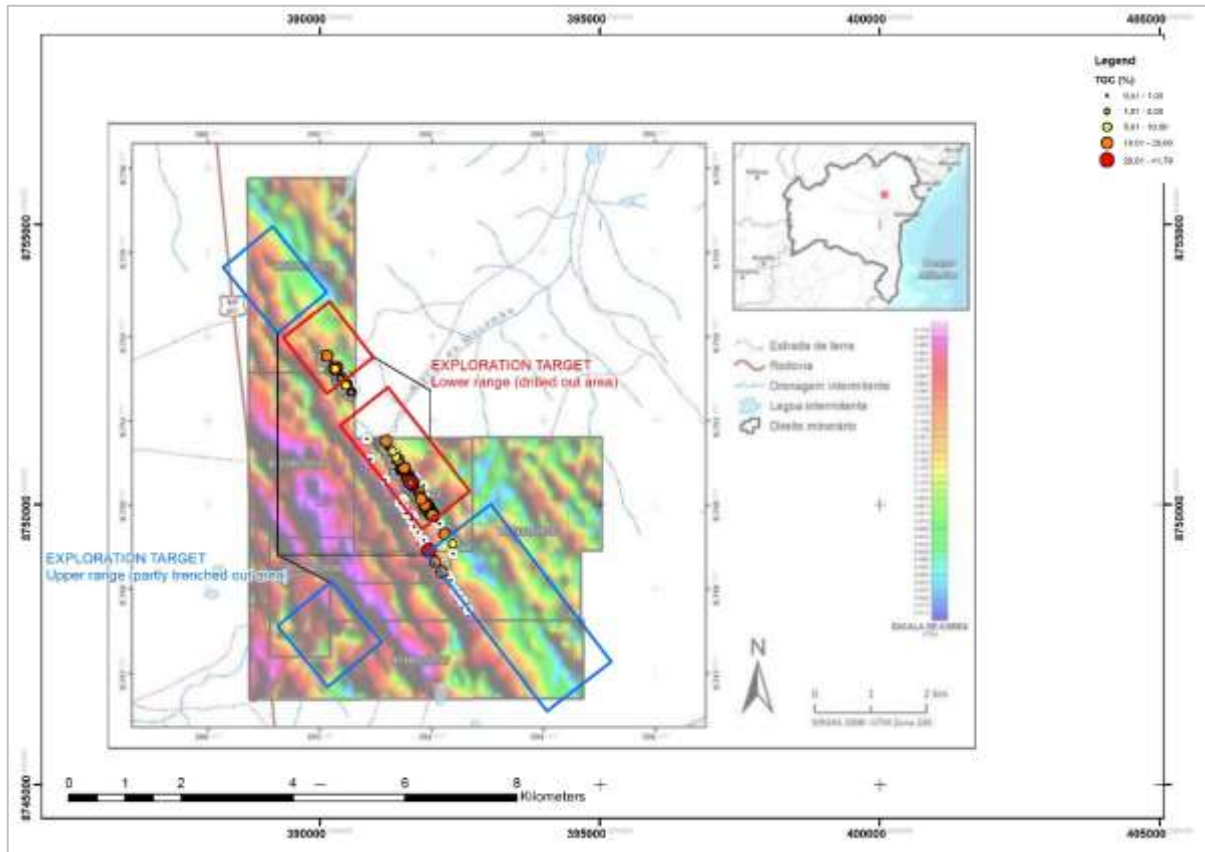


Figure 9.16 Exploration Target location (lower range exploration target in red is 2,200 m in extent along the NNW strike direction and upper range is approx. 10,000 m + 2,200 m total strike extent in blue) at the Capim Grosso Project (source: QP).

### 9.6.1 Lower range

The lower range of the Capim Grosso exploration target has been calculated from drilling using parameters set out below.

#### 9.6.1.1 Resource database

The Capim Grosso historical drilling database has been verified for mismatched samples and assay data. The QP is satisfied for its use in this exploration target.

#### 9.6.1.2 Compositing and grade capping

Samples were not composited and no grade capping was applied for this exploration target.

#### 9.6.1.3 Wireframe construction

The wireframe was constructed based purely on handheld GPS topography and geological logging of historical drillholes and trenches. The QP was able to build a 3D wireframe model using handheld GPS drillhole and trench collar data as well as mineralisation intersections.

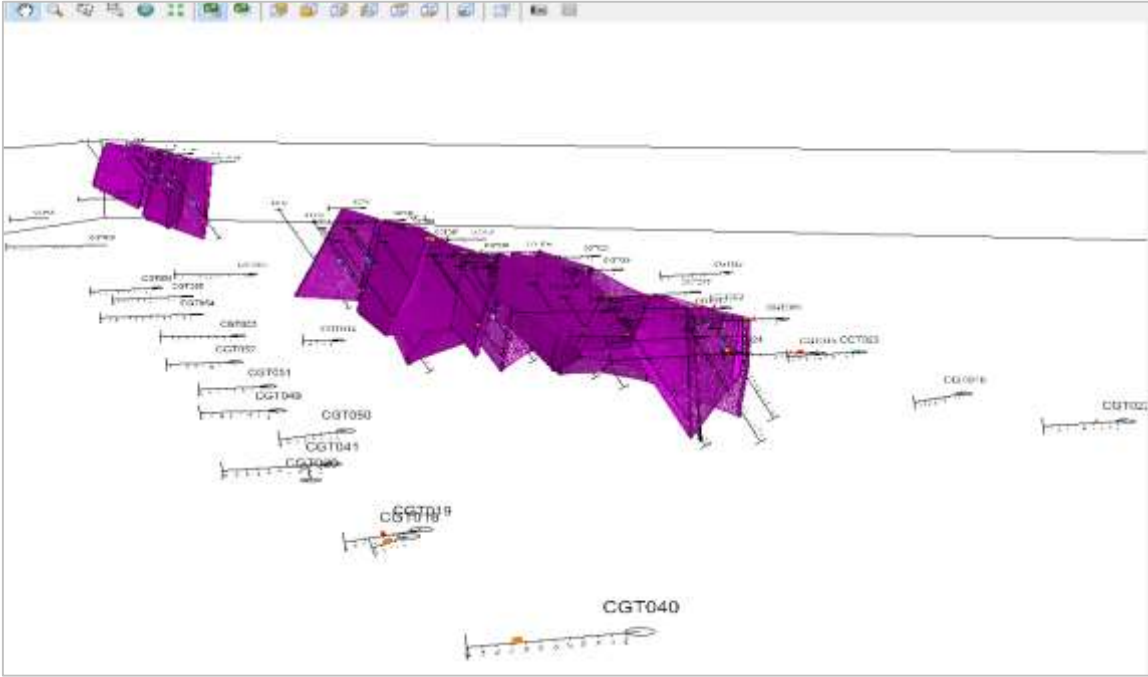


Figure 9.17 Capim Grosso wireframe built from handheld GPS drilling and trenching collar as well as mineralization intercept data looking NNW for Exploration Target lower range calculation (source: QP).

9.6.1.4 Voxels (volume calculations)

Voxels (volume calculations) for TGC % were generated for the Capim Grosso lower range exploration target using *Geosoft Target*.

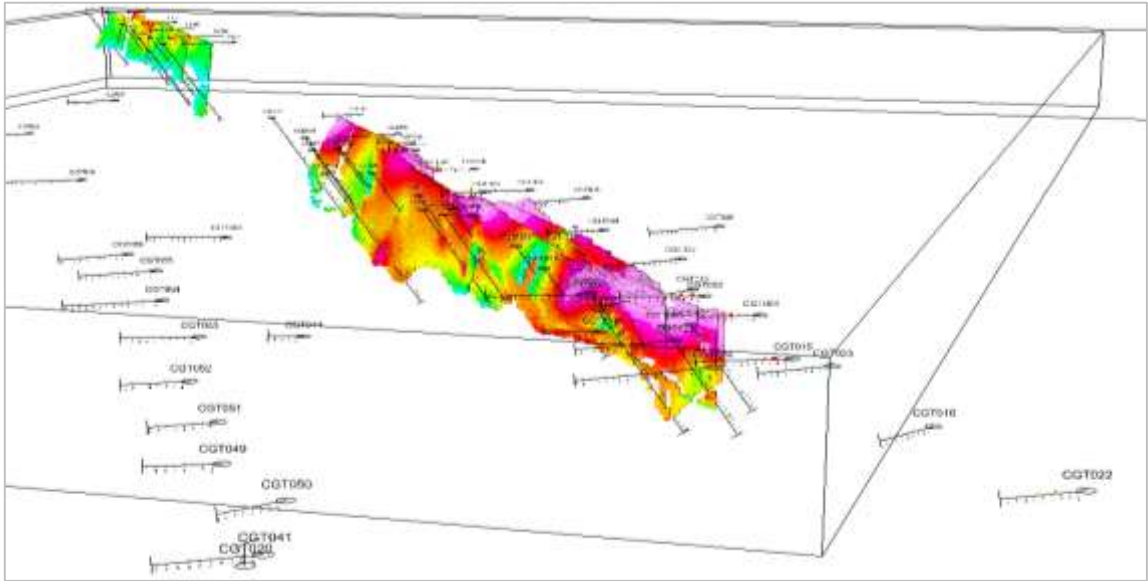


Figure 9.18 TGC % voxel model (2 % TGC cut off) completed with *Geosoft Target* for the Capim Grosso Lower Range exploration target looking NNW (source: QP).

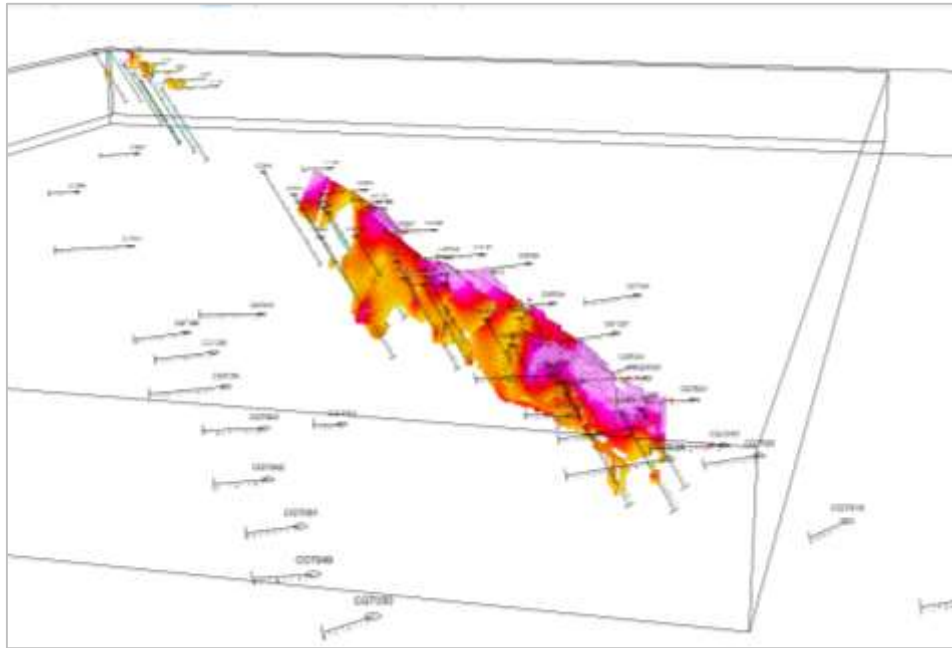


Figure 9.19 TGC % voxel model (5 % TGC cut off) completed with *Geosoft Target* for the Capim Grosso Lower Range exploration target. Note that the model data is only present in the southern portion after high cutoff grade is used (source: QP).

#### 9.6.1.5 Cut-off grade

Cut off grades were not generated from economic investigations, but rather from other known Graphite projects which use 2 % TGC as cut off. Future economic assessment or feasibility studies for Capim Grosso may lead to changes in these cut off grades.

#### 9.6.1.6 Bulk density

Bulk density determinations are ongoing at the Capim Grosso project. To date, bulk density has only been generated for drillcore in the fresh horizon using the Archimedes method. No bulk density determination has as yet been completed for the weathered zone (saprolite).

### 9.6.2 Upper range

The upper range of the Capim Grosso exploration target was calculated based upon:

1. Extrapolation of the drilling and trenching to the north and south of the current drilled out areas based upon magnetic data along strike.
2. Extrapolation of parallel bodies of graphite mineralisation either trenched or determined by visual identification

#### 9.6.2.1 Resource database

No resource database was used for the upper range calculation.

*9.6.2.2 Compositing and grade capping*

No compositing and grade capping was used for the upper range calculation.

*9.6.2.3 Wireframe construction*

No wireframe was constructed for the upper range calculation.

*9.6.2.4 Voxel models*

No voxel models were constructed for the upper range calculation.

*9.6.2.5 Cut-off grade*

Cut off grades were not generated from economic investigations, but rather from other known Graphite projects which use 2 % TGC as cut off. Future economic assessment or feasibility studies for Capim Grosso may lead to changes in these cut off grades.

*9.6.2.6 Bulk density*

Bulk density determinations are ongoing at the Capim Grosso project. To date, bulk density has only been generated for drillcore in the fresh horizon using the Archimedes method. No bulk density determination has as yet been completed for the weathered zone (saprolite).

**9.6.3 Exploration target**

This exploration target is conceptual in nature and there was insufficient exploration to define a mineral resource. The QP is uncertain if further exploration will result in the target being delineated as a mineral resource.

Table 9.6 The Capim Grosso exploration target (weathered and fresh zones combined) with different densities (values are rounded) (2 % TGC cut off) (source: QP).

	CAPIM GROSSO EXPLORATION TARGET	
	LOWER	UPPER
<b>MINERALIZATION TONS (tons)</b> (rounded to nearest million)	5,000,000	30,000,000
<b>DENSITY</b>	2.86	
<b>AVG. MINERALIZATION GRADE (TGC %)</b>	5.85	
<b>GRAPHITE TONS</b> (rounded to nearest 100k)	300,000	1,750,000

#### 9.6.4 Exploration target upgrade to NI43-101 mineral resource estimate

In order to update the exploration target to a mineral resource estimate prepared in accordance with the requirements of NI43-101, the following is needed:

- Determination of weathered and fresh zones from drilling data
- QAQC during drilling to continue, but add certified blank - and CRM every 20 samples
- The core quality in the weathered zone is in many case poor and duplicate sampling can therefore result in erroneous results. Duplicate QAQC is therefore only recommended on good quality intact core.
- Additional trenching and drilling in upper range exploration target areas to confirm mineralisation
- Wireframe and block model changes as per new drilling
- Differential GPS drone survey of the project area
- Differential DGPS trench and drillhole collar pick up
- Downhole surveys of drillholes, if all holes cannot be surveyed due to collapse, then as many holes as possible to verify drillhole trace deviation
- Umpire assays of at least 5 % of mineralised interval at an external laboratory
- Bulk density calculation of the weathered (saprolite) and the fresh zone

## 10. DRILLING

Drilling on the project by the issuer has been described in Section 9.3.

## 11. SAMPLE PREPARATION, ANALYSIS, AND SECURITY

The following is a description of sampling and sample preparation techniques followed by the vendor.

### 11.1 Sampling and analytical techniques

The sampling techniques used by Gratomic in the exploration completed to date include:

- Trenching
- Diamond drilling

#### 11.1.1 Trenching

A total of 63 trenches for 3,830.55 m have been excavated to date using a track mounted excavator.

##### 11.1.1.1 Sampling procedures (trenching)

Each trench was logged using a tape measure, handheld GPS and compass on a logging sheet. Samples were identified using visual observation by Gratomic Geologists and composite sampled over two meter intervals. Where mineralization was observed to be less than 1.0 m in width, samples were taken accordingly up to 0.3 m minimum intervals. Where geological and grade similarities were observed over longer intervals, samples were retrieved up to a max. of 2 m. One hundred and twenty-one (146) samples were retrieved from the trenching program and subsequently sent to the laboratory for analyses.

##### 11.1.1.2 Geochemical analysis and sample preparation (trenching)

Sample preparation and analyses were completed at SGS Geosol Laboratory in Minas Gerais.

##### 11.1.1.3 Sample Preparation Techniques (trenching)

Sample was dried at 105°C, crushed to 75% passing 3 mm, homogenized and quartered whereafter pulverized in a steel mill at 95% passing at 150 microns.

##### 11.1.1.4 Sample Analytical Techniques (trenching)

Sample analyses involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors. In addition, multi-element composition is determined by multi-acid digestion by ICP-OES (GC\_ICP40BGR) and gold by fire assay – AAS 50g (FAA505).

#### 11.1.2 Diamond drill hole sampling

A total of 34 drillholes have been completed to date using two skid mounted diamond drill rigs.

#### *11.1.2.1 Sampling procedures (drilling)*

Each drillhole was logged using a tape measure on a logging sheet. Samples were identified using visual observation by Gratomic Geologists and composite sampled over two meter intervals. Where mineralization was observed to be less than 1.0 m in width, samples were taken accordingly up to 0.3 m minimum intervals. Where geological and grade similarities were observed over longer intervals, samples were retrieved up to a max. of 2 m. Five hundred and fifty-three (553) samples have been retrieved to date from the drilling program and subsequently sent to the laboratory for analyses.

#### *11.1.2.2 Geochemical analysis and sample preparation (drilling)*

Sample preparation and analyses were done at SGS Geosol Laboratory in Minas Gerais.

#### *11.1.2.3 Sample Preparation Techniques (drilling)*

Sample was dried at 105°C, crushed to 75% passing 3 mm, homogenized and quartered whereafter pulverized in a steel mill at 95% passing at 150 microns.

#### *11.1.2.4 Sample Analytical Techniques (drilling)*

Sample analyses involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors. In addition, multi-element composition is determined by multi-acid digestion by ICP-OES (GC\_ICP40BGR) and gold by fire assay – AAS 50g (FAA505).

### **11.2 Quality assurance and quality control**

QAQC protocols were followed during the drilling and trenching programs as described below, which includes:

- CRMs, blanks and duplicates added to sample batches
- Umpire assay of samples at an external laboratory to verify results

#### **11.2.1 Trenching QAQC**

Gratomic inserted one blank and one Certified Reference Material (CRM) (OREAS 725) during the latter part of the trenching campaign. The CRM and blank assayed within 98 % and 100 % accuracy respectively.

Due to the fact that Gratomic only added one blank and one CRM during the latter part of the trenching program, the QP also made use of SGS Geosol's QAQC procedures, which included the insertion of the following samples during the trenching sample submission batches:

- 3 Blanks (cumulatively in all sample submission batches)

- 4 Duplicates (cumulatively in all sample submission batches)
- 6 CRMs (OREAS 724 and OREAS 725) (cumulatively in all sample submission batches)

#### 11.2.1.1 Trenching QAQC (SGS Blanks)

The blanks inserted by SGS into the trenching batches assayed within acceptable levels and the QP accepts the data for purposes used in this report.

Table 11.1 Blank QAQC implemented by SGS during trenching on Capim Grosso (source: QP).

Sample ID	CSA05V C (Grafítico)	EXPECTED	CORREL
SGS - Blank Prep	<0,05	0	1
SGS - Blank Prep	<0,05	0	1
SGS - Blank Prep	<0,05	0	1

#### 11.2.1.2 Trenching QAQC (SGS Duplicates)

The duplicates inserted by SGS into the trenching data assayed within acceptable levels and the QP accepts the data for purposes used in this report.

Table 11.2 Duplicate QAQC implemented by SGS during trenching on Capim Grosso (source: QP).

Sample ID	CSA05V C (Grafítico)	EXPECTED	CORREL
	2.23		
SGS - Dup	2.21	2.23	1.009049774
	8.35		
SGS - Dup	8.29	8.35	1.007237636
	19.73		
SGS - Dup	19.78	19.73	0.997472194
	9.75		
SGS - Dup	9.71	9.75	1.004119464

#### 11.2.1.3 Trenching QAQC (SGS CRMs)

The CRMs inserted by SGS into the trenching data assayed within acceptable levels and the QP accepts the data for purposes used in this report.

Table 11.3 CRM QAQC implemented by SGS during trenching on Capim Grosso (source: QP).

Sample ID	CSA05V C (Grafítico)	EXPECTED	CORREL
SGS - OREAS 724	12.07	12.06	0.9991715
SGS - OREAS 724	12.04	12.06	1.00166113
SGS - OREAS 725	24.31	24.52	1.00863842
SGS - OREAS 725	24.11	24.52	1.017005392
SGS - OREAS 724	11.89	12.06	1.014297729
SGS - OREAS 725	24.26	24.52	1.01071723

### 11.2.2 Drilling QAQC

Gratomic QAQC during the drilling involved the following (the laboratory QAQC is not added to this section):

- Insertion of a CRM every 20 samples (tests the laboratory assay technique)
- Insertion of a blank every 20 samples (tests the laboratory cleaning of equipment after every sample)
- Duplicate samples (tests the laboratory preparation techniques)

#### 11.2.2.1 Blank QAQC (Drilling)

Blank material was only inserted during the latter half of the current drill program and therefore only constitutes 18 blank samples. The most obvious reason for the below poor correlation is likely due to the use of uncertified blank material. The QP suggests that any future addition of blank material should be certified.

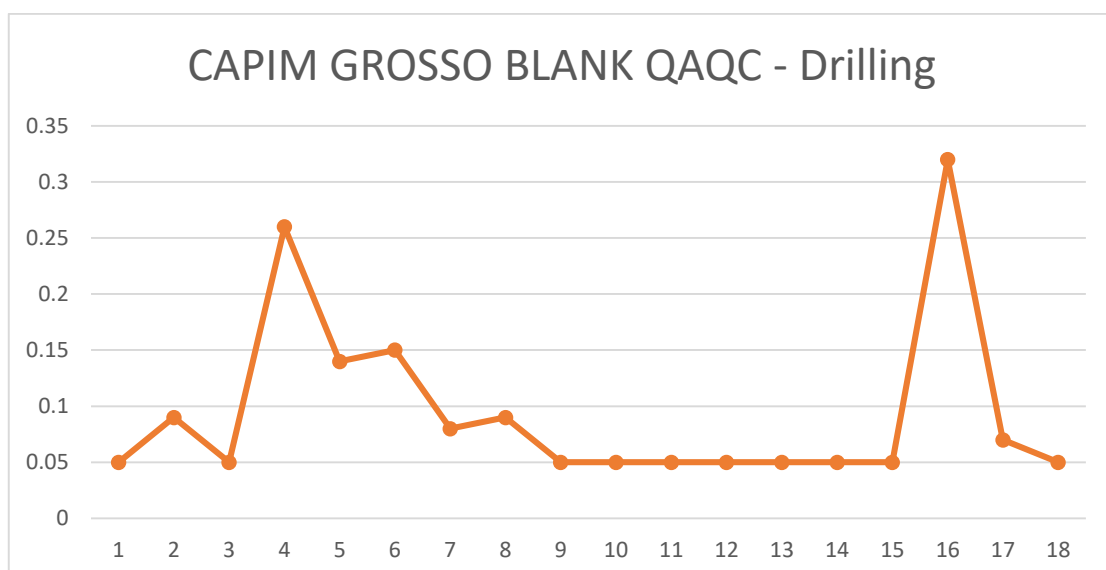


Figure 11.1 Blank QAQC (TGC %) during Gratomic drilling on Capim Grosso (source: QP).

### 11.2.2.2 Duplicate QAQC (Drilling)

Duplicates of core sample material was only inserted during the latter half of the current drill program and therefore only constitutes 13 duplicate samples. The most obvious reason for the below poor correlation is likely due to the use of material that is from poor core quality and therefore exact core matches could not be obtained. The QP suggests that any future addition of duplicate material should be used only if good quality core is obtained.

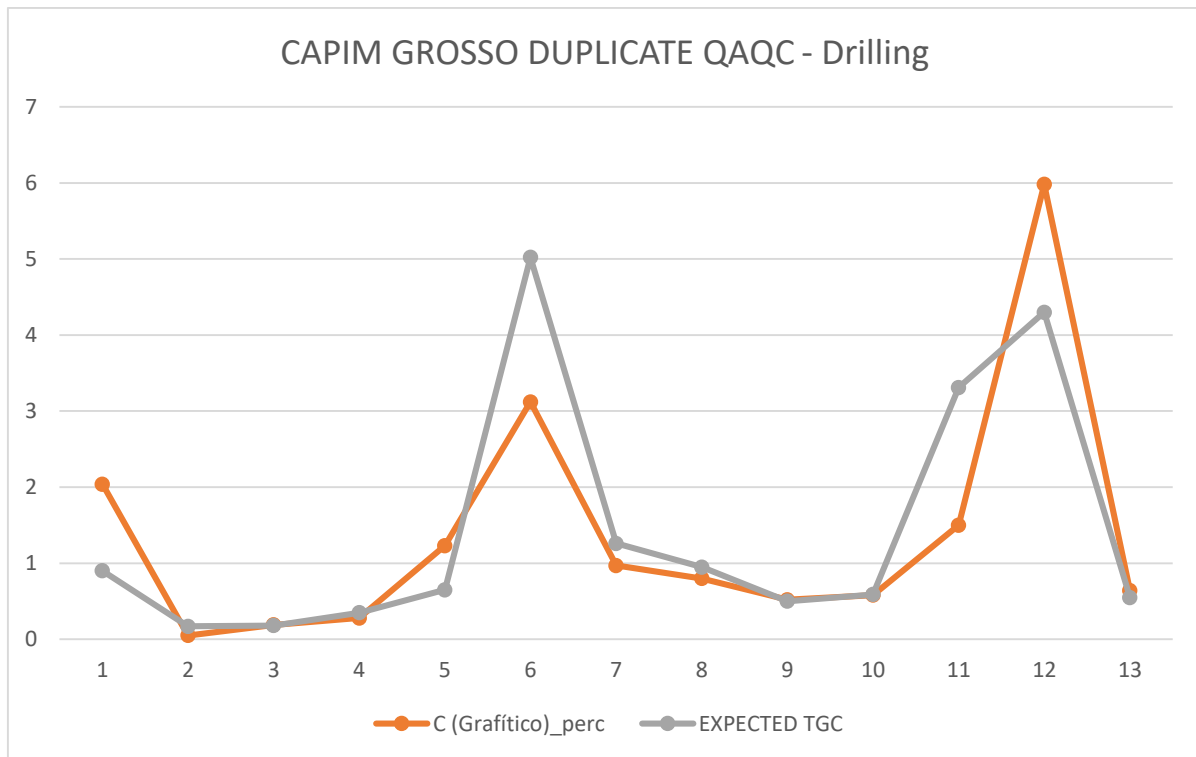


Figure 11.2 Duplicate QAQC (TGC %) during Gratomic drilling on Capim Grosso (source: QP).

### 11.2.2.3 CRM QAQC (Drilling)

Certified Reference Materials were inserted from the start of the current drill program and therefore constitutes 32 CRM samples. The CRM data correlates well (between 0.97 and 1.02).

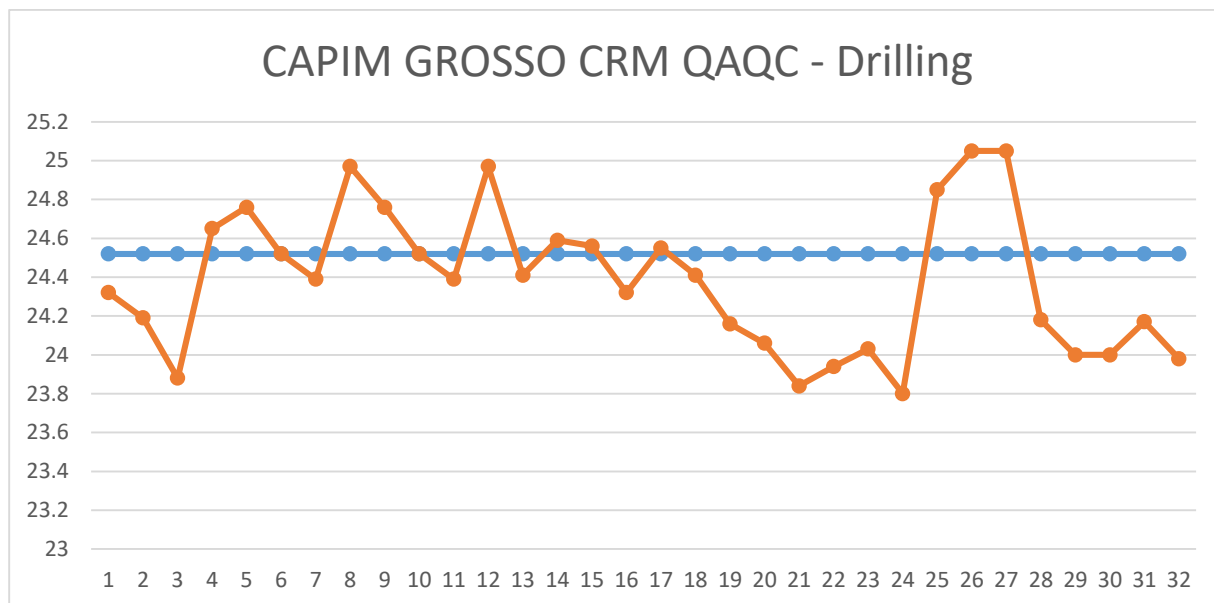


Figure 11.3 CRM (TGC %) QAQC during Gratomic drilling on Capim Grosso (source: QP).

### 11.2.3 Umpire assays (Drilling and trenching)

Umpire assays were received at ALS Limited in Belo Horizonte, Brazil and assayed at ALS Limited in Vancouver, in order to verify the assay results from SGS Geosol in Brazil.

#### 11.2.3.1 ALS sample preparation techniques

Samples were received as pulp, and therefore did not need to undergo sample preparation.

#### 11.2.3.2 ALS assay techniques

Graphitic Carbon is determined by digesting sample in 50% HCl to evolve carbonate as CO<sub>2</sub>. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by oxidation, induction furnace and infrared spectroscopy.

Table 11.4 Umpire assay data from ALS verifying the SGS data (drillholes and trenches). All samples assayed within acceptable levels and the QAQC is accepted (correlation varied between 1.25 and 0.93 with one outlier of 0.58, most likely attributed to a nugget effect in the specific sample) (source: QP).

HOLE #	HOLE	FROM (m)	TO (m)	INTERVAL (m)	SAMPLE	TGC_PERC_USE SGS GEOSOL	ASSAYS_ALS	CORRELATION
1	CGT035	39.85	41.85	2	89627	22.61	22.8	1.01
2	CGT027	87.9	88.9	1	89684	14.22	14.75	1.04
3	CGT027	79.4	81.4	2	89687	13.46	14.6	1.08
4	CGT029	91.7	93.7	2	89689	30.12	37.6	1.25
5	CGT029	93.7	95	1.3	89690	25.91	27.8	1.07
6	CGT029	114.55	116.55	2	89692	32.89	38	1.16

7	CGT030	25.2	31.9	6.7	89694	5.68	5.78	1.02
8	CGT031	26.5	28.5	2	89695	18.57	18.85	1.02
9	CGD029	43	44.2	1.2	A0191	6.2	5.83	0.94
10	CGD029	54.25	55.25	1	A0202	14.12	13.05	0.92
11	CGD029	56.25	57.25	1	A0204	13.77	12.8	0.93
12	CGD029	57.25	58.25	1	A0205	23.74	22.7	0.96
13	CGT001	20	22	2	X6201	21.65	20.7	0.96
14	CGT001	26	28	2	X6202	19.14	17.9	0.94
15	CGT002	8	10	2	X6203	27.3	28.2	1.03
16	CGT002	16	18	2	X6204	20.37	20.8	1.02
17	CGD001	23.7	24.9	1.2	X6705	26	26.2	1.01
18	CGT012	40	42	2	X6248	14.27	8.33	0.58
19	CGD001	25.8	27.05	1.25	X6707	17.65	18.05	1.02
20	CGD001	27.05	28.65	1.6	X6708	23.61	24.1	1.02
23	CGD002	130.25	130.69	0.44	X6719	8.42	4.5	0.53
24	CGD004	62.77	62.82	0.05	X6726	37.9	39	1.03
25	CGD005	38.07	38.64	0.57	X6729	13.54	13.7	1.01
26	CGD005	40.98	41.58	0.6	X6733	22.16	22.4	1.01
27	CGD011	86.16	87.16	1	X6820	15.5	15.25	0.98
28	CGD011	87.16	88.16	1	X6821	13.7	15	1.09
29	CGD011	88.16	89.16	1	X6822	16.28	15.55	0.96
30	CGD011	90.16	91.16	1	X6824	12.91	14.35	1.11
31	CGD011	136.75	137.75	1	X6833	15.17	16.95	1.12
32	CGD013	72.41	73.41	1	X6860	13.85	13.75	0.99

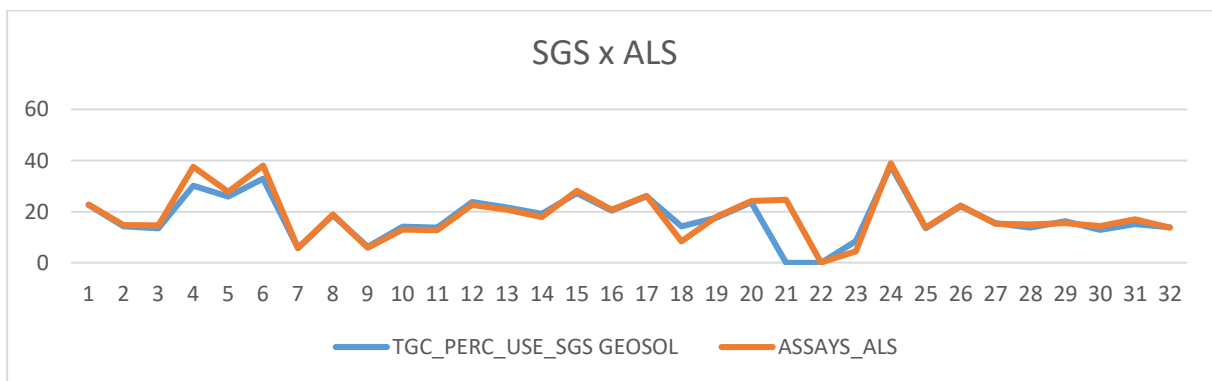


Figure 11.4 Umpire assays completed by ALS Vancouver giving an avg. correlation of 0.99 when compared to SGS Geosol (source: Gratomic).

#### 11.2.3.3 ALS umpire assays QAQC

The ALS assays were also verified with one CRM and one blank, which assayed within acceptable levels as noted within the table below.

Table 11.5 CRM and blank samples added to the ALS Umpire assay samples. All samples assayed within acceptable levels and the QAQC is accepted (source: QP).

TYPE	SAMPLE	ASSAYS ALS	EXEPECTED CRM / BLANK	CORRELATION
CRM (OREAS 724)	C0101	24.6	24.6	1
BLANK	C0102	0.04	0	1

#### 10.5.4.2 Additional QAQC (Umpire assays)

Additional QAQC implemented by the assay laboratories (SGS Geosol and ALS Vancouver) involved the following:

- SGS added its own internal checks with duplicates, blanks and CRMs which assayed within acceptable levels
- ALS added its own internal checks with duplicates, blanks and CRMs which assayed within acceptable levels

## 12. DATA VERIFICATION

The QP is responsible for the entire Report and has relied upon the data supplied by Gratomic.

Nico Scholtz was able to independently verify the following:

- a. License boundaries
- b. Historical exploration work completed on the ground and by reviewing datasets
- c. Graphite mineralisation on the project through visual inspection and grab sampling
- d. Trenching and drilling operational procedures
- e. Drilling and trenching sample retrieval and laboratory assay quality assurance and quality control (QAQC)

### 12.1 Grab sampling data verification

Data verification was completed by Nico Scholtz at the onset of the project which comprised a grab sampling and visual graphite mineralisation determination. The grab sampling program was completed between 10 and 15 July 2021 and a total of 15 grab samples were retrieved.

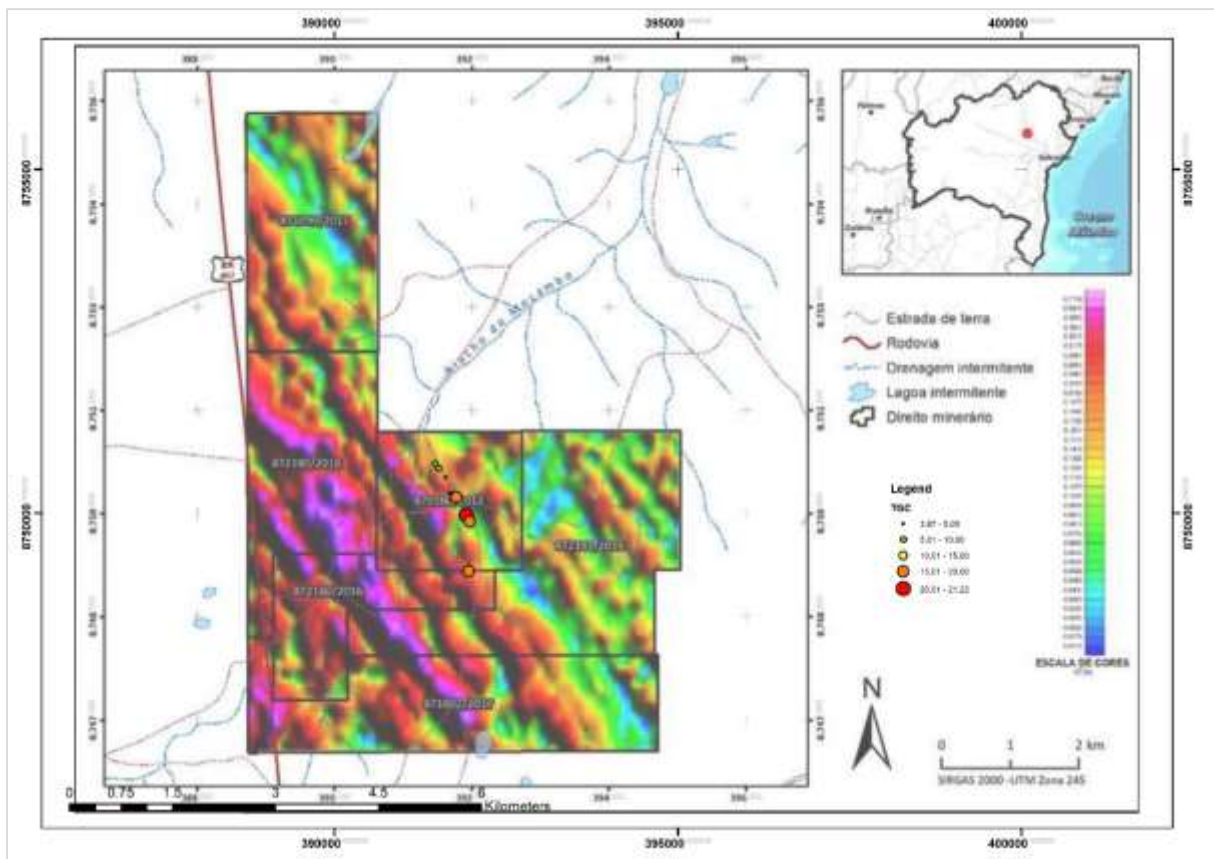


Figure 12.1 Grab sampling locations and assay results as retrieved by Nico Scholtz in July 2021 from the Capim Grosso Project shown on Analytical Signal magnetic data (Source: QP).

Grab sample preparation and analyses was completed at SGS Geosol Laboratórios in Minas Gerais. Assay procedures at SGS involved SGS Geosol's graphitic carbon assay methods and equipment include the LECO carbon-sulphur analyzer and high temperature combustion infrared detection. During this procedure, the carbon in the sample is converted to carbon dioxide CO<sub>2</sub>, which is then measured by infrared (IR) detectors.

Table 12.1 Grab sample results as retrieved by Nico Scholtz from the Capim Grosso Project in July 2021 (source: QP).

SAMPLE ID	X	Y	LABEL	S	TGC
U4803	391966	8749876	Zumbi (Capim Grosso)	0.02	19.02
U4804	391935	8749927	Zumbi (Capim Grosso)	0.02	5.74
U4805	391916	8749968	Zumbi (Capim Grosso)	<0,01	21.22
U4806	391771	8750231	Zumbi (Capim Grosso)	0.05	15.85
U4807	391677	8750289	Zumbi (Capim Grosso)	<0,01	3.93
U4808	391617	8750520	Zumbi (Capim Grosso)	0.02	3.87
U4809	391515	8750652	Zumbi (Capim Grosso)	<0,01	7.51
U4810	391466	8750716	Zumbi (Capim Grosso)	<0,01	7.73
U4811	391967	8749873	Zumbi (Capim Grosso)	0.01	17.82
U4812	391948	8749163	Zumbi (Capim Grosso)	0.05	14.94
U4813	391949	8749155	Zumbi (Capim Grosso)	<0,01	18.34
U4814	342108	8767628	Zumbi (Capim Grosso)	0.1	5.79
U4815	342110	8767623	Zumbi (Capim Grosso)	0.01	5.03
U4816	343663	8760509	Zumbi (Capim Grosso)	0.08	8.12

Note that the QP did not insert a CRM and opted to use the laboratories internal QAQC methods, which assayed within acceptable levels.

## 12.2 Gratomic trenching and drilling set-up procedures

Nico Scholtz ensured that trenches are laid out according to GPS start and end positions and that drillhole azimuth and dip is measured by geological compass with the necessary magnetic declination observed. These trench and drillhole set-up procedures were verified during the QPs follow up site visits.

## 12.3 Sample retrieval and laboratory assay QAQC (Quality assurance and quality control)

Sample retrieval from trenching and drilling as well as laboratory procedures are discussed in Section 11.

## 12.4 QP opinion on data adequacy

The QP is of the opinion that the data used in this Technical Report is adequate for its use.

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

No mineral processing testing has been completed by the Issuer. Metallurgical testing on the project by the issuer has been described in Section 9.5.

## 14. MINERAL RESOURCE ESTIMATES

In 2023, the QP was commissioned by the Issuer to complete an independent Mineral Resource Estimate (the “MRE”) on the Capim Grosso Project, located within the Bahia State of northeastern Brazil. The current estimation is based on 34 diamond drill holes (4,691.1 m; 553 core samples) that were drilled and logged by Gratomic between 2021 and 2023 as well as 33 trenches (2,125.65 m; 122 trench samples) that were excavated and logged by Gratomic also between 2021 and 2023. Graphite grades were estimated by laboratory assay (SGS Geosol) in the preparation of the current Capim Grosso MRE.

The approach and methodologies applied in the MRE are in accordance with the definition of a current Mineral Resource Estimate as defined by NI 43-101 and following the Canadian Institute of Mining, Metallurgy and Petroleum CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines as amended (CIM, 2019).

The three-dimensional (3D) geological and mineralization models were constructed using Geosoft Target™ (“Target”). The statistical and geostatistical analyses and grade estimation was done using the same software. Mr. Nico Scholtz, M.Sc. (Geology), Pr. Sci. Nat. (400299/07), is the QP for the current MRE. Risks which may reasonably affect the MRE are related to ongoing exploratory drilling to increase mineral resource confidence (*i.e.*, exploration risk).

### 14.1 Key assumptions

The mineral resource estimate takes the following assumptions into consideration:

- Visual identification indicate that the oxidation zone appears to extend to depths varying between 6 m up to 84 m below surface, giving an average of 30 m below the topographic surface. Because the limit of the resource models is up to 170 m below surface, it is therefore assumed to be predominantly comprised of fresh rock.
- No deflection of drillhole trace at depth
- While mineralisation no doubt exhibits various dips along depth between a set range that varies between -70 to -85, a general dip of -80 is assumed based upon trends observed by the QP in trenches
- While mineralisation no doubt exhibits various strike variations along trend (varying between 140 and 150 degrees) a general strike of 147 is assumed for the southern wireframe and 145 for the northern wireframe based upon trends observed by the QP in trenches and outcrop

## 14.2 Geological data

Geological data comprises:

- Details on topographic variations obtained during the Mineral Resource Estimation process
- Drillhole and trench database as well as density determinations

### 14.2.1 Topography

The topographic surface was modelled into a digital elevation model (“DEM”) using unmanned drone photogrammetric survey data, collected at a 200 m grid spacing and 50 m station spacing along flight lines. The survey was conducted by Axial Engenharia, a specialist survey company, based in Brazil.

The topographic DGPS survey used a combination of aerial photogrammetry with images obtained by a DJI Mavic 2 Zoom drone and a GNSS RTK Spectra SP60 receiver for the acquisition of mooring points. The methodology involved the following steps (Gratomic, 2023):

- Flight planning: In this step, the drone flight was planned to ensure adequate coverage of the area of interest. This includes setting the flight height, setting the overlap between images, delineating areas of interest, and selecting tie points.
- Collection of tie points: Tie points are terrestrial points with known and precise coordinates that are used to georeference the images obtained by the drone. The GNSS RTK Spectra SP60 receiver was used to collect the coordinates of these mooring points in the field. These points were strategically distributed in the area of interest and were visible in the images captured by the drone.
- Drone flight and image capture: With the flight planning defined, the DJI Mavic 2 Zoom drone was configured and launched to perform the flight over the area of interest. The drone captured a sequence of aerial images that covered the entire area, using its high-resolution camera.
- Image processing: After collecting the images, they were transferred to a computer and processed using software specialized in aerial photogrammetry. The software processes the images to create a three-dimensional model of the area of interest, based on the correspondence of common points in the images and the calculation of the camera's geometry.
- Georeferencing: In this step, the images were georeferenced using the previously collected tie points with the Spectra SP60 RTK GNSS receiver. The coordinates of the tie points were used to align and adjust the three-dimensional model generated from the images. This allows the model to be accurately referenced to a known geographic coordinate system.
- Data extraction and analysis: With the georeferenced three-dimensional model, topographic information was extracted, such as contour lines, elevations of specific points, among others. This data can be analyzed and used for various purposes, such as engineering projects, monitoring of natural areas, among others.

### 14.2.2 Drillhole and trench database

The drill hole database was received from Gratomic in an Excel format, containing collar, downhole survey, lithology, and assay data. The database comprised a total of 34 drill holes and 63 trenches. Only data from the western graphite mineralisation trend was used in the current MRE as this was the only trend that was drilled. Drill hole spacing is approximately 100 m x 100 m along strike.

Table 14.1 Summary of the Capim Grosso database used in the Resource Estimation (Note that no composting was completed) (source: QP).

Field	Number of entries	Length (m)	Composites (1 m)
Drillhole collars	34	4,784.10	-
Trench collars	33	2,125.65	-
Drillhole assays	553	-	-
Trench assays	122	-	-

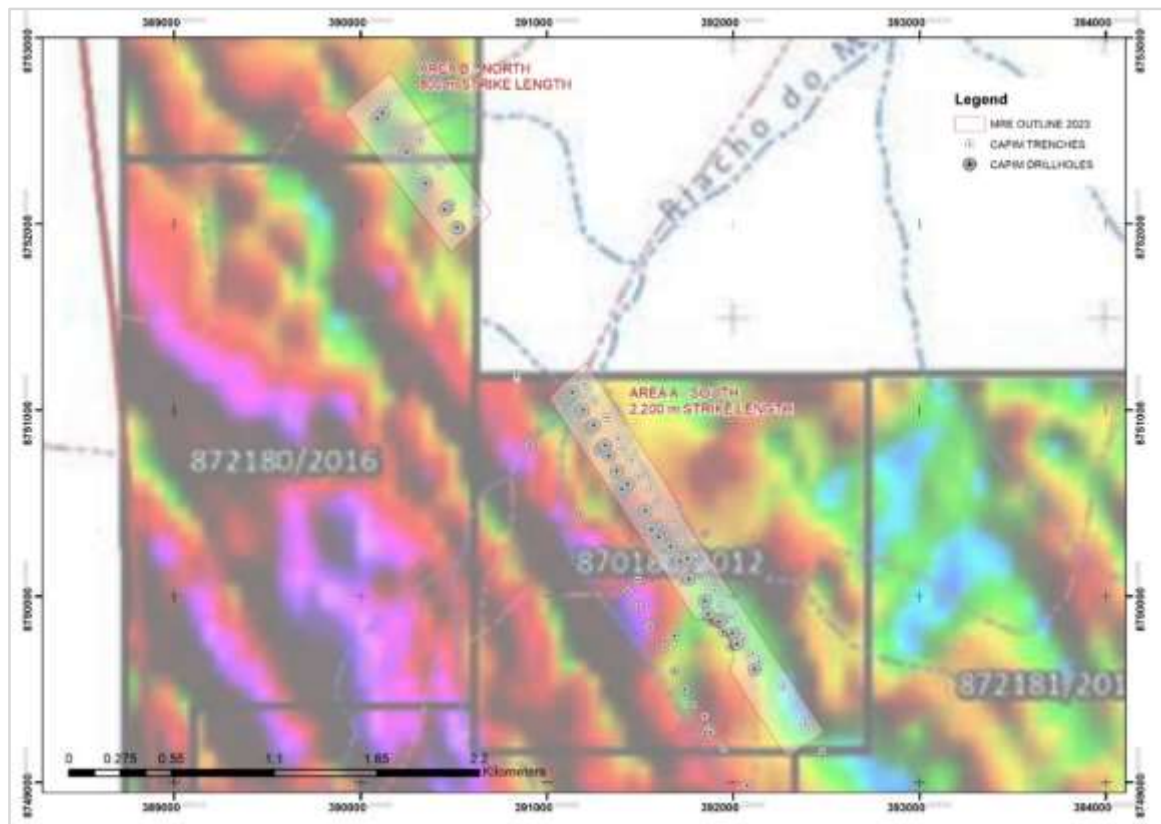


Figure 14.1 Two areas (Area A and B) which contains the mineral resource estimate for the Capim Grosso Project (source: QP).

The collars for all drill holes and trenches were surveyed using a DGPS. None of the drill holes contained downhole survey data, as deflection of the shallow drilling was assumed to be minimal. The assay data file contained assay values for 38 elements, including Total Graphitic Carbon (TGC), for 34 drill holes and 63 trenches (only 33 trenches were used in the current mineral resource estimate).

NS performed various checks on the data. Data checks included, but not limited to, checking the position of the collars in the field and in 3D space relative to the topography, checking for missing data, overlapping segments, and missing or invalid values. Mr. Scholtz communicated with the exploration team regarding any queries, which were addressed, and a final database re-issued in Excel format. Mr. Scholtz is therefore of the opinion that the data collection, logging and sampling procedures implemented are to industry standards, and of sufficient reliability for use in the MRE.

Detailed descriptions and results of the sampling QA/QC program is contained in Section 11. Mr. Scholtz is of the opinion that the drill hole and trench sampling QA/QC program and assay results are sufficiently accurate and precise for Mineral Resource estimation.

#### **14.2.3 Density**

Gratomic has used the Archimedes method of bulk density determinations on fresh drillcore. To date, a total of 543 density measurements have been completed that provides an average value of 2.86.

### **14.3 Geological and mineralisation modeling**

#### **14.3.1 Stratigraphic modeling**

Detailed lithology logging was carried out on all drillholes and trenches, with the final dataset comprising unique lithology codes. However, as graphite mineralisation is confined to one unit only, namely a graphitic gneiss, this is the only unit that was used together with graphite analyses, to generate wireframes over the mineralised horizons.

Cross-sectional views of the wireframe models are also shown in the figures below. The stratigraphic units dip steep to the southwest at approximately 70 to 80 degrees. The same Figures show west-east cross-sections of the wireframe model, superimposed with the drill holes showing bar graphs adjacent to the drill holes coloured on TGC %.

Mineralization is interpreted to be predominantly constrained along fluid pathways based upon alteration zones associated with graphite mineralisation. The stratigraphic model was therefore generated based upon the logging of graphitic units.

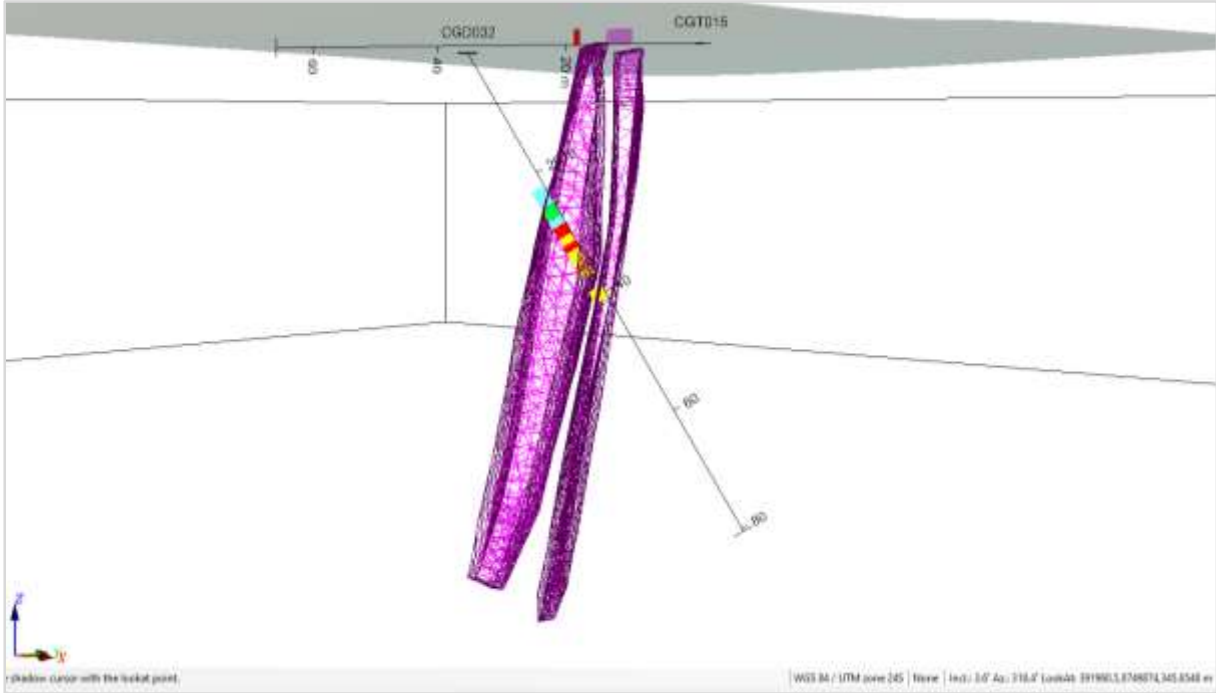


Figure 14.2 Southern part of the project area looking along trend towards the NW (source: QP).

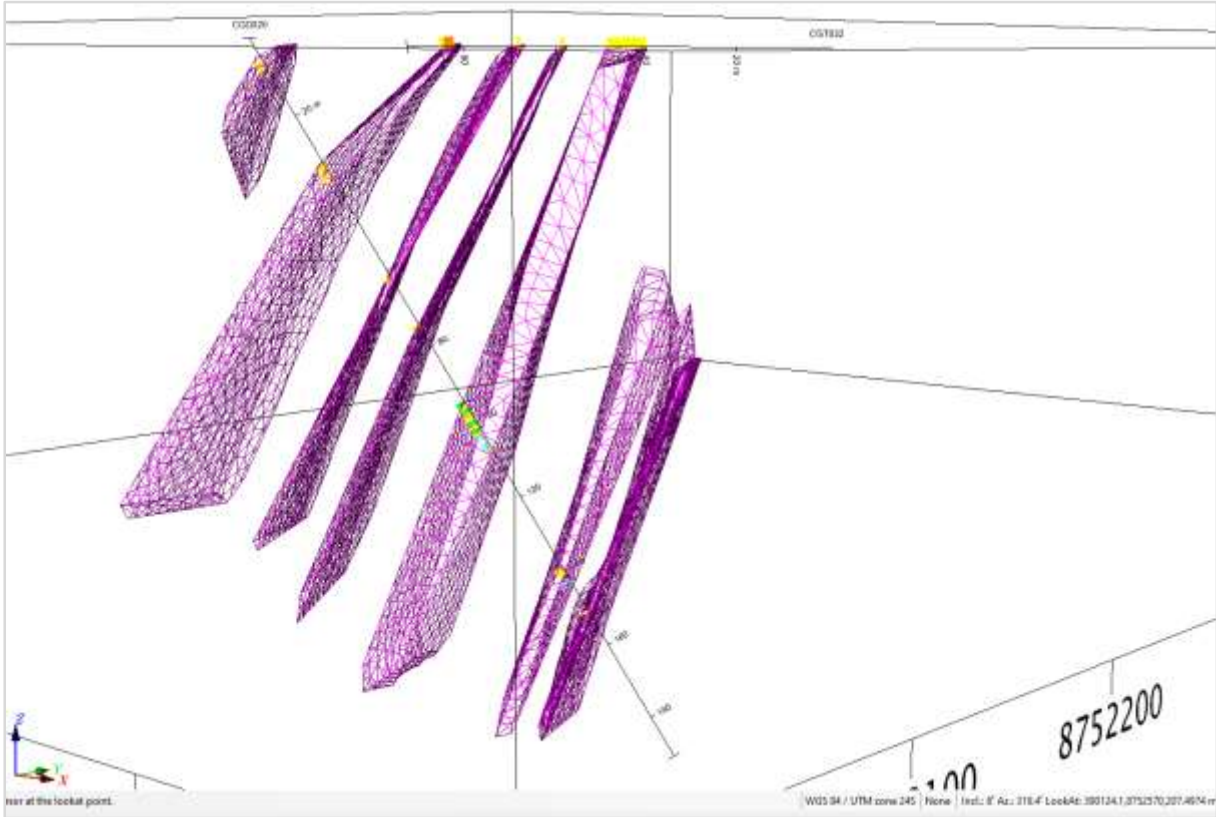


Figure 14.3 Northern part of the project area looking along trend towards the northwest (source: QP).

### 14.3.2 Mineralisation model

The highest grade of graphite mineralization has been intercepted within the southern part of the project, with mineralisation grades generally remaining constant over strike and dip in this southern zone. While the northern zone has a marked lower grade, this zone seems to contain bigger widths of mineralisation. However, this may be due to a varying number of drillholes and trenches in comparison with the southern resource area. Mineralisation is open along depth and strike. In addition, there remains potential for parallel mineralisation towards the western and eastern parts of the project.

### 14.3.3 Resource Estimation methodology

Only the drillhole and trench samples within the mineralized envelopes were used to interpolate the grade of regularized 1 m<sup>3</sup> blocks using Geosoft Target. All the interpolated blocks below the surface DTM and within the mineralized envelopes comprise the MRE and have been classified according to the QPs confidence. This MRE technique involved the following:

- Two (2) resources blocks delineated based upon license boundaries
- No vertical zonation was used (i.e. oxidation vs. fresh zones) as the graphite mineralization seemed to vary little at depth, was not oxidized and only slightly weathered at surface.
- Wireframes (mineralization envelopes) were generated from geological sections generated perpendicularly over the lithological strike.
- Voxel Models (*Geosoft Voxels*) of 1 m<sup>3</sup> block sizes were generated using Ordinary Kriging (*Geosoft Target*), which were clipped to the wireframes to generate volumes of mineralization.
- Directional voxel models were generated by assigning a weighted dip and strike to each resource block with resource volumes generated by Ordinary Kriging

#### 14.3.3.1 Composite data

Composites were not generated due to estimation by the software for missing data. For example, CGD001 assayed 23.61 % TGC from 27.05 m to 28.65 m. In order to composite the data into 1 m blocks, the software has to estimate the mineralisation from 27 m to 28 m and from 28 m to 29 m. The software does this using weighted averages and provides the below.

Table 14.2 Composite data (1 m interval) from an uneven interval assay length (source: QP).

HOLE	FROM	TO	INTERVAL	TGC % Composite
CGD001	27.00	28.00	1.00	23.31
CGD001	28.00	29.00	1.00	16.49

#### 14.2.2.1 Resource Blocks

Two (2) resources blocks delineated based upon license boundaries.

#### 14.3.3.2 Wireframes

Wireframes (mineralization envelopes) were generated from geological sections generated perpendicularly over the lithological strike.

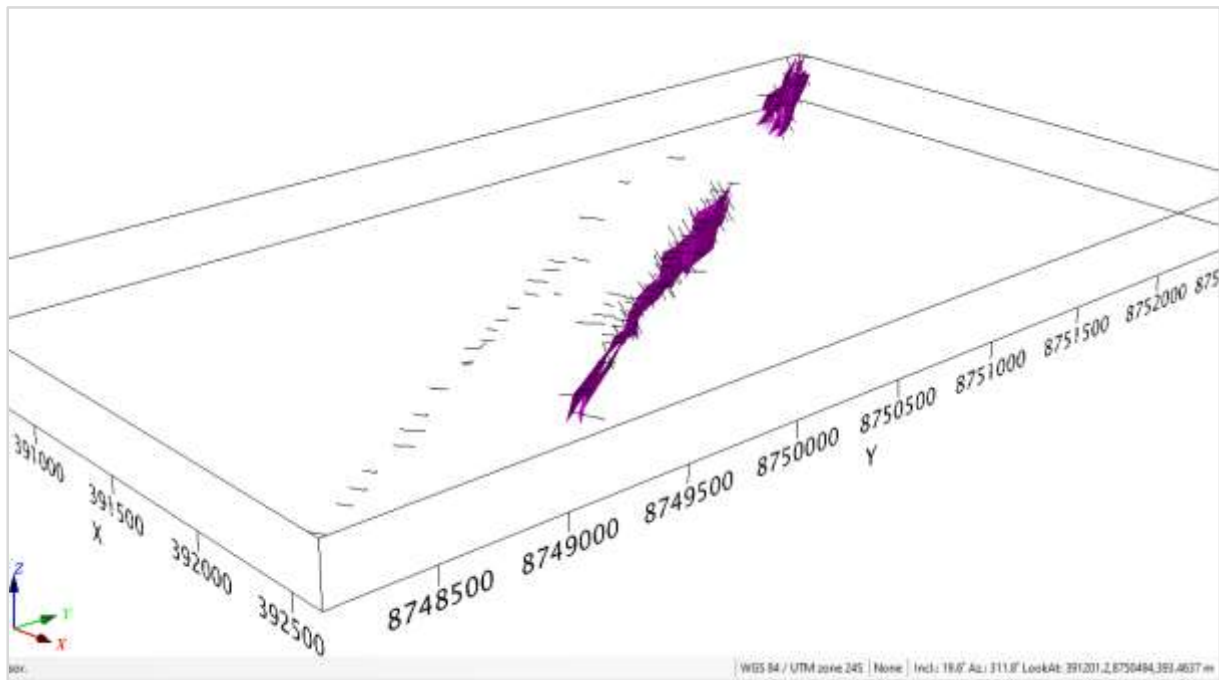


Figure 14.4 Wireframes (mineralization envelopes) built over Project area Resource Blocks, looking northeast (note additional trenches which intercepted mineralization, but on a parallel trend and therefore not used in the current MRE) (source: QP).

#### 14.3.3.3 Voxel models

This process of building voxel models involved the following:

- Determination of general dip and strike for resource blocks through QP experience on site and geological section investigations.
- Voxel Models (Geosoft Voxels) block size of 1 m<sup>3</sup> block sizes were generated using Ordinary Kriging (Geosoft Target) based upon the most common interval found in assay database.
- Once voxel models were built, they were verified against drillhole graphite intercepts and once confirmed, the model was clipped to wireframes and Geosoft generated a volume and mean for each model, which was used by the CP to generate tonnages and average grades.

The voxel models require a manual strike direction and dip as well as a weight assigned to these, in order to generate an Ordinary Kriging model (KRIGRID uses a statistical analysis of the data to predict the values at each grid node based on maximum probability (minimum error).

Table 14.3 Strike, dip and weight used for each resource block (source: QP).

RESOURCE BLOCK	STRIKE	DIP	WEIGHT	DEPTH ATTAINED (m)
A	147	80	150	170
B	145	80	200	156

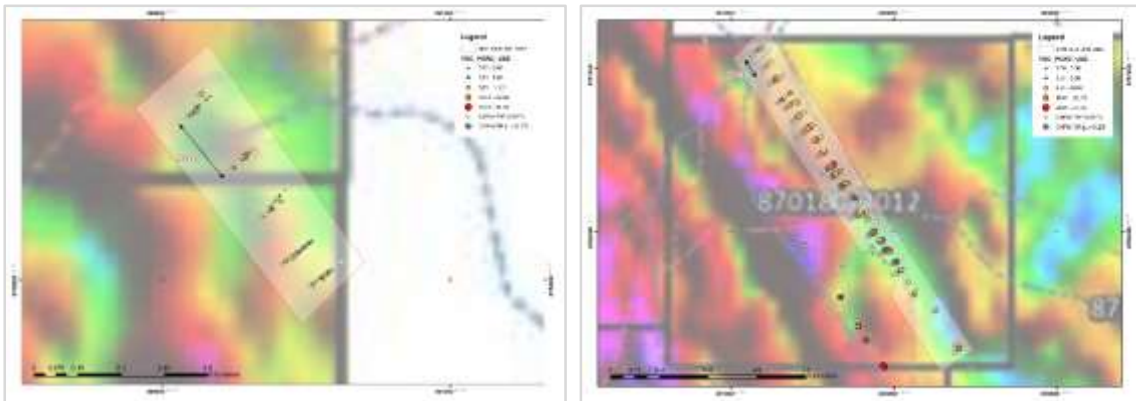


Figure 14.5 Average data point distances on Resource Blocks (200 m on northern block and 100 m on southern block) (source: QP).

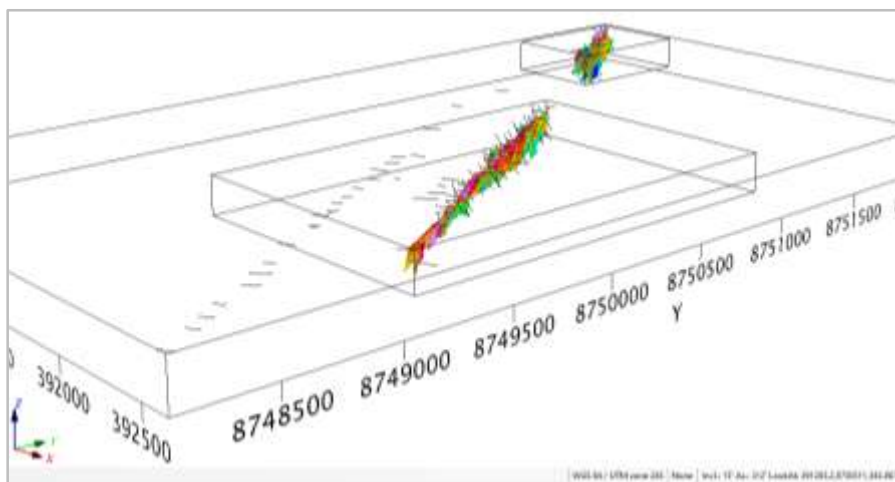


Figure 14.6 Voxel model for resource blocks A and B (0 % cut off) looking NE (note additional trenches which intercepted mineralization, but on a parallel trend and therefore not used in the current MRE) (source: QP).

#### 14.3.4 Oxidation

Visual identification (Gratomic, 2023) indicate that the oxidation zone appears to extend to depths varying between 6 m up to 84 m below surface, giving an average of 30 m below the topographic surface. Because the limit of the resource models is up to 170 m below surface, it is therefore assumed to be predominantly comprised of fresh rock.

#### 14.4 Statistical and Geostatistical analyses

The statistical and geostatistical analyses were done using Geosoft Target. Each of the mineralization zones were analysed and Geosoft target completed statistical analyses internally.

#### 14.5 Top capping

No top capping was applied.

#### 14.6 Variography

Variography was completed internally by Geosoft Target and a variogram was generated by the software for each of the resource blocks.

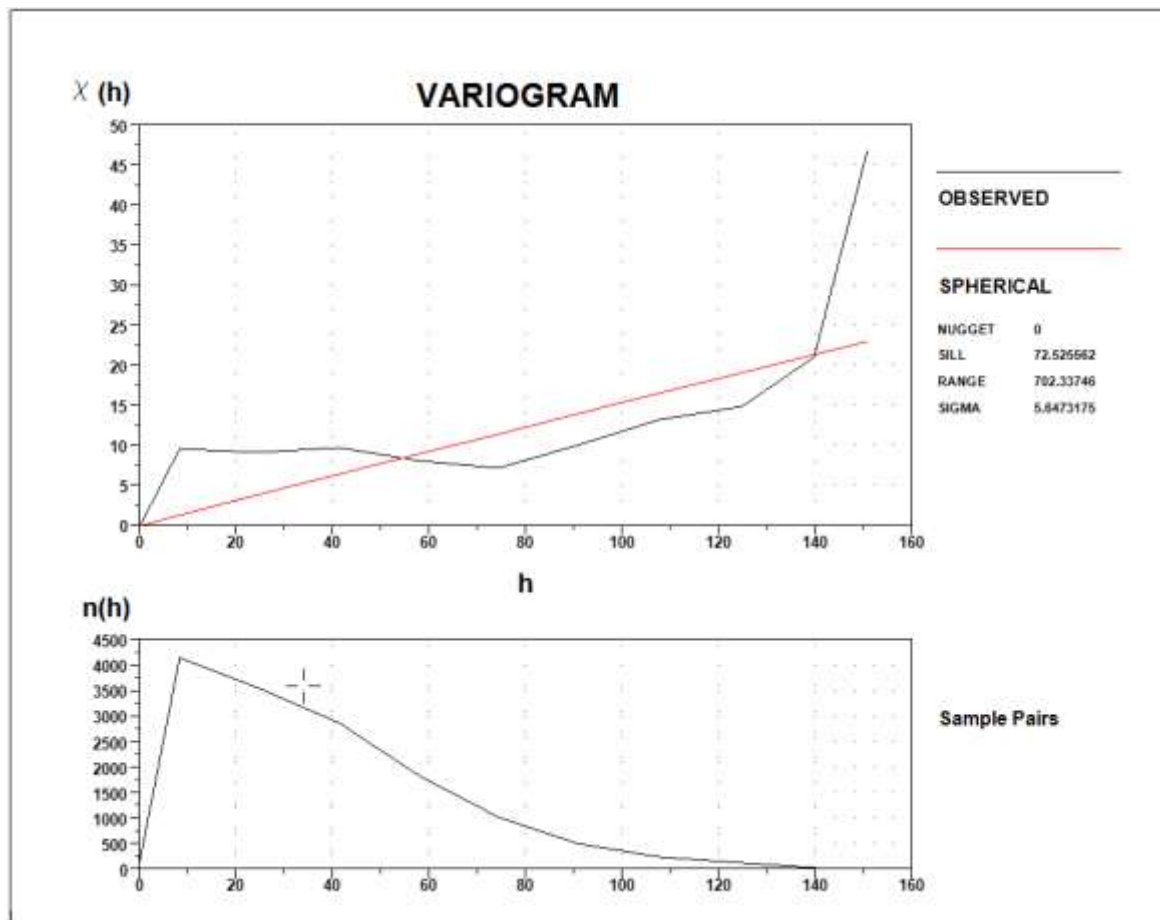


Figure 14.9 Geosoft completed variograms internally for the northern resource block (source; QP).

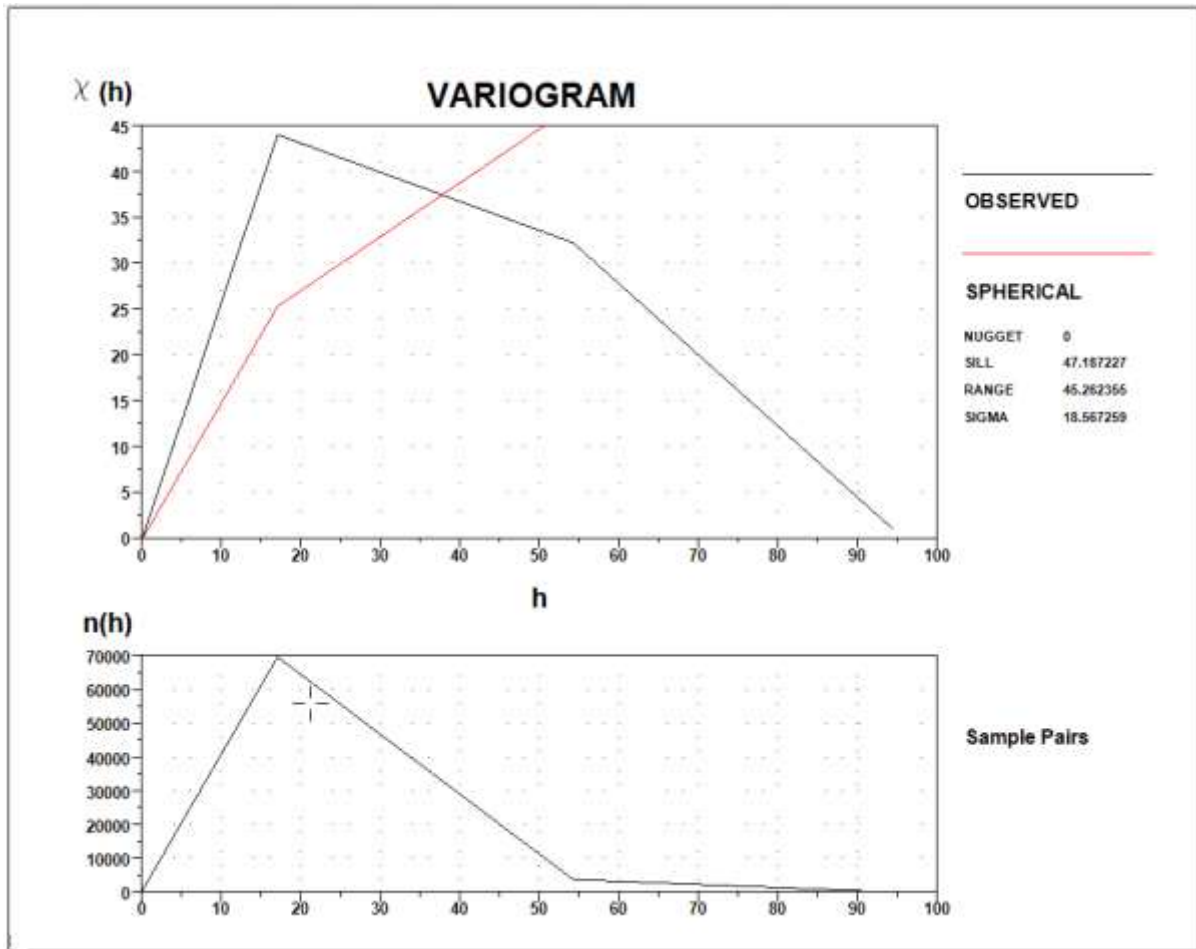


Figure 14.10 Geosoft completed variograms internally for the southern resource block (source; QP).

## 14.7 Grade estimation

### 14.7.1 Method

Grade estimations were performed using Geosoft Target. Ordinary kriging was selected as the method for estimation, using the Estimation process in Geosoft Target.

### 14.7.2 Model validation

Model validation involved visual comparison of the estimated grades with the drill hole grades. Cross-sections shown in figures below illustrate a good correlation between the estimated voxel model grades and the drill hole grades.

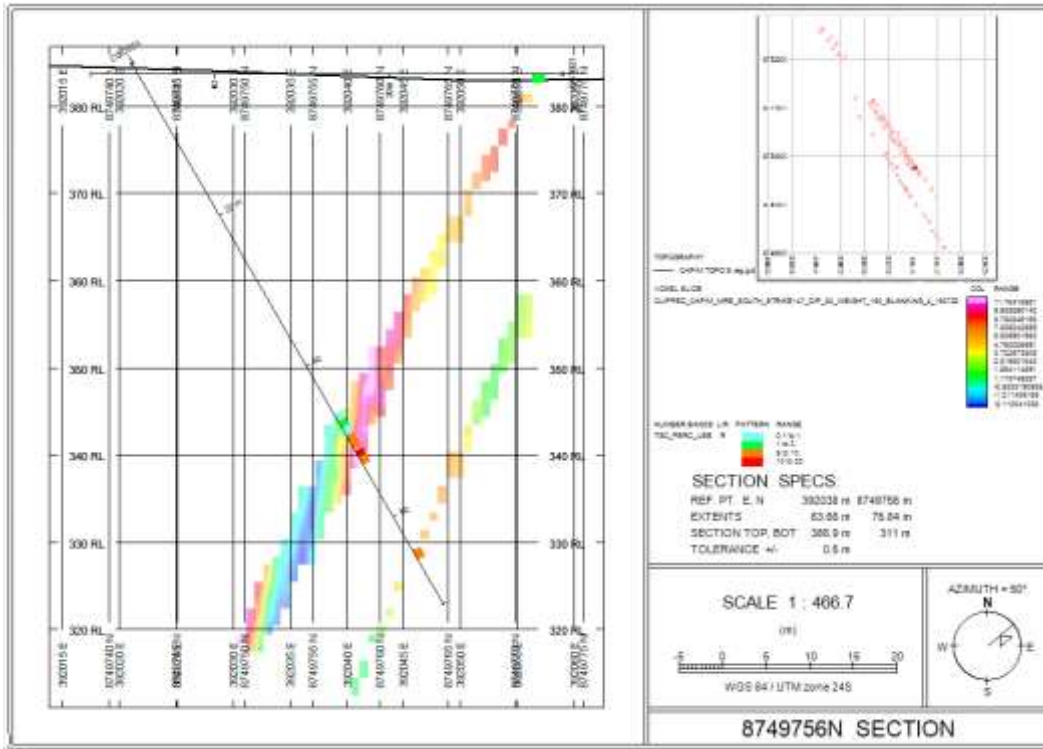


Figure 14.11 Southern oxel model section showing good correlation with TGC % assay grade in drillhole (QP).

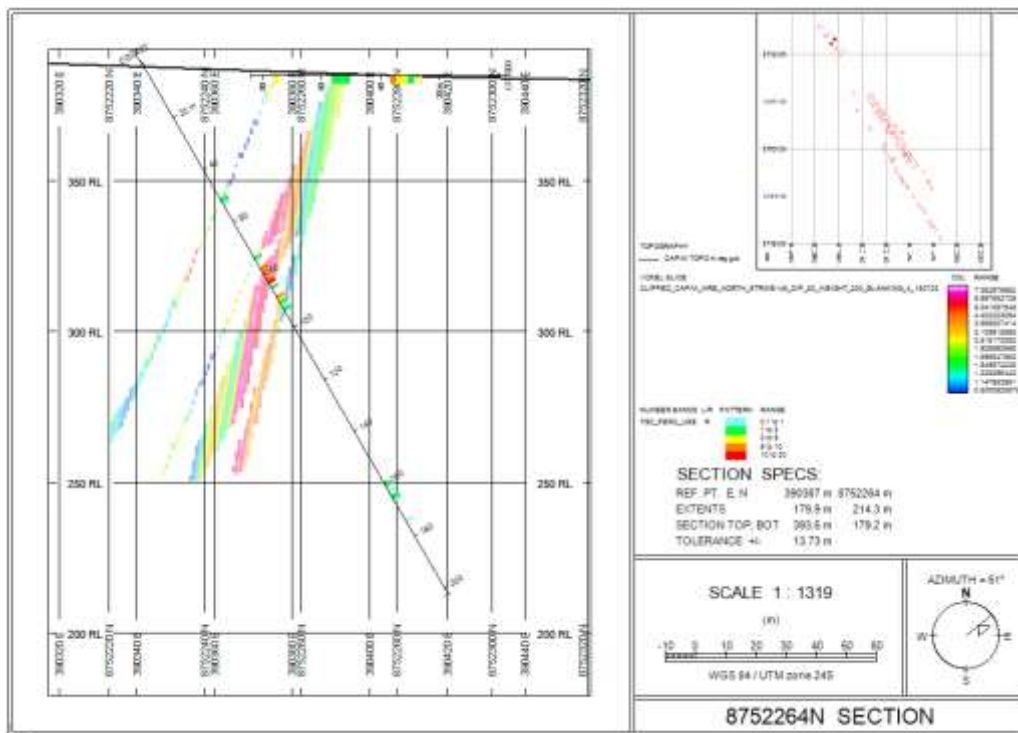


Figure 14.12 Northern voxel model section showing good correlation with TGC % assay grade in drillhole (QP).

#### 14.8 Mineral Resource Classification

Several factors were considered during Mineral Resource Classification, in accordance with the guidelines outlined in the NI 43-101 Standards for the reporting of Mineral Resources. These factors included quality and representativeness of the supporting data, geological understanding on the controls for mineralization, and data spacing to provide adequate confidence in the geological interpretation and grade estimation. Geostatistical confidence in the grade estimates, such as kriging variance, kriging efficiency, and the reliable range of spatial continuity from the variogram models were also considered. Drill hole spacing of approximately 100 m down dip and 100 m along strike provide enough confidence in the grade estimates noted in this report. The estimates are therefore classified into the Inferred category, in accordance with the CIM (2019) definition standards. Further infill drilling is required to upgrade the Mineral Resource category.

#### 14.9 Mineral Resources Estimation

A Mineral Resource by CIM definition is that part of a deposit that has a reasonable and realistic prospect for eventual economic extraction.

#### 14.10 Resource classification

The Mineral Resources was constrained to the wireframe, and reported at a cut-off of 2 % TGC. The Mineral Resources Estimate Statement is presented in the figure and table below.

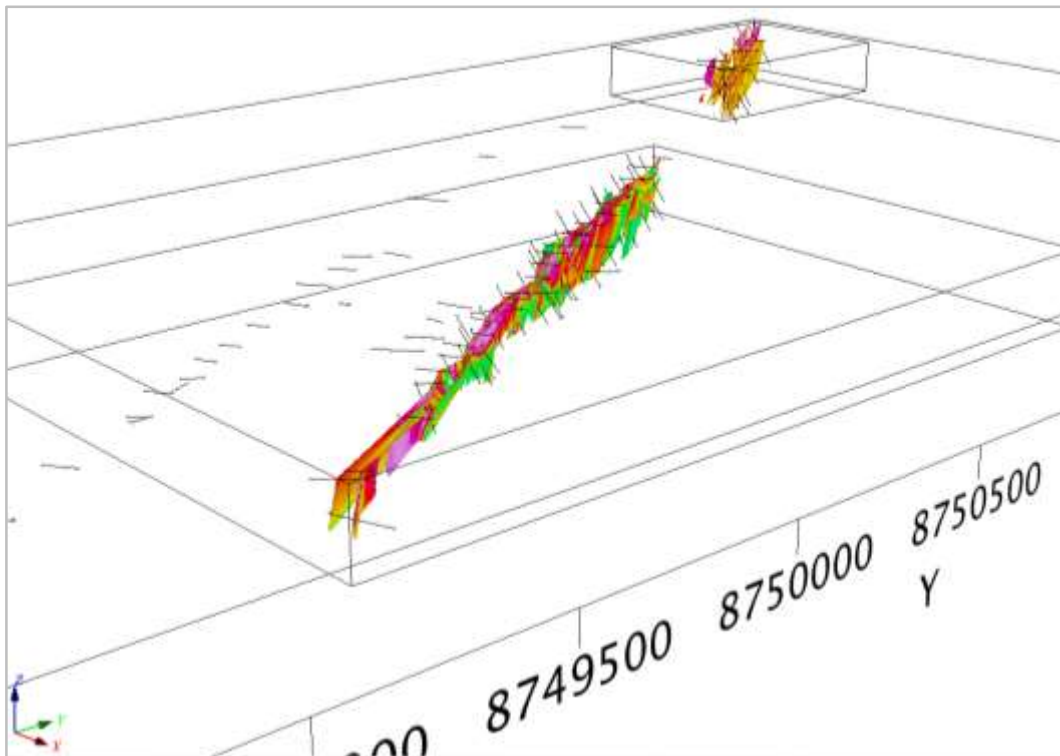


Figure 14.13 Resource Estimate Blocks (all above 2 % TGC) in plan view showing the voxel models generated by *Geosoft Target* (source: CP).

Table 14.4 Current Mineral Resource Statement (2 % TGC cut off), Capim Grosso Project, effective July 15, 2023.

Classification	Tonnes <sup>5</sup>	TGC (%)
Inferred	7,965,211	5.86

1. *The independent Qualified Person for the Mineral Resource Estimate, as defined by NI 43-101, is Mr. Nico Scholtz (Pr. Sci. Nat - 400299/07). The effective date of the Mineral Resource Estimate is July 15, 2023.*
2. *These Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this Mineral Resource Estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured, however it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*
3. *A cut-off grade of 2 % TGC. The cut-off grade was determined on the basis of comparison to analogous deposit types.*
4. *Estimates in have been rounded to two significant figures.*
5. *The Mineral Resource Estimate was prepared following the CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (November 29, 2019).*
6. *The applied average specific gravity (2.86 t/m<sup>3</sup>) was determined on the basis of bulk density measurements by Gratomic Geologists on site.*

The author has adequate confidence to place the Capim Grosso Resource Estimate into the *Inferred Category*. The project mineralization follows a general southeasterly trend, which is easily recognizable from maps and other plans. This has resulted in a wide drill spacing used for the current resource estimation. However, additional infill drilling, as well as drilling along strike, prior to assessing an upgrade to a higher resource category is recommended.

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence through appropriate sampling techniques from outcrops, trenches, pits and drill holes. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The grade-tonnage sensitivity tabulation in the table below, shows the sensitivity of the Mineral Resources at different % TGC cut-off grades.

Table 14.5 Resource Estimation sensitivity to cut off grades and weighted average grades for each of the Blocks with 0%, 1%, 2%, 3% and 4% cut-offs (grade calculation by Ordinary Kriging using *Geosoft Target v. 4.5*) (no vertical depth cut off).

	0%	1%	2%	3%	4%
AREA A - SOUTH – TONNAGE	5,778,744.40	5,514,343.12	5,087,127.76	4,552,376.40	3,944,935.28
AREA B - NORTH – TONNAGE	5,644,793.44	4,643,587.52	2,878,083.78	1,578,694.26	1,038,054.16
<b><u>TOTAL</u></b>	<b><u>11,423,537.84</u></b>	<b><u>10,157,930.64</u></b>	<b><u>7,965,211.54</u></b>	<b><u>6,131,070.66</u></b>	<b><u>4,982,989.44</u></b>

1. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Indicated and Measured Mineral Resources. There is no certainty that any part of a mineral resource will ever be converted into reserves.
2. All geochemical analyses used for the Resource Estimates were performed by SGS Geosol and delivered as % TGC (Total Graphitic Carbon).
3. Inferred Mineral Resources represent material that is considered too speculative to be included in economic evaluations. Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher resource category.
4. Current Resource effective July 15, 2023
5. Mineral Resources are stated at a cut-off grade of 2 % TGC and no vertical depth cut off

Table 14.6 Resource Estimation sensitivity to cut off grades and weighted average grades for each of the Blocks with 0%, 1%, 2%, 3% and 4% cut-offs (grade calculation by Ordinary Kriging using *Geosoft Target v. 4.5*) (no vertical depth cut off).

	0%	1%	2%	3%	4%
AREA A GRADE	6.14	6.41	6.82	7.33	7.92
AREA B GRADE	2.69	3.13	4.16	5.55	6.66

#### 14.11 Mineral Resource Estimate Category upgrade

In order to update the Inferred Mineral Resource to higher mineral resource estimate category prepared in accordance with the requirements of NI43-101, the following is needed:

- Improve geological and sampling evidence across the mineralisation such as decreasing general drillhole and trenching spacing to below 50 m along section lines
- Determination of weathered and fresh zones from drilling data and whether oxidation plays a role in metallurgy

- Bulk density calculation of the weathered (saprolite) zone in addition to ongoing bulk density of the fresh zone
- The core quality in the weathered zone is in many case poor and duplicate sampling can therefore result in erroneous results. Duplicate QAQC is therefore only recommended on good quality intact core.
- In order to generate quality core, NQ3 and HQ3 (triple tube) drilling is advised
- Core orienting in order to obtain structural data from drillcore
- Downhole surveys of drillholes to investigate possible hole deflections at depth
- Metallurgical testing in oxides as well as fresh zones
- Complete mine or production scenario studies as part of pre feasibility and feasibility studies

#### **15. ADJACENT PROPERTIES**

There are no adjacent properties that directly affect the interpretation and evaluation of the mineralization or other features found on the Property and which would make the Report more understandable and not misleading.

#### **16. OTHER RELEVANT DATA AND INFORMATION**

There is no other relevant data or information to disclose which would make the Report more understandable and not misleading.

## 17. INTERPRETATION AND CONCLUSIONS

### 17.1 Interpretation

Nico Scholtz has been requested by Gratomic Inc. to prepare a National Instrument 43-101 Technical Report (the “Report”) on the Capim Grosso project (the “Property” or the “Project”), located within the Federal Republic of Brazil. This report includes a review of work conducted by Gratomic Inc. on the Capim Grosso Project.

The exploration work completed to date by Gratomic, warrants additional expenditure and confirms the exploration potential of the Capim Grosso project, which includes:

- Graphite grade and widths from the drilling and trenching program, which includes best intersection (cut-off grade of 1 % TGC, min. grade of 3 % TGC and min. interval length of 0.3 m) of results of:
  - 11.16 m @ 13.13 TGC % in hole CGD001 from 20.74 m
  - 7.90 m @ 9.46 TGC % in hole CGD015 from 70.5 m
  - 16.25 m @ 8.90 TGC % in hole CGD029 from 43 m
  - 11.2 m @ 8.72 TGC % in hole CGT035 from 37.85 m
- Positive initial metallurgical test work, which proved that a combined concentrate grade of 96 to 97% C(t) with a closed-circuit graphite recovery of 85 to 90% seems achievable for the Capim Grosso mineralization
- Additional mineralisation target areas on the project

#### 17.1.1 Mineral Resource Estimate

The MRE of 7,965,211 tons grading 5.86 % TGC (2 % TGC cut off) is categorized as Inferred (Mineral resources that are not mineral reserves have not demonstrated economic viability). Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Indicated and Measured Mineral Resources (There is no certainty that any part of a mineral resource will ever be converted into reserves). This Inferred category has been based upon:

- Limited geological and sampling evidence across the mineralisation such as general drillhole and trenching spacing of 100m or above along section lines and some sections lines containing only one drillhole or one trench
- Geological, grade and quality continuity (assays) between data points (drillholes and trenches) are sufficient to imply but not sufficient to verify mineralisation
- Grade and wireframe continuity assumptions where drillhole data is lacking and only trench data has been used

- No structural or bedding measurements completed on drillcore due to lack of drill core orienting
- No surface structural measurements due to lack of suitable outcrop
- No downhole survey data
- Limited metallurgical testing
- No mine or production scenario studies completed

In order to update the Inferred Mineral Resource to higher mineral resource estimate category prepared in accordance with the requirements of NI43-101, the following is needed:

- Improve geological and sampling evidence across the mineralisation such as decreasing general drillhole and trenching spacing to below 50 m along section lines
- Determination of weathered and fresh zones from drilling data and whether oxidation plays a role in metallurgy
- Bulk density calculation of the weathered (saprolite) zone in addition to ongoing bulk density of the fresh zone
- The core quality in the weathered zone is in many case poor and duplicate sampling can therefore result in erroneous results. Duplicate QAQC is therefore only recommended on good quality intact core.
- In order to generate quality core, NQ3 and HQ3 (triple tube) drilling is advised
- Core orienting in order to obtain structural data from drillcore
- Downhole surveys of drillholes to investigate possible hole deflections at depth
- Metallurgical testing in oxides as well as fresh zones
- Complete mine or production scenario studies as part of pre feasibility and feasibility studies

## 17.2 Risks and Uncertainties

Risks and uncertainties which may reasonably affect reliability or confidence in future work on the Project relate mainly to the reproducibility of exploration results (*i.e.*, exploration risk) in a future production environment. The QP believes the exploration risk to be minimal based upon the amount of exploration work completed to date, which has resulted in good graphite grade and width of mineralisation. To the extent known of the QP there is no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

## 18. RECOMMENDATIONS

The following exploration work is recommended for the Capim Grosso project.

1. Stage 1: Mineral Resources Estimation upgrade through additional trenching, diamond drilling and metallurgical testing
2. Stage 2: Feasibility studies

### 18.1 Year One (Stage 1)

#### 18.1.1 Stage 1: Mineral Resource Estimation upgrade

- Infill trenching, drilling to potentially upgrade the MRE

### 18.2 Year Two (Stage 2)

#### 18.2.1 Stage 2: Pre feasibility and Feasibility studies

- Metallurgical and flake size testing on drill core and bulk sample

### 18.3 Exploration Program Budget

Table 18.1 Two stage proposed exploration budget (US\$) (source: QP).

1 <sup>st</sup> Year – All costs in US\$ (Stage 1)	INFORMATION	US\$
Additional trenching (includes geologist and assay costs)	Assist in target generation for drilling	50,000
DD drilling at various targets (5,000 m at US\$200 per meter including all geologist, assay, DGPS and drillhole deflection and other costs on site)	Drill targets as defined by Year 1 exploration	1,000,000
Additional planning, reporting, and data collation		50,000
<b>SUBTOTAL IN US\$ (First Year)</b>		<b>1,100,000</b>
2 <sup>nd</sup> Year – All costs in US\$ (Stage 2)	INFORMATION	US\$

Pre feasibility and feasibility studies		250,000
Metallurgical and flake size testing	Ore extraction techniques	250,000
Additional target generation	Derived from year 2 drilling	50,000
<b>SUBTOTAL IN N\$ (Second Year)</b>		<b>550,000</b>
<b>TOTAL IN US\$ (Years one and two)</b>		<b>1,650,000</b>

\*NOTE: the budget is a recommendation and excludes overheads such as director salaries, flights/transport of such to and from the site, and other corporate expenses.

## 19. REFERENCES

<https://www.climatempo.com.br/climatologia/2175/ipora-go>

Delgado and Pedreira. 2010. Geology and Mineral Resources of Brazil: A Review. International Geology Review June 1994(6):503-544.

Dos Santos Barroso, Souza Teles Fonseca, Neves do Nascimento, Regina Pelacani. 2018. Physalis development according to the growing season in the semi-arid region of the Bahia state, Brazil. Pesq. Agropec. Trop., Goiânia, v. 48, n. 4, p. 429-435, Oct./Dec. 2018.

GeoSGB. 2022. Available: <https://geosgb.cprm.gov.br/>

Gratomic News Release, August 13, 2021 <https://www.gratomic.ca/news/gratomic-signs-letter-of-intent-to-acquire-100-interest-in-brazilian-graphite-exploration-project/>

Simandi, Akam and Paradis. 2015. Graphite deposit types, their origin, and economic significance. British Columbia Geological Survey.

<https://sistemas.anm.gov.br/SCM/Extra/site/admin/dadosProcesso.aspx>

Zumbi. 2020. Book graphite internal report on exploration completed on the Capim Grosso Project.