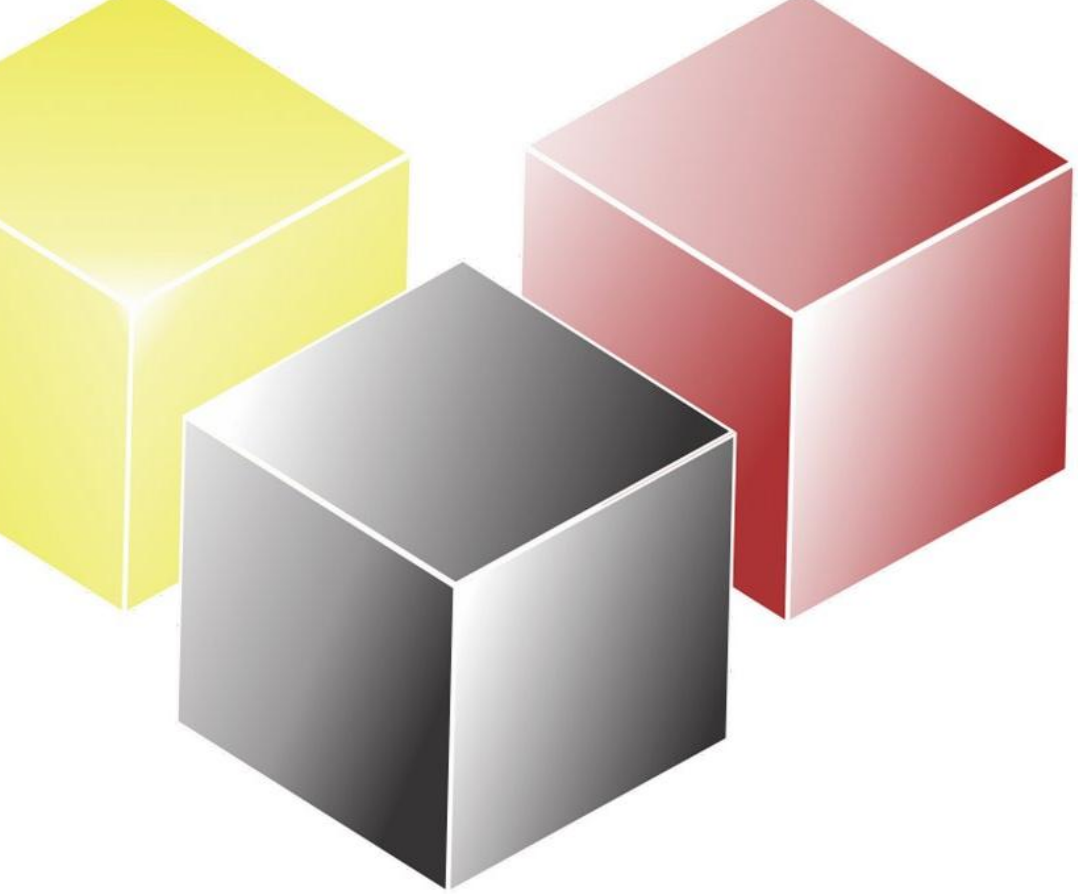


S-K 1300 Technical Report Summary Mineral Resource and Mineral Reserve Mineração Serra Grande Project Goiás, Brazil

Prepared by:

GE21 Consultoria Mineral Ltda.

3130 Afonso Pena Ave., 9th Floor, Belo Horizonte, MG, 30130-910, Brazil.
portal@grupoge21.com

On behalf of:

Aura Minerals Inc.

3390 Mary Street, Office 223, Coconut Grove, FL, 33133, USA
gportilla@auraminerals.com

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Dated at Belo Horizonte, Brazil,
March 30, 2026.

By /S/ GE21 Consultoria Mineral Ltda.

GE21 Consultoria Mineral Ltda.

IMPORTANT NOTICE

GE21 Consultoria Mineral Ltda. prepared this Technical Report Summary, in accordance with United States Securities and Exchange Commission (SEC) Subpart 229.1300 of Regulation S-K (S-K 1300) guidelines, for Aura Minerals Inc. The quality of information, conclusions, and estimates contained herein is based on: (i) information available at the time of preparation; (ii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Aura Minerals Inc. subject to terms and conditions of its contract with GE21 and relevant securities legislation. The contract permits Aura Minerals Inc. to file this report as a Technical Summary Report pursuant to the SEC S-K 1300 regulations for mining property disclosure requirements. Except for the purposes legislated under securities law, any other use of this report by any third party is at that party's sole risk.

UNITS, SYMBOLS, AND ABBREVIATIONS

Abbreviations	
AAG	Anglo American Group
ABNT	Brazilian Association of Technical Standards *Associação Brasileira de Normas Técnicas*
AGA	Anglo Gold Ashanti
ANM	National Mining Agency of Brazil
ASL	Above Sea Level
BRL	Brazilian Real
Capex	Capital Expenditure
CFEM	Financial Compensation for Exploitation of Mineral Resources
CIL	called carbon-in-leaching
CRM	Certified Reference Material
DD	Diamond Drill Hole
FA	Fire Assay
GE21	GE21 Consultoria Mineral Ltda.
GPS	Global Positioning System
IRR	Internal Rate of Return
JV	Joint Venture
LOM	Life-of-Mine
LP	Preliminary License
NBRs	national standards Normas Brasileiras
NPV	Net Present Value
NSR	Net Smelter Revenue
OGD	Orogenic Gold Deposit
OP	Open-Pit
Opex	Operational Expenditure
QA/QC	Quality Assurance and Quality Control
QP	Qualified Person
ROM	Run of Mine
SEC	Securities and Exchange Commission
SR	Stripping Ratio
TSF	Tailings Storage Facility
TVX	TVX Gold Inc.
UG	Underground
WWTP	Wastewater Treatment Plant

Units and Symbols	
”	inch
%	percentage
°C	degree Celsius
cm	centimeter
g	gram
g/t	gram per ton
Ga	gigaannum
h	hour
ha	hectare
hp	horse power
k	thousand
k$	thousand of dollars
kg	kilogram
km	kilometer
kt	thousand of tons
kV	kilovolt
l	liter

Units and Symbols	
m	meter
M	million
mg	milligram
Mt	megaton
Mtpa	million tons per annum
MUS$	million United States dollars
oz	ounce
ppm	part per million
tpa	ton per annum
tpd	ton per day
tph	ton per hour
US$	United States Dollars ($)
V	volts
w/v	weight by volume

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1 EXECUTIVE SUMMARY

1.1 Introduction

GE21 Consultoria Mineral Ltda. (GE21) prepared this technical report summary (TRS), titled “Mineração Serra Grande Mineral Resource and Mineral Reserve”, to support the disclosure of Mineral Resource and Mineral Reserve estimates for the Mineração Serra Grande (MSG) Project (the Project). This TRS conforms to the U.S. Securities and Exchange Commission’s (SEC) Subpart 229.1300 of Regulation S-K (S-K 1300) and Item 601 (b)(96).

The Project is located 5 km south of the town of Crixás, in northern Goiás State, Brazil. Aura Minerals Inc. (Aura or the Company) beneficially owns 100% of MSG. Aura is a public company listed on the Toronto Stock Exchange (TSX) trading under the symbol “ORA”.

Gold mineralization at Serra Grande was discovered and worked by “Bandeirantes”, Brazilian frontiersmen who opened the interior of the country in the seventeenth and eighteenth centuries. The abandoned property was acquired and explored by INCO in the early 1970s and brought to feasibility in a 50:50 joint venture with Kennecott. Anglo American, through Morro Velho, acquired Kennecott’s share in 1988. Commercial mining at MSG began in 1989. After various ownership structures involving INCO, Kennecott, and Anglo American, AngloGold Ashanti (AGA) became the sole owner in 2012. More than 4 Moz of gold has been produced at MSG since production began. Aura, through its Brazilian subsidiaries, acquired the MSG from AGA in December 2025.

The MSG operation comprises mechanized underground mining and open pits. Current production is focused on five main areas: Mina III, Mina Nova, Mina Palmeiras, Ingá e Corpo IV. One dedicated metallurgical plant, with an annual capacity of 1.5 Mt, processes all mined ore. Processing entails crushing and milling, followed by a standard cyanide leach to produce gold-doré bars.

GE21 is a third-party firm comprising mining experts. Mr. Porfirio Cabaleiro Rodriguez, one of the Directors of GE21, acted as the Leader Qualified Person (QP) in the preparation of this TRS. Mr. Rodriguez is a mining engineer with more than 45 years of experience in areas related to Mineral Resources and Mineral Reserves estimates. He has relevant experience across various commodities, including phosphate, iron ore, uranium, gold, nickel, and rare earth elements. Mr. Rodriguez is a Fellow of the Australian Institute of Geoscientists (FAIG). However, references to the QP herein refer to GE21 and not to any of its individual members.

Aura has determined that GE21 meets the qualifications specified for a Qualified Person (QP) under §229.1302(b)(1) of S-K 1300. Therefore, references to the QP in this report refer to GE21 and not to any individual employed at GE21.

GE21 does not have or has not had any material interest in Aura or its related entities. The relationship between these companies is solely a professional association between the client

and the independent consultant. This report was prepared in exchange for fees based on rates established by a commercial agreement. Payment of these fees is in no way dependent on the results of this report.

The effective date of the Mineral Resource estimate is November 30, 2025, and the issue date of this TRS is March 30, 2026.

1.2 Reliance on Other Experts

The information presented regarding the tenure, status, and work permitted by permit type is based on information published by the National Mining Agency (ANM) of Brazil as of the effective date, November 30, 2025.

This TRS has been reviewed for factual errors by Aura and the QP. Any changes made because of these reviews did not involve any alteration to the conclusions made. Hence, the statements and opinions expressed herein are given in good faith and in the belief that such statements and opinions are not false and misleading as of the date of this TRS.

1.3 Property Description and Location

MSG is in the Crixás municipality, in Goiás State, central Brazil. The property can be accessed by federal or state pavement roads from Brasília (Brazil's capital city) or Goiânia (Goiás' capital), with distances of 380 km and 338 km, respectively. From Brasília, access is via federal roads BR-070 and BR-153, followed by state roads GO-154 and GO-465. From Goiânia, access is made directly via BR-153, then via the same state roads, GO-154 and GO-465. The mine unit is 5 km south of Crixás town (Figure 1.1). It can be accessed from Crixás through the unpaved state road GO-336, which provides year-round access for two-wheel-drive vehicles.

MSG holds existing surface rights across the entire Project area. Approximately 1,266,30 ha are owned directly by the mining operation, including industrial areas and offices. Another 6,784.32 ha are secured through agreements with adjacent landowners, encompassing areas where certain pits and waste dumps are situated.

MSG has interests or agreements over 10,540.07 ha in the Crixás Greenstone Belt through a series of mineral rights, including mining concessions, exploration permits, and exploration permits with mining applications. The list of mineral rights is shown in Table 1.1.

In December 2022, the ANM mineral rights relative to the process n° 002.286/1935, 804.366/1975, 860.352/1979, 860.824/1979, 862.103/1994, and 860.746/2005 were grouped into a single process with ANM, numbered 960.658/1987.

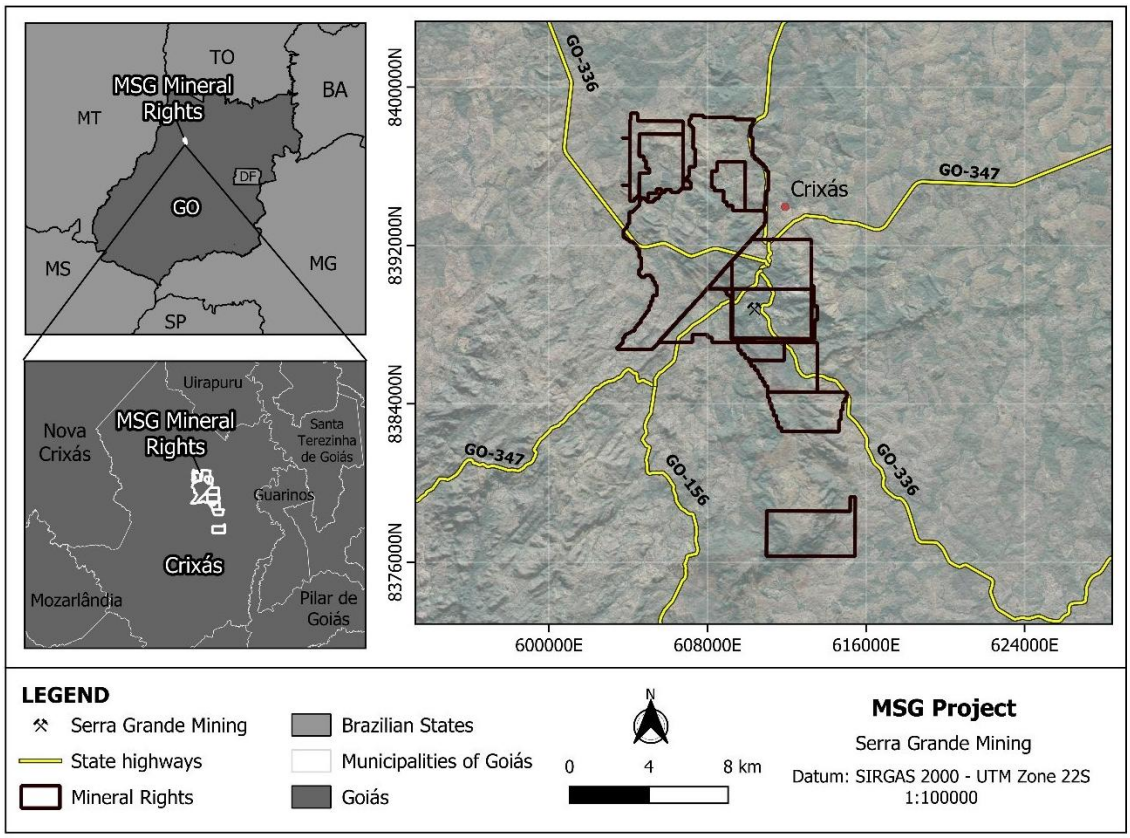


Figure 1.1: Location of Serra Grande Mines

Source: GE21, 2026.

Table 1.1: Mineral rights of MSG

Mining Rights of the MSG				
Target	**ANM Process N°**	**Petitioner**	**Area (ha)**	**Status**
Near mine	860.746/2005	Mineração Serra Grande S.A.	88.31	Mining Concession
Near mine	862.103/1994	Mineração Serra Grande S.A.	125.37	Mining Concession
Near mine	860.824/1979	Mineração Serra Grande S.A.	1,000.06	Mining Concession
Near mine	860.352/1979	Mineração Serra Grande S.A.	947.04	Mining Concession
Near mine	804.366/1975	Mineração Serra Grande S.A.	196.05	Mining Concession
Near mine	002.286/1935	Mineração Serra Grande S.A.	4,206.92	Mining Concession
Palmeiras Sul	860.444/2018	Mineração Serra Grande S.A.	613.48	Application for Mining Concession
Cajueiro	860.706/2008	Mineração Serra Grande S.A.	622.15	Application for Mining Concession
Palmeiras Sul	811.874/1975	Mineração Serra Grande S.A.	689.04	Application for Mining Concession
Limoeiro / Canta Galo	861.974/2012	Mineração Serra Grande S.A.	635.26	Exploration Permit
Cajueiro	860.443/2018	Mineração Serra Grande S.A.	377.37	Exploration Permit
Crixás Sul	860.447/2018	Mineração Dorica Ltda.	1,039.02	Exploration Permit

Source: GE21, 2026.

As part of the purchase agreement, a 3% NSR royalty is payable to AGA on gold ounces produced from the MSG with respect to the currently identified Mineral Resource of MSG (inclusive of the Mineral Reserve). Regarding the ore bodies Baru, Caja, Corpo IV, Corpo V Sul, Dolomito, Forquilha, Ingá, Limoeiro, Mangaba, Mina III VQZ, Mina Nova, Palmeiras, Palmeiras Sul, and Pequizão, an NSR participation, varying from 0.75% to 2.0%, is due to each landowner, proportional to their surface rights.

Accessibility, Climate, Local Resources, Infrastructure, Physiography, and Socio-Economic Context

MSG is accessible via a network of paved federal and state roads, then gravel and dirt roads, providing year-round access to the Project. The MSG process and administration area is located 4 km from Crixás town and is fully accessible by a state gravel road.

The weather in Crixás is characterized by high temperatures year-round with tropical humidity. Summer rainfall ranges from 200 mm to 278 mm, and maximum temperatures range between 28°C and 38°C. The rainy season extends from October to March, and the dry season from April to September. The average maximum is 30°C for the year.

There is no considerable variation in weather or climatic risks in the area. MSG has free access to all land areas and tenements that comprise the mining and exploration activities. Water and power are available for all operations, supplied by national and state grids.

MSG is located at an elevation of roughly 450 m above sea level. The drainage system consists of small seasonal rivers that dry out during the dry season. The vegetation is typical of central Brazil Cerrado Flora and Fauna (like savanna, with bushes and small trees).

The geomorphology of the area consists of tabular-shaped small mountains, which may become increasingly steep at elevations between 500 m and 800 m, and consist of Archaean and Proterozoic metavolcanic or metasedimentary rocks. There are also valleys with a few creeks and rivers, such as the Crixás River and Vermelho River, which are on the property (Figure 1.2).

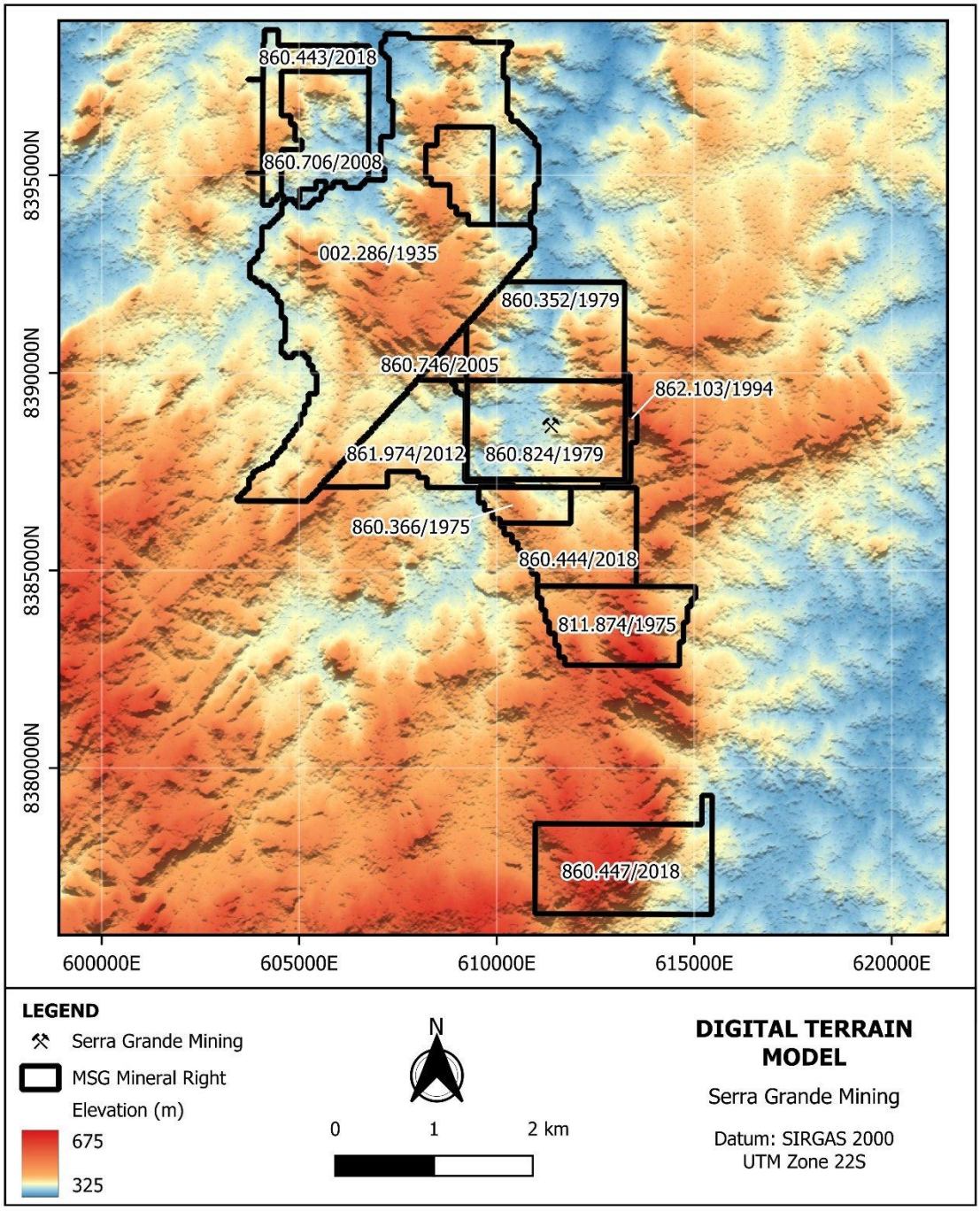


Figure 1.2: Terrain and relief in the MSG region

Source: GE21, 2026.

Local economic activity in Crixás is mainly associated with cattle farming. The most important towns in the region (within 50 km) of Crixás are Uruaçu, Santa Terezinha de Goiás, Nova Crixás, Itapaci, and Pillar de Goiás. The population of Crixás was around 17,000 (2020) in a total area of 4,661.5 km^2. Crixás is a major gold producer in the Goiás State area.

Aura has existing surface rights over most of the Project area, either through direct ownership or through agreements with landowners. There are no communities or permanent dwellings within the Complex footprint.

1.4 History

The MSG complex's history dates to gold exploration in the early 18th century. Exploration and resource extraction activities began with artisanal miners recovering placer gold along the region's rivers and streams. The gold was first discovered in 1734 at the Vermelho River, which crosses the MSG complex and the Crixás municipality. Initially, the gold was mined from alluvial, or placer deposits.

Modern prospecting began in 1973 with detailed mapping and diamond drilling (DD), which continued until 1976. The mining operation started in 1986 in Mina III, and the metallurgical plant started up in 1989.

The tabulation below gives a history of the mine's ownership:

- 1976 (INCO)
- 1983 (Kennecott and INCO)
- 1986 (Anglo American Group and INCO)
- 1992 (Anglo American Group and TVX Gold Inc)
- 2003 (Anglo American Group and Kinross Gold Corporation)
- 2009 (AngloGold Ashanti and Kinross)
- June 2012 (Anglo Gold Ashanti Ltd)
- December 2025 (Aura Minerals Inc.)

The highest MSG gold production was registered in 2006, with 193 koz. According to AGA, in 2024, MSG produced 80 Koz of gold (2023: 86 Koz).

1.5 Geology and Mineralization

The MSG is located within Tocantins Province (Almeida, 1984). This structural province is a Neoproterozoic orogenic region, formed during the collision of the São Francisco and Amazonian cratons. The agglutination of these blocks during the Brasiliano orogeny formed the Brasília, Araguaia, and Paraguay fold belts. The first developed on the western flank of the São Francisco Craton, and the latter two on the eastern and southeastern/southern edges of the Amazonian Craton, respectively.

The Crixás Greenstone Belt is a part of an Archaean block exposed in the central portion of the Neoproterozoic Brasília Belt (Figure 1.3). It consists of a greenschist to low amphibolite grade regionally metamorphosed volcano-sedimentary sequence with lower komatiites and basalts, followed by carbonaceous schist and greywackes. The sequence was intruded by NW-trending mafic dykes after deformation and gold mineralization. Gold mineralization occurs as stacked massive sulfide lenses, quartz veins, and several disseminated orebodies structurally controlled by late, low-angle thrust faults within the stratigraphically upper sedimentary section.

The Serra Grande gold deposit is an orogenic mesothermal deposit associated with the development of shear zones in the Upper Archaean Crixás Group.

Gold mineralization is associated with metasediments and metavolcanics from the Ribeirão das Antas and Rio Vermelho Formations, respectively. The CGB is surrounded by granitic gneiss terrains from the Ribeirão das Antas and Caiamar complexes and metasedimentary rocks from the Santa Terezinha Group, which is part of the Goiás Magmatic Arc.

The mineralization at MSG is associated with quartz veins, massive sulfide lenses, and disseminated sulfides in metasediments, metavolcaniclastic rocks, and metabasalts. It is controlled by regional shear-thrust structures, and the orebodies occur as stacked lenses, generally concentrated in high-deformation positions (with folds and disruptions). The geometry of the mineralized deposits is typically complex, with pinch-and-swell, folded, and boudinage shapes, dipping from 10° to 55°, and with the main geological continuity along northwest-plunging structures (azimuth 290° to 320°).

Mineralization control is related to the D1 and D2 deformational events of CGB.

- D1: Thrusting event (D1 from west to east), developed with irregular thrust ramp geometry. This event was responsible for stacking and inverting the stratigraphic sequences.
- D2: Thrusting of the Santa Terezinha sequence over the CGB, folding the rocks (F2) and generating the structural controls for gold mineralization, generally parallel to the fold axis.

The known mineralization is hosted in six main domains (structures): Structure II, III, 3.5, IV, Palmeiras, and V (Table 1.2).

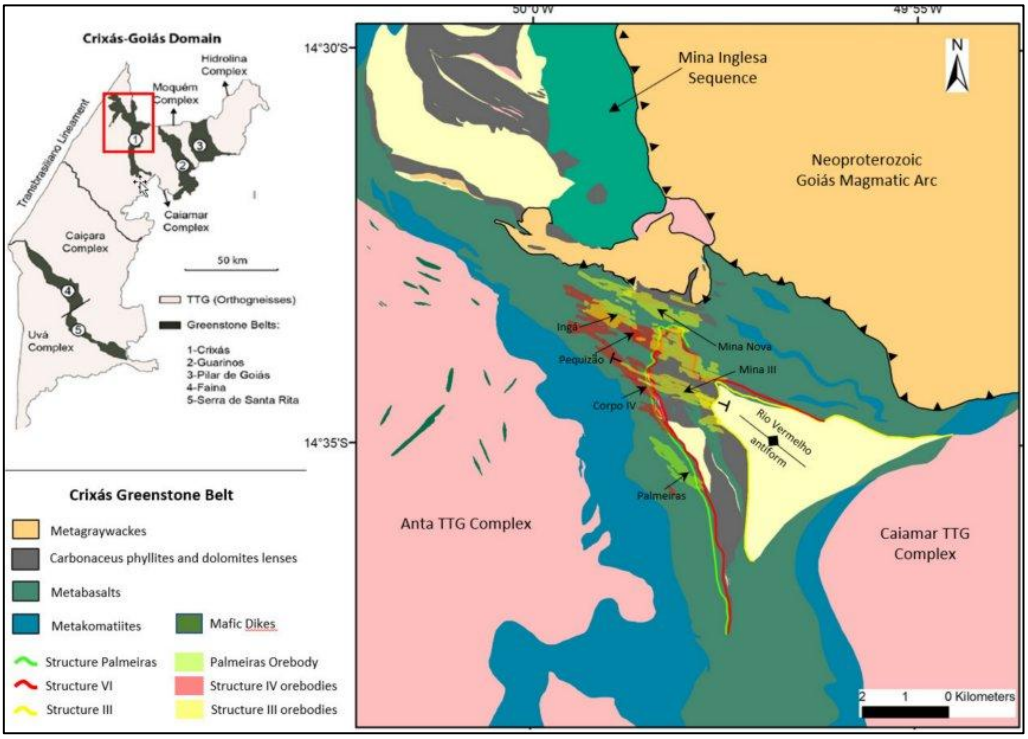


Figure 1.3: Geological map of Crixás Greenstone Belt with plan view of MSG bodies colored by the structures to which they belong

Source: Ulrich et al., 2021.

Table 1.2: Summary of mineralized traps in EPP deposits

Domain	Host Rock	Type / Geometry	Ore Mineralogy / hydrothermal alteration	Orebody
Structure II	Carbonaceous schist	Quartz vein/ lenticular	Arsenopyrite and pyrrhotite / Quartz, carbonate, sericite	Cajueiro
Structure III	Carbonaceous schists (lower zone) Hydrothermally altered schists and dolomite (intermediate and upper zones)	Quartz veins (lower zone) Massive or disseminated sulfide (intermediate and upper zones)	Pyrrhotite and arsenopyrite (minor chalcopyrite) / Carbonate and sericite	Mina III, Mina Nova, Angicão, Ingá, VQZ, Corpo Sul (lower zone) Ingá ZS, Caja, 3.5, Mina III ZS, Urucum, Palmeiras 3.5 (Upper zone)
Structure 3.5	Dolomite / Chlorite-carbonate-sericite shist	Disseminated sulfides	Arsenopyrite / Quartz, chlorite, carbonate, sericite	Palmeiras South 3.5
Structure IV	Graphite schists	Quartz veinlets with disseminated sulfides concentrated in fold-hinge zones	Arsenopyrite, minor pyrrhotite, and chalcopyrite / Quartz, k-feldspar, chlorite, and carbonate	Pequizão, Pequizão N, NW, Mangaba, Corpo IV, Forquilha, Corpo V Sul, Palmeiras Sul, Limoeiro
Palmeiras	Meta-basalts	Massive and disseminated sulfides	Pyrite, pyrrhotite, and chalcopyrite/sericite, chlorite, carbonate	Palmeiras, Goiabeira, Bauru
Structure V	Talc schist	Disseminated sulfides	Pyrite, pyrrhotite, and chalcopyrite / Quartz	Structure V

Source: Modified from AGA, 2022.

1.6 Drilling, Sampling, and Assaying

Over the more than 30 years from the initial development of commercial-scale mining at Serra Grande, the resource database includes more than 2,000,000 m of drilling.

Drilling activities at MSG are predominantly DD with sporadic RC drilling campaigns, which are used for conversion purposes at shallow depths with open-pit potential. The depth extent of drill holes is variable depending on the target, which can be near surface (100 m depth) or deep mine targets with drill holes reaching up to 1,000–1,200 m. Some of the deeper underground drill holes, or drill holes that are at difficult drilling positions (e.g., parallel to foliation), are completed through navigational or directional drilling to control the target position.

According to AGA, the historical drilling data completed on the MSG lease by the previous owners was validated by AGA personnel over time.

All drill holes are surveyed downhole with GyroMasterTM. Drill hole deviation is monitored every 50 m, and directional drilling is used as needed to control the hole. Once the drill hole is completed, it is surveyed continuously as the drill moves both into and out of the hole. The survey is validated by drilling supervisors and geologists before it is uploaded to the database. If there is doubt about the data quality, a new survey is requested from the drilling team or contractor.

All core samples are photographed in both a dry and wet state using a standard equipment set-up, and the photographic registries are stored on a server for future reference. The core photos are imported into the MSG database, and historical photo records for all holes exist from 2010 onwards.

The drill core logging is qualitative. All data used in the interpretation are consolidated in the official MSG database, from which the geologists import them into the required software (Leapfrog Geo™ or Datamine™) and generate sections, maps, and structural/geological models. Database import failures are checked on a case-by-case basis and corrections made to allow entry. A database administrator is responsible for all the validation and database management.

A core sampling plan is developed where regular 1 m sample intervals are marked within continuous geological units. Sample intervals are split at geological contacts, and lengths range from 0.6 to 1.2 m. Intervals are also reserved for inserting control samples. Based on the sampling plan, sample numbers and barcoded tickets are generated through the laboratory LIMS tracking system. Core intervals for specific gravity determinations are also registered in the sampling plan. For exploration drill holes, core is split along the axis in ½ core using a closed-circuit diamond rock-saw. One half of the core is used for sample preparation, and the other half is stored for future reference. Core from resource upgrade and grade control holes is not split, and the full core is submitted for sample preparation and assay determinations. Samples are collected at the specified intervals, bagged, and ticketed for dispatch to the laboratory.

Channel sampling is conducted in the underground mine to assist with grade control predictions. Samples are collected at approximately 1 m intervals across the mineralized structures using an electric chisel into a sampling bag.

Drill hole and channel samples are dispatched to the MSG site laboratory for preparation and assaying for gold and sulfur. Samples are crushed, split, and pulverized using industry-standard procedures. Gold is determined using a 30 g Fire Assay for most samples. Sulfur is assayed by LECO. Internal checks are in place at the laboratory to ensure quality. The laboratory maintains ISO9001 quality management certification and participates in annual interlaboratory round-robin proficiency surveys conducted by ITAK.

1.7 Data Verification and QA/QC Measures

There is a central database system in place, where the drilling and channel sampling are validated for location, surveys, and assaying, and QA/QC results before they are accepted into the database. There is a company protocol followed to verify samples for entry into the database, which gives confidence that samples extracted from the database can be used in geological modelling and Mineral Resource estimation. There are periodic internal and external audits in this database, and eventually, checks and improvements are made.

Assay data is imported directly from assay certificates from the laboratory once it has been validated by the QA/QC person. Only fully trained and authorized network users can upload laboratory data. Assay data is stored in a normalized format, and multiple assays are stored for each sample. The same database manager is also responsible for the assay data validation.

MSG has established a standard QA/QC procedure for the drilling programs in the mines and all exploration targets. Check samples inserted in sample batches include certified CRM’s,

crush and pulp blanks, and crush and pulp duplicates. In addition, a selection of pulps is submitted on a regular basis to ALS for umpire checks. The check type and frequency rate can vary according to the sample program (grade control, conversion, or exploration).

In general, laboratory batches of 36 original samples include the following checks:

- 2 CRM's chosen by the geologist and inserted in the mineralized intervals
- 1 coarse preparation BLANK at the beginning of the sample batch.
- 1 pulp analytical BLANK inserted within or at the end of the mineralized interval
- 2 pulp DUPLICATES selected from a previous batch and re-numbered.
- Preparation duplicates can be included on an ad hoc basis to test the variability of the sample preparation process.

The process of inserting CRM control samples is filmed, providing a useful registry to investigate potential mix-ups that can lead to control failures.

QA/QC results are monitored closely on receipt of the analytical results. MSG has adopted a process to deal with failures in blanks and CRM's. Results and control actions are reported internally monthly.

CRM deviations beyond the certified control thresholds (+/-3SD) are investigated thoroughly. Mix-ups are first investigated using control charts that compare with other reference materials used in the dispatches. If a mix-up is suspected, it is investigated and confirmed by reviewing the filmed registry. If the CRM failure is verified as a potential analytical issue, the full batch is re-assayed. Similarly, blanks are investigated for potential contamination issues. On a confirmed failure of a coarse blank, samples are recovered from the coarse rejects, and the full batch is reprocessed and assayed.

The person responsible verifies potential QA/QC issues and releases them in the database.

1.8 Mineral Resource Estimate

The MSG technical team prepared geological models and block models using Datamine and Leapfrog software and performed statistical and variography analysis. The QP validated the database and estimates by MSG using Surpac software by comparative methods to check the smoothness effect and swath plots.

Mineral resource classification was validated using information from previous reports and checking over the quality and confidence in sampling and assay, location and spacing of sampling, geological modeling, and grade estimate methods. Average densities are assigned to mineralized domains (oxide, transition, and sulfide zones) based on previous assessments.

The block models inside mineralization zones were validated using Surpac software based on visual and volumetric validation of some selected targets. Visual adherence is inside acceptance limits.

Ordinary kriging (OK) and the Nearest Neighbor (NN) method were used for gold grade estimation in mineralized bodies of the MSG. Of the 38 received block models, 36 were re-estimated using composites provided by Aura in Datamine software formats to validate the grade estimate. The Dolomito and Ipê targets were not estimated by the QP due to the absence of mineral resource classification in the received resource models.

QP from GE21 estimated the parent blocks of each domain individually in a single step, covering the entire block model. The orientation of variographic and sample search anisotropic ellipsoids applied in grade estimation is based on the average orientation of mineralization zones.

The QP validated the estimate through visual verification and global and local bias verification. The global and local bias checks were carried out using GE21's NN, and OK estimates as the basis of a comparative analysis with the OK grade estimate by MSG.

NN-Checks plots show the results of the global bias analysis and the smoothing effect of the estimated Au ppm. The QP concluded that biases and shooting effects are inside acceptance limits for mineral resource classification. The local bias was checked using the Swath Plot method, which analyzes by comparing the local MSG model's average grades and OK/NN performed by GE21. The QP considered the MSG estimation inside acceptance limits for mineral resource classification.

1.9 Classification of Mineral Resources

To define Reasonable Prospects for Economic Extraction (RPEE), the MRE was limited through pit optimization using Whittle 2022 software. Economic and physical constraints for open-pit targets are present in Table 1.3.

Table 1.3: Pit parameters generated for RPEE

Item				Unit	RPEE
					Ore
Revenue	Economic Parameters	Currency		BRL/US$	5.15
		Selling Price	Au	US$/oz	3,100
	ROM	Density		g/cm³	Attribute in the Block Model
		Grade		%	Attribute in the Block Model
	Mining	Recovery of Mining		%	100
		Dilution			0
	Block Model	Block Model		Unit	
		X		m	2 or 3
		Y			2 or 3
		Z			2
	General Angle	Weathering Zone		Unit	
		Oxide		degrees	30
		Transition			45
		Sulfide			68
	Cut-off grade	Attribute		Unit	
		Au		ppm	0.35
	Metallurgic Recovery	Au		%	95.0
Costs		Mining Cost		US$/t mined	2.82
		Processing Cost		US$/t feed	23.98
		SG&A		US$/t feed	3.65

Item		Unit	RPEE
			Ore
	Selling Cost	US$/oz	47.90
	Sustaining Costs mining	US$/t ore mined	0.57
	Sustaining Costs process	US$/t feed	0.75
	CFEM + Royalties	% of Gross	2.25

Source: Aura, 2026.

A Mineable Stope Optimization (MSO) process run in Datamine MSO was applied as Reasonable Prospects for Economic Extraction (RPEE) to generate mining faces (stopes) based on predefined geometric parameters, ensuring that all stopes meet the mining criteria established from economic evaluations for the 26 block models. Economic and physical constraints for Underground targets are present in Table 1.4.

Table 1.4: Underground parameters used in MSO

Item				Unit	RPEE
					Ore
Revenue	Economic Parameters	Currency		BRL/US$	5.15
		Selling Price	Au	US$/oz	3,100
	ROM	Density		g/cm³	Attribute in the Block Model
		Grade		%	Attribute in the Block Model
	Mining	Dilution		%	20
	Block Model	Block Model		Unit	
		X		m	Attribute in the Block Model
		Y			Attribute in the Block Model
		Z			Attribute in the Block Model
	Cut-off grade	Attribute		Unit	
		Au		ppm	1.29
	Metallurgic Recovery	Au		%	99.22
Costs		Mining Cost		US$/t mined	67.93
		Processing Cost		US$/t feed	20.39
		SG&A		US$/t feed	11.38
		CFEM, Royalties, Refining and Transport Costs		US$/oz	47.90

Source: Aura, 2026.

The guidelines for resource classification were established in accordance with the Committee for Mineral Reserves International Reporting Standards (CRIRSCO). The definitions of Mineral Resource for S-K 1300 are transcribed below:

- A Measured Mineral Resource represents the highest level of geological confidence. Quantity, grade or quality, densities, shapes, and physical characteristics are estimated with sufficient precision to support detailed mine planning and the final economic evaluation. Geological evidence is based on detailed, reliable exploration, sampling, and testing, sufficient to confirm geological and grade continuity. Measured Resources can be converted into Proven or Probable Mineral Reserves.

- An Indicated Mineral Resource is a mineral resource for which the quantity and grade or quality are estimated based on adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modification factors with sufficient detail to support mine planning and the assessment of the economic viability of the deposit. Because an indicated mineral resource has a lower confidence level than the confidence level of a measured mineral resource, an indicated mineral resource can only be converted into a Probable Mineral Reserve.
- An Inferred Mineral Resource is the portion of a mineral resource for which the quantity and grade or quality are estimated based on limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors that could influence the prospects of economic extraction in a way that is useful for assessing economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of modifying factors in a way that is useful for assessing economic viability, an inferred mineral resource may not be considered when evaluating the economic viability of a mining project and may not be converted into a mineral reserve.

MSG used the 15% Rule for Mineral Resource Classification, according to Snowden's audit (2025) and AGA in the S-K 1300 LOM-TRS (2022), where:

- Measured Mineral Resources: predicted metal content should be within 15%, at least 90% of the time, for Quarterly production volumes: drill grid of about 20 m x 10 m and sometimes 10 m x 10 m.
- Indicated Mineral Resources: predicted metal content should be within 15%, at least 90% of the time, for Annual production volumes: drill grid of about 40 m x 20 m.
- Inferred Mineral Resources: variability of predicted metal content may be greater than 15%, 90% of the time for Annual production volumes: drill grid greater than 50 m x 50 m and less than 100 m x 100 m.

The QP validated and accepted the criteria applied by the MSG's mineral resource classification as measured, indicated, and inferred classes.

1.10 Mineral Resources Statement

Mineral Resources are reported exclusive of reserves for open-pit and underground targets. The exclusive Mineral Resource is calculated by extracting the Mineral Reserves from the Mineral Resource. Mineral Resource Classification for the MSG Project has an effective date of November 30, 2025.

The UG Mineral Resource is a combination of sublevel stoping and room and pillar mines.

The total of exclusive Mineral Resource for open-pit mining is presented in Table 1.5. The total of exclusive Mineral Resource for underground mining is presented in Table 1.6.

Table 1.5: MSG's open pit exclusive Mineral Resource statement

Project	Resource Class	Tonnage	Au	Au
		Mt	g/t	k oz
OP	Measured	0.53	1.68	28.90
	Indicated	5.32	1.21	207.35
	Meas+Ind	**5.86**	**1.25**	**236.25**
	Inferred	8.91	1.16	332.24

Notes related to the Mineral Resource estimate:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 0.31 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate's relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9. The MRE was estimated using ordinary kriging in 8 m x 8 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of US$ 3,100.00/t oz Au, mining cost of US$ 2.82/t mined, and processing cost of US$ 23.98/t processed.

Source: GE21, 2026.

Table 1.6: MSG's underground exclusive Mineral Resource statement

Project	Resource Class	Tonnage	Au	Au
		Mt	g/t	k oz
UG	Measured	1.71	4.83	265.56
	Indicated	4.68	3.96	596.98
	Meas+Ind	**6.40**	**4.19**	**862.54**
	Inferred	13.37	4.03	1733.44

Notes related to the Mineral Resource Estimate:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 1.29 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9.The MRE was estimated using ordinary kriging in 4 m x 4 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of 3,100.00 US$/oz Au, Mining cost of 67.93 US$/t mined, processing cost of 20.39 US$/ t processed.

Source: GE21, 2026.

1.11 Mineral Processing and Metallurgical Testing

The metallurgical plant was commissioned in 1989, and subsequent upgrades have increased the annual processing capacity to 1.5 Mtpa, combining carbon-in-leach (CIL) and gravimetric circuits. The ore is blended to feed the crushing circuit, which has a capacity of 4,100 tpd.

There are two mills in operation, and 20 leach tanks with a capacity of 4,800 m^3, divided between pre-liming and cyanidation stages. Approximately 58% of gold is captured in the parallel gravity circuit. The rest of the gold is recovered by the CIL process to form the doré that is sent to the Nova Lima refining process.

The processing flowsheet encompasses:

- Crushing circuit
  - Primary
  - Secondary
  - Tertiary
- Grinding with cyclone classification
- Gravity recovery of coarse free gold from the cyclone underflow stream using a batch centrifugal gravity equipment
- Intensive cyanide leach reactor
- Cyanidation and adsorption circuit (CIL)
- Elution (or desorption) circuit for gold removal
- Electrowinning tank and gold removed using electro-winning cells

1.12 Mineral Reserve Estimate

The Mineral Reserve Estimate was prepared using S-K 1300 definitions. The total OP and UG Mineral Reserve for the MSG Mine was estimated at 11.93 Mt at 1.96 g/t for 752.77 koz of gold. This is a combination of Proven (2.41 Mt at 2.24 g/t) and Probable (9.52 Mt at 1.89 g/t) Mineral Reserve (Table 1.7).

Table 1.7: MSG Project Mineral Reserves estimate (effective date – November 30, 2025)

Classification	Tonnage	Gold Grade	Contained Gold
	Mt	g/t	koz
Open Pit (OP)			
OP Proven	0.39	1.36	17.11
OP Probable	1.06	1.18	40.47
Total Proven & Probable OP	1.46	1.23	57.58
Underground (UG)			
UG Proven	2.02	2.41	156.17
UG Probable	8.46	1.98	539.01
Total Proven & Probable UG	10.47	2.06	695.18
OP + UG			
Total Proven (OP + UG)	**2.41**	**2.24**	**173.28**
Total Probable (OP+UG)	**9.52**	**1.89**	**579.49**
Total Proven + Probable (OP + UG)	**11.93**	**1.96**	**752.77**

Notes:
1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves.
2. Mineral Reserves have an effective date of November 30, 2025.
3. The base case cut-off grade (CoG) for the estimate of Mineral Reserves is 0.41 g/t Au for open pit and 1.85 g/t Au for underground.
4. Open Pit Mineral Reserves are confined within an optimized pit shell that uses the following geometric and economic parameters:
   - Mine Recovery of 95% and dilution 10%.
   - Gold price US$ 2600/oz
   - Exchange rate of R$ 5.15: US$ 1.
   - Mining costs of US$ 2.82/t for mineralization and waste
   - Sustaining operating cost of US$ 0.57/t ore mined.
   - Processing cost of US$ 23.98 /t of ore feed.
   - Sustaining processing cost US$ 0.75 /t of ore feed.
   - General and administrative cost of 3.65 /t of ore feed.
   - Selling cost of US$ 47.90/ oz.
   - CEFEM and Royalties 2.25% of gross revenue.

- Metallurgical recovery of 95%.
- Overall slope angle 30° to 68°.
- Overall strip ratio: 12.85 (ton per ton).

5. Tonnages and grades have been rounded in accordance with reporting guidelines. Totals may not sum due to rounding.
6. The Mineral Reserves Estimate report table was produced in the GEOVIA Surpac software.
7. A minimum mining width of 1.80 m was used for the sublevel stope mining method and 4.0 m for the room and pillars mining method
8. Surface Topography as of November 30, 2025.

Source: GE21, 2026.

1.13 Mining Method

The MSG Project includes both open-pit and underground operations, and its mining methods are defined based on the geostructural characteristics of the ore bodies. The studies for the development of open-pit mines are conducted for ore bodies near the surface, considering exploitation by bench mining. Otherwise, underground mining methods are used by Cut and Fill Stope, Sublevel Stoping, Room and Pillar, or Drift & Slash methods.

1.14 Recovery Methods

The metallurgical plant recovery is 95%, which supports the view that the method is appropriate. Continuous improvement is focused on increasing throughput and reducing the tailing grade.

The plant is a CIL plant with the main equipment being crushers, mills, gravity concentrator, leaching tanks, filters, and smelting. The plant capacity is 1.5 Mtpa.

The production process is split into crushing, milling, gravity concentration with intensive leaching, thickening, leaching, adsorption, acid scrubbing, elution, electrolysis, smelting, and activated carbon regeneration. The ore is first crushed (primary, secondary, and tertiary crushing), sorted by particle size on screens (primary, secondary), run through a spiral classifier, and stored in two silos. The ore fed from the silos feeds the milling circuit. Part of the circulating load from the mills (underflow from the hydrocyclones) feeds the gravity concentration circuit. The overflow from the hydrocyclones and the spiral classifier goes to the thickening circuit to adjust the percentage of solids for the leaching step in tanks with sodium cyanide. Post that, the dissolved gold is absorbed onto activated carbon, which takes place in the CIL tanks. The solid tailings from this process are pumped to filters, and after the material is dry, stacked as tailings. Gold is recovered from both the gravity circuit and the CIL circuit.

1.15 Environmental Studies, Permitting, and Social or Community Impacts

The Technical Environmental Assessment of the Project was based on an analysis of the company’s current environmental legal compliance and its relevant socio-environmental factors.

This analysis was carried out within the scope of environmental licensing, which, for mineral extraction activities, is mandatory in Brazil and must be conducted in accordance with Federal Decree N° 9,274/1990, which regulates Federal Law N° 6,938/1981, which in turn establishes the National Environmental Policy.

In this case, the authority for the environmental regularization of the Project lies with the Goiás State, as established by Law N° 6,938/1981, and CONAMA Resolution N° 237/1997.

For mining activities, it is also necessary for the entrepreneur to demonstrate the right to exploit the intended mineral substance, which is granted by the ANM, considering that mineral resources are assets of the Federal Government pursuant to Article 20, item IX, of the 1988 Federal Constitution.

According to CONAMA Resolution N° 237/1997, which establishes the concepts, procedures, and criteria applied in environmental licensing, the three-phase model is the standard in Brazilian environmental licensing. This model is divided into the stages of the Preliminary License (LP), which certifies the environmental feasibility and location of the proposed activities; the Installation License (LI), which authorizes construction provided that environmental control, monitoring, and compensation measures are implemented; and the Operation License (LO), which authorizes the operation of the project after construction and commissioning, while also requiring continued efforts in control and monitoring actions, in accordance with applicable legislation.

Considering that this Project has been operational since 1989, it is currently undergoing revalidation of its LO. In Goiás, the validation Process for the Operation of the MSG complex was duly filed with the competent environmental authority within the legal deadline, aiming to ensure the regular continuity of operations. During the analysis of the renewal request and the license integration procedure, the need for supplementation and further detailing of certain environmental aspects was identified, which led to the execution of a Conduct Adjustment Agreement (TAC) between Mineração Serra Grande S.A., the Goiás State Secretariat for the Environment and Sustainable Development (SEMAD), and the Goiás State Public Prosecutor’s Office. The TAC was executed as an exceptional and consensual instrument to enable the controlled continuity of operations, establishing technical, environmental, and monitoring obligations in addition to those set forth in the existing licenses.

It is emphasized that the Project’s regular operations are conditioned upon full compliance with the TAC, with the timely execution of the agreed actions within the established deadlines, ensuring the environmental regularity of the project until the final conclusion of the analysis of the environmental license revalidation process.

It is also important to note that Aura adheres to sound environmental management practices. Based on the foregoing, it can be concluded that the continuity of operations at Aura’s MSG is considered viable, provided that the control and monitoring actions contained in the various environmental programs and conditions required by the environmental authority are duly complied with.

The MSG Project is located in the municipality of Crixás, in the Goiás State, within a region historically dedicated to mineral exploration and exploitation, particularly gold mining. The Project is developed in a geologically favorable area associated with volcano-sedimentary

formations of the Pilar de Goiás Group, where auriferous mineralized bodies occur and are exploited predominantly by underground mining, as well as by open-pit mining methods.

The area where the Project is located is characterized by gently undulating terrain and climatic conditions typical of a tropical climate. It is a region represented by typical Cerrado formations biome, with grassland and savanna physiognomies that have already been altered.

The Project is near the municipal center of Crixás, a municipality whose economic dynamics have a strong historical link to mining, and it stands out for its contribution to job creation, strengthening of the local economy, and use of existing road infrastructure.

The land tenure status of the MSG complex is duly regularized, comprising areas owned by Mineração Serra Grande S.A. and third-party areas subject to valid agreements that ensure the use required for mining activities. The owned properties and surface-right areas within the Directly Affected Area (ADA) are registered in the Rural Environmental Registry (CAR), compatible with the mining rights and the location of the Project's structures. According to Aura (2026), it is noted that only the CAR registered under the ownership of Mineração Serra Grande S.A. is undergoing a rectification process, which is regularly proceeding within the official system, while the remaining registrations are consistent with the land tenure and operational reality of the Project, thereby ensuring the environmental regularity of the area.

The continuation of operations at the Project depends on the ongoing and integrated implementation of environmental control actions and systematic monitoring programs, as established by unified LO N° 88/2023. These actions aim to minimize, mitigate, and control the environmental impacts associated with open-pit and underground mining activities, mineral processing, and waste rock and tailings disposal, ensuring the environmental compliance of the mining complex.

Within the physical environment, emphasis is placed on actions to control and monitor surface and groundwater quality, the hydrogeological system, and water availability, including the monitoring of flow rates, piezometric levels, and water quality. In addition, liquid effluent monitoring programs are implemented to assess the efficiency of treatment systems and the recirculation of water within a closed circuit, thereby reducing discharges to the environment. The control of erosive processes is carried out continuously through the implementation, maintenance, and semiannual reassessment of surface drainage systems, channels, containment basins, and other stormwater control devices, including those along access roads.

Also, within the physical environment, geotechnical monitoring programs are implemented for open pits, underground mines, waste rock dumps, tailings stacks, and other structures, in conjunction with the Dam Safety Plan, as well as the monitoring of acid drainage events and environmental risk management, ensuring structural stability and operational safety. These actions are complemented by the control of atmospheric emissions, covering both fixed and diffuse sources, air quality monitoring, and systematic monitoring of noise and vibration levels resulting from operational activities.

Regarding the biotic environment, the Project implements fauna and flora monitoring and management programs, including monitoring wildlife, roadkill fauna, and native vegetation; control of permanent preservation areas; and actions to recover degraded areas. These programs are complemented by specific studies, such as edge-effect monitoring, speleological monitoring, and control of medically important insects, to ensure the protection of local biodiversity and compliance with applicable environmental legislation.

In the socioeconomic context, environmental education, social communication, and socioeconomic indicator monitoring programs are implemented to maintain dialogue with surrounding communities, promote environmental awareness, and monitor the effects of mining activities on the local context. In addition, the Project maintains solid waste management actions, with traceability, environmentally appropriate disposal, and continuous monitoring of waste generation sources.

The mine closure concept for the MSG, prepared by Arcadis (2025), is based on an approach integrated with the life cycle of the Project, aligned with national legal requirements, the AGA corporate standard (PN-1481), ANM Resolution N° 68/2021, and international best practices of the ICMM and the IBRAM Mine Closure Planning Guide. The closure plan is conceived as an integrated set of technical, environmental, and socioeconomic actions aimed at the orderly decommissioning of operations, including the decommissioning of structures, the physical and chemical stabilization of pits, waste rock dumps, and tailings facilities, as well as the environmental rehabilitation of impacted areas. As a central element, progressive rehabilitation is adopted, reducing liability, validating technical solutions, and anticipating environmental stability throughout the operational phase. The concept also includes the management and mitigation of residual risks, the implementation of post-closure monitoring programs, and the definition of future land-use alternatives, with the objective of ensuring long-term stability of the areas, compatibility with land-use planning, and a responsible and sustainable socioeconomic transition following the cessation of mining activities.

The MSG closure plan, prepared by Arcadis (2025), also records that the dam decharacterization works were fully completed in July 2025. It is important to note that the structure remains under continuous monitoring, in compliance with applicable specific legislation, meeting the requirements of the competent authorities and the safety and stability criteria established for this type of structure.

1.16 Capital and Operation Costs

Once the MSG is a mature project with a processing plant and OP and UG mines already in place

MSG’s forecasted capital and operating costs estimates are derived from annual budgets and historical actuals over the long life of the current operation.

The estimate indicates a required process sustaining capital of US$ 6.6 t/ore to support the projected production schedule through the LOM.

Operating costs for the LOM are based on the 2026 plan, considering OP and UG Mine Operating Costs, Processing Operating Costs, and General and Administrative (G&A) Operating Costs.

A summary of operating costs is presented in Table 1.8.

Table 1.8: MSG operating costs summary

Operation Cost	Cost (US$/t ore)
Mining OP	21.30
Mining UG	67.12
Processing	20.39
G&A	3.65

Source: GE21, 2026.

1.17 Economic Analysis

The economic analysis metrics are prepared on an annual post-tax basis in US$. The results summary of the analysis is presented in Table 1.9. The results indicate that, at a gold price of US$ 3,515/oz, the MSG Project returns a post-tax net present value (NPV) at 5% of US$ 588.1 million.

Table 1.9: Simplified discounted cash flow results (post-tax)

Description	Value
Net Present Value Discounted at 5% (million US$)	588.09
Sustaining and Closure Capital (million US$)	425,26
Cash Cost (US$/oz)	1.310,58
AISC (US$/oz)	1.347,28

Source: GE21, 2026.

2 INTRODUCTION

GE21 Consultoria Mineral Ltda. (GE21) prepared this technical report summary (TRS), titled “S-K 1300 Technical Report Summary – Mineral Resource and Mineral Reserve on Mineração Serra Grande Project – Goiás, Brazil”, dated February 26, 2026 (“the 2026 TRS”).

Aura Minerals Inc. (“Aura” or “the Company”) commissioned this TRS to support its disclosure of Mineral Resource and Mineral Reserve estimates for the Mineração Serra Grande (MSG) Project (“the Project”). This TRS conforms to the U.S. Securities and Exchange Commission’s (SEC) Subpart 229.1300 of Regulation S-K (S-K 1300) and Item 601 (b)(96).

Aura is a public company listed on the Toronto Stock Exchange (TSX) trading under the symbol “ORA”, with its head office at 78 SW 7th St., Miami, FL 33130, USA. Aura beneficially owns 100% of the Project through its Brazilian subsidiaries, having acquired it from AngloGold Ashanti (AGA) in December 2025.

The Project is located in the municipality of Crixás, northern Goiás State, Brazil. It targets gold mineralization across an NNW-SSE elongated area of approximately 5 x 2 km, encompassing the Palmeiras, Mina III, Pequizão, and Corpo Baru orebodies.

Mining operations at the Project began in 1986. Historically, the property was developed and operated through various joint ventures involving INCO, Kennecott, Anglo American, TVX Gold, and Kinross Gold. In 2012, AngloGold Ashanti (AGA) assumed full control. The metallurgical plant, commissioned in 1989, reached its current capacity of 1.5 Mtpa in 2009.

The Project represents Aura’s fourth operating gold mine in Brazil, joining the Apoena (Mato Grosso), Almas (Tocantins), and Borborema (Rio Grande do Norte) projects.

The most recent prior disclosure of Mineral Resources and Reserves was published by AGA as of December 31, 2024, reporting Measured and Indicated Resources of 10.75 Mt at 3.14 g/t Au (1.08 Moz) and Total Mineral Reserves of 4.20 Mt at 2.72 g/t Au (0.37 Moz).

Between December 2025 and February 2026, GE21 performed the following activities to update the Project’s technical data:

- Database validation and QA/QC review;
- Update of Mineral Resource and Mineral Reserve estimates;
- Assessment of environmental studies, permitting, and social or community impacts;
- Mining studies and pit optimization;
- Review of mineral processing and recovery methods;
- Estimation of capital and operating expenditures;
- Discounted cash flow for the life of the Project, implementation plan, and site rehabilitation plan for the decommissioning;
- Recommendations.

2.1 Qualified Persons

Aura has determined that GE21 meets the qualifications specified for a Qualified Person (QP) under §229.1302(b)(1) of S-K 1300. Therefore, references to the QP in this report refer to GE21 and not to any individual employed at GE21.

GE21 does not have or has not had any material interest in Aura or its related entities. The relationship between these companies is solely a professional association between the client and the independent consultant. This report was prepared in exchange for fees based on rates established by a commercial agreement. Payment of these fees is in no way dependent on the results of this report.

2.2 Site Visits and Scope of Personal Inspection

The following Qualified Persons (QPs) from GE21 conducted personal inspections of the Project between January 12 and 16, 2026:

- Mr. Leonardo Soares, a geologist and member of the Australian Institute of Geoscientists (MAIG), with over 24 years of experience in mining projects – January 12 to 16, 2026: His inspection focused on evaluating mining property, regional and local geology, core shed, mineralization and lithology via select drill core, QA/QC procedures, geochemical laboratory, sample storage, data management, and storage.
- Mr. Guilherme Gomides, a mining engineer and a MAIG, with over 20 years of experience in mining projects – January 12 to 14, 2026: His inspection focused on evaluating road conditions, existing infrastructure, underground operations, open-pit operations, and waste dump locations.

2.3 Effective Date and Sources of Information

The effective date for the Mineral Resource estimate presented in this TRS is November 30, 2025. The QPs are not aware of any material changes to the Mineral Resource estimate status between this date and the date of this report.

Aura and its consultants provided GE21 with the information used to prepare this TRS. This work reflects the technical and economic conditions at the time that it was executed. This information was supplied in the form of an exploratory drilling database, certifications, maps, technical reports, and a topographical survey. The data is a combination of historical and newly generated information. The QPs verified this information, where possible, through independent checks and the site visits described above.

The results, images, and illustrations presented in this TRS have been generated from information provided and compiled by Aura, based on data organized in spreadsheets, internal and third-party technical reports, and supplemental information obtained from the Aura technical team. Exceptions will be subtitled for the source reference.

3 PROPERTY DESCRIPTION

3.1 Property Location

MSG is located in the northwest of Goiás State, the central-west region of Brazil. The MSG process and administration area is located 4 km from Crixás town and is fully accessible by a state gravel road.

The property can be accessed by federal or state pavement roads from Brasília (Brazil's capital city) or Goiânia (Goiás capital), with distances by road of 380 km and 338 km, respectively. From Brasília, access is by federal roads BR-070 and then BR-153, then state roads GO-154 and GO-465. From Goiânia, the access is made directly from BR-153, followed by the same state roads GO-154 and GO-465. The mine unit is 5 km south of Crixás town (Figure 3.1). It can be accessed from Crixás through the unpaved state road GO-336 that offers year-round access for two-wheel drive vehicles.

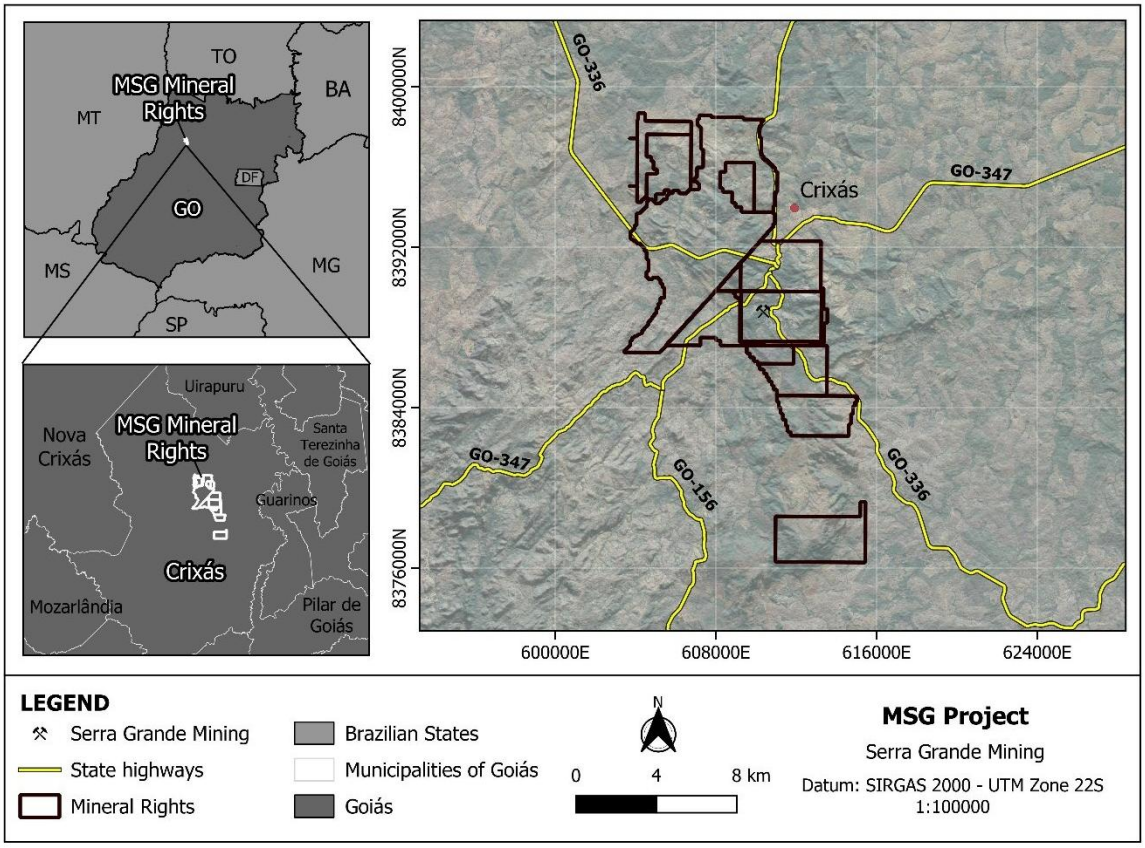


Figure 3.1: Location of the MSG

Source: GE21, 2026.

3.2 Property Description and Tenure

MSG holds existing surface rights across the entire Project area. Approximately 1,266.30 ha are owned directly by the mining operation, including industrial areas and offices. Another

6,784.32 ha are secured through agreements with adjacent landowners, encompassing areas where certain pits and waste dumps are situated.

MSG has interests or agreements over 10,540.07 ha in the Crixás Greenstone Belt through a series of mineral rights, including mining concessions, exploration permits and exploration permits with mining applications (Figure 3.2). The list of mineral rights is shown in Table 3.1.

In December 2022, the ANM mineral rights relative to the processes N° 002.286/1935, 804.366/1975, 860.352/1979, 860.824/1979, 862.103/1994, and 860.746/2005 were grouped in one single process with ANM, numbered 960.658/1987.

Table 3.1: Mineral rights of MSG

Mining Rights of the MSG				
Target	**ANM Process N°**	**Petitioner**	**Area (ha)**	**Status**
Near mine	860.746/2005	Mineração Serra Grande S.A.	88.31	Mining Concession
Near mine	862.103/1994	Mineração Serra Grande S.A.	125.37	Mining Concession
Near mine	860.824/1979	Mineração Serra Grande S.A.	1,000.06	Mining Concession
Near mine	860.352/1979	Mineração Serra Grande S.A.	947.04	Mining Concession
Near mine	804.366/1975	Mineração Serra Grande S.A.	196.05	Mining Concession
Near mine	002.286/1935	Mineração Serra Grande S.A.	4,206.92	Mining Concession
Palmeiras Sul	860.444/2018	Mineração Serra Grande S.A.	613.48	Application for Mining Concession
Cajueiro	860.706/2008	Mineração Serra Grande S.A.	622.15	Application for Mining Concession
Palmeiras Sul	811.874/1975	Mineração Serra Grande S.A.	689.04	Application for Mining Concession
Limoeiro / Canta Galo	861.974/2012	Mineração Serra Grande S.A.	635.26	Exploration Permit
Cajueiro	860.443/2018	Mineração Serra Grande S.A.	377.37	Exploration Permit
Crixás Sul	860.447/2018	Mineração Dorica Ltda.	1,039.02	Exploration Permit

Source: GE21, 2026.

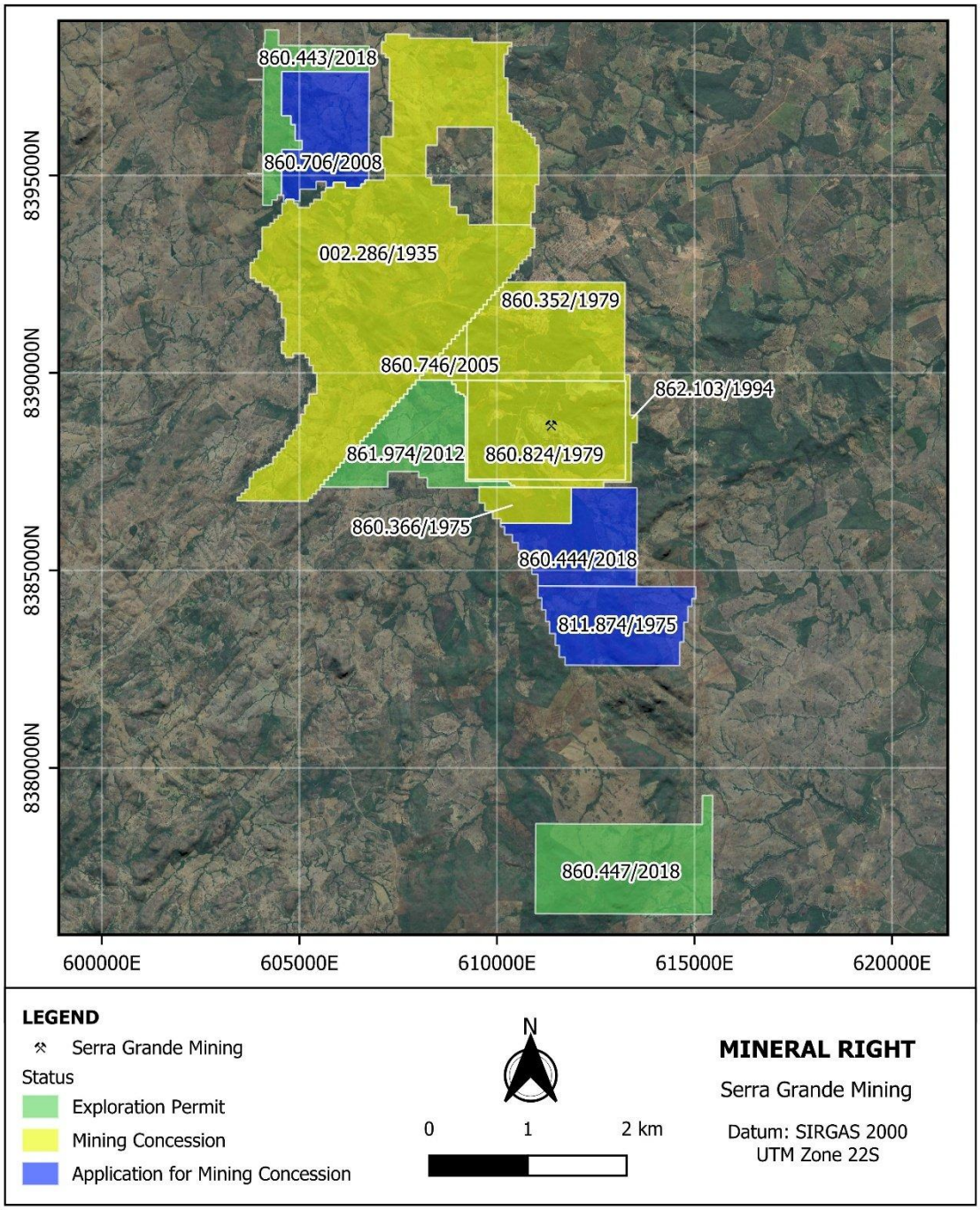


Figure 3.2: MSG Mineral Rights location.

Source: GE21, 2026.

Mining concessions are granted to the holders of exploration licenses that can prove the existence of a Mineral Resource and have been licensed by the environmental competent authority.

The obligations to retain any mining property include the preparation and submittal to the Nacional Mining Agency (“Agência Nacional de Mineração” – ANM) of a detailed Annual Operations Report (“Relatório Anual de Lavra” – RAL). In addition, the mine and plant must be operated as per the ANM-approved operations plans/projects, Preliminary Economic Assessment

("Plano de Aproveitamento Econômico" – PAE), which is accepted by the ANM if the documents comply with its standards for the technical aspects of mining and engineering practices.

3.3 Royalties

As part of the purchase agreement, a 3% NSR royalty is payable to AGA on gold ounces produced from the MSG with respect to the currently identified Mineral Resource of MSG (inclusive of the Mineral Reserve). Regarding the ore bodies Baru, Caja, Corpo IV, Corpo V Sul, Dolomito, Forquilha, Ingá, Limoeiro, Mangaba, Mina III VQZ, Mina Nova, Palmeiras, Palmeiras Sul, and Pequizão, an NSR participation, varying from 0.75% to 2.0%, is due to each landowner, proportional to their surface rights.

3.4 Environmental

Considering that MSG has been operational since 1989, it is currently undergoing revalidation of its LO. In Goiás, the validation Process for the Operation of the MSG complex was duly filed with the competent environmental authority within the legal deadline, aiming to ensure the regular continuity of operations. During the analysis of the renewal request and the license integration procedure, the need for supplementation and further detailing of certain environmental aspects was identified, which led to the execution of a Conduct Adjustment Agreement (TAC) between Mineração Serra Grande S.A., the Goiás State Secretariat for the Environment and Sustainable Development (SEMAD), and the Goiás State Public Prosecutor's Office. The TAC was executed as an exceptional and consensual instrument to enable the controlled continuity of operations, establishing technical, environmental, and monitoring obligations in addition to those set forth in the existing licenses.

The mine closure concept for the MSG, prepared by Arcadis (2025), is based on an approach integrated with the life cycle of the Project, aligned with national legal requirements, the AGA corporate standard (PN-1481), ANM Resolution N° 68/2021, and international best practices of the ICMM and the IBRAM Mine Closure Planning Guide.

The MSG closure plan, prepared by Arcadis (2025), also records that the dam decharacterization works were fully completed in July 2025. It is important to note that the structure remains under continuous monitoring, in compliance with applicable specific legislation, meeting the requirements of the competent authorities and the safety and stability criteria established for this type of structure.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

4.1 Access

The MSG process and administration area is located 4 km south of Crixás town, Goiás State, and is situated within the Vermelho River Hydrographic Basin. The Project is located 338 km north of the capital, Goiânia, and 380 km northwest of Brasília. Access to the site is via an unpaved state road GO-336, which offers year-round access for two-wheel drive vehicles (Figure 4.1).

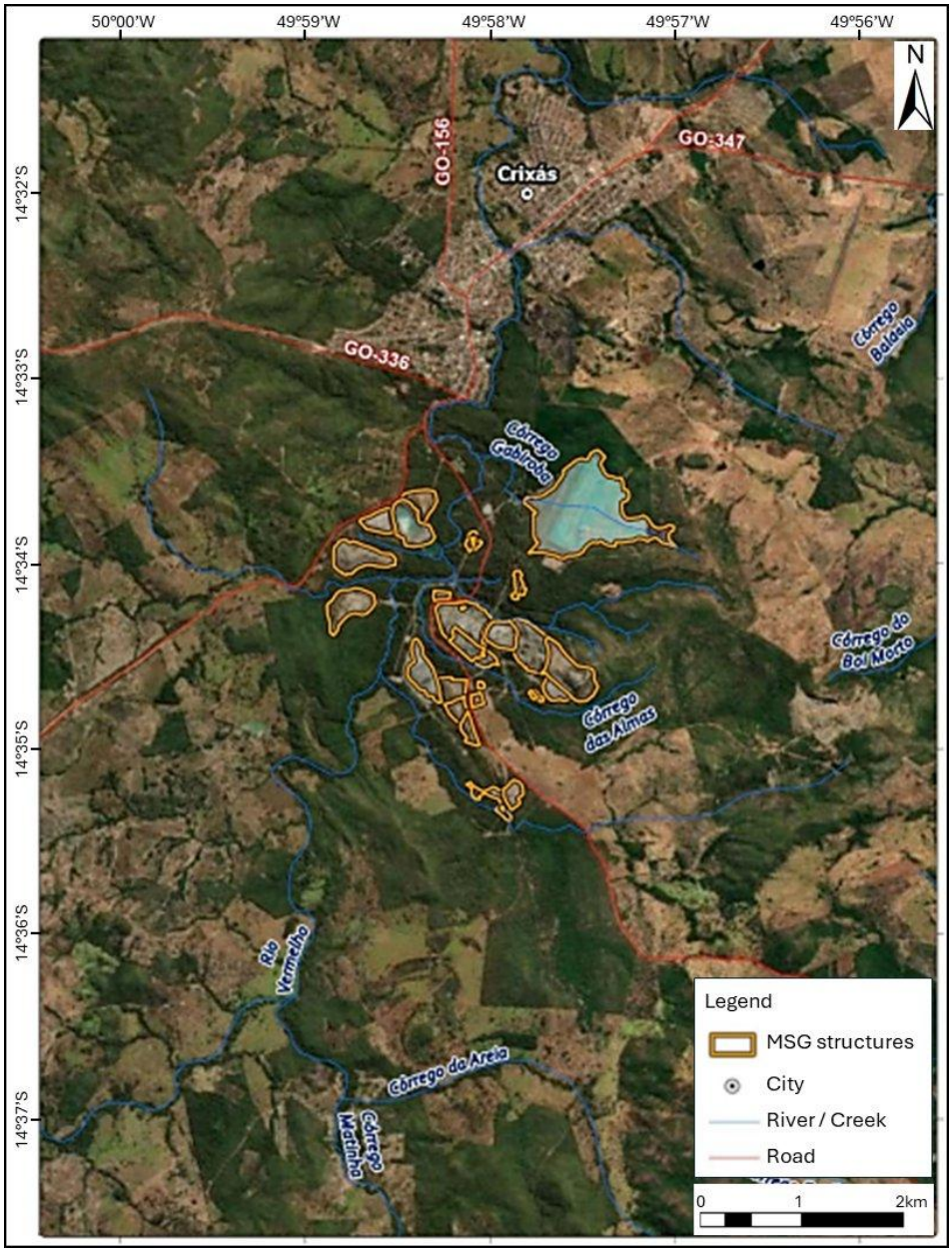


Figure 4.1: Access to MSG from Crixás town

Source: Modified from Arcadis, 2025.

4.2 Climate

Situated approximately 14°30’ south of the equator, the climate in the Crixás region is typically tropical. According to the Köppen-Geiger climate classification, the climate is Aw (tropical climate with dry winter), with two well-defined seasons: a hot and rainy summer (October to March) and a dry winter (April to September). Annual temperatures generally range between 18 °C and 34 °C. Rainfall levels are high in the summer, with annual totals in the region generally ranging between 1,400 mm and 1,500 mm.

The weather in Crixás is characterized by high temperatures year-round with tropical humidity. Monthly rainfall in summer ranges from 100 mm to 300 mm, and maximum temperatures range from 23 °C to 35 °C. The rainy season extends from October to March and the dry season from April to September (Figure 4.2).

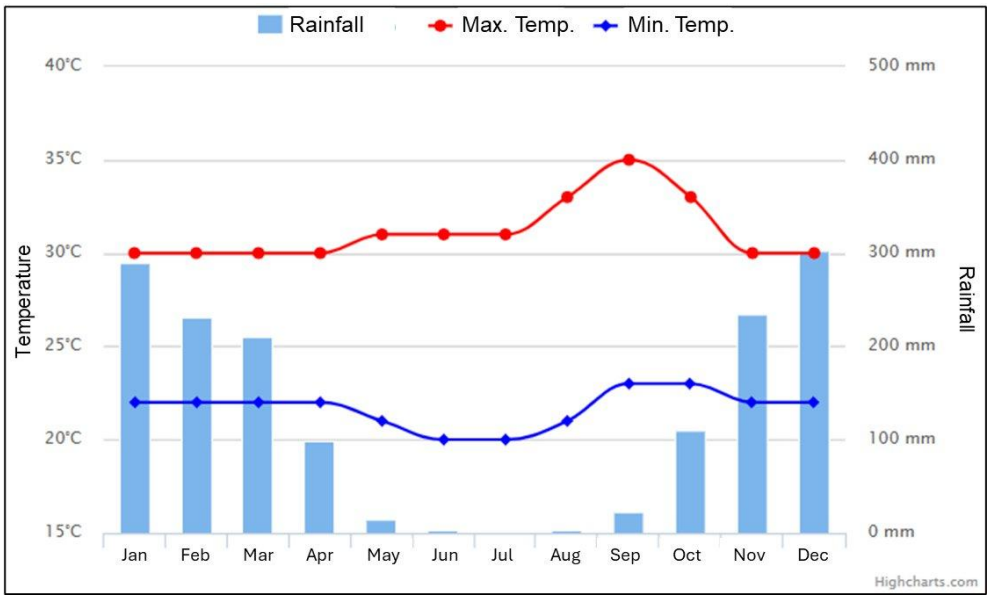


Figure 4.2: Average Temperature and Rainfall Data, Crixás, Brazil

Source: Climatempo, 2026.

Table 4.1 presents rainfall records from January 2020 to March 2025, extracted from the MSG rain gauge station.

Table 4.1: Monthly accumulated rainfall distribution – Jan./2020 to Mar./2025

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2020	399.5	393.3	199.5	140.6	1.8	0.1	0.2	0.0	0.0	140.0	195.7	184.0	1,654.6
2021	185.0	302.0	179.2	59.6	0.2	0.0	0.0	0.2	1.2	226.0	350.4	319.6	1,623.4
2022	417.8	180.8	89.0	28.2	0.0	0.0	0.0	0.0	23.6	114.6	128.4	404.4	1,386,8
2023	186.4	58.4	200.4	0.0	0.0	0.0	0.0	16.8	96.2	30.2	132.2	156.8	877,4
2024	328.9	227.5	257.1	111.7	0.0	0.0	0.0	0.0	0.0	198.7	449.5	377.0	1,950,4
2025	447.1	117.5	108.4	-	-	-	-	-	-	-	-	-	-
Average	327.4	213.2	172.3	68.0	0.4	0.0	0.0	3.4	24.2	141.9	251.2	288.4	1,490,5

Source: Arcadis, 2025.

The rainfall data recorded at the MSG rain gauge station clearly characterizes the hydrological year in two periods: the rainy season, comprising the months of October to April, and the dry season, from May to September. The months of April and September have transitional characteristics between the seasons.

In the rainy season, the average monthly rainfall ranged from 141.9 mm (October) to 327.4 mm (January) and represents about 71.58% of the annual precipitation. The months of November to February are the rainiest, with the highest monthly average in January (327.4 mm). The months of May, June, and July are the driest of the year, with the first having a monthly average of 0.4 mm and the last two having 0 mm (Figure 4.3).

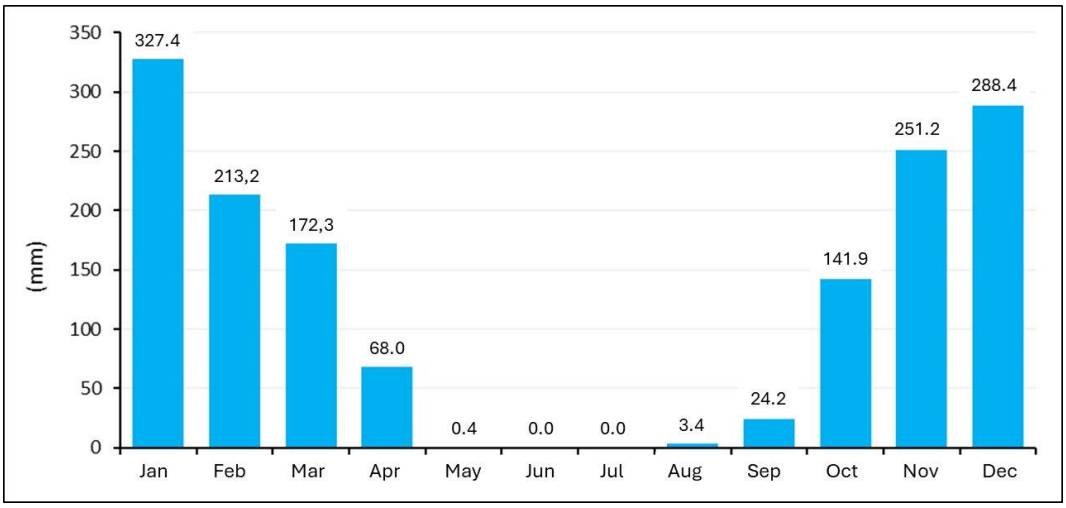


Figure 4.3: Distribution of monthly average rainfall (Jan/2020 to Mar/2025)

Source: Arcadis, 2025.

4.3 Physiography

MSG is located at an elevation of roughly 450 m above sea level. The drainage system consists of small seasonal rivers that dry during the dry season.

Regional geomorphology is characterized by dissection landforms ranging from moderate to strong, with numerous small ridges that highlight the structures' alignment, as well as tabular and convex forms in smaller areas (Figure 4.4). Steep-to-convex shapes prevail, with varying orders of magnitude: interfluves between 250 m and 750 m. The depressions are characterized by tabular or gently convex shapes, with elevations of around 300–400 m.

Regarding the hydrology of the region, the municipality of Crixás is in the Vermelho River Hydrographic Basin, which in turn is part of the Araguaia River Basin, in the Tocantins-Araguaia Hydrographic Region, which has an area of approximately 920,000 km² (10.8% of the national territory) and covers 21% of the states of Goiás (21%).

The Vermelho River is the main watercourse in the MSG area. The flow rates of the Vermelho River and its tributaries follow the seasonal fluctuations in rainfall. The Vermelho River flow rate is directly controlled by the regional hydrological regime, since during the rainy season

the flow rates are high, while during the dry season the flow rate decreases significantly, even drying up the watercourse during this period.

The drainage intensity is considered moderate. The drainage pattern is predominantly dendritic, varying to dendritic-rectangular in zones controlled by structures.

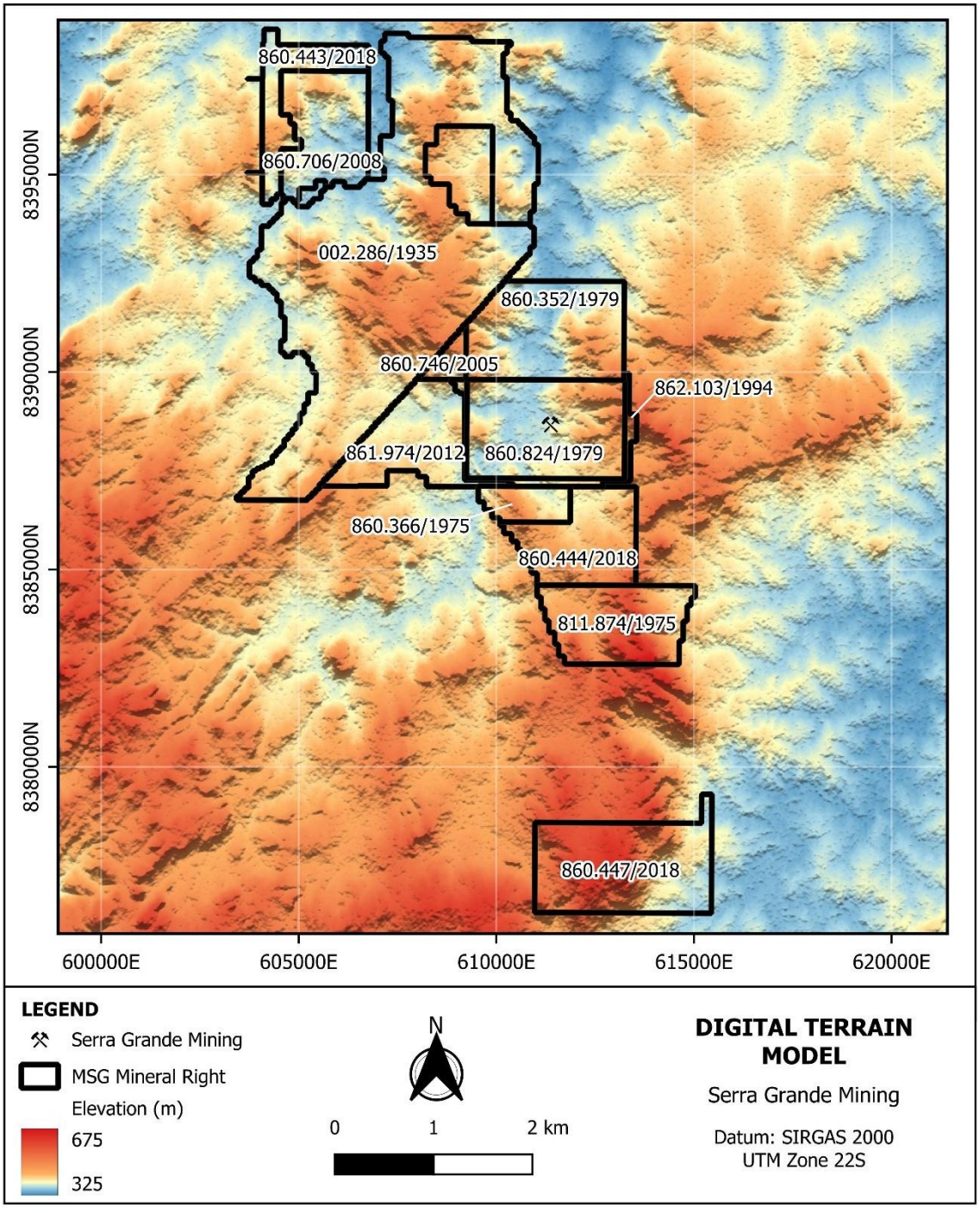


Figure 4.4: Terrain and Relief at the MSG region

Source: GE21, 2026.

The vegetation is typical of the central Brazil Cerrado Forest (similar to savanna, with bushes and small trees).

In the MSG region and its surroundings, typical Cerrado biome vegetation types are observed, such as Dry Forest (Semideciduous), Riparian Forest, Gallery Forest, and Cerradão (dense savanna).

The Cerrado Forest formations include vegetation types with a predominance of small tree species, generally forming a continuous canopy. Riparian Forest and Gallery Forest are associated with watercourses and can occur in both well-drained and poorly drained areas.

Dry Forest and Cerradão develop in the interfluves, in well-drained areas, without a direct relationship to watercourses.

4.4 Local Resources

The MSG process and administration area is located 4 km from Crixás town and is fully accessible by a state gravel road. Experienced personnel can be found in the local region or in the state capital, Goiânia (approximately 338 km to the south). The nearest major airport is in Cuiabá.

The city has a public transportation system and an airfield with a 1,200 m paved runway. Asphalt paving covers 70% of the urban perimeter of the town. Crixás has a Municipal Hospital for emergency and health care, as well as basic health units, commercial bank branches, and a communication system (telephone and internet) provided by private companies.

There is a water and power supply available for all operations, provided by national and state grids.



Figure 4.5: Aerial view of Crixás

Source: AGA, 2019.

4.5 Infrastructure

Crixás city is situated in the mid-region of Goiás State, nearby (approximately 300 km radius) other big mining companies, such as Hochschild Mining plc™ and Anglo American™. There are paved roadways between the Crixás town and the major regional cities, such as Goiânia and Brasília. The route from Crixás town to the MSG entrance is 4 km long and can be accessed through the unpaved state road GO-336 that offers year-round access for two-wheel drive vehicles.

5 HISTORY

Gold mineralization at Serra Grande was discovered and worked by Bandeirantes, Brazilian frontiersmen who opened the country's interior in the early 18th century, during the gold rush in colonial Brazil, a period that spurred the expansion and occupation of Goiás State. Exploration and resource extraction activities began with artisanal miners recovering placer gold along the region's rivers and streams. The gold was first discovered in 1734 at the Vermelho River, which crosses the MSG complex and the municipality of Crixás. Initially, the gold was mined from alluvial, or placer deposits.

5.1 Exploration History

Exploration began in 1973 with a phase of detailed mapping and diamond drilling (DD), which continued until 1976. The drilling campaign reached mineralized gold intersections beneath a historic excavation work known as Mina III, leading exploration efforts to this area. Exploration works, including drilling campaigns, continued till 1986, being led by INCO from 1976 to 1982, and by Kennecott and INCO from 1983 to 1986, when Kennecott sold its interest to Anglo American Group (AAG). Exploration continued, together with the underground development, until 1987.

Exploration continued from 1986 to 1991, being conducted by AAG and INCO, and from 1992 to 2002, led by AAG and TVX. Over this period, the discoveries of NNW-SSE elongated orebodies distributed over an area of approximately 5 x 2 km were confirmed, as Palmeiras, Pequizão, Corpo Sul, Mina Nova, and Corpo Bauru.

The mining operation started in 1986 in Mina III, and the metallurgical plant start-up was in 1989. In 2009, the metallurgical plant capacity was expanded to 1.5 Mtpa.

The tabulation below gives a history of the mine's ownership:

- 1976 (INCO)
- 1983 (Kennecott and INCO)
- 1986 (Anglo American Group and INCO)
- 1992 (Anglo American Group and TVX Gold Inc)
- 2003 (Anglo American Group and Kinross Gold Corporation)
- 2009 (AngloGold Ashanti and Kinross)
- June 2012 (AngloGold Ashanti Ltd)
- December 2025 (Aura Minerals Inc.)

The highest MSG gold production was registered in 2006, with 193 koz. According to AngloGold Ashanti, in 2024, MSG produced 80 Koz of gold (2023: 86 Koz).

6 GEOLOGICAL SETTING, MINERALIZATION, AND DEPOSIT

6.1 Regional Geology

The MSG is located within Tocantins Province (Almeida, 1984). This structural province is a Neoproterozoic orogenic region, formed during the collision of the São Francisco and Amazonian cratons. The agglutination of these blocks during the Brasiliano orogeny formed the Brasília, Araguaia, and Paraguay fold belts. The first developed on the western flank of the São Francisco Craton, and the latter two on the eastern and southeastern/southern edges of the Amazonian Craton, respectively (Figure 6.1).

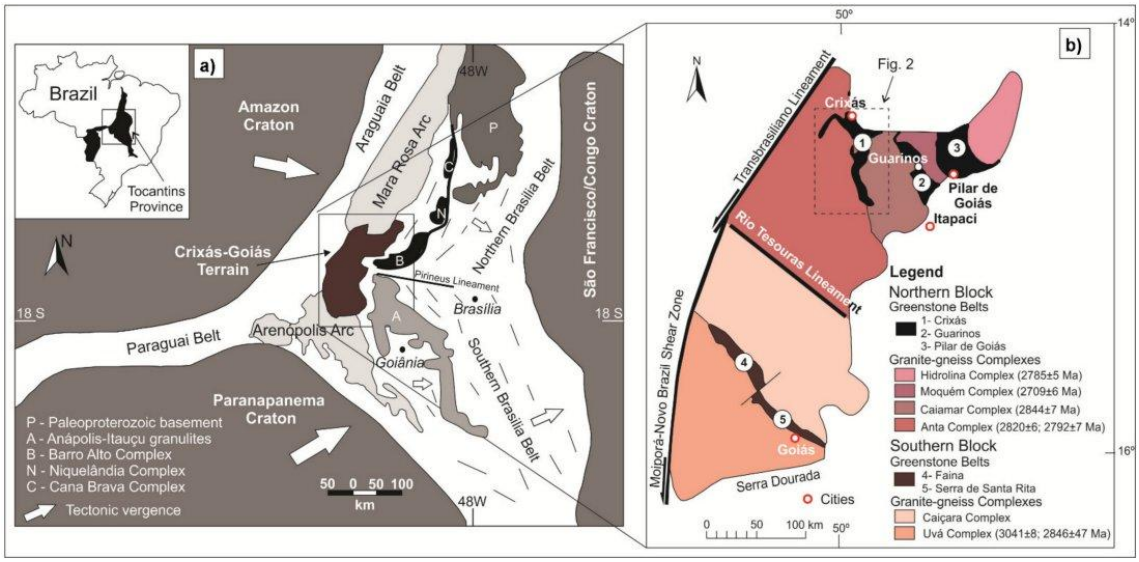


Figure 6.1: (a) Location of the Archean-Paleoproterozoic Crixás-Goiás Terrane in the Tocantins Province and (b) Subdivisions of the main components of the Crixás-Goiás Terrane

Source: Ulrich et al., 2021.

The Crixás Greenstone Belt (CGB) is a part of an Archaean block exposed in the central portion of the Neoproterozoic Brasília Belt (Figure 6.2). It consists of a green schist to low amphibolite grade regionally metamorphosed volcano-sedimentary sequence with komatiites and basalts, followed by carbonaceous schist and greywackes. The sequence was intruded by NW-trending mafic dykes after deformation and gold mineralization.

According to Sabóia et al. (1981), the Crixás Greenstone Belt stratigraphy is composed of four formations, namely from the base to the top, Córrego Alagadinho, Rio Vermelho, Ribeirão das Antas, and Córrego Geral Formation (Figure 6.3).

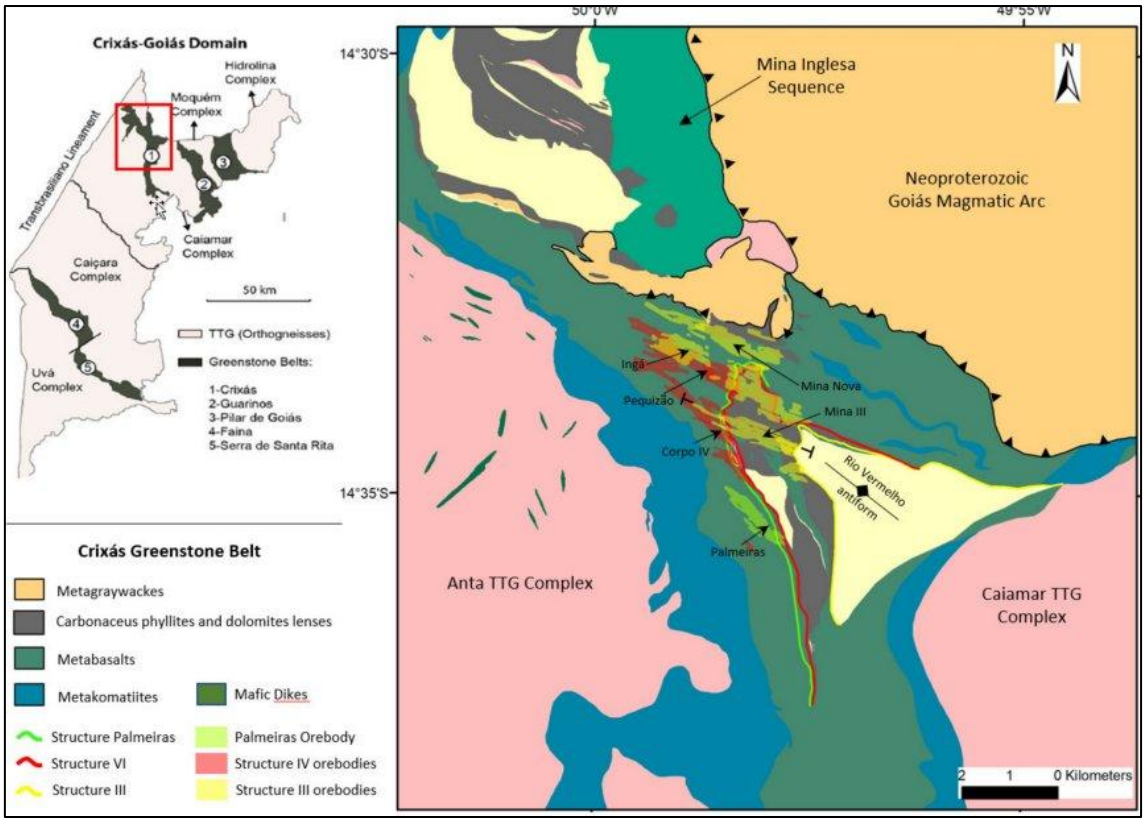


Figure 6.2: Geological map of Crixás Greenstone Belt with plan view of MSG bodies colored by the structures to which they belong

Source: Ulrich et al., 2021.

The Córrego Alagadinho Formation has an estimated thickness between 500–600 m and is composed of metamorphosed ultrabasic extrusive rocks of komatiitic composition, such as peridotites and pyroxenites. Lenticular intercalations of banded iron formation, metachert, carbonaceous schists, and dolomites are common. Near the top, intercalations of basic metavolcanic rocks appear. In the less deformed sectors of the Greenstone Belt, primary structures such as spinifex, polyhedral jointing, and flow breccia are observed. Peridotite sills and dikes occur.

The contact between the Córrego Alagadinho and Rio Vermelho Formations is generally abrupt, but it can be transitional, characterized by alternations of ultramafic and mafic metavolcanic rocks.

The Rio Vermelho Formation package thickness varies from 350 to 800 m and is predominantly composed of tholeiitic metabasalts. Structures such as pillows, varioles, vesicles, and orbicules are locally preserved. The metabasalts' metamorphism varies from greenschist to low amphibolite grade, with variations in amphibole, chlorite, and carbonate content. Banded iron formations, magnesiferous formations, and metachert occur as metasedimentary intercalations.

The contact between the Rio Vermelho and Ribeirão das Antas Formations is transitional.

The Ribeirão das Antas Formation, with an estimated thickness of 700 to 1000 m, is a package composed essentially of detrital metasedimentary rocks, with minor chemical and

volcanic contributions. The rock package consists of carbonaceous phyllite with lenses and beds of dolomites superimposed abruptly by siliciclastic metarritimites.

Córrego Geral Formation is composed of monotonous, siliciclastic meta-graywackes and meta-turbidites. The formation is only observed at the bottom of exploration holes and in outcrops of the central and northern sectors of the Crixás Greenstone Belt. The estimated thickness of this package is around 300 m.

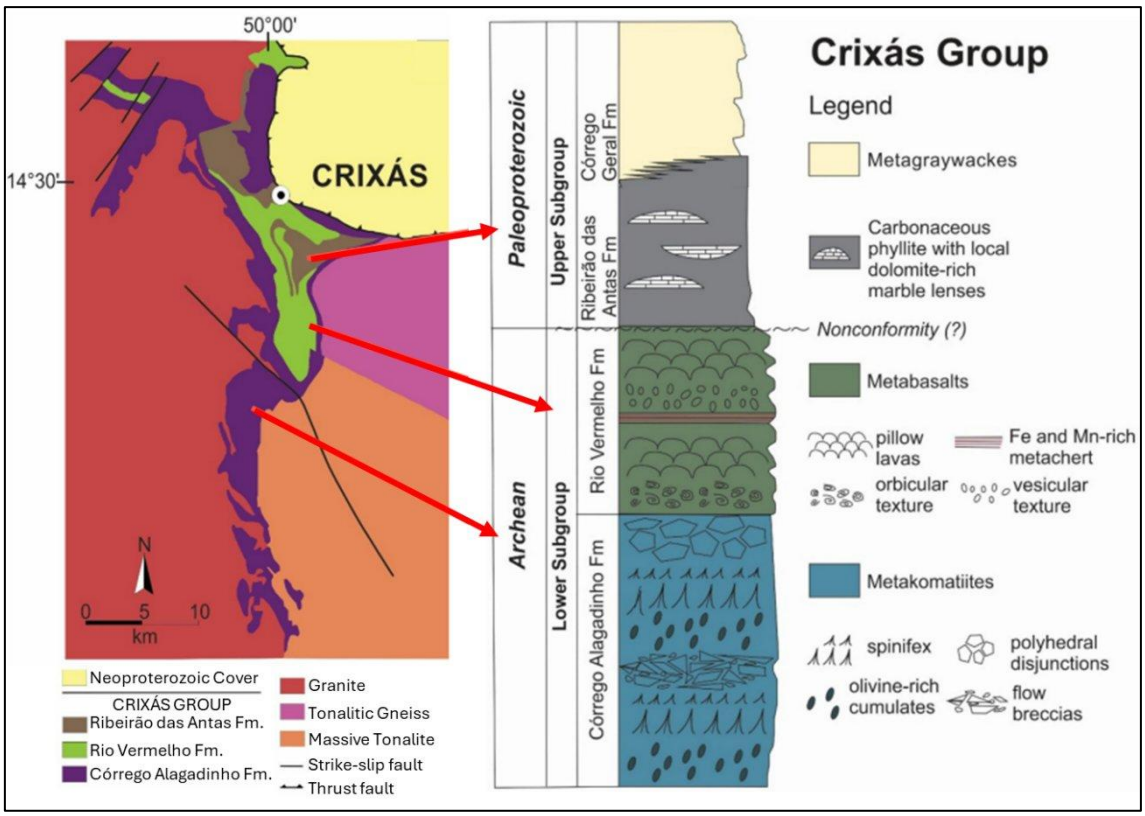


Figure 6.3: Crixás Greenstone Belt stratigraphy

Source: Modified from Aura, 2025.

6.2 Structural Setting

According to Jost et al. (2019), based on the rock associations, as well as structural frameworks, the CGB is here divided into three sectors, named southern, central, and northwestern (Figure 6.4). Each sector is uncoupled from the adjacent one by a shear zone. The southern sector contains only metakomatiites, whereas the central and northwestern ones consist of metakomatiites, metabasalts, and metasedimentary rocks.

The southern sector contains only metakomatiites, whereas the central and northwestern ones consist of metakomatiites, metabasalts, and metasedimentary rocks.

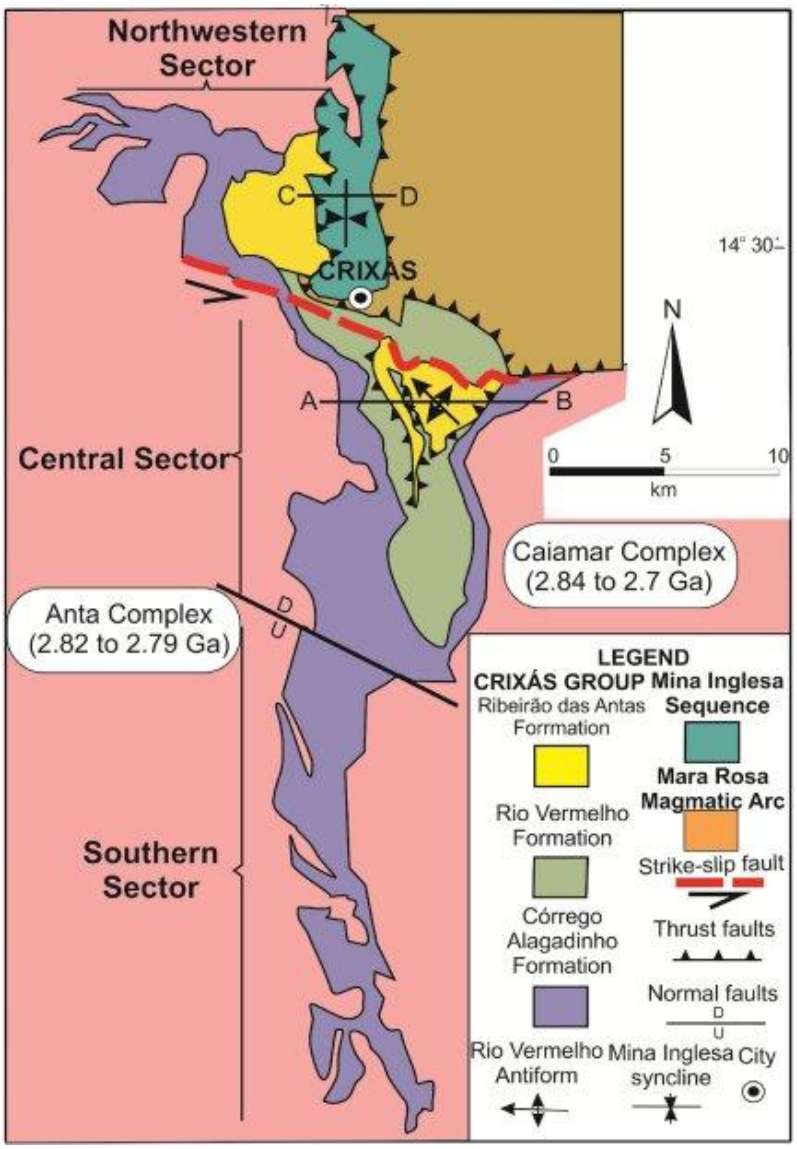


Figure 6.4: Map of the geologic limits, shape, structural sectors, and distribution of the Crixás Group for the CGB

Source: Jost et al., 2019.

A consensus among several authors, such as Magalhães (1991), Queiroz (1995), Queiroz et al. (1995), and Jost et al. (2019), is that the central and northwestern sectors underwent four major deformational events: D1, D2, D3, and D4. The oldest event formed regional, probably upright, isoclinal folds, with a low to moderate metamorphic grade axial surface foliation parallel to the original bedding.

Jost et al. (2019) described this oldest event as the one that induced a continuous east-verging deformation that resulted in prominent, easterly-verging detachments at deeper levels, followed by a north-south trending, easterly-verging and westerly moderate-dipping thin-skinned thrust faults at shallower levels. The dip of the faults and fold-limbs gradually increases westwards into a steep ramp. At deeper levels, rocks of the hanging-walls of the faults deformed into asymmetric, steep-dipping folds that, at shallower levels, gradually rotated to semi-recumbent folds. The detachments are frontal ramps that drive regional overturning of the stratigraphic

sequence and the development of duplexes. Stratigraphic overturning took place at the western portion of the central sector, where, from the highest to lowest structural levels, the rock sequence consists of metakomatiites, metabasalts, and metasedimentary rocks. In the sector's eastern portion, the sequence is stratigraphically normal. However, at the northeastern border of the belt, the metasedimentary package is in contact with the basal metakomatiites by a thrust-fault that obliterates the metabasalt (Figure 6.5).

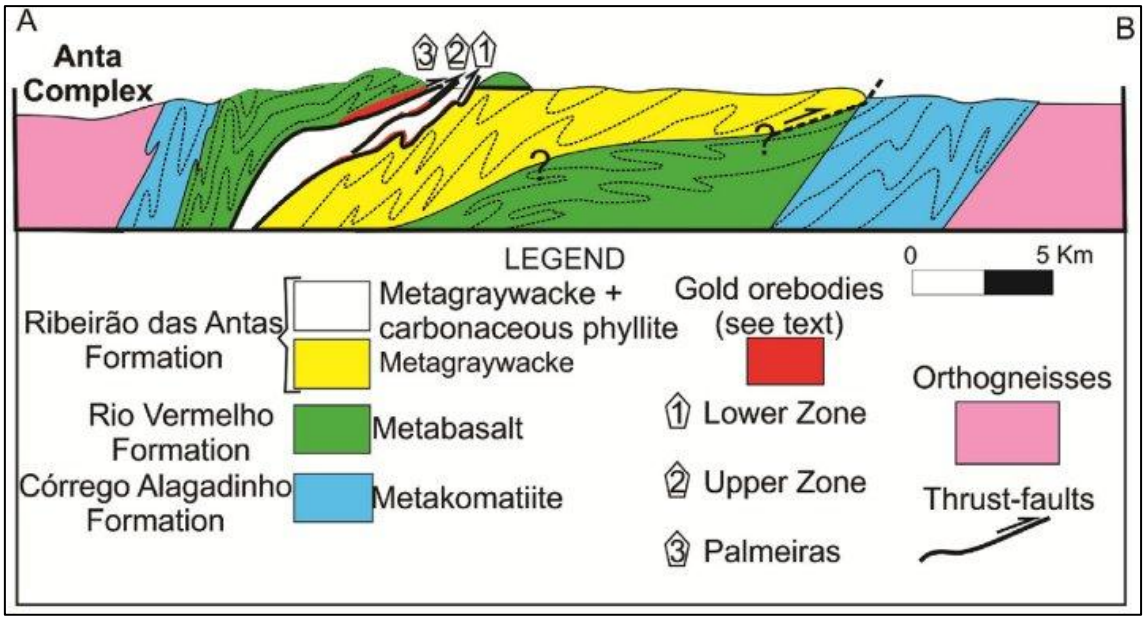


Figure 6.5: Schematic cross-section of the central sector of the Crixás Greenstone Belt

Legend: see Figure 6.4 for the position.
Source: Jost et al., 2019.

The D1 phase resulted in the isoclinal folding of bedding (S0 parallel to S1) and regional metamorphism, reaching amphibolite facies conditions. Thrust faults generated metric ruptile-ductile shear zones in which the hydrothermal fluids took advantage as preferential pathways.

The D2 event is N-S compressive, promoting the horsening of the Santa Teresinha Sequence above the Crixás group rocks (stratigraphic overturning), which generated F2 folds, S2 plan-axial cleavage, and L2 stretching lineation. Metakomatiites override metabasalts, which are overridden by the metasedimentary section, during stratigraphic overturning in D2.

The D3 event involved E-W compression, which resulted in large-scale N-S folding, promoting the formation of post-mineralization crenulation cleavage (S3). The D3 event formed the Rio Vermelho Antiform, folding the duplex system that formed during the D1 event.

The post-mineralization D4 event was NNW-SSE to N-S compressive, forming kink bands, smooth folding, and crenulation cleavage (S4), without influencing the orebody geometry and gold distribution.

6.3 Hydrothermal Alteration and Mineralization

The Serra Grande gold deposit is an orogenic mesothermal deposit, associated with the development of shear zones that belong to the Upper Archaean Crixás Group.

Gold mineralization is associated with metasediments and metavolcanics from the Ribeirão das Antas and Rio Vermelho Formations, respectively. The CGB is surrounded by granitic gneiss terrains from the Ribeirão das Antas and Caiamar complexes and metasedimentary rocks from the Santa Terezinha Group, which is part of the Goiás Magmatic Arc.

The mineralization at MSG is associated with quartz veins, massive sulfide lenses, and disseminated sulfides in metasediments, metavolcaniclastic rocks, and metabasalts. It is controlled by regional shear thrust structures, and the orebodies occur as stacked lenses, generally concentrated in high deformation positions (with folds and disruptions). The geometry of the mineralized deposits is typically complex, with pinch and swell, folded and boudinage shapes, dipping from 10° to 55°, and with the main geological continuity along northwest plunging structures (azimuth 290° to 320°).

The hydrothermal alteration products on mineralized rocks include abundant chlorite, garnet, chloritoid, sericite, carbonate, biotite, magnetite, ilmenite, rutile, and tourmaline, among other minor mineral phases.

Quartz and Arsenopyrite are the main minerals present at the MSG deposits. Pyrrhotite and chalcopyrite are commonly present in the mineralized zones. The total amount of each one is related to the structure within which it occurs.

The mineralization control is related to the D1 and D2 deformational events of CGB.

- D1: Thrusting event (D1 from west to east), developed with irregular thrust ramp geometry. This event was responsible for stacking and inverting the stratigraphic sequences.
- D2: Thrusting of the Santa Terezinha sequence over the CGB, folding the rocks (F2) and generating the structural controls for gold mineralization, generally parallel to the fold axis.

The known mineralization is hosted in six main domains (structures): Structure II, III, 3.5, IV, Palmeiras, and V (Table 6.1 and Figure 6.6).

Table 6.1: Summary of mineralized traps in EPP deposits

Domain	Host Rock	Type / Geometry	Ore Mineralogy / hydrothermal alteration	Orebody
Structure II	Carbonaceous schist	Quartz vein/lenticular	Arsenopyrite and pyrrhotite / Quartz, carbonate, sericite	Cajueiro
Structure III	Carbonaceous schists (lower zone) Hydrothermally altered schists and dolomite (upper zone)	Quartz veins (lower zone), Massive or disseminated sulfide (upper zone)	Pyrrhotite and arsenopyrite (minor chalcopyrite) / Carbonate and sericite	Mina III, Mina Nova, Angicão, Ingá, VQZ, Corpo Sul (lower zone) Ingá ZS, Caja, 3.5, Mina III ZS, Urucum, Palmeiras 3.5 (upper zone)

Domain	Host Rock	Type / Geometry	Ore Mineralogy / hydrothermal alteration	Orebody
Structure 3.5	Dolomite / Chlorite-carbonate-sericite shist	Disseminated sulfides	Arsenopyrite, free gold / Quartz, chlorite, carbonate, sericite	Palmeiras South 3.5
Structure IV	Graphite schists	Quartz veinlets with disseminated sulfides concentrated in fold-hinge zones	Arsenopyrite, minor pyrrhotite, and chalcopyrite / Quartz, k-feldspar, chlorite, and carbonate	Pequizão, Pequizão N, NW, Mangaba, Corpo IV, Forquilha, Corpo V Sul, Palmeiras Sul, Limoeiro, Caja
Palmeiras	Meta-basalts	Massive and disseminated sulfides	Pyrite, pyrrhotite, and chalcopyrite/sericite, chlorite, carbonate	Palmeiras, Goiabeira, Bauru
Structure V	Talc schist	Disseminated sulfides	Pyrite, pyrrhotite, and chalcopyrite / Quartz	Structure V

Source: GE21, 2026.

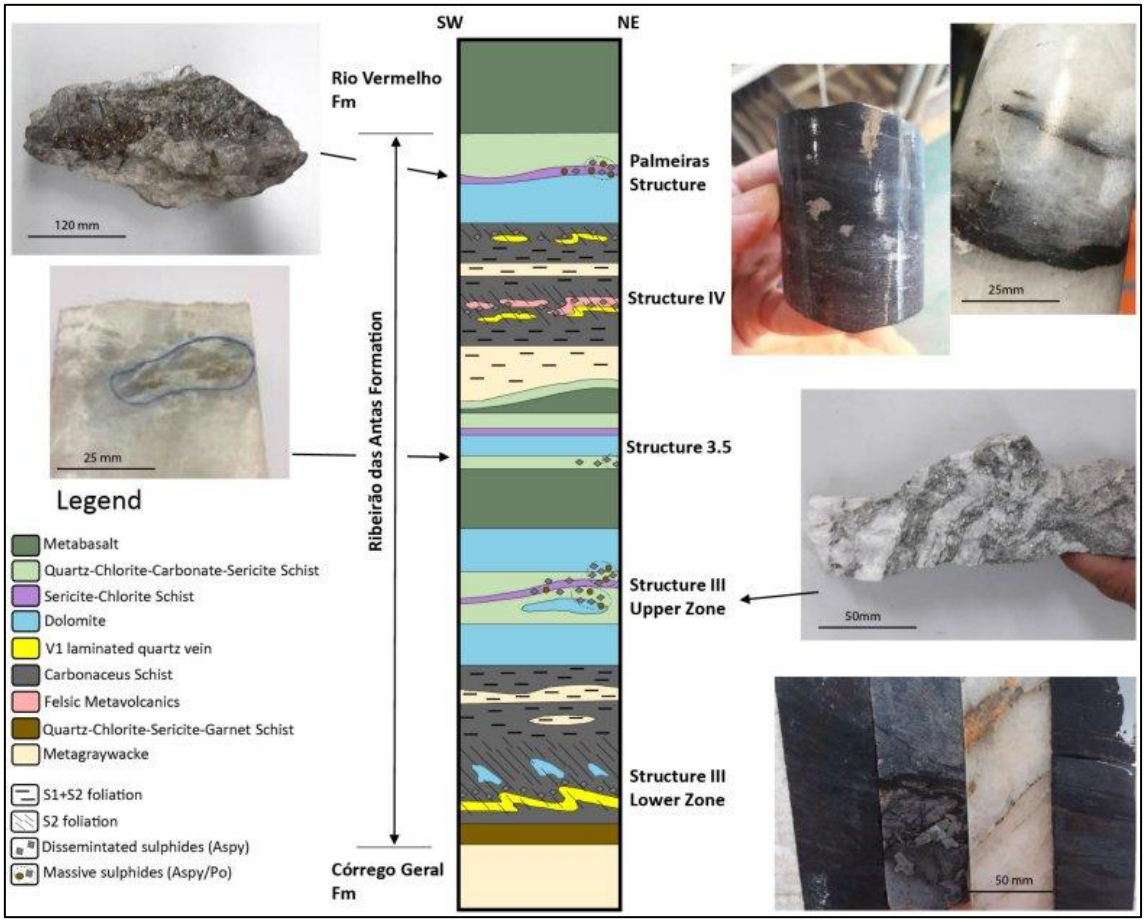


Figure 6.6: Schematic litho-structural column (not to scale) and examples of mineralization within Structures III, 3.5, IV, and Palmeiras

Source: Ulrich et al., 2021.

6.4 Deposit Geology

Most of the known structures hosting gold mineralization are within metasediments from the Ribeirão das Antas Formation and the over-thrusted metavolcanics from the Rio Vermelho Formations.

The Ribeirão das Antas Formation consists of several facies of carbonaceous phyllites and subordinate dolomite lenses.

In general, the carbonaceous phyllites are gray, dark-gray, or black, laminated, well foliated, very fine-grained, and powdery. Dolomites commonly occur as lenses alternating within the carbonaceous phyllites. Metabasalts inliers are observed, particularly near the contact with the Rio Vermelho Formation.

This package was affected by deformation, metamorphic, and hydrothermal processes, producing a range of distinct lithologies such as chlorite schist, carbonate chlorite schist, and minor sericite schist. Garnet chlorite schist is also common within carbonaceous phyllites.

The rocks of the Rio Vermelho Formation underwent heterogeneous deformation and metamorphism, and are characterized by dark green, predominantly fine- to medium-grained massive to slightly foliated metabasalts. Locally, primary igneous features like pillow lavas and amygdalas can be observed.

The metabasalt metamorphic assemblage consists of hornblende, plagioclase, and carbonate, with subordinate chlorite, actinolite, epidote, and quartz. Ilmenite, titanite, apatite, rutile, and sulfides (pyrite and chalcopyrite) occur as accessory mineral.

The structural and tectonic evolution has resulted in an overturned stratigraphic sequence with older metavolcanics of Rio Vermelho Formation commonly found overlying the younger metasedimentary rocks of Ribeirão das Antas Formation (Figure 6.7).

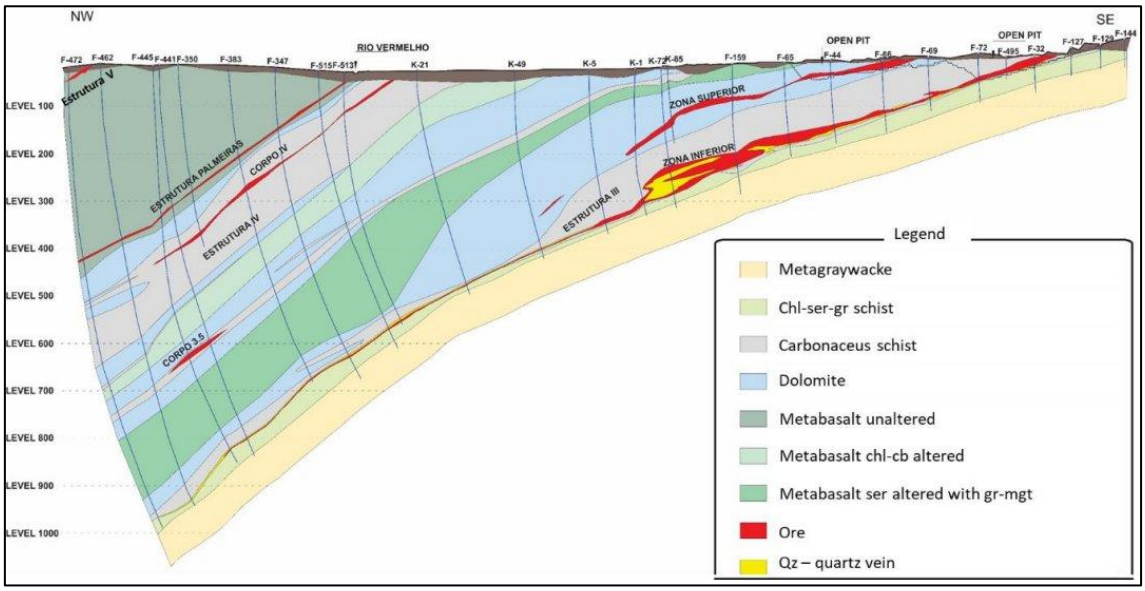


Figure 6.7: Geological long section with geology and all structural ore domains at MSG

Source: Modified from Aura, 2025.

The main structural controls (II, III, 3.5, IV, Palmeiras, and V) represent major thrust planes linking deformation and channelized hydrothermal fluid flow, and the resultant gold mineralization.

- Structure II - The mineralization is contained in a shear zone resulting from the oblique thrust of carbonaceous schist over metagreywackes of the Ribeirao das Antas Formation, which results in lenticular orebodies with an EW lunge and dipping to 25° to the west. Gold is associated with quartz veins rich in idiomorphic arsenopyrite and pyrrhotite hosted in carbonaceous schist. The only mineralization present in this structure is at Cajueiro, located about 6 km away from the current operating mines at MSG.
- Structure III – Is subdivided into lower and upper zones, vertically separated by waste bands. In the first zone, the gold is located close to the base of quartz veins and/or in the wall rock schists positioned in the hanging wall of the vein. In the area corresponding to the upper zone, the gold is associated with sulfides (pyrrhotite and arsenopyrite) in massive sulfide bands or disseminated in hydrothermally altered schists.
- Structure 3.5 – Arsenopyrite and free-milling gold within dolomites in the southern part of MSG.
- Structure IV – Stratigraphically positioned above Structure III, it is represented by a shear zone in graphite-schists, approximately 250 m above the upper zone. Generally, the orebodies that define Structure IV present low-grade variability. Gold is associated with small quartz veins and sulfides disseminated in the carbonaceous schists. They are also lens-shaped orebodies, similar to the other orebodies of Mina III, although they have a plunge direction around N50W and a plunge angle ranging from 30° to 40° north-westerly.
- Structure Palmeiras – This structure hosts a group of mineralized orebodies located at about 1,300 m to the south of the industrial area of MSG. The Palmeiras structure is stratigraphically positioned above Structure IV. The orebodies are developed in areas of hydrothermal alteration in metabasic rocks of the Rio Vermelho Formation. Gold is associated with pyrrhotite, pyrite, and arsenopyrite, and is locally coarse and visible in veins, narrow veins, and venules of quartz.
- Structure V – Hydrothermal zone in metaultramafic rocks, with intense silicification, quartz veinlets in talc schist, disseminated arsenopyrite, pyrrhotite, and chalcopyrite.

6.5 Deposit Types

The Serra Grande gold deposit is an orogenic mesozonal deposit associated with the development of shear zones within the Upper Archaean Crixás Group.

The term Orogenic Gold Deposit (OGD), first defined by Groves et al. (1998), has been widely used to refer to gold-mainly deposits formed by hydrothermal processes in accretionary or collisional orogens. The formation of OGDs is directly linked to the evolution of orogenic belts and the formation of greenstone belts.

Goldfarb and Pitcairn (2023) state that the source of fluids and metals, and thus the genetic model, has long been controversial. Many studies accept that deposits classified as orogenic gold are the consequence of crustal metamorphic processes. Other work studies favor a magmatic genesis for many deposits with orogenic gold characteristics.

OGDs are classified by their depth of formation into epizonal, mesozonal, and hypozonal types, representing a continuum of crustal levels (Figure 6.8).

- Epizonal: Formed in the upper crust, at depths ranging from 3 to 6 km, under temperatures of 170–300 °C. Associated with brittle faults, breccia, and veins.
- Mesozonal: Formed in the mid-crust, at depths ranging from 6 to 12 km, under temperatures of 300–450 °C. Associated with shear zones and quartz veins hosted in metamorphic rocks.
- Hypozonal: Formed in the deep crust, at depths ranging from 12 to 20 km, in temperatures >450 °C. Associated with shear zones hosted in high-grade metamorphic rocks.

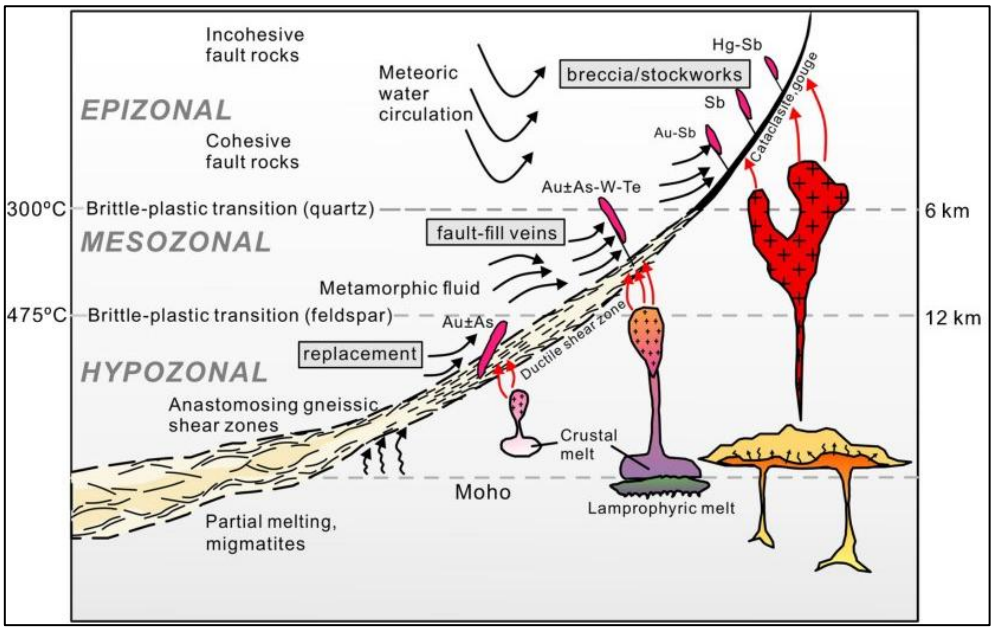


Figure 6.8: Orogenic gold deposits model

Source: Goldfarb and Pitcairn, 2023.

7 EXPLORATION

The Crixás region has been prospected for gold by the original colonizers since the eighteenth century. However, modern prospecting began in 1973 with a phase of detailed geological mapping and diamond drilling (DD) conducted by INCO.

MSG is a mature area with more than 2,000,000 m of support for the exploration model. The exploration plan is based on investigating the down-plunge and lateral continuity of orebodies along stacked mineable sheets, looking for deformational corridors from first- and second-order structural events.

The Mineral Resource evaluation is supported by drilling (exploration and grade control) and mine development, which also provide mapping and channel sampling, the main sources of information to update and estimate the Mineral Resource and Mineral Reserve.

To support mine production and keep the business unit operating, MSG has an exploration strategy that consists of two primary areas: project development and advanced exploration. Both are linked to the life-of-mine (LOM) Mineral Resource replacement, but are separate areas from the production center. While the development projects are focused on current mine Mineral Resource replacement, the advanced exploration is targeting discoveries mainly related to orebody extensions and new finds in the Crixás Greenstone Belt.

7.1 Drilling

Over the more than 30 years from the initial development of commercial-scale mining at Serra Grande, the resource database includes more than 2,000 km of drilling, which has outlined numerous mineralized bodies on the different structures.

Drilling activities at MSG are predominantly DD, with sporadic RC drilling campaigns used for conversion purposes at shallow depths with open-pit potential. The depth extent of drill holes varies depending on the target: near-surface (100 m depth) or deep mine targets, with drill holes reaching up to 1,500 m.

The exploration plan is based on investigating the down-plunge and lateral continuity of orebodies along the stacked mineable sheets, looking for deformational corridors from first- and second-order structural events.

Some of the deeper underground drill holes, or drill holes that are at difficult drilling positions (e.g., parallel to foliation), are completed through navigational or directional drilling to control the target position.

Recovery factors are constantly monitored throughout the drilling phase. The minimum recovery required for diamond holes is 90% in the mineralized range. If it is less than this, the hole will be repeated at no cost to the MSG. Recovery below 90% may be accepted only for intervals known to be non-mineralized, applying one of the following reduction factors to the drilling meter price, as described below.

All drill holes are surveyed downhole with GyroMasterTM. Drill hole deviation is monitored every 50 m, and directional drilling is used if necessary to control the hole. Once the drill hole is completed, it is continuously surveyed both going in and out of the hole. The survey is validated by drilling supervisors and geologists before it is uploaded to the database. If there is doubt about the data quality, a new survey is requested from the drilling team or contractor.

7.2 Hydrogeology

Data collection for hydrogeological characterization at Serra Grande follows different national standards (*Normas Brasileiras* – NBRs) developed by the Brazilian Association of Technical Standards (*Associação Brasileira de Normas Técnicas* – ABNT). Certain procedures do not have a national standard and, in these cases, international standards, such as US-EPA, ASTM, as well as other relevant industry guides, are considered.

Monitoring programs are designed with the objective of collecting data that may demonstrate variations in the flow regime and water quality over time. The design of these programs is based on ASTM D5717-95E1 (1998) and EPA (2004) standards for groundwater, and on NBR 9897/1987 and ANA (2011) standards for surface water. The methods and procedures to collect and treat the data are discussed in the text below.

One of the main sources of groundwater data is monitoring wells. These are constructed based on the NBR 15495-1/2007 standard that establishes the requirements for design and construction of groundwater monitoring wells in granular aquifers, and the NBR 15495-2/2008 standard that sets the methods and procedures for development in wells.

Pumping wells for groundwater extraction, mine dewatering, and aquifer tests are installed using two different standards: NBR 12212/2017 Tube well project for groundwater extraction procedure and NBR 12244/2006 Water well construction of groundwater wells. Once the wells are installed, groundwater levels are measured periodically using dummies and/or pressure transducers with dataloggers. In the case of pressure transducers, all data are barometrically compensated using a locally installed barometer.

Precipitation, temperature, and evaporation data are provided by the Brazilian Water Agency (ANA) at several different stations. MSG also has local climate stations at each site that monitor this same type of information. Surface water, wastewater, and spring discharge monitoring is conducted through one of the following strategies: using a weir, a parshall flume, crest-stage cages, or a current meter. The selection of the discharge monitoring strategy is location-specific and is based on aspects such as typical discharge rate, section length, access to the location, and so forth. The monitoring strategy is defined during the design of the monitoring program.

Aquifer tests and slug-bail tests are conducted to determine the hydraulic properties of groundwater systems. Parameters determined through these tests may include hydraulic conductivity, transmissivity, storage, and anisotropy. Aquifer tests may also be used to help

determine the type of aquifer assessed (unconfined, confined, partially confined, dual porosity, etc.). There is no national norm focused on these types of tests. Hence, aquifer and slug-bail tests are conducted in accordance with the instructions presented in the literature on the theme. Data interpretations are often performed with the assistance of specialized software, such as the AquiferTest Pro™ software package. ABGE (2013) also indicates the procedures for permeability tests performed in soils, drill holes, and pits.

Groundwater system representation often involves the development of conceptual and numerical hydrogeological models, which must be based on compiled and collected data. NBR 16210/2013 is the national standard for conceptual models, however it is focused on contaminated sites. For mining operations, the applicability is different, requiring an understanding of the behavior of groundwater at different scales. The development of a hydrogeological conceptual model involves the description of the hydrogeological system evaluated, focusing on the critical aspects that define groundwater flow.

In the geohydrology program, the following is relevant:

- Definition and characterization of hydrostratigraphic units (aquifers, aquitards), including the predominant porosity type for each unit (primary and/or secondary porosity);
- Definition of the hydrodynamic properties of these units (transmissivity, hydraulic conductivity, specific storage coefficient, effective porosity);
- Characterization of surface water bodies (streams, rivers, and lakes) and understanding of how they can interact with groundwater in the area of interest;
- Definition and justification (i.e., calculation method and results) of the recharge rates applied;
- Characterization of the flow system (potentiometric map, hydraulic gradients, flow speed);
- Conceptual water balance (previous quantification and estimation of the volumes of water entering and leaving the study area, under pre-tailing conditions);

If necessary, a groundwater flow model may be developed to assist hydrogeological characterization.

7.3 Geotechnical Data

Geotechnical studies are supported by geotechnical mapping, sampling, and laboratory testing that provide ground for the geotechnical domaining and rock mass characterization.

Samples for geotechnical testing and analysis are taken from drill core carried out by geology and exploration. Non-mineralized intervals are selected to perform the point load tests (PLT) and unconfined compression strength (UCS) tests.

The geotechnical models are detailed by sector. Most laboratory tests are routinely performed in internal facilities. Other key tests, such as triaxial tests, are completed in external laboratories by campaign.

The geotechnical team provides recommendations for the geometrical design of stopes, pillar dimensions, ground control practices, slope angles, etc. Geotechnical stability analysis is completed on the mine designs to confirm their stability.

8 SAMPLE PREPARATION, ANALYSES, AND SECURITY

8.1 Core Handling, Logging, and Sampling Protocols (Aura)

Drilling crews extracted the core, placed it in wooden or plastic core boxes, and then sealed the boxes with tape or straps prior to transport. The core was then transported by truck to MSG's core shed.

On arrival at the core shed, the core was laid out and washed.

All cores are photographed, in both dry and wet state, using a standard equipment set-up, and the photographic registries are stored on a server for future reference. The core photos are imported to the MSG database, and historical photo records of all holes exist from 2010 onwards.

The drill core logging is qualitative. All data used in the interpretation is consolidated in the official MSG database from where the geologists import it to the required software (Leapfrog Geo™ or Datamine™) and generate sections, maps, and structural/geological models. Database import failures are checked on a case-by-case basis and corrections made to allow entry. A database administrator is responsible for all the validation and database management.

A core sampling plan is developed where regular 1 m sample intervals are marked within continuous geological units. Sample intervals are split at geological contacts, and lengths can vary between 0.6 and 1.2 m. Intervals are also reserved for the insertion of control samples. Based on the sampling plan, sample numbers and barcoded tickets are generated through the laboratory LIMS tracking system. Core intervals for specific gravity determinations are also registered in the sampling plan. For exploration drill holes, core is split along the axis in ½ core using a closed-circuit diamond rock-saw. One half of the core is used for sample preparation, and the other half is stored for future reference. Core from resource upgrade and grade control holes is not split, and the full core is submitted for sample preparation and assay determinations. Samples are collected at the specified intervals, bagged, and ticketed for dispatch to the laboratory.

8.2 Sample Preparation – Site Laboratory

Drill hole and channel samples are dispatched to the MSG site laboratory for preparation and assaying for gold and sulfur. Samples are crushed, split, and pulverized using industry-standard procedures. Gold is determined using a 30 g Fire Assay for most samples. Screen fire assays are also performed on request here; visible gold has been noted. Over the last year, screen fire assays have been required for all samples from the processing plant. Sulfur is assayed by LECO. Internal checks are in place at the laboratory to provide quality assurance. The laboratory maintains ISO9001 quality management certification and participates in annual inter-laboratory round robin proficiency surveys conducted by ITAK. During the site visit, GE21

reviewed the laboratory, noting well-managed and organized facilities, and considered the protocols to be performed to a good standard.

8.2.1 External Laboratory

MSG's Analytical laboratory is suitable for monitoring by external checks on commercial labs (currently at ALS Lab).

Quality control samples are also inserted in sample batches sent to external laboratories (CRM samples and field duplicates).

8.3 Quality Assurance/Quality Control Program

GE21 received from Aura a compiled database in Excel format containing an analysis of the results for Blank, Certified Reference Material (CRM), and Duplicates analyzed in QA/QC campaigns previously conducted by MSG. Table 8.1 summarizes the attributes received in MSG's QA/QC database.

Table 8.1: QA/QC Table Attribute

QA/QC Attribute	Description
Target	OP and UG targets relating to control sample batches
Hole Year	Drilling date (1985 to 2025)
Hole Number	Names of the drill holes
Hole Type	Drill hole Type: CH, DD, RP, and HD
Sample Number	Numbers of the sample
Standard Code	Name of the blank or CRM certificate
Control Type	Type of QA/QC control: BLK = Blank, DUP = Duplicate and STD = Certified Reference Material
Laboratory Name	Laboratory where the analyses were performed: MSG Laboratory, ALS Chemex, SGS Geosol Laboratorios Ltda. and Córrego do Sítio Laboratory
Original Element	Au (ppm)
Original Result	Gold content (ppm) in the analyzed sample
Duplicate Result	Results of the gold content in duplicate samples
Analysis Date	Date of chemical analysis

Source: GE21, 2026.

QA/QC procedures for assays adopted in MSG's drilling campaign include crush and pulp Duplicates, insertion of Certified Reference Materials (CRMs), crush and pulp Blank samples, and Umpire Check samples. The adopted QA/QC procedures follow the guidelines of MSG corporate standards.

The check type and frequency rate of sample control can vary according to the sample program (grade control, conversion, or exploration). The laboratory batches contain 36 samples, including the following types of controls:

- 2 CRM's chosen by the geologist and inserted in the mineralized intervals. CRM samples are commercial, acquired from OREAS and ROCKLABS suppliers.

- 1 coarse preparation blank at the beginning of the sample batch.
- 1 pulp analytical blank inserted within or at the end of the mineralized interval.
- 2 pulp duplicates selected from a previous batch and re-numbered.

MSG's QA/QC program accounts for 117,173 control samples, including CRMs, Blank Samples, Field Duplicates, and Umpire Check Assays. MSG's team produces monthly QA/QC internal reports to constantly monitor the quality of the assay results received. QP has accessed the reports from January 2021 to November 2025. Table 8.2 presents a summary of the QA/QC samples.

Table 8.2: MSG's QA/QC summary

Laboratory	Blank	Duplicate Pairs	CRM	Total Samples by Laboratory
ALS Chemex	1,027	5,676	1,962	**8,665**
Córrego do Sitio Laboratory	6	-	6	**12**
Historic Laboratory	-	1,133	-	**1,133**
MSG Laboratory	51,616	15,733	39,752	**107,101**
SGS Geosol	-	19	243	**262**
Total QA/QC Samples	**52,649**	**22,561**	**41,963**	**117,173**

Source: GE21, 2026.

8.3.1 Acceptance and Rejection Thresholds

MSG has adopted a rigorous process to deal with failures in blanks and CRMs. QA/QC results are monitored closely on receipt of the analytical results. Results and control actions are reported internally monthly.

CRM deviations beyond the certified control thresholds (+/-3SD) are investigated thoroughly. Mix-ups are first investigated on control charts compared to other reference materials used in the dispatches. If a mix-up is suspected, it is investigated and confirmed by reviewing the filmed registry. If the CRM failure is verified as a potential analytical issue, the full batch is re-assayed.

Blanks are investigated for potential contamination issues. On a confirmed failure of a coarse blank, samples are recovered from the coarse rejects, and the full batch is re-processed and assayed.

8.3.2 Certified Reference Materials

MSG's QA/QC includes a range of different Certified Reference Materials (CRM), 98 in total. Commercial CRMs are purchased from industry-certified providers ROCKLABS and OREAS. The variety of Standard Materials aims to cover low, medium, and high-grade ranges. Table 8.3 presents the quantitative data of Reference Materials included in the QA/QC program.

Table 8.3: Certified Reference Materials included in MSG's QA/QC program

Laboratory	CRM Type	Number of Samples
ALS Chemex	HiSiIK4	130
	HiSiIK6	55
	HiSiIP1	28

Laboratory	CRM Type	Number of Samples
MSG Laboratory	OxK119	40
	OxK136	55
	OxK160	166

Laboratory	CRM Type	Number of Samples
	HiSiIP3	30
	HiSiIP5	76
	OREAS 238b	9
	OREAS 290	12
	OREAS 292	6
	OxH122	27
	OxH139	9
	Oxi121	140
	OxJ120	2
	OXJ68	1
	OxK119	52
	OxK136	16
	OxK160	9
	OxN117	131
	OxN155	5
	SF57	3
	SF85	137
	SG-218	3
	SG-219	2
	SG66	2
	SG84	5
	SH69	4
	SH82	25
	Si81	208
	Si96	40
	SJ111	18
	SJ138	12
	SJ63	1
	SJ80	47
	SK109	76
	SK137	3
	SK94	359
	SL108	2
	SL136	3
	SN103	14
	SN106	70
	SN117	112
	SN135	28
	SN75	24
	SN91	26
	Total ALS Chemex	**1,962**
MSG Laboratory	HISILK2	1,135
	HiSiIK4	102
	HiSiIK6	1,467
	HiSiIP1	463
	HiSiIP3	1,082
	HiSiIP5	786
	OREAS 238b	369
	OREAS 290	379
	OREAS 292	275
	OX11	1
	OX4	5
	OXA45	1
	OxF105	120
	OxG103	83
	OxG123	29
	OxG141	5
	OxG179	11
	OxG180	2
	OxH112	91
	OxH122	393
	OxH139	64
	OxH55	148
	OxH66	94
	Oxi121	451
	OxI54	292
	Oxi81	79
	Oxi96	111
	OxJ120	174

Laboratory	CRM Type	Number of Samples
	OXK48	129
	OXK69	241
	OxK94	95
	OxL159	206
	OXL51	112
	OxN117	472
	OxN155	100
	SG-187	123
	SG-218	213
	SG-219	253
	SG-226	7
	SG56	200
	SG66	139
	SG84	222
	SH55	191
	SH65	151
	SH69	1,442
	SH82	308
	SH98	119
	SI 54	7
	SI42	90
	SI54	172
	Si64	172
	Si81	3,169
	Si96	184
	SJ10	344
	SJ111	953
	SJ138	394
	SJ22	111
	SJ32	321
	SJ39	284
	SJ53	90
	SJ63	453
	SJ80	846
	SK109	1,178
	SK11	381
	SK137	224
	SK33	651
	SK52	266
	SK62	372
	SK78	789
	SK94	1915
	SL107	943
	SL108	352
	SL119	359
	SL136	24
	SL20	96
	SL34	441
	SN103	911
	SN106	534
	SN117	2,114
	SN135	84
	SN26	170
	SN38	272
	SN50	290
	SN75	432
	SN91	606
	S4	49
	SF57	206
	SF67	339
	SF85	4,469
	SG-186	37
	Total MSG Lab	**39,752**
Córrego do Sítio Laboratory	SH69	6
	Total Córrego do Sítio	**6**
SGS Geosol	Oxi121	4
	OxN117	19
	SF85	50
	SH82	36

Laboratory	CRM Type	Number of Samples
	OxJ161	57
	OxJ176	4
	OXJ47	115
	OXJ64	139
	OXJ68	58
	OXJ80	89

Laboratory	CRM Type	Number of Samples
	SJ80	35
	SK94	62
	SN75	33
	SN91	4
	Total SGS Geosol	**243**
Total Geral		**41,963**

Source: GE21, 2026.

Control Charts for all the Certified Materials were made dividing assay results by CRM type and by laboratory. Examples of the control charts prepared for CRM analysis can be seen in Figure 8.1, Figure 8.2, and Figure 8.3.

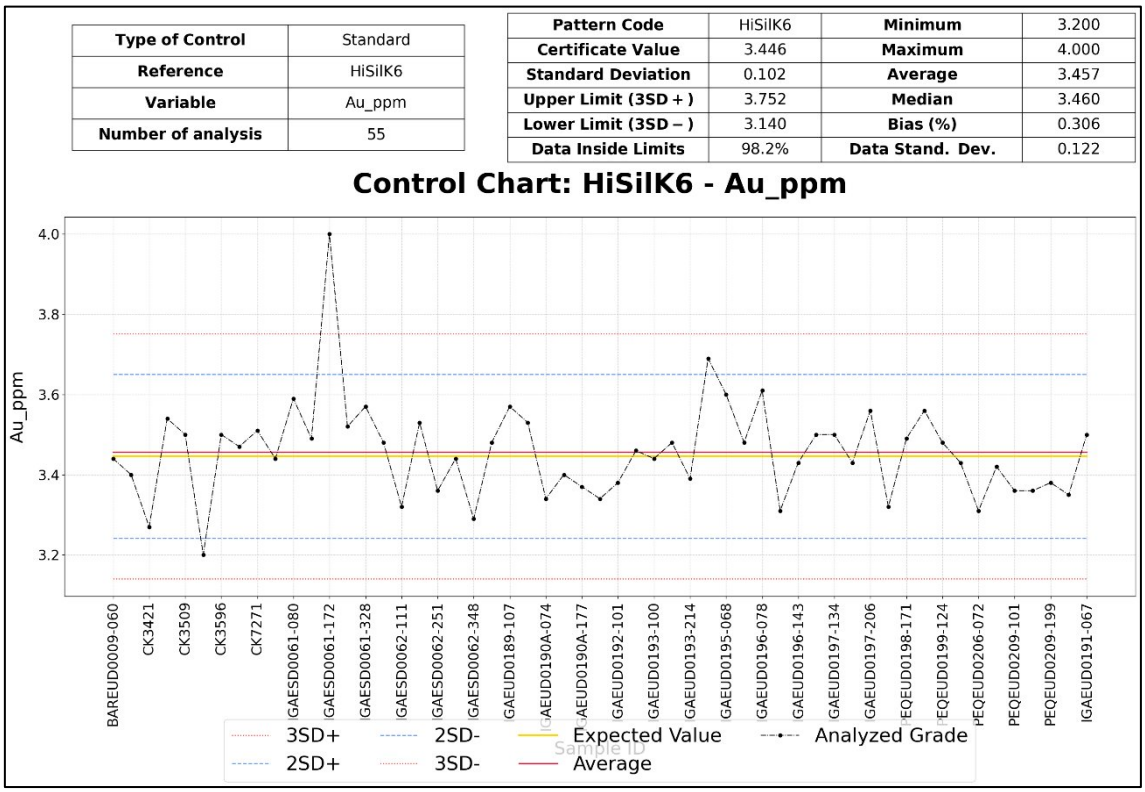


Figure 8.1: CRM HiSilK6 control chart analyzed by ALS Laboratory

Source: GE21, 2026.

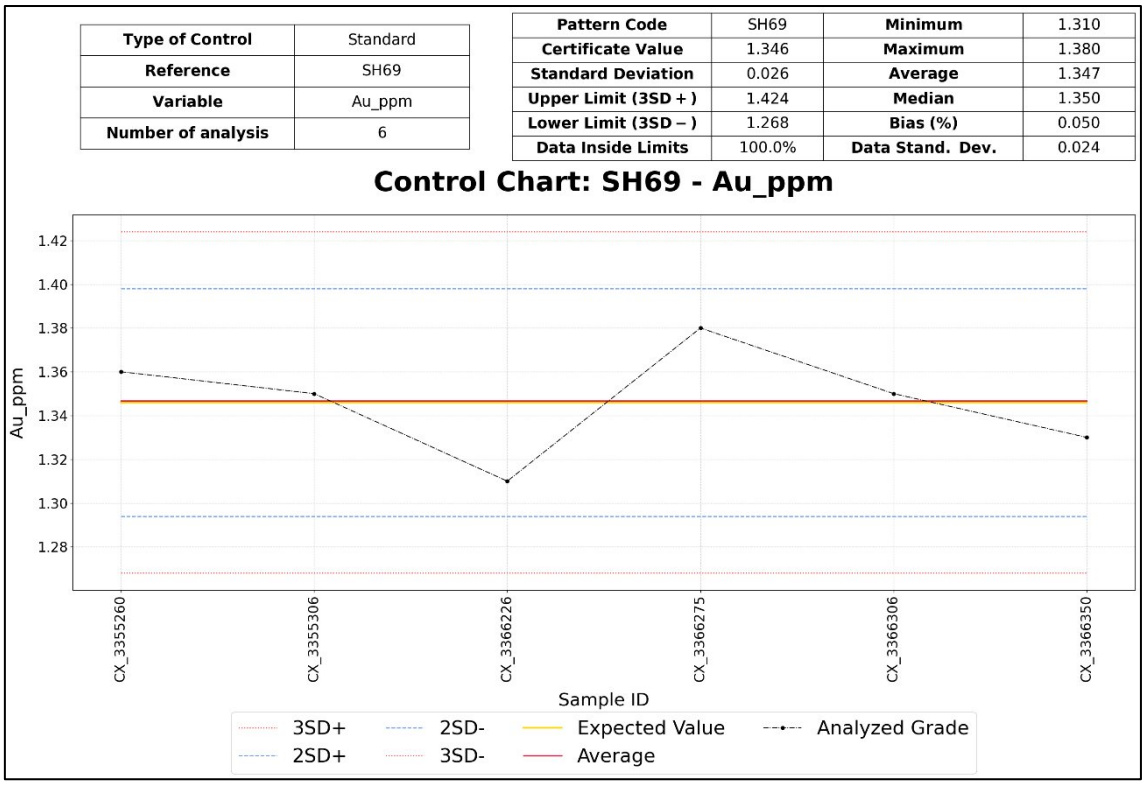


Figure 8.2: CRM SH69 control chart analyzed by Córrego do Sítio Laboratory

Source: GE21, 2026.

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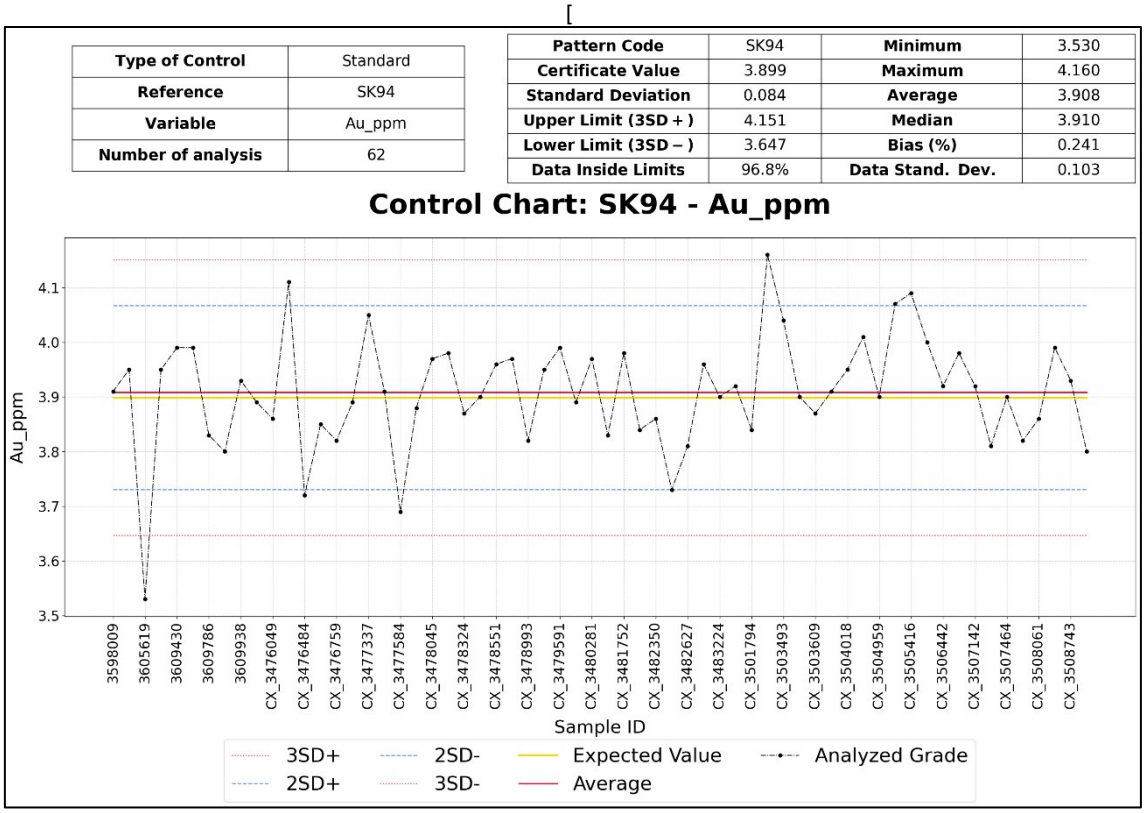


Figure 8.3: CRM SK94 control chart analyzed by SGS Geosol Laboratory

Source: GE21, 2026.

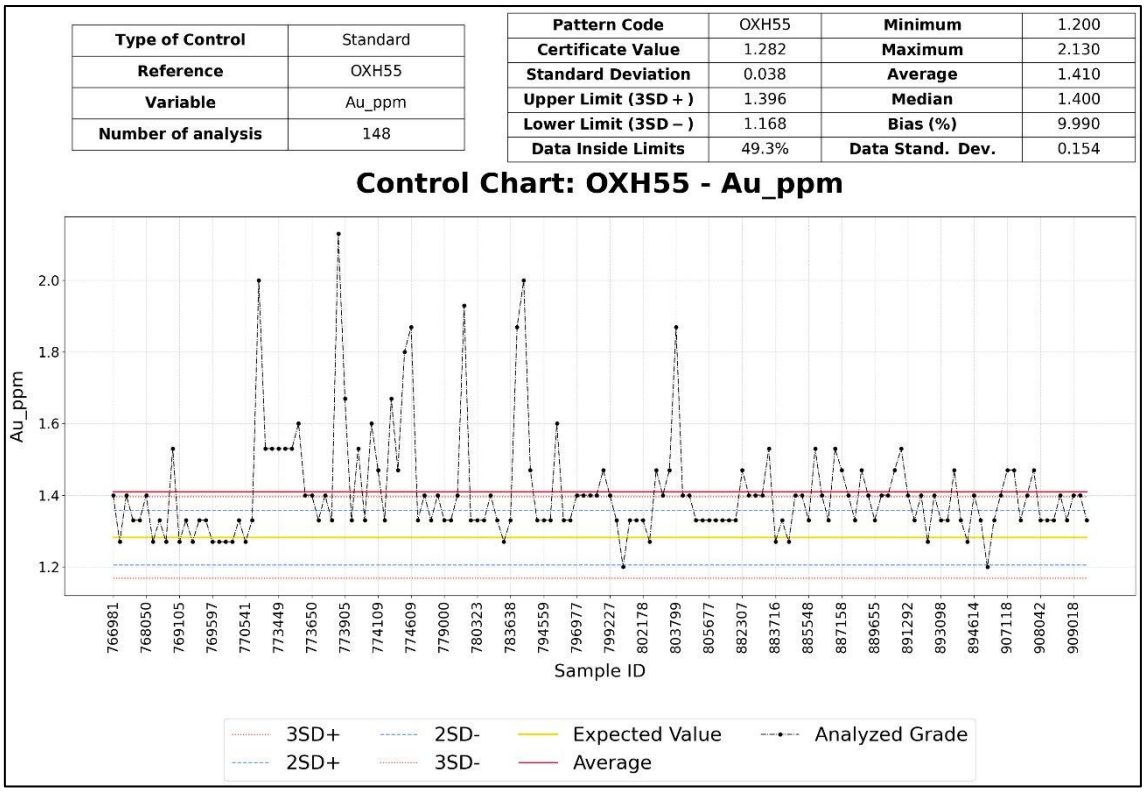


Figure 8.4: CRM OXH55 control chart analyzed by MSG Laboratory

Source: GE21, 2026.

8.3.3 Blank Samples

The Blank samples used in the MSG Project are commercial materials from ROCKLABS. Table 8.4 presents the 11 types of blank samples analyzed by three different laboratories.

Table 8.4: Blank samples included in MSG's QA/QC program

Laboratory	Blank Type	Number of Samples
ALS Chemex	AgAuBlank5	4
	AuBlank104	10
	BCX	173
	BLCX	840
Córrego do Sítio Laboratory	BLCX	6
MSG Laboratory	AgAuBlank1	9
	AgAuBlank5	529
	AgAuBlank9	247
	AuBlank104	180
	AuBlank121	101
	B	937
	BCX	22,283
	BJG	1
	Blank37B	2
	BLCX	27,316
	BS	11
Total Geral		**52,649**

Source: GE21, 2026.

Control charts from the Blank samples' data were generated using 2x the Detection Limit as the acceptance level. The data was divided into laboratories ALS Chemex, Córrego do Sítio, and the MSG intern laboratory for the construction of control charts. Examples of the control charts for blank analysis can be seen in Figure 8.5, Figure 8.7, and Figure 8.7.

Considering all the Blank samples analysis for Au, results have presented more than 95% of the assay grades below the “2x Detection Limit” acceptance level. The results indicate there was no significant or systematic contamination during the sample preparation and analysis stages.

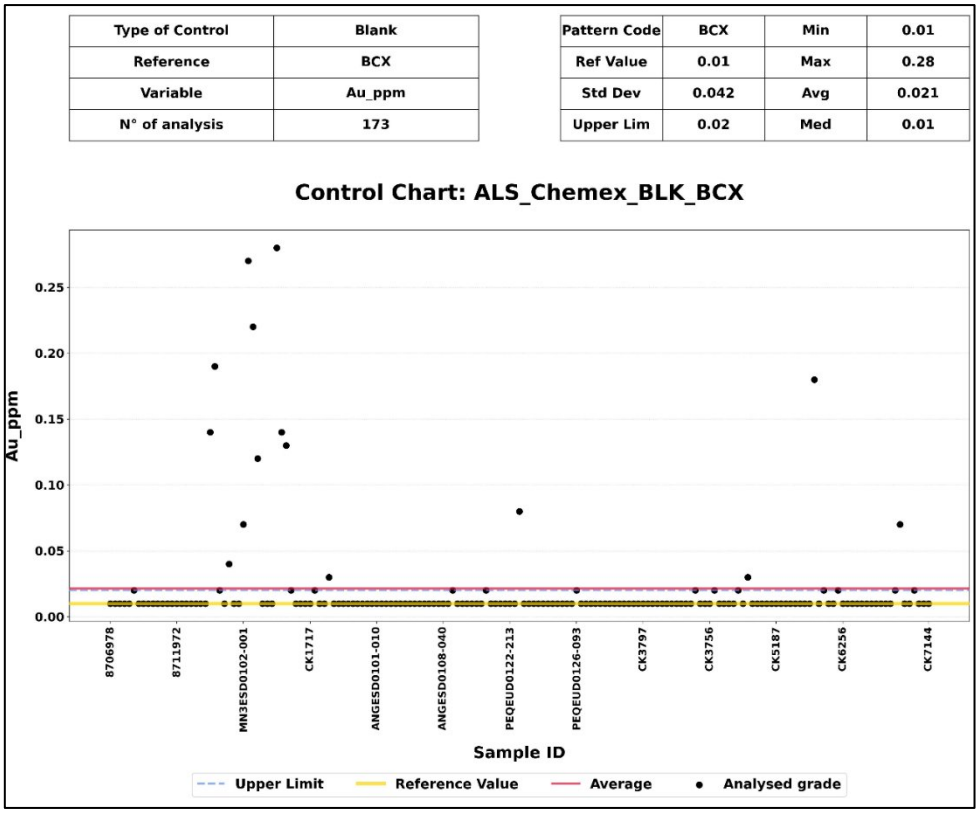


Figure 8.5 Blank BCX control chart analyzed by ALS Laboratory

Source: GE21, 2026.

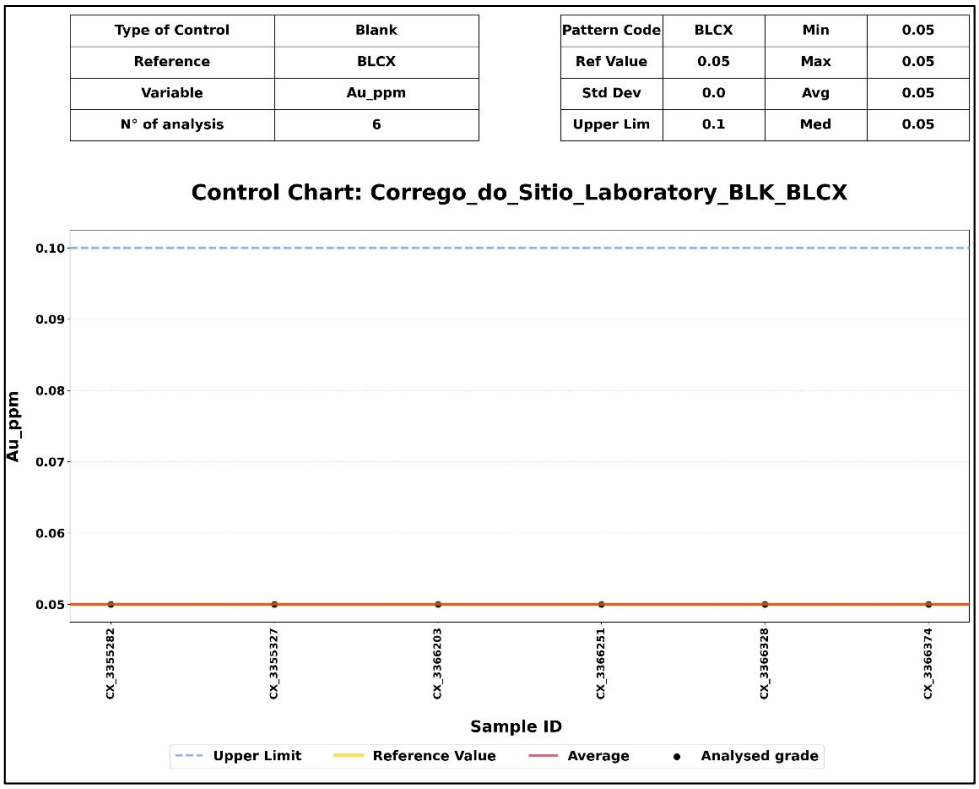


Figure 8.6: Blank BCX control chart analyzed by Córrego do Sítio Laboratory.

Source: GE21, 2026.

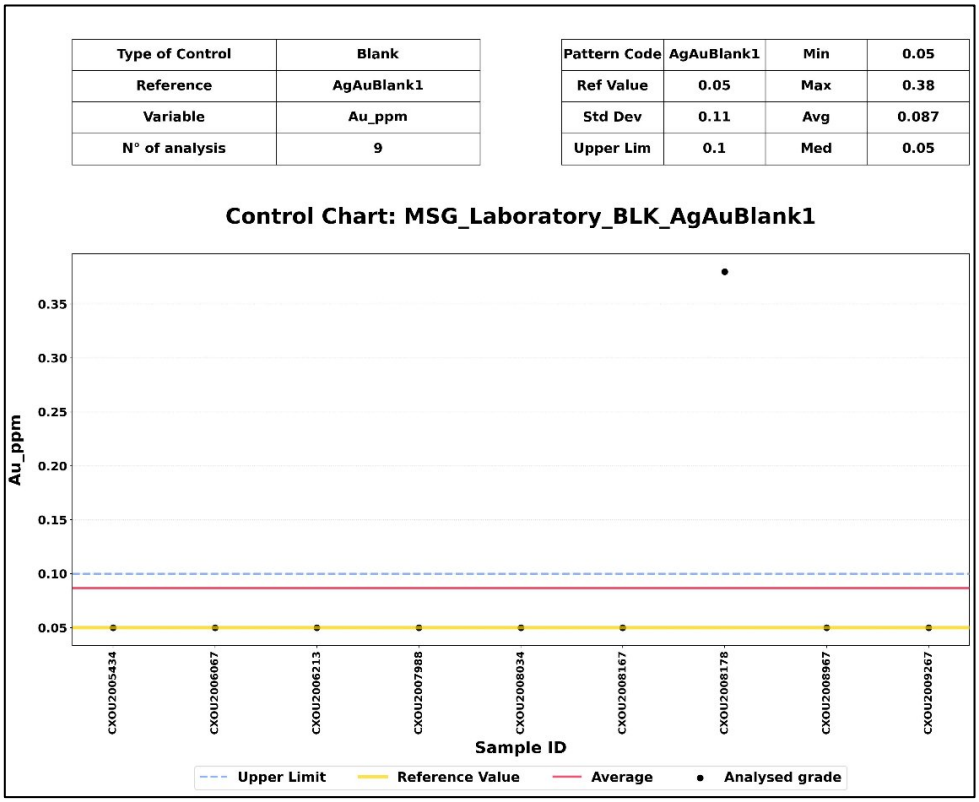


Figure 8.7: Blank AgAuBlank1 control chart analyzed by MSG Laboratory.

Source: GE21, 2026.

8.3.4 Duplicate Samples

MSG Project uses pulp and coarse duplicates to evaluate the precision of the sampling procedures. Duplicate samples are generated using ¼ drill cores. Table 8.5 presents a summary of pairs of duplicate samples analyzed by four different laboratories.

Table 8.5: Pairs of duplicate samples analyzed.

Laboratory	Pairs of Duplicates
ALS Chemex	5,674
Historic Laboratory	1,133
MSG Laboratory	15,733
SGS Geosol	19
Total Geral	**22,561**

Source: GE21, 2026.

GE21 has generated Control Charts for the duplicates analyzed by the four laboratories (Figure 8.8 to Figure 8.11). The gold duplicate results range between 46% and 90% below the 15% precision limit of Half Average Real Difference (HARD), which is a known issue representing moderate to low precision.

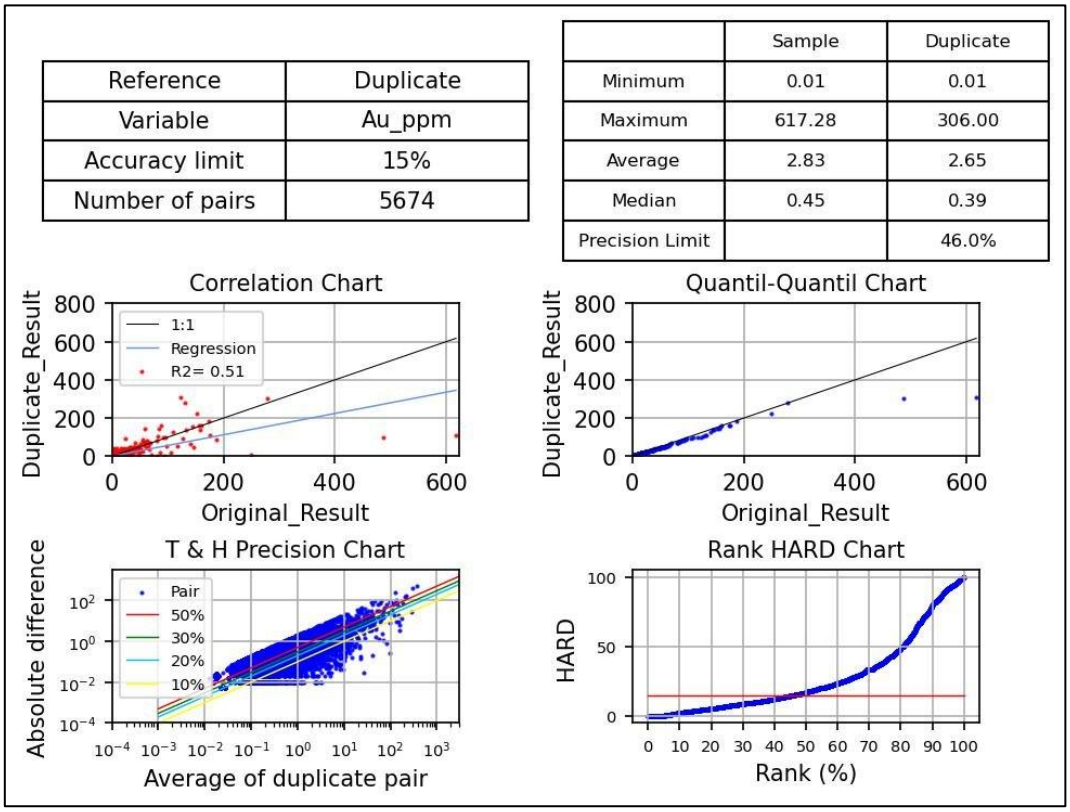


Figure 8.8: ALS Duplicate control chart

Source: GE21, 2026.

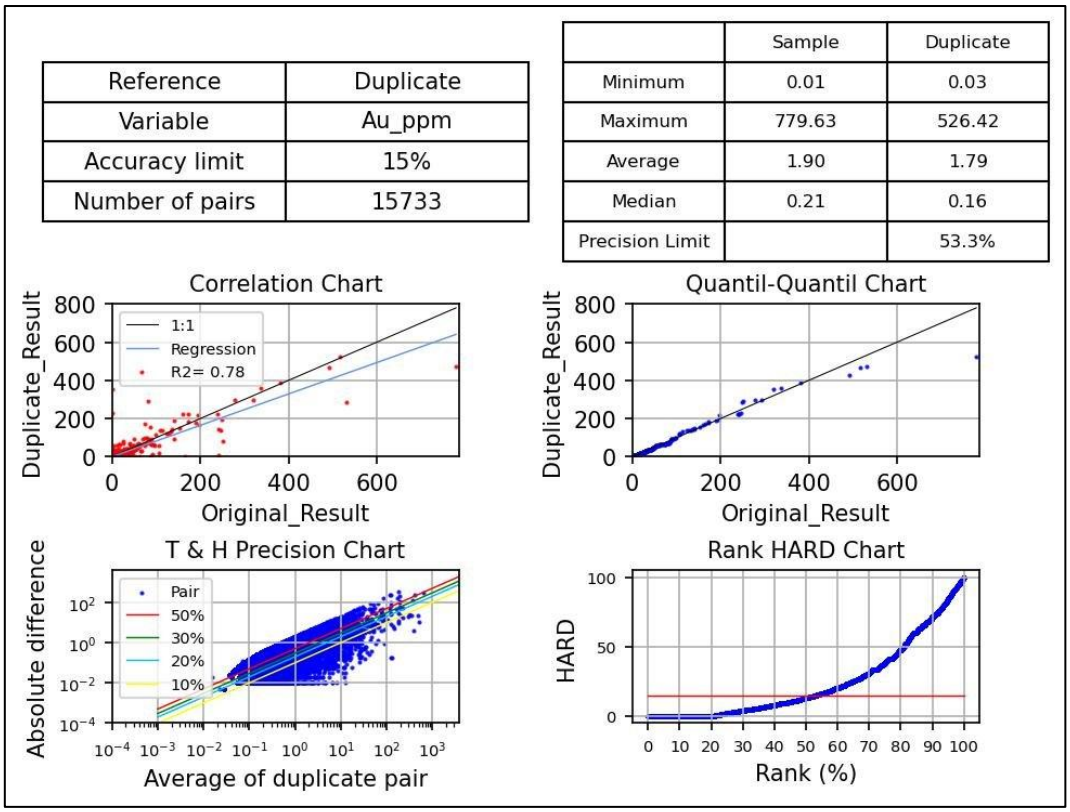


Figure 8.9: MSG Laboratory duplicate control chart

Source: GE21, 2026.

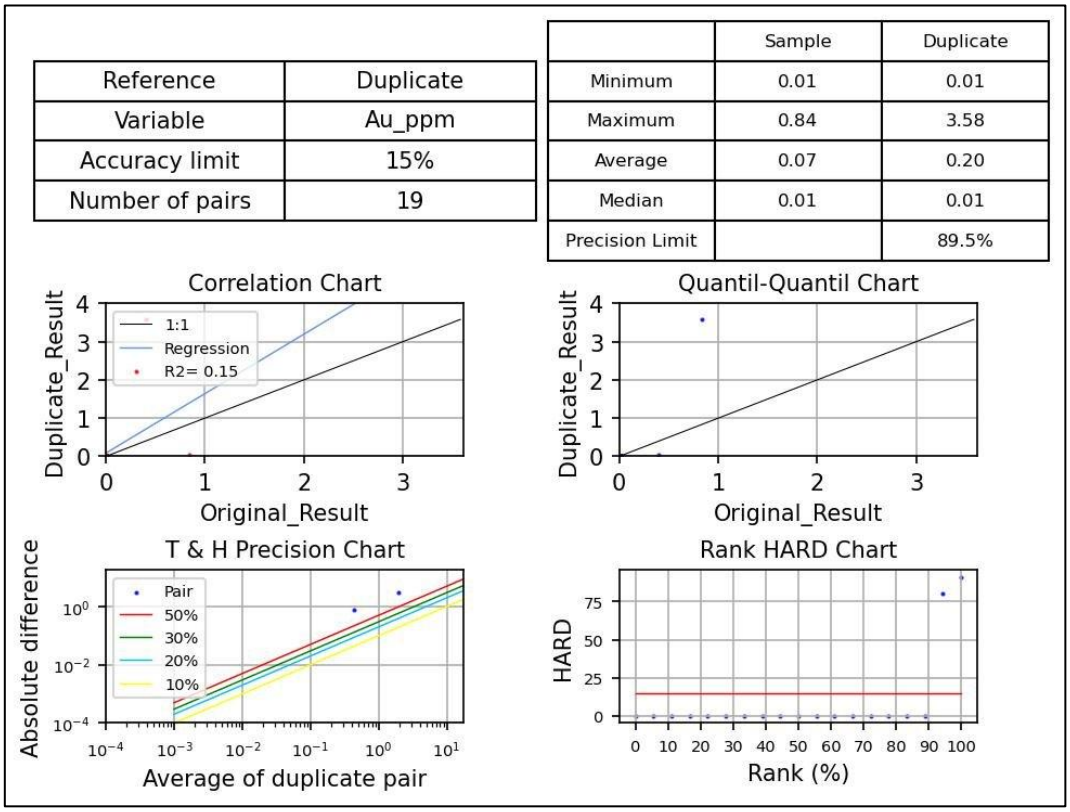


Figure 8.10: SGS Geosol duplicate control chart

Source: GE21, 2026.

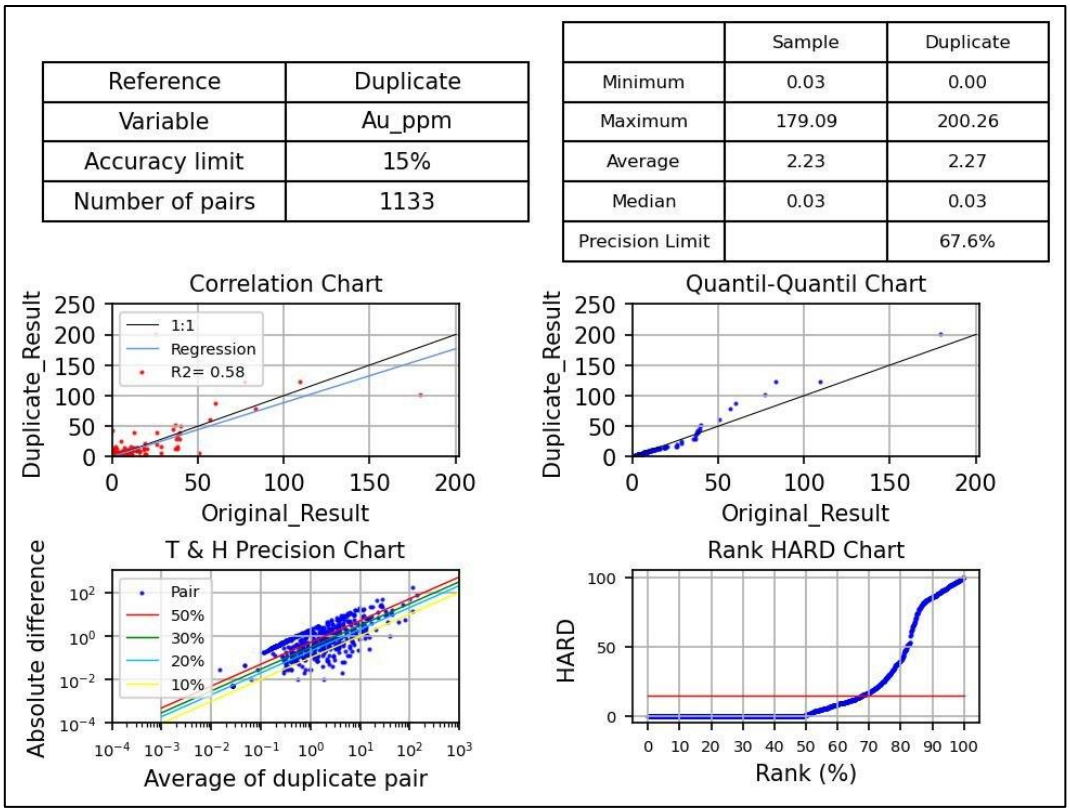


Figure 8.11: Historical Laboratory duplicate control chart

Source: GE21, 2026.

8.4 Density Determination

Prior to September 2021, density measurements were obtained by a process that immersed a 10 cm sample of core in water. Samples were dried, weighed, covered by plastic film (for weathered samples), and then immersed in water in a PVC pipe with a diameter of 6 inches and a length of 1 m. The volume of the water displaced by the sample, measured using a Becker scale, was used to measure the sample volume.

In September 2021, MSG changed the protocol for density measurements. Density values are now measured by using a standard weight-in-water / weight-in-air.

Density measurements are taken on 15 to 20 cm whole core samples. Density determination uses a water displacement method based on Archimedes' principle. Dry samples are weighed in air ($mair$) and weighed submerged in water ($mwater$), and the dry bulk density is calculated using the following formula.

$$Bulk\ Density = \frac{m_{air}}{m_{air} - m_{water}}$$

Calibration checks are conducted every 10 samples on the weighing scale using standard materials. Inconsistent results (<1.5 or >5) are also flagged and verified.

GE21 reviewed the procedures and equipment used for determining dry bulk densities. Core samples were noted to comprise competent materials lacking voids or cavities and do not

absorb water. The method and equipment used to determine bulk densities are suited for these types of samples.

8.5 QP Opinion

Core handling, logging, and sampling protocols and methods are compliant with industry best practices.

MSG's analytical laboratory was suitably monitored by external checks on commercial labs.

The results of the blank samples analysis indicate there was no significant or systematic contamination during the sample preparation and analysis stages. CRM materials charts were reviewed by the QP and present accuracy results within acceptance limits for mineral resource classification.

The gold duplicate results range between 46% and 90% below the 15% precision limit of Half Average Real Difference (HARD), which is a known issue representing moderate to low precision. The QP believes these results reflect a high variability of gold grades due to the gold grain sizes property of the MSG Project and must be investigated. It's recommended that a robust program of Screen Fire Assay analysis characterizes this property of the deposit.

The quality of sampling security, methods, and analytical quality is considered by the QP within acceptance limits for Mineral Resource classification purposes.

9 DATA VERIFICATION

This section mainly covers the data verification of the MSG procedures and database used for the Mineral Resource and Mineral Reserve Estimates. The MSG database comprises a central database composed of data compiled by MSG's geological team.

Data verification by the QP responsible for exploration and mineral resource in this section of the TRS included a site visit from January 12 to 16, 2026. During the site visit, QP visited the drill rigs and core shack, as well as reviewed information on mined-out areas and the data for selected drill holes (sampling procedures, sample preparation, density, assays, QA/QC program, downhole surveys, determination of lithological domains, and other related methodologies). This site visit was also accompanied by a mining engineer who is a QP for mineral reserves, verified mining operations, mining infrastructure, and methodologies (Figure 9.1) and discussed technical parameters.



Figure 9.1: Underground mine drift

Source: GE21, 2026.

9.1 MSG Drilling Database

There is a central database system in place (also known as Fusion™ database from Datamine), where the drilling and channel sampling are validated for location, surveys, and assaying, and QA/QC results before it is accepted into the database. There is a company protocol followed to verify samples for entry into the database, which gives confidence that the samples extracted from the database will be used in geological modelling and Mineral Resource

estimation. There are periodic internal and external audits in this database, and eventually, checks and improvements are made.

9.2 MSG Sampling Methods

Diamond drill holes in the surface (NQ diameter) and underground mine (BQ and LTK48 diameters - Figure 9.2), and channel samples from underground are the main sampling methods. Sampling recovery, splitting methods, and custody of the sampling processes (Figure 9.3) were verified and discussed by the QP during the site visit, in compliance with best industry practices.

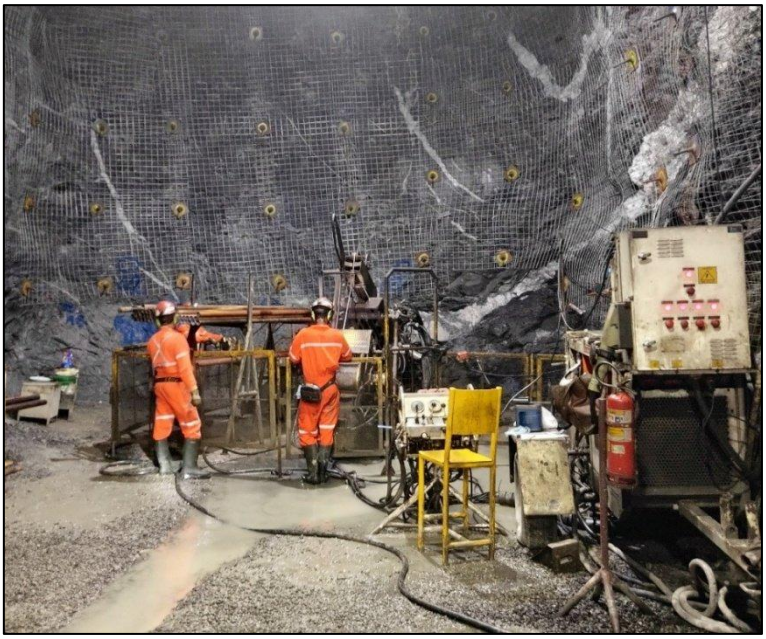


Figure 9.2: Drill Rig in underground mining

Source: GE21, 2026.



Figure 9.3: Drill hole sampling

Source: GE21, 2026.

9.3 MSG Density Tests

Density determination was historically based on the water displacement method for fresh rock. These density tests were carried out without sampling sealing to effects of sample permeability.

Currently, the Archimedes method using the Joly scale is applied, and only saprolitic samples are sealed by plastic film. This methodology includes a QA/QC program.

Density test results are inside acceptance limits to be applied to the Mineral Resource estimate. However, it's recommended to conduct density tests on fresh rock with sample sealing to verify the effect of material permeability on density measurements.

9.4 Drill Hole Logging

Drill hole logging is carried out in MSG's core shed (Figure 9.4).

Logging forms (geological, geotechnical, and sampling data) are stored in the Datamine Fusion X™ SQL database, and validation is performed every two weeks, including all the libraries. Database import failures are checked on a case-by-case basis and corrections made to allow entry. A database administrator is responsible for all the validation and database management. A cloud backup is completed on a weekly, monthly, quarterly basis, and an annual backup where a complete database compilation is validated by the MSG database team.

A logging application for tablets and smartphones has been designed for core logging and uses an ODBC and Microsoft SQL™ database, where local validations are done. Failed data picked up in reviews and audits are corrected and revalidated in the main database.



Figure 9.4: Drill hole logging

Source: GE21, 2026.

9.5 Collar Location Validations

All drill hole collar locations were surveyed using a total station or differential GPS. After completing the hole and removing the executed coordinate, the necessary information for inserting the landmarks in non-operational areas (outside the mine/greenfield) was passed on to drilling contractors.

The collar location construction was done using sand and cement. Afterward, mixed water was added and stirred with a spade or shovel, and then the ready dough was added. After the dough was filled, a metal trapeze was added to the form. A tube of one-metre PVC diameter - 75 mm was added.

9.6 Downhole Survey Validation

Downhole surveying is conducted using a gyroscope (GyroMaster™) on all holes by TRUST, a specialized contractor operating in Brazil. Surveys are run at 3 m intervals down the hole and verified by duplicating the measurements on retrieval of the instrument. If issues are detected with the verification, the survey is re-run. Appropriate sign-off documents are prepared at the conclusion of the survey. In addition, MSG has contractual agreements in place to ensure that the drill operators minimize deviations. Holes are closely monitored to ensure that operational metrics are met.

GE21 considers that hole surveys are well managed and that the controls in place are of a high industry standard.

9.7 Analytical Validations

Assay data is imported directly from assay certificates from the laboratory once it has been validated by the QA/QC person. Only fully trained and authorized network users can upload laboratory data. Assay data is stored in a normalized format, and multiple assays are stored for each sample. The same database manager is also responsible for the assay data validation.

MSG has established a standard QA/QC procedure for the drilling programs in the mines and all exploration targets. Check samples inserted in sample batches include certified CRM's, crush and pulp blanks, and crush and pulp duplicates. In addition, a selection of pulps is submitted on a regular basis to ALS for umpire checks. The check type and frequency rate can vary according to the sample program (grade control, conversion, or exploration).

In general, laboratory batches of 36 original samples include the following checks:

- 2 CRM's chosen by the geologist and inserted in the mineralized intervals
- 1 coarse preparation BLANK at the beginning of the sample batch.
- 1 pulp analytical BLANK inserted within or at the end of the mineralized interval
- 2 pulp DUPLICATES selected from a previous batch and re-numbered.

- Preparation duplicates can be included on an ad hoc basis to test the variability of the sample preparation process.

The process of inserting CRM control samples is filmed, providing a useful registry to investigate potential mix-ups that can lead to control failures.

QA/QC results are monitored closely on receipt of the analytical results. MSG has adopted a process to deal with failures in blanks and CRM's. Results and control actions are reported internally on a monthly basis.

CRM deviations beyond the certified control thresholds (+/-3SD) are investigated thoroughly. Mix-ups are first investigated on control charts compared to other reference materials used in the dispatches. If a mix-up is suspected, it is investigated and confirmed by reviewing the filmed registry. If the CRM failure is verified as a potential analytical issue, the full batch is re-assayed. Similarly, blanks are investigated for potential contamination issues. On a confirmed failure of a coarse blank, samples are recovered from the coarse rejects, and the full batch is re-processed and assayed (Figure 9.5).

Duplicate samples analysis shows medium to low precision results below the reference limits. It's discussed by the QP with the MSG technical team during the site visit. It was verified that several duplicate campaigns were investigated to clarify the reasons for this low precision, and there was an initial campaign of Screen Fire Assay analysis last year to check recommendations from the previous project audit to verify the influence of gold grain size on the variability of duplicate results. However, the amount of the sample analysis was inconclusive. It's recommended to run a new wide-screen Fire Assay campaign to investigate this effect on grade variability on assay results.



Figure 9.5: Drilling database – QA/QC controls

Source: GE21, 2026.

9.8 Qualified Person's Opinion

MSG Project's sampling procedures, sample preparation, density, assays, QA/QC program, downhole surveys, determination of lithological domains, database integrity and coherence, and other related methodologies were verified and discussed by the QP during the site visit and considered compliant with best industry practices.

The QP considers the quality and reliability of the MSG Project's database sufficient for Mineral Resource classification.

The mining methods, infrastructure, and applied parameters are considered by the Mining Engineering QP to be good practices in the mining industry.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

MSG is a mature operation in which several metallurgical tests were conducted over the years, aiming to characterize the ore types, define the process flowsheet, and improve the operational parameters. Opportunities for performance, metallurgical, or cost improvements are under constant evaluation in the MSG operation.

At MSG, the principal rock minerals consist, on average, of:

- 35wt% quartz;
- 30wt% mica/clays (illite, chlorite, and biotite);
- 22wt% feldspars;
- 9wt% carbonates (dolomite and calcite);
- Carbon has been measured at 0.8wt% as total organic carbon (TOC). Carbon is mostly disseminated in coarser rock particles;
- Rock minerals carry gold as attached and enclosed gold grains;
- Sulfide minerals are pyrrhotite, arsenopyrite, and pyrite;
- Pyrrhotite is the principal sulfide at a concentration of around 1.7wt%. Pyrrhotite is present in both the monoclinic (magnetite) and hexagonal (non-magnetic) forms at close to a 1:1 ratio. Pyrrhotite does not carry any significant gold; on the contrary, it is an undesirable cyanicide, oxygen, and lime consumer;
- Arsenopyrite content is approximately 0.6wt%. Arsenopyrite carries significant gold, both associated with gold grains and submicroscopic gold. Pyrite content is only around 0.1wt%; it is a minor gold carrier by virtue of its low abundance. Any other sulfides occur at minor or trace-level concentrations.

Gold is primarily in the form of native gold grains. Native gold grains occur free and are associated with sulfides (arsenopyrite) and rock particles. Gold exposure is strongly sensitive to the grind fineness.

The metallurgical plant was commissioned in 1989 with a capacity to process 1,300 tpd. After upgrades, the capacity has increased to process 4,100 tpd, corresponding to an annual processing capacity of 1.5 Mtpa, combining carbon-in-leach (CIL) and gravimetric circuits.

The ore is blended to feed the crushing circuit with two mills in operation, and 20 leach tanks with a capacity of 4,800 m^3 divided between the pre-liming and cyanidation stages. Approximately 58% of gold is captured in the parallel gravity circuit. The remaining gold is recovered by the CIL process, forming the doré, which is sent to the Nova Lima refining process.

The processing flowsheet encompasses:

- Crushing circuit
- Primary
- Secondary
- Tertiary
- Grinding with cyclone classification

- Gravity recovery of coarse free gold from the cyclone underflow stream using a batch centrifugal gravity equipment
- Intensive cyanide leach reactor
- Cyanidation and adsorption circuit (CIL)
- Elution (or desorption) circuit for gold removal
- Electrowinning tank and gold removed using electro-winning cells

11 MINERAL RESOURCE ESTIMATES

Mineral Resource estimates (MRE) in this section are considered to be new MRE for the MSG deposits compared with the previous estimate provided in AGA's previous yearly MRE updated disclosure report (Mineral Resource and Mineral Reserve at December 31, 2024). For other deposits, the MRE reported herein is an updated MRE as it was filed in Annual Information Forms (AIF) in previous years.

The MSG technical team prepared geological models and block models using Datamine and Leapfrog software and performed statistical and variography analysis. The QP validated the database and estimates by MSG using Surpac software by comparative methods to check the smoothness effect and swath plots. Mineral resource classification was validated using information from previous reports and checking over the quality and confidence in sampling and assay, location and spacing of sampling, geological modeling, and grade estimate methods.

11.1 Database

The MSG property database was provided by Aura in Datamine table formats, including drill hole, collar, survey, geology, and assay results, separated by Open Pit and Underground targets. Table 11.1 and Table 11.2, respectively, summarize the Open Pit and Underground drill holes and trench channel samples database used in this project stage. The database is in a local coordinate system.

The database has geochemical results of the variable Au (ppm). The database has analysis from MSG Intern Laboratory, ALS Chemex, and SGS Geosol Laboratorios Ltda. The QP also received from Aura databases containing the composites used in the modeling and resource estimation for each of the MSG targets. These composites were used to validate the AGA estimate.

The drilling database supplied by Aura was visually validated, considering the relationship between tables, gaps, overlaps, and the absence of essential information. No relevant inconsistencies were identified in this stage of the work, as they were verified in the data verification stage.

Table 11.1: MSG Project open pit database summary

Target	Type	Count	Length (m)
Angicão	Drill Holes	11,255	703,276.62
	Trench Channel	50,408	208,939.75
Baru	Drill Holes	8,029	956,876.63
	Trench Channel	37,751	169,321.00
Cajueiro	Drill Holes	112	29,603.19
Corpo V Sul	Drill Holes	6,221	549,168.76
Corpo Sul	Drill Holes	37,397	604,540.52
Dolomito	Drill Holes	1,539	106,959.79
	Trench Channel	4,566	22,853.09
	Percussion Drilling	68	4,412.00

Target	Type	Count	Length (m)
Ipê	Drill Holes	5,990	979,328.39
	Trench Channel	24,366	120,892.31
Mina III	Drill Holes	5,027	289,239.84
	Trench Channel	2,3361	96,856.36
Mina Nova	Drill Holes	604	50,575.35
	Trench Channel	5,849	21,240.57
Palmeiras	Drill Holes	819	40,094.30
Pequizão	Drill Holes	6,507	898,233.30
	Trench Channel	34,882	160,106.29
Venâncio	Drill Holes	113	253.10

Target	Type	Count	Length (m)
Forquilha	Drill Holes	6,515	646,152.85
	Trench Channel	34,722	151,906.91

Target	Type	Count	Length (m)

Source: GE21, 2026.

Table 11.2: MSG Project underground database summary

Target	Type	Count	Length (m)
Angicão Upper and Lower Zone	Drill Holes	12,850	926,704.69
	Trench Channel	53,671	227,663.26
Baru	Drill Holes	9,725	1,324,972.51
	Trench Channel	50,298	231,501.65
Caja	Drill Holes	2,949	438,591.19
Cajueiro	Drill Holes	112	29,603.19
Corpo 3.5	Drill Holes	1,843	230,096.75
	Trench Channel	15,136	67,871.43
Corpo A	Drill Holes	2,425	128,116.72
	Trench Channel	11,802	46,113.90
Corpo IV	Drill Holes	9,782	1,024,100.01
	Trench Channel	45,772	200,603.47
Corpo NW	Drill Holes	1,152	236,615.11
Corpo V Sul	Drill Holes	6,473	58,8834.13
	Trench Channel	36,129	156,019.21
Corpo Sul	Drill Holes	37,397	604,540.52
Granada	Drill Holes	3,497	179,024.28
	Trench Channel	15,677	61,888.95
Ingá Lower Zone	Drill Holes	7,243	834,996.12
	Trench Channel	33,534	157,445.27
	Percussion Drilling	126	8,734.00
Ingá Upper Zone	Drill Holes	6,121	948,681.92
	Trench Channel	27,210	132,538.04

Target	Type	Count	Length (m)
Limoeiro	Drill Holes	12,141	754,267.55
	Trench Channel	60,271	262,348.82
	Percussion Drilling	1,169	48,808.40
	HD	3,629	4,942.71
Mina III VQZ	Drill Holes	12,279	12,279.00
	Trench Channel	55,627	242,694.71
Mina III Lower Zone	Drill Holes	51,645	785,841.70
Mina III Upper Zone	Drill Holes	12,297	740,789.55
	Trench Channel	28,662	119,654.95
Mina Nova	Drill Holes	22,749	1,123,537.95
Palmeiras	Drill Holes	1,358	113,907.49
	Trench Channel	4,452	22,069.51
Palmeiras Sul	Drill Holes	1,142	109,081.25
	Trench Channel	3,757	19,113.22
Palmeiras Sul 3.5	Drill Holes	527	88,498.13
	Trench Channel	653	3,405.64
Pequizão	Drill Holes	8,859	1,265,717.36
	Trench Channel	40,690	186,979.33
Pequizão Norte	Drill Holes	5,393	850,960.04
	Trench Channel	24,903	121,485.53
Urucum	Drill Holes	308	20,059.45
	Trench Channel	1,790	6,800.66
	Percussion Drilling	111	3,461.00

Source: GE21, 2026.

11.2 Topography

The QP received two topographic files in Datamine format, updated in November 2025. The topography covers both open-pit and underground operations, and these were applied to update the mineral resource models. Figure 11.1 and Figure 11.2 show the topographies of Open Pit and Underground, respectively.

The Project uses the SAD1969 coordinate system, UTM 22 S. The UTM coordinates are transformed into Grid Local by reducing the X and Y values by 600000 and 8300000 respectively. The elevation is maintained without changes. Databases, models, and topographies use local coordinates.

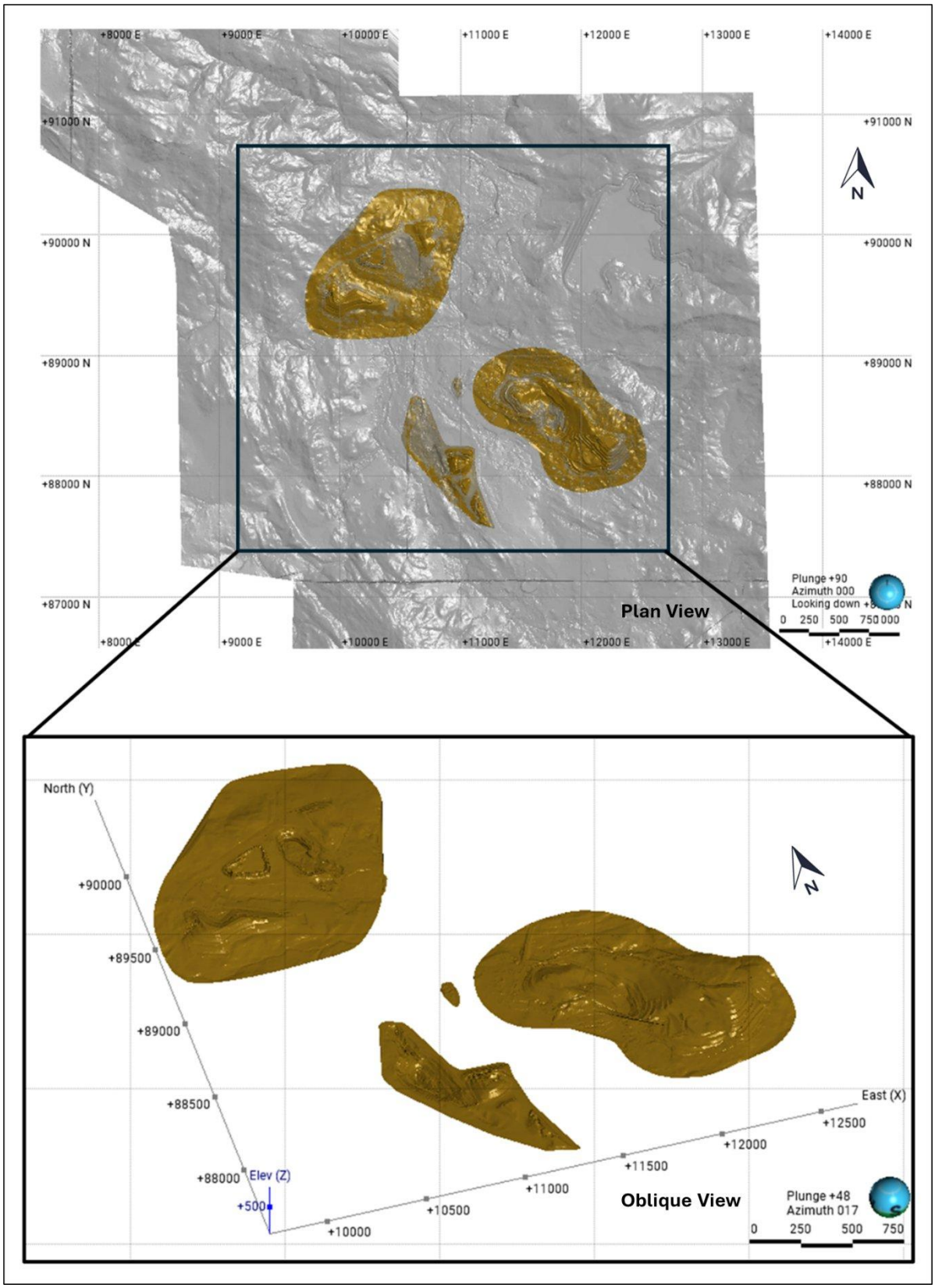


Figure 11.1: Open pit topography

Source: GE21, 2026.

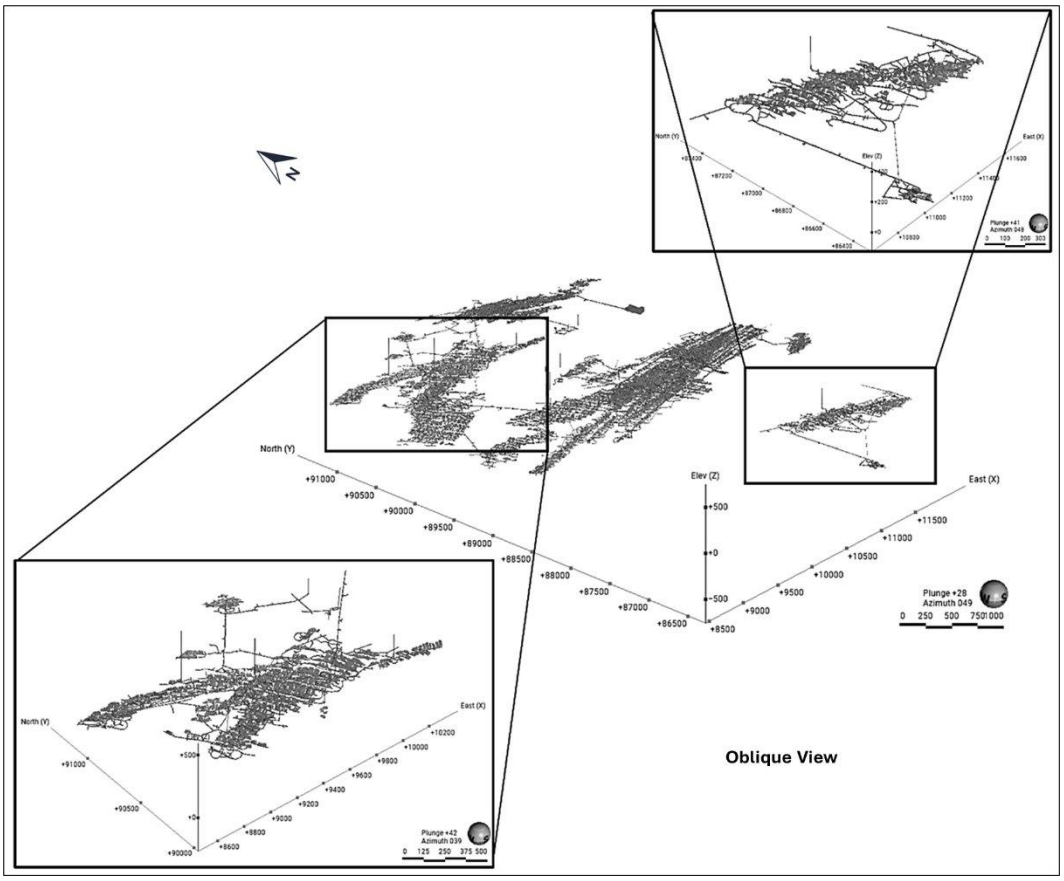


Figure 11.2: Underground topography

Source: GE21, 2026.

11.3 Geological Modeling

The QP received 38 wireframe files in Datamine format corresponding to MSG targets to be validated. Table 11.3 summarizes the names of the wireframe received files separately for each Open Pit and Underground target.

Originally, the geological modeling was done by AGA using information from drill holes, underground channel samples, outcrops, underground geological mapping, and structural controls, including folding and faulting.

Mineralized domain structures are interpreted and modelled based at a nominal cut-off of 1.0 g/t Au in concordance with the underlying geological model. Model updates are conducted regularly, as needed, for short-term production modelling. Long-term models are updated on a quarterly basis (Figure 11.3).

Table 11.3: Wireframes received by GE21

Target	Type	Wireframe	Target	Type	Wireframe
Open Pit Angicão	OP	angtr	Corpo IV	UG	4_2025q3tr
Open Pit Baru	OP	8baop20230315tr	Corpo NW	UG	nw
Open Pit Cajueiro	OP	cajoptr	Corpo Sul	UG	opsul_q3_2024tr
Open Pit Corpo V Sul	OP	cp5s_palm_q1_2025tr	Corpo V Sul	UG	c5s
Open Pit Dolomito	OP	wf_dol_q1_25tr	Granada	UG	4gr
Open Pit Forquilha	OP	7optr	Ingá Lower Zone	UG	9i_2025q3tr

Target	Type	Wireframe	Target	Type	Wireframe
Open Pit Ipê	OP	wf_ipe_q1_25tr	Ingá Upper Zone	UG	ingazs__20240125
Open Pit Mina III	OP	opmn3_240419tr	Limoeiro	UG	lim_r3_2024
Open Pit Mina Nova	OP	1mnoptr	Mangaba	UG	wf_14_q1_25tr
Open Pit Palmeiras	OP	6optr	Mina III Lower Zone	UG	MN3_Zona_Inferior
Open Pit Pequizao	OP	8optr	Mina III Upper Zone	UG	3zs_20240807
Open Pit Venâncio	OP	venanciotr	Mina III VQZ	UG	vqz_r3_2024
Angicão Lower Zone	UG	ang_inf_323	Mina Nova	UG	1_2025q3tr
Angicão Upper Zone	UG	ang_superior323_serie	Palmeiras	UG	wf_palm_q1_2025tr
Baru	UG	8bg_2025q3tr	Palmeiras Sul	UG	12ps
Cajá	UG	06-caja	Palmeiras Sul 3.5	UG	pas35
Cajueiro	UG	caj_tot	Pequizão	UG	8_q3_2025
Corpo 3.5	UG	3.5	Pequizão Norte	UG	15_20230529
Corpo A	UG	a	Urucum	UG	urucum_Q3_2024

Source: GE21, 2026.

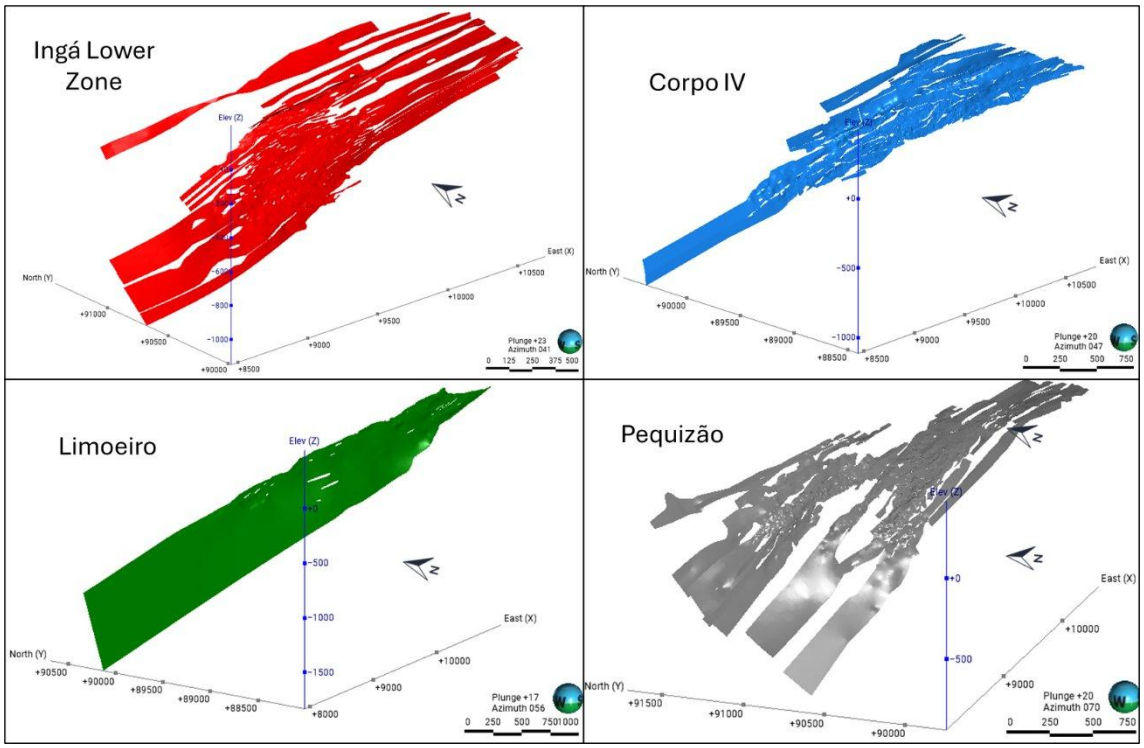


Figure 11.3: Examples of underground wireframes from MSG targets

Source: GE21, 2026.

11.4 Density

Average densities are assigned to mineralized domains (oxide, transition, and sulfide zones) based on previous assessments. Table 11.4 summarizes the densities used for each mineralized zone in the block models validated by GE21, considering Open Pit and Underground targets.

Table 11.4: Densities assigned to block models

Target	Type	Density (g/cm³)		
		Oxide	Transition	Sulfide
Angicão	OP	1.75	2.45	2.88
Baru	OP	1.75	2.45	2.98

Target	Type	Density (g/cm³)		
		Oxide	Transition	Sulfide
Corpo IV	UG	-	-	2.77
Corpo NW	UG	-	-	2.80

Target	Type	Density (g/cm³)		
		Oxide	Transition	Sulfide
Cajueiro	OP	1.75	2.45	2.93
Corpo V Sul 60	OP	1.75	2.45	3.07
Corpo V Sul cpV	OP	1.75	2.45	2.70
Dolomito	OP	-	2.45	2.73
Forquilha	OP	1.75	2.45	2.70
Ipê	OP	-	-	2.60
Mina III	OP	1.75	2.45	2.92
Mina Nova	OP	1.75	2.45	2.78
Palmeiras	OP	1.75	2.45	2.90
Pequizao	OP	1.75	2.45	2.88
Venâncio v1_tot	OP	1.75	2.45	2.70
Venâncio v2_tot	OP	1.75	2.45	2.96
Angicão Lower Zone	UG	-	-	2.87
Angicão Upper Zone	UG	-	-	2.89
Baru	UG	-	-	3.02
Cajá	UG	-	-	3.02
Cajueiro	UG	-	-	2.93
Corpo 3.5	UG	-	-	2.70
Corpo A a 5	UG	-	-	2.70
Corpo A	UG	-	-	2.96

Target	Type	Density (g/cm³)		
		Oxide	Transition	Sulfide
Corpo Sul	UG	1.75	2.45	2.70
Corpo V Sul	UG	1.75	2.45	2.70
Granada	UG	-	-	2.80
Ingá Lower Zone	UG	-	-	2.91
Ingá Upper Zone N1	UG	-	-	2.92
Ingá Upper Zone N2 e N3	UG	-	-	2.96
Limoeiro	UG	-	-	2.91
Mangaba	UG	-	-	2.84
Mina III Lower Zone	UG	-	-	2.81
Mina III Upper Zone	UG			3.30
Mina III VQZ	UG	-	-	2.70
Mina Nova	UG	-	-	2.78
Palmeiras	UG	-	-	3.07
Palmeiras Sul	UG	-	-	2.78
Palmeiras Sul 3.5	UG	1.75	2.45	2.78
Palmeiras Sul 3.5 pas35_04	UG	1.75	2.45	2.91
Pequizão	UG	-	-	2.85
Pequizão Norte	UG	-	-	2.85
Urucum	UG	-	-	3.14

Source: GE21, 2026.

11.5 Block Model

GE21 received 38 block models in Datamine format from Aura for validation. Table 11.5 summarizes the received block model files. Figure 11.4 shows examples of open-pit and underground block models made by MSG and used in validating those made by GE21.

Table 11.5: Block models received by GE21

Target	Type	Block Model
Open Pit Angicão	OP	mdlang_11082022
Open Pit Baru	OP	mdl8baop_20230208
Open Pit Cajueiro	OP	mdlcajop_06072022
Open Pit Corpo V Sul	OP	mdl_opvsul_palm_q1_25
Open Pit Dolomito	OP	mdl_dol_q1_25
Open Pit Forquilha	OP	mdkzs_20240807
Open Pit Ipê	OP	mdl_ipe_q1_2025
Open Pit Mina III	OP	mdk_pitmn3_20240419_final
Open Pit Mina Nova	OP	mdL1mnop_20230320
Open Pit Palmeiras	OP	mdl6op_02022022
Open Pit Pequizão	OP	mdl8op_12072022
Open Pit Venâncio	OP	mdlven_03112021_q3_24
Angicão Lower Zone	UG	mdl_anginf_c11_20231024
Angicão Upper Zone	UG	mdl_angsup_20231024_rev01
Baru	UG	ml8bg_2025q3
Cajá	UG	mdlcaja_18052023
Cajueiro	UG	mdl10_26082021

Target	Type	Block Model
Corpo IV	UG	mk4_2025q3
Corpo NW	UG	mdlnw_09092022
Corpo Sul	UG	1-mlopsul_q3_2024
Corpo V Sul	UG	mdlc5s_23082022
Granada	UG	mdl4gr_20230830
Ingá Lower Zone	UG	mk9i_2025q3
Ingá Upper Zone	UG	ingazs_q3_25
Limoeiro	UG	mdlim_r3_24_mdlav
Mangaba	UG	mdl14_q1_25
Mina III Lower Zone	UG	MSG_MINA_III_comp_R3_2025_rev1
Mina III Upper Zone	UG	mdlzs_q3_24
Mina III VQZ	UG	mdl_vqz_r3_2024_lav
Mina Nova	UG	01_q3_2024
Palmeiras	UG	comp_palm_ge21_1m0
Palmeiras Sul	UG	ml12ps_14072022
Palmeiras Sul 3.5	UG	mdlps35_03082022
Pequizão	UG	MSG_PQZ_comp_R3_25

Target	Type	Block Model
Corpo 3.5	UG	mdl3.5_20230620_v8
Corpo A	UG	15_mdla_09092021

Target	Type	Block Model
Pequizão Norte	UG	mdkpn_20230530
Urucum	UG	04_uru_q3_2024_comp_R3_24

Source: GE21, 2026.

The block model attributes are presented in Table 11.6.

The block models inside mineralization zones (Figure 11.4) were validated using Surpac software based on visual and volumetric validation of some selected targets. Visual adherence is inside acceptance limits.

Table 11.6: Block model attributes summary

Attribute	Type	Description
Au	Numeric	Gold content of the blocks in ppm
Density	Numeric	Density value of the blocks in g/cm^3
Oxide	Integer	Weathering Zones, where 1 = Oxide, 2 = Transition, or 3 = Sulfide
Corpo or Domains	Character	Names of ore bodies and estimated domains
Recurso or Class	Integer	Resource Classification, where 1 = Measured, 2 = Indicated, 3 = Inferred, 4 = Blue Sky Tangible or 5 = Blue Sky Intangible
Lavrado	Integer	0 = Unmined or 1 = Mined
Minerio	Integer	0 = Waste or 1 = Mineralized Zones

Source: GE21, 2026.

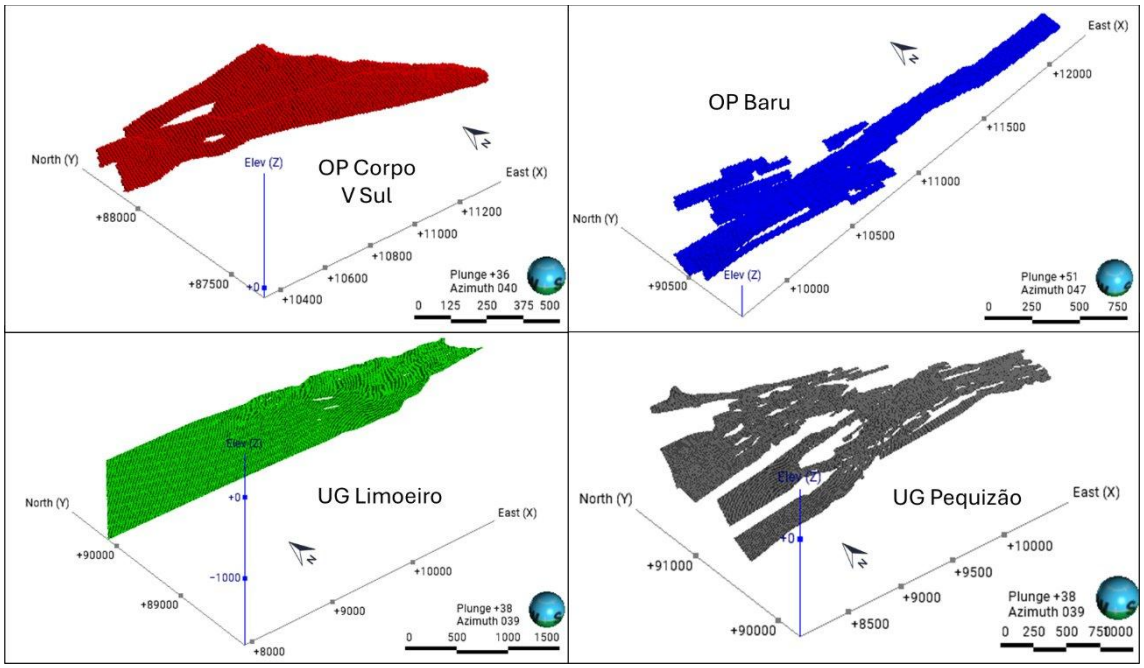


Figure 11.4: Open-pit and underground block models

Source: GE21, 2026.

11.6 Mineral Resource Estimate Validation

Ordinary kriging (OK) and the Nearest Neighbor (NN) method were used for gold grade estimation in mineralized bodies of the MSG. 36 of 38 received block models were re-estimated using composites provided by Aura in Datamine software formats to validate the grade estimate. The Dolomito and Ipê targets were not estimated by the QP due to the absence of mineral resource classification in the received resource models.

QP from GE21 estimated the parent blocks of each domain individually in a single step, covering the entire block model. Table 11.7 summarizes the size of the parent blocks used in the GE21 estimate, considering open-pit and underground targets.

Table 11.7: Size of parent blocks applied in MRE validation

Mine	Block Sizes
Open Pit	8 x 8 x 3
Underground	4 x 4 x 3

Source: GE21, 2026.

Table 11.8 summarizes the strategy applied by the QP from GE21 for the grade estimate by the OK and NN methods.

Table 11.8: Search strategy for MSG targets

Estimation Method	Max Range (m)	Orientation	Min number of samples	Max number of samples	Max number per drill hole
MSG OK	60	Orientation was adjusted individually by target	10	40	-
GE21 OK	4,000	Orientation was adjusted individually by target	3	8	2
NN	6,000				

Source: GE21, 2026.

The orientation of variographic and sample search anisotropic ellipsoids applied in grade estimation is based on the average orientation of mineralization zones. Table 11.9 summarizes the variogram models presented by the MSG Project and applied to estimate validation, and Table 11.10 presents the anisotropic ellipsoid orientation adjusted individually by target.

Table 11.9: Variogram models for the MSG Project

Estimation Method	Major Semi-Major	Major-Minor	Semi Ratio	Minor Ratio	Nugget	Structure 1		Structure 2	
						c1	Range 1	c2	Range 2
OK	2	10	3	15	0.3	0.4	10	0.3	60
Anisotropic ellipsoid orientation was adjusted individually for the target.									

Source: GE21, 2026.

Table 11.10: Anisotropic ellipsoid orientation was adjusted by the target

Target	Type	Azimuth	Dip	Plunge
Open Pit Angicão	OP	110	5	-5
Open Pit Baru	OP	100	-5	0
Open Pit Cajueiro	OP	95	-20	0
Open Pit Corpo V Sul	OP	125	-25	-25
Open Pit Forquilha	OP	110	-25	-20
Open Pit Mina III	OP	110	-10	-5
Open Pit Mina Nova	OP	100	-5	5
Open Pit Palmeiras	OP	120	5	-10
Open Pit Pequizão	OP	110	-15	-15
Open Pit Venâncio	OP	100	-15	-5
Angicão Lower Zone	UG	110	-20	-15
Angicão Upper Zone	UG	115	0	-10
Baru	UG	105	-30	-20

Target	Type	Azimuth	Dip	Plunge
Corpo NW	UG	120	-60	15
Corpo Sul	UG	100	-25	-20
Corpo V Sul	UG	120	-30	-20
Granada	UG	280	0	-15
Ingá Lower Zone	UG	110	-30	-20
Ingá Upper Zone	UG	120	-40	-20
Limoeiro	UG	125	-40	-35
Mangaba	UG	125	-40	-35
Mina III Lower Zone	UG	100	-40	-20
Mina III Upper Zone	UG	110	-20	-20
Mina III VQZ	UG	120	-50	-40
Mina Nova	UG	115	-5	-5
Palmeiras	UG	125	-20	-25

Target	Type	Azimuth	Dip	Plunge
Cajá	UG	120	-35	-35
Cajueiro	UG	100	-20	0
Corpo 3.5	UG	115	-27	-35
Corpo A	UG	100	-10	-10
Corpo IV	UG	125	-30	-25

Target	Type	Azimuth	Dip	Plunge
Palmeiras Sul	UG	140	-25	-20
Palmeiras Sul 3.5	UG	125	-25	-15
Pequizão	UG	110	-25	-30
Pequizão Norte	UG	110	-15	-10
Urucum	UG	295	30	-15

Source: GE21, 2026.

The QP validated the estimate through visual verification and global and local bias verification. The global and local bias checks were carried out using GE21's NN, and OK estimates as the basis of a comparative analysis with the OK grade estimate by MSG.

NN-Checks plots show the results of the global bias analysis and the smoothing effect of the estimated Au ppm. The QP concluded that biases and the smoothing effect are within acceptance limits for mineral resource classification. Figure 11.5 and Figure 11.6 show examples of NN Check plots.

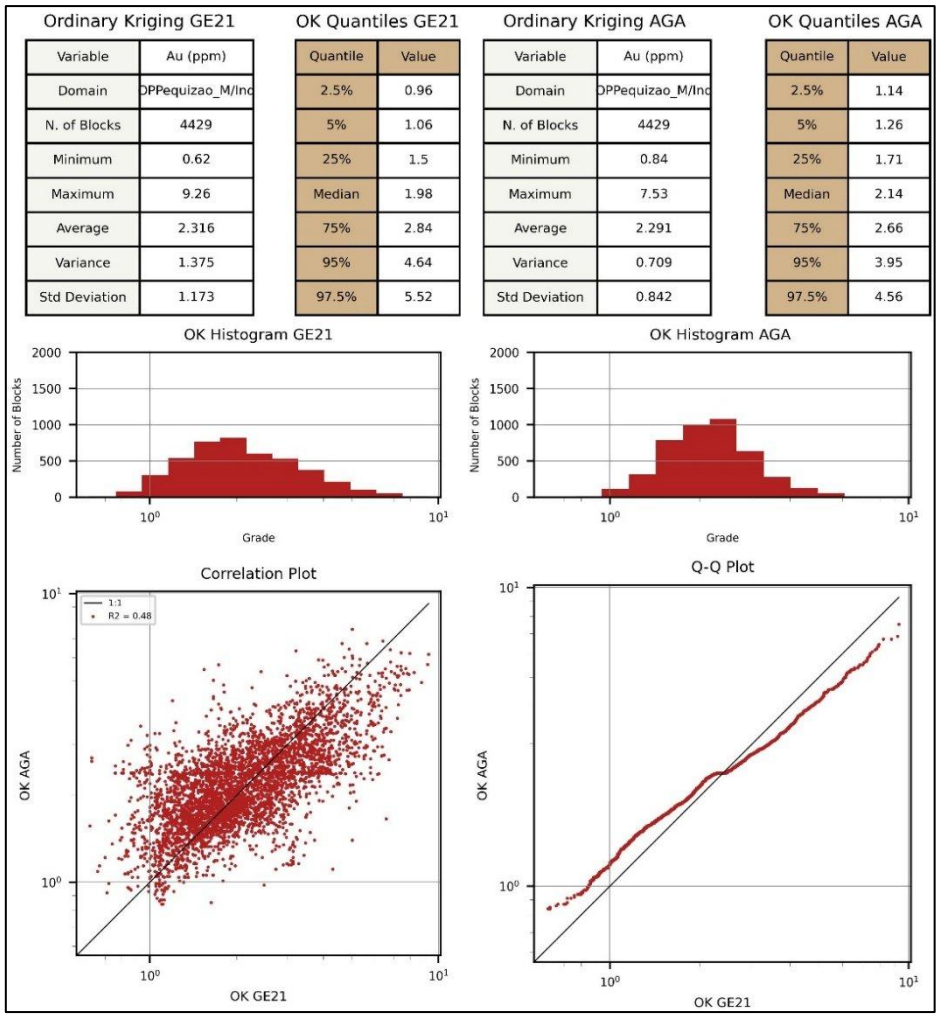


Figure 11.5: NN check for OP Pequizão

Source: GE21, 2026.

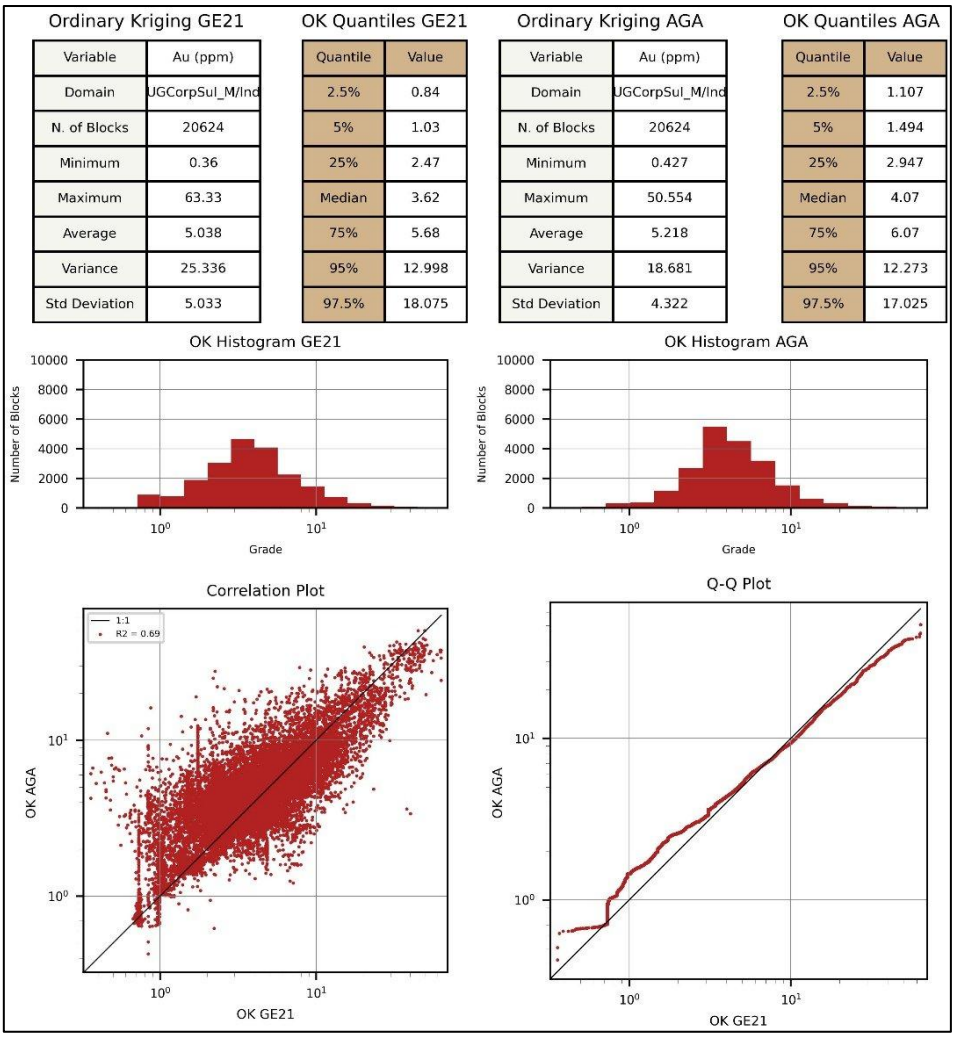


Figure 11.6: NN check for UG Corpo Sul

Source: GE21, 2026.

The local bias was checked using the Swath Plot method, which analyzes by comparing the local MSG model's average grades and OK/NN performed by GE21. The QP considered the MSG estimation inside acceptance limits for mineral resource classification. Figure 11.7 presents as an example the Corpo Sul target's swath plot with no significant local biases. Figure 11.8 presents the swath plot for the UG Ingá Lower Zone target, showing a significant bias in the deep western extension of the mineralization zone, but it was considered by the QP as inside acceptance limits, and because of the smoothing effect of the MSG grade estimate.

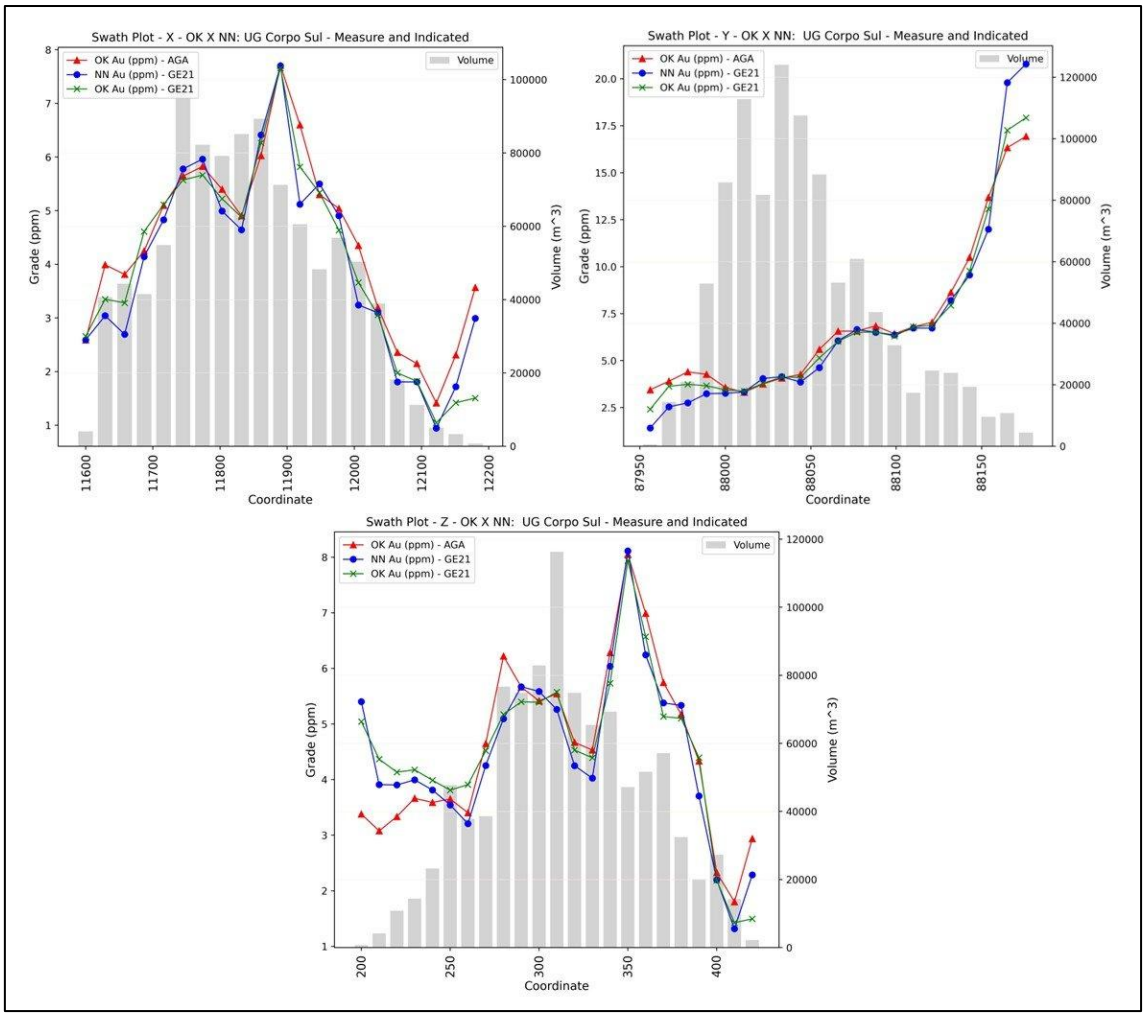


Figure 11.7: Swath plot for OP Corpo Sul

Source: GE21, 2026.

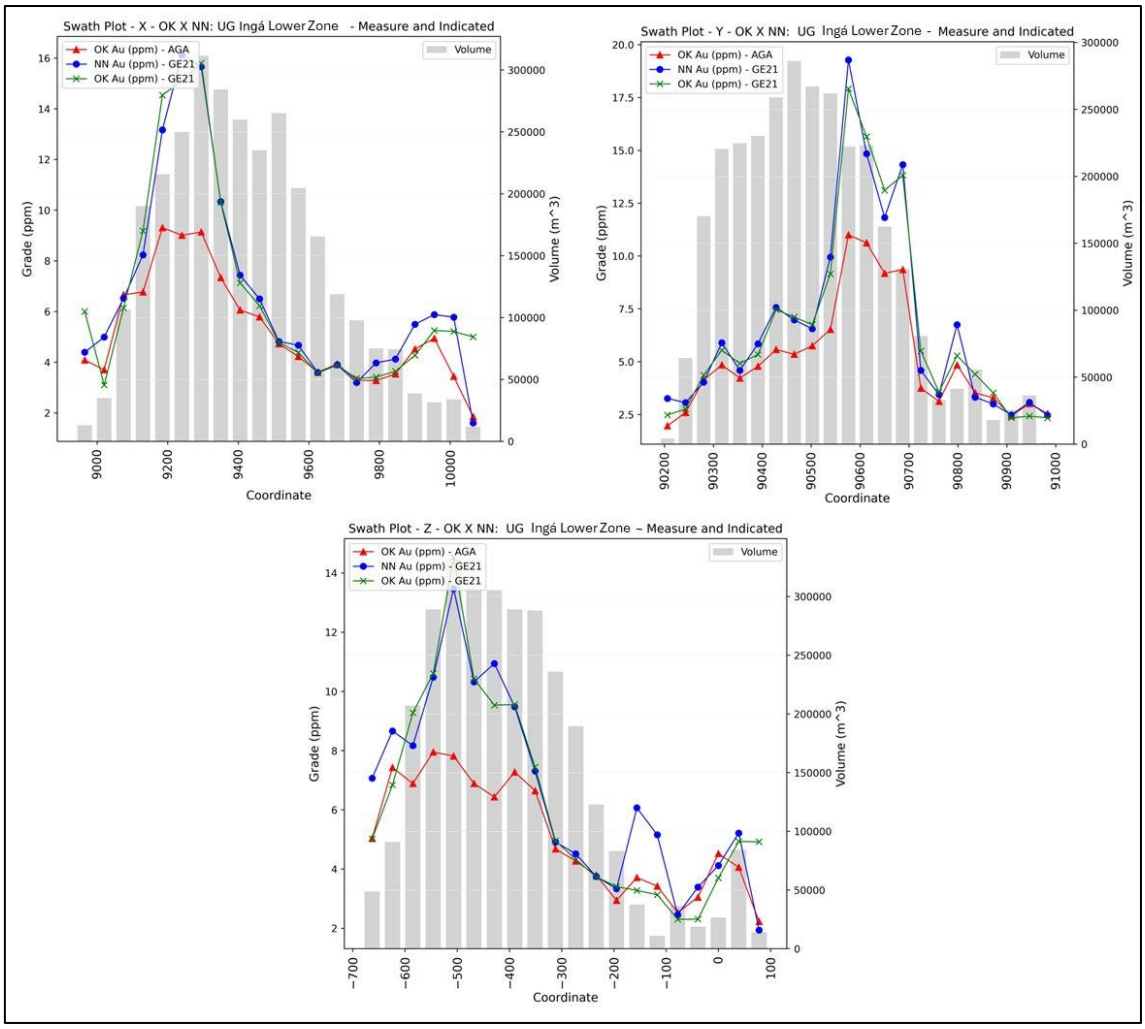


Figure 11.8: Swath plot for UG Ingá lower zone

Source: GE21, 2026.

11.7 Classification of Mineral Resources

The guidelines for resource classification were established in accordance with the Committee for Mineral Reserves International Reporting Standards (CRIRSCO). The definitions of Mineral Resource for S-K 1300 are transcribed below:

- A Measured Mineral Resource represents the highest level of geological confidence. Quantity, grade or quality, densities, shapes, and physical characteristics are estimated with sufficient precision to support detailed mine planning and the final economic evaluation. Geological evidence is based on detailed, reliable exploration, sampling, and testing, sufficient to confirm geological and grade continuity. Measured Resources can be converted into Proven or Probable Mineral Reserves.

- An Indicated Mineral Resource is a mineral resource for which the quantity and grade or quality are estimated based on adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modification factors with sufficient detail to support mine planning and the assessment of the economic viability of the deposit. Because an indicated mineral resource has a lower confidence level than the confidence level of a measured mineral resource, an indicated mineral resource can only be converted into a Probable Mineral Reserve.
- An Inferred Mineral Resource is the portion of a mineral resource for which the quantity and grade or quality are estimated based on limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors that could influence the prospects of economic extraction in a way that is useful for assessing economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of modifying factors in a way that is useful for assessing economic viability, an inferred mineral resource may not be considered when evaluating the economic viability of a mining project and may not be converted into a mineral reserve.

MSG used the 15% Rule for Mineral Resource Classification, according to Snowden's audit (2025) and AGA in the S-K 1300 LOM-TRS (2022), where:

- Measured Mineral Resources: predicted metal content should be within 15%, at least 90% of the time, for Quarterly production volumes: drill grid of about 20 m x 10 m and sometimes 10 m x 10 m.
- Indicated Mineral Resources: predicted metal content should be within 15%, at least 90% of the time, for Annual production volumes: drill grid of about 40 m x 20 m.
- Inferred Mineral Resources: variability of predicted metal content may be greater than 15%, 90% of the time for Annual production volumes: drill grid greater than 50 m x 50 m and less than 100 m x 100 m.

The QP validated and accepted the criteria applied by the MSG's mineral resource classification as measured, indicated, and inferred classes.

Figure 11.9 and Figure 11.10 show examples of two underground block models classified by the MSG MRE and the composites used to validate the GE21 estimate.

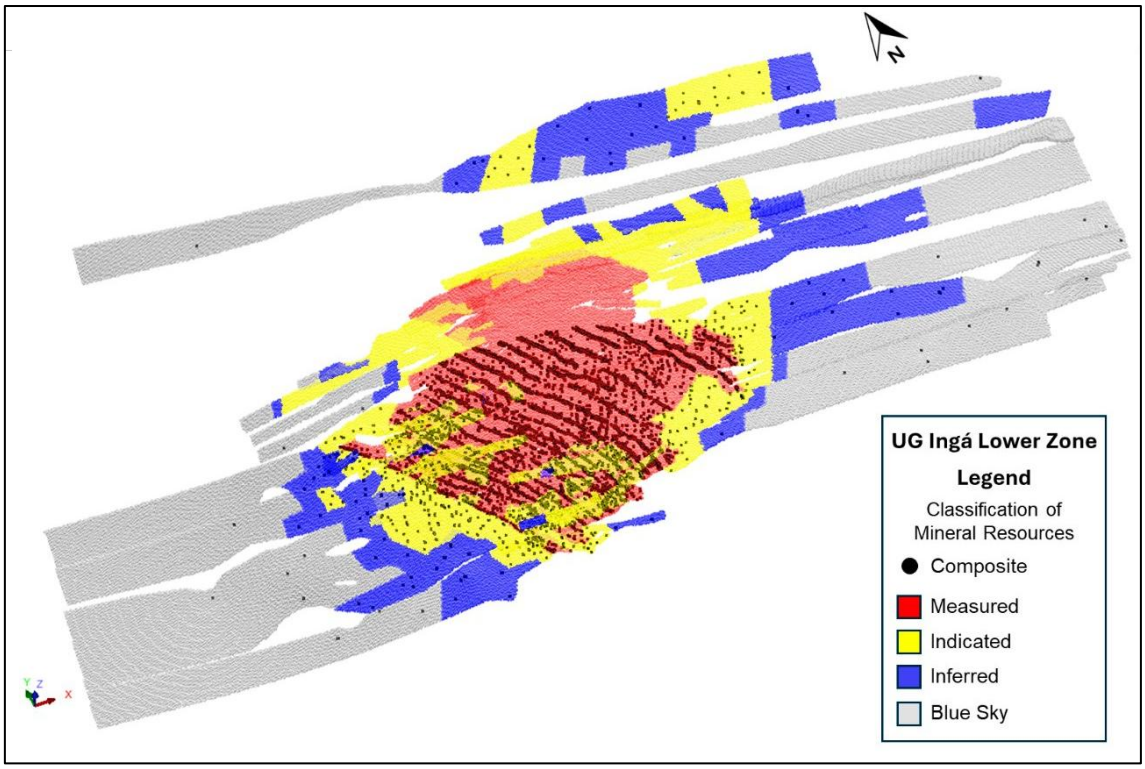


Figure 11.9: Underground Ingá lower zone block model with composites

Source: GE21, 2026.

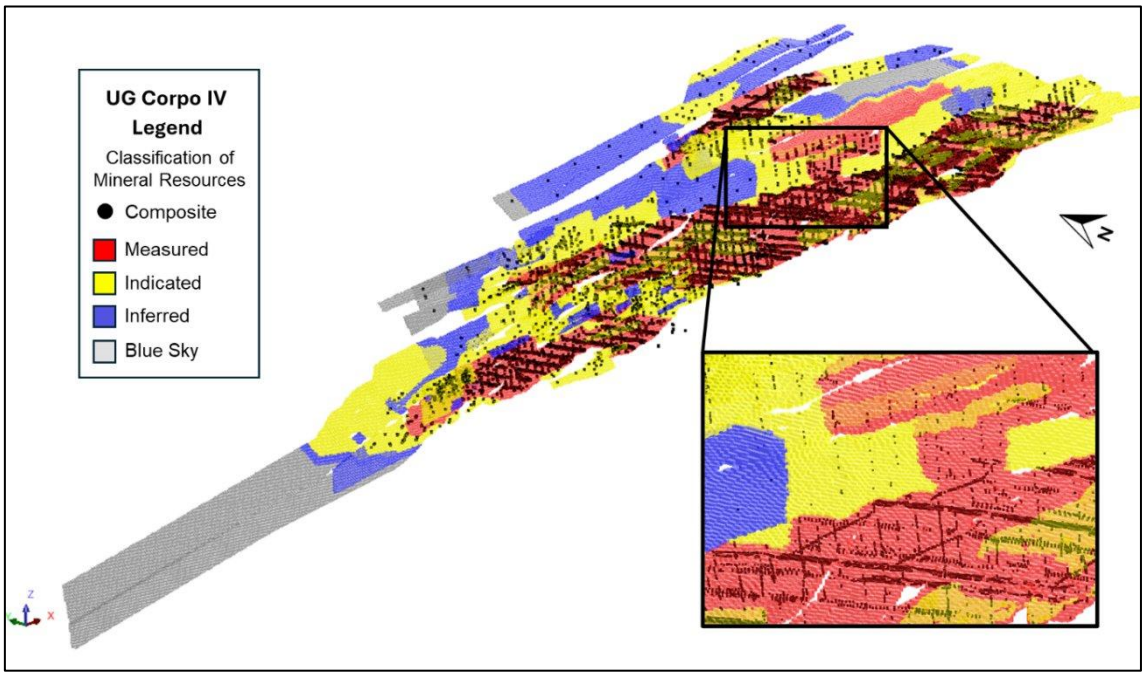


Figure 11.10: Underground Corpo IV block model with composites

Source: GE21, 2026.

11.8 Reasonable Prospects for Economic Extraction (RPEE)

To define Reasonable Prospects for Economic Extraction (RPEE), the MRE was limited through pit optimization using Whittle 2022 software. Economic and physical constraints for Open Pit targets are present in Table 11.11.

Table 11.11: Open Pit parameters generated by RPEE

Item				Unit	RPEE
					Ore
Revenue	Economic Parameters	Currency		BRL/US$	5.15
		Selling Price	Au	US$/oz	3,100
	ROM	Density		g/cm³	Attribute in the Block Model
		Grade		%	Attribute in the Block Model
	Mining	Recovery of Mining		%	100
		Dilution			0
	Block Model	Block Model		Unit	
		X		m	2 or 3
		Y			2 or 3
		Z			2
	General Angle	Weathering Zone		Unit	
		Oxide		degrees	30
		Transition			45
		Sulfide			68
	CoG	Attribute		Unit	
		Au		ppm	0.35
	Metallurgic Recovery	Au		%	95.0
Costs		Mining Cost		US$/t mined	2.82
		Processing Cost		US$/t feed	23.98
		SG&A		US$/t feed	3.65
		Selling Cost		US$/oz	47.90
		Sustaining Costs mining		US$/t ore mined	0.57
		Sustaining Costs process		US$/t feed	0.75
		CFEM + Royalties		% of Gross	2.25

Source: Aura, 2026.

A Mineable Stope Optimization (MSO) process is run in Datamine. MSO was applied as Reasonable Prospects for Economic Extraction (RPEE) to generate mining faces based on predefined geometric parameters, ensuring that all forms meet the cutting criteria established from economic evaluations for the 26 block models. Economic and physical constraints for Underground targets are present in Table 11.12

Table 11.12: Underground parameters used in MSO

Item				Unit	RPEE
					Ore
Revenue	Economic Parameters	Currency		BRL/US$	5.15
		Selling Price	Au	US$/oz	3,100
	ROM	Density		g/cm³	Attribute in the Block Model
		Grade		%	Attribute in the Block Model
	Mining	Dilution		%	20
	Block Model	Block Model		Unit	
		X		m	Attribute in the Block Model
		Y			Attribute in the Block Model
		Z			Attribute in the Block Model
	CoG	Attribute		Unit	
		Au		ppm	1.29
	Metallurgic Recovery	Au		%	99.22
Costs		Mining Cost		US$/t mined	67.93
		Processing Cost		US$/t feed	20.39
		SG&A		US$/t feed	11.38

Item		Unit	RPEE
			Ore
	Selling Cost	US$/oz	0
	Sustaining Costs mining	US$/t ore mined	0
	Sustaining Costs process	US$/t feed	0
	CFEM + Royalties	% of Gross	47.90

Source: Aura, 2026.

11.9 Mineral Resource Statement

The updated Mineral Resources table for the MSG Project has an effective date of November 30, 2025. Mineral Resources are reported exclusive of reserves for open-pit and underground targets.

Figure 11.11 and Figure 11.12 show the classification of mineral resources (measured, indicated, and inferred) constrained in the RPEE open pits and reserves pits for two of the MSG Project's open-pit targets (Baru and Corpo V Sul, respectively).

Table 11.13 presents the Exclusive Mineral Resource Statement for each of the 11 open-pit targets of the MSG Project. Table 11.14 presents the totals for the Exclusive Mineral Resource for all Open Pit targets of the MSG Project, classified according to the Weathering Zones (oxide, transition, and Sulfide).

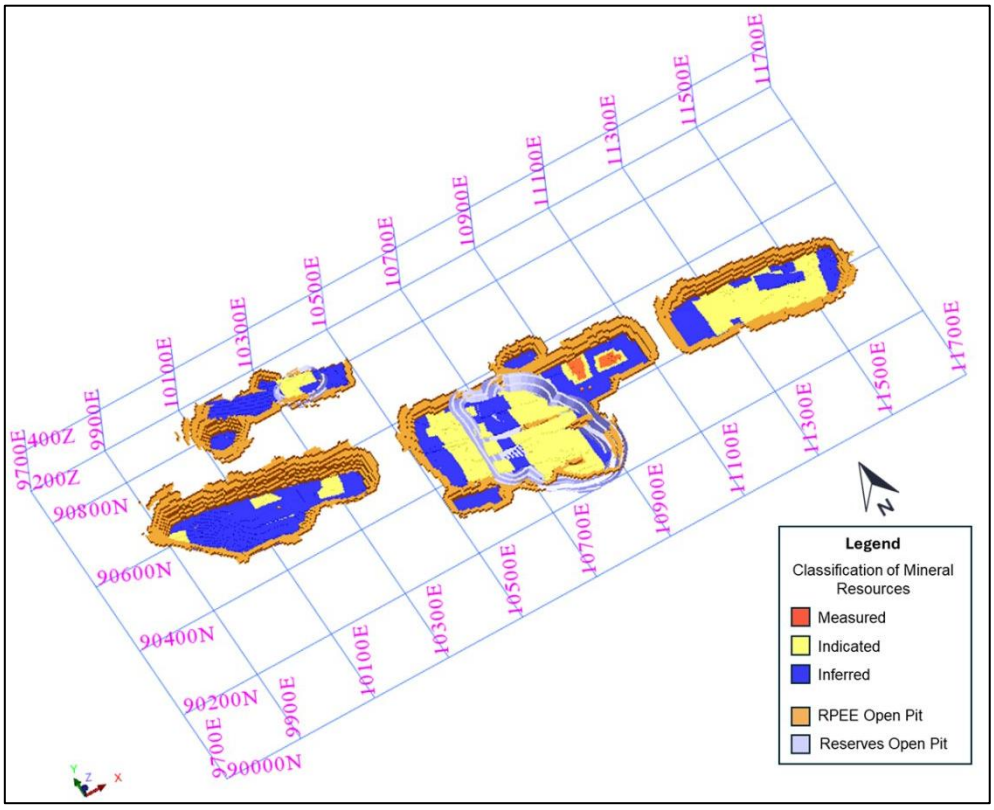


Figure 11.11: Classification of Mineral Resources constrained in RPEE and Reserves pits for Baru

Source: GE21, 2026.

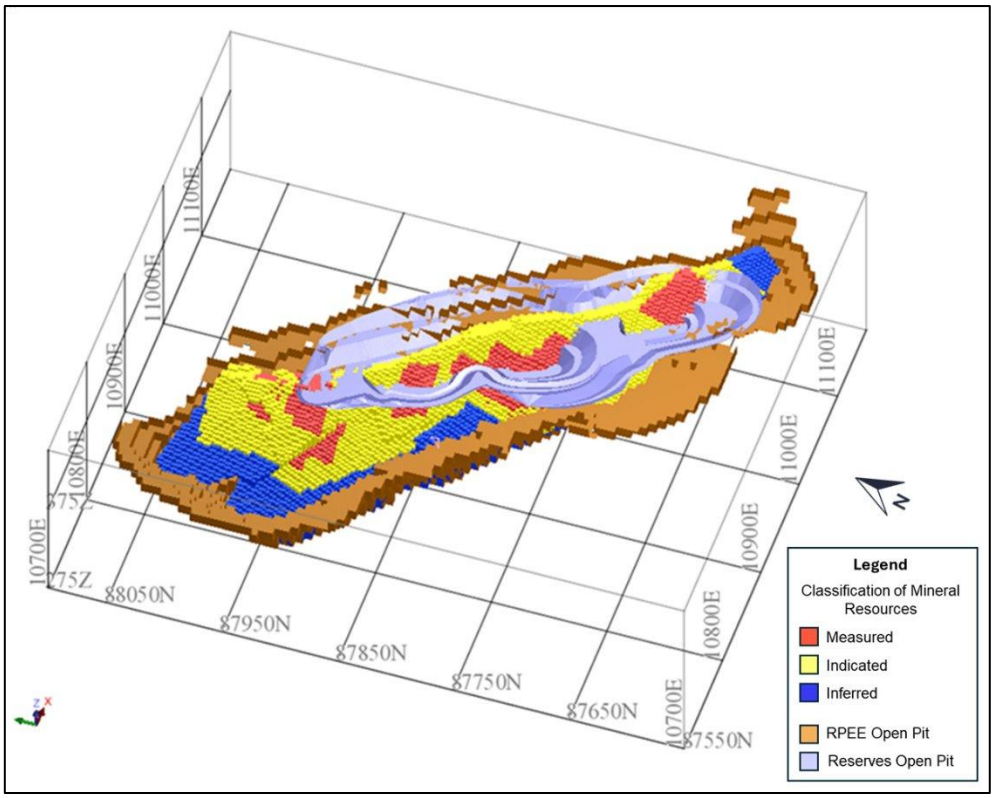


Figure 11.12: Classification of Mineral Resources constrained in RPEE and Reserves pits for Corpo V Sul

Source: GE21, 2026.

Table 11.13: Exclusive Mineral Resource statement for open-pit targets

Target	Resource Class	Tonnage Mt	Au g/t	Au koz
Angicão	Measured	0.00	0.00	0.00
	Indicated	2.97	1.03	98.38
	Meas+Ind	**2.97**	**1.03**	**98.38**
	Inferred	3.11	1.00	99.93
Baru	Measured	0.08	1.35	3.25
	Indicated	1.18	1.44	54.29
	Meas+Ind	**1.25**	**1.43**	**57.54**
	Inferred	1.79	1.34	76.82
Cajueiro	Measured	0.00	0.00	0.00
	Indicated	0.00	0.00	0.00
	Meas+Ind	**0.00**	**0.00**	**0.00**
	Inferred	0.50	0.80	12.95
Corpo Sul	Measured	0.07	2.87	6.66
	Indicated	0.17	1.80	9.74
	Meas+Ind	**0.24**	**2.12**	**16.39**
	Inferred	0.33	1.96	20.60
Corpo V Sul	Measured	0.19	1.15	7.19
	Indicated	0.25	1.08	8.82
	Meas+Ind	**0.45**	**1.11**	**16.01**
	Inferred	0.17	1.05	5.92
Forquilha	Measured	0.00	0.00	0.00
	Indicated	0.27	1.43	12.21
	Meas+Ind	**0.27**	**1.43**	**12.21**
	Inferred	1.09	1.13	39.71
Mina Nova	Measured	0.00	0.00	0.00

Target	Resource Class	Tonnage Mt	Au g/t	Au koz
	Indicated	0.01	1.36	0.39
	Meas+Ind	**0.01**	**1.36**	**0.39**
	Inferred	0.75	1.50	36.29
Mina III	Measured	0.05	2.52	3.97
	Indicated	0.04	1.61	1.91
	Meas+Ind	**0.09**	**2.13**	**5.88**
	Inferred	0.21	1.29	8.49
Palmeiras	Measured	0.00	0.00	0.00
	Indicated	0.06	1.31	2.64
	Meas+Ind	**0.06**	**1.31**	**2.64**
	Inferred	0.33	0.88	9.27
Pequizão	Measured	0.14	1.70	7.83
	Indicated	0.19	1.30	8.13
	Meas+Ind	**0.34**	**1.47**	**15.96**
	Inferred	0.06	0.94	1.97
Venâncio	Measured	0.00	0.00	0.00
	Indicated	0.18	1.83	10.84
	Meas+Ind	**0.18**	**1.83**	**10.84**
	Inferred	0.56	1.12	20.28
Total Open Pit	**Measured**	**0.53**	**1.68**	**28.90**
	Indicated	**5.32**	**1.21**	**207.35**
	Meas + Ind	**5.86**	**1.25**	**236.25**
	Inferred	**8.91**	**1.16**	**332.24**

Notes related to the Mineral Resource estimate:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 0.31 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate's relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9. The MRE was estimated using ordinary kriging in 8 m x 8 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of US$ 3,100.00/t oz Au, mining cost of US$ 2.82/t mined, and processing cost of US$ 23.98/t processed.

Source: GE21, 2026.

Table 11.14: Open-pit exclusive Mineral Resource statement

Project	Resource Class	Weathering Zone	Tonnage	Au	Au
			Mt	g/t	k oz
OP	Measured	Oxide	0.08	2.97	7.35
		Transition	0.03	1.13	0.96
		Sulfide	0.43	1.49	20.58
		Total	0.53	1.68	28.90
	Indicated	Oxide	0.05	0.99	1.51
		Transition	0.10	1.08	3.44
		Sulfide	5.18	1.22	202.40
		Total	5.32	1.21	207.35
	Meas+Ind	**Oxide**	**0.12**	**2.22**	**8.86**
		Transition	**0.13**	**1.09**	**4.40**
		Sulfide	**5.61**	**1.24**	**222.98**
		Total	**5.86**	**1.25**	**236.25**
	Inferred	Oxide	0.24	0.86	6.50
		Transition	0.70	0.94	21.15
		Sulfide	7.97	1.19	304.58
		Total	8.91	1.16	332.24

Notes related to the MRE:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 0.31 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate's relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9. The MRE was estimated using ordinary kriging in 8 m x 8 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of US$ 3,100.00/t oz Au, Mining cost of U$ 2.82/t mined, processing cost of U$ 23.98/t processed.

Source: GE21, 2026.

Figure 11.13 and Figure 11.14 show block models of Ingá Lower Zone and Corpo IV targets with classification of mineral resources and the stopes generated in Mineable Stope Optimization (MSO) by GE21, optimized in the areas of measured, indicated, and inferred resources.

Table 11.15 presents the exclusive Mineral Resource statement for each of the 26 underground targets of the MSG Project. Table 11.16 presents the Totals for the Exclusive Mineral Resource table for all Underground targets of the MSG Project.

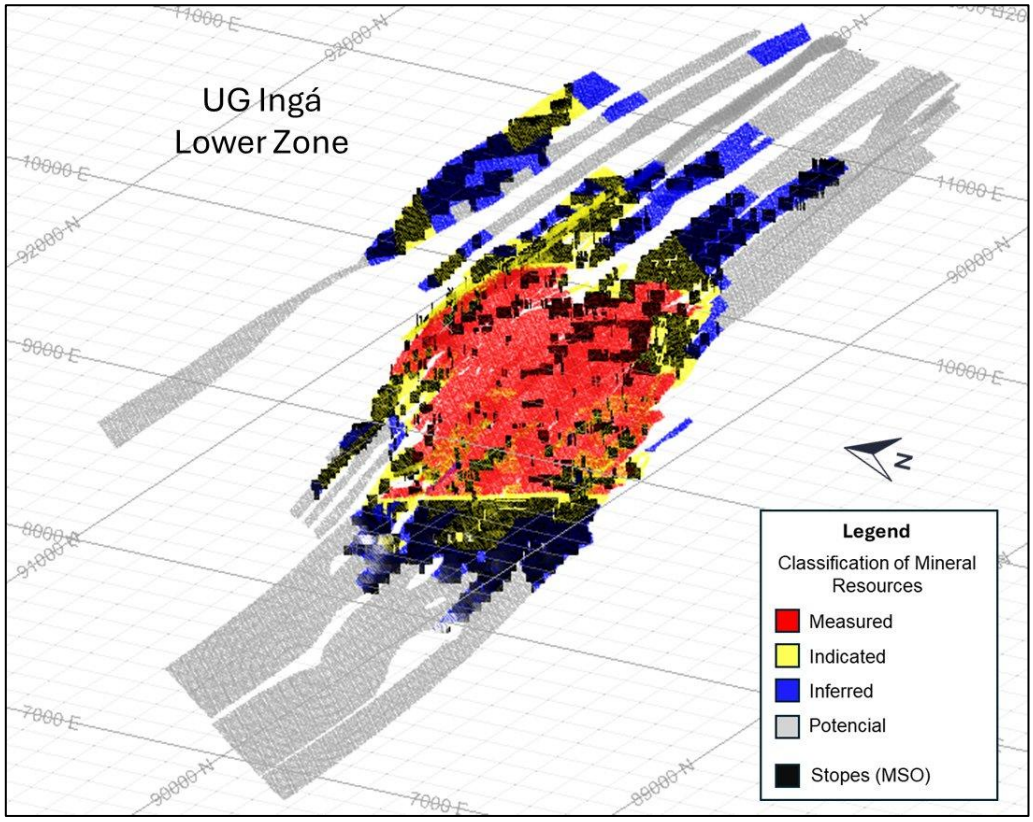


Figure 11.13: Classification of Mineral Resources and optimized Stopes for Ingá lower zone

Source: GE21, 2026.

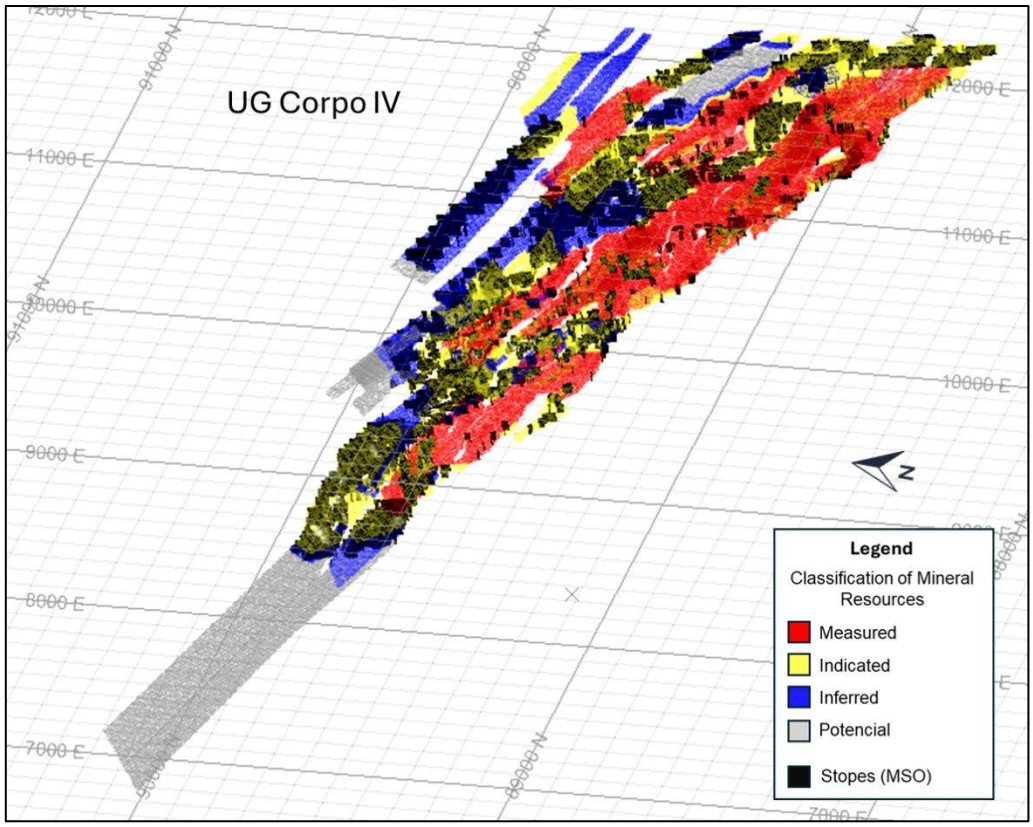


Figure 11.14: Classification of Mineral Resources and optimized stopes for Corpo IV

Source: GE21, 2026.

Table 11.15: Exclusive Mineral Resource statement for underground targets

Target	Resource Class	Tonnage Mt	Au g/t	Au koz
Angicão Lower Zone	Measured	0.000	0.00	0.00
	Indicated	0.077	3.59	8.93
	Meas+Ind	**0.077**	**3.59**	**8.93**
	Inferred	0.209	3.68	24.69
Angicão Upper Zone	Measured	0.000	0.00	0.00
	Indicated	0.000	0.00	0.00
	Meas+Ind	**0.000**	**0.00**	**0.00**
	Inferred	0.167	5.45	29.21
Baru	Measured	0.013	6.95	2.97
	Indicated	0.239	3.99	30.68
	Meas+Ind	**0.253**	**4.15**	**33.65**
	Inferred	0.614	3.47	68.49
Caja	Measured	0.000	0.00	0.00
	Indicated	0.063	4.49	9.14
	Meas+Ind	**0.063**	**4.49**	**9.14**
	Inferred	0.364	4.56	53.41
Cajueiro	Measured	0.000	0.00	0.00
	Indicated	0.000	0.00	0.00
	Meas+Ind	**0.000**	**0.00**	**0.00**
	Inferred	1.401	2.63	118.47
Corpo 3.5	Measured	0.005	8.15	1.30
	Indicated	0.017	5.16	2.75
	Meas+Ind	**0.022**	**5.85**	**4.04**
	Inferred	0.005	5.12	0.79
Corpo A	Measured	0.023	4.57	3.39

Target	Resource Class	Tonnage Mt	Au g/t	Au koz
	Indicated	0.067	4.51	9.74
	Meas+Ind	**0.090**	**4.53**	**13.13**
	Inferred	0.027	3.53	3.07
Corpo IV	Measured	0.163	3.96	20.71
	Indicated	0.564	3.16	57.33
	Meas+Ind	**0.727**	**3.34**	**78.05**
	Inferred	0.584	3.38	63.52
Corpo NW	Measured	0.000	0.00	0.00
	Indicated	0.113	2.71	9.87
	Meas+Ind	**0.113**	**2.71**	**9.87**
	Inferred	0.485	2.47	38.58
Corpo Sul	Measured	0.002	4.30	0.30
	Indicated	0.014	5.22	2.30
	Meas+Ind	**0.016**	**5.10**	**2.60**
	Inferred	0.127	3.12	12.73
Corpo V Sul	Measured	0.000	0.00	0.00
	Indicated	0.000	0.00	0.00
	Meas+Ind	**0.000**	**0.00**	**0.00**
	Inferred	0.163	2.07	10.85
Granada	Measured	0.027	4.77	4.12
	Indicated	0.002	2.65	0.16
	Meas+Ind	**0.029**	**4.63**	**4.27**
	Inferred	0.000	0.00	0.00
Ingá Lower Zone	Measured	0.249	5.25	42.04
	Indicated	0.151	4.51	21.87
	Meas+Ind	**0.400**	**4.97**	**63.90**
	Inferred	0.499	6.20	99.46
Ingá Upper Zone	Measured	0.000	6.20	0.00
	Indicated	0.020	5.37	3.39
	Meas+Ind	**0.020**	**5.37**	**3.39**
	Inferred	1.984	5.16	329.33
Limoeiro	Measured	0.074	3.78	9.01
	Indicated	0.301	2.98	28.81
	Meas+Ind	**0.375**	**3.14**	**37.82**
	Inferred	2.098	2.97	200.53
Mangaba	Measured	0.053	3.51	6.02
	Indicated	0.158	3.07	15.63
	Meas+Ind	**0.212**	**3.18**	**21.65**
	Inferred	1.892	3.95	240.38
Mina III Lower Zone	Measured	0.240	5.36	41.46
	Indicated	0.457	4.63	68.01
	Meas+Ind	**0.697**	**4.88**	**109.47**
	Inferred	0.135	6.39	27.68
Mina III Upper Zone	Measured	0.090	5.44	15.67
	Indicated	0.091	9.42	27.63
	Meas+Ind	**0.181**	**7.45**	**43.30**
	Inferred	0.018	17.59	10.04
Mina III VQZ	Measured	0.021	15.83	10.76
	Indicated	0.068	8.43	18.53
	Meas+Ind	**0.089**	**10.18**	**29.29**
	Inferred	0.036	4.94	5.74
Mina Nova	Measured	0.312	4.53	45.44
	Indicated	0.796	3.33	85.26
	Meas+Ind	**1.108**	**3.67**	**130.70**
	Inferred	0.333	3.68	39.41
Palmeiras	Measured	0.052	6.72	11.31

Target	Resource Class	Tonnage Mt	Au g/t	Au koz
	Indicated	0.400	4.99	64.14
	Meas+Ind	**0.452**	**5.19**	**75.45**
	Inferred	0.847	4.19	114.09
Palmeiras Sul	Measured	0.000	4.79	0.03
	Indicated	0.037	3.67	4.41
	Meas+Ind	**0.038**	**3.68**	**4.44**
	Inferred	0.014	2.92	1.28
Palmeiras Sul 3.5	Measured	0.000	0.00	0.00
	Indicated	0.004	16.30	2.00
	Meas+Ind	**0.004**	**16.30**	**2.00**
	Inferred	0.266	11.33	96.95
Pequizão	Measured	0.386	4.11	51.04
	Indicated	0.964	3.66	113.59
	Meas+Ind	**1.350**	**3.79**	**164.63**
	Inferred	0.985	3.97	125.79
Pequizão Norte	Measured	0.000	0.00	0.00
	Indicated	0.074	4.36	10.30
	Meas+Ind	**0.074**	**4.36**	**10.30**
	Inferred	0.109	4.17	14.56
Urucum	Measured	0.000	0.00	0.00
	Indicated	0.007	10.64	2.51
	Meas+Ind	**0.007**	**10.64**	**2.51**
	Inferred	0.015	9.33	4.38

Notes related to the Mineral Resource Estimate:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 1.29 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9. The MRE was estimated using ordinary kriging in 4 m x 4 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of 3,100.00 US$/oz Au, Mining cost of 67.93 US$/t mined, and processing cost of 20.39 US$/ t processed.

Source: GE21, 2026.

Table 11.16: Underground exclusive Mineral Resource statement

Project	Resource Class	Tonnage Mt	Au g/t	Au koz
Total Underground	Measured	**1.71**	**4.83**	**265.6**
	Indicated	**4.68**	**3.96**	**597.0**
	Meas+Ind	**6.40**	**4.19**	**862.5**
	Inferred	**13.37**	**4.03**	**1733.4**

Notes related to the Mineral Resource Estimate:
1. The Mineral Resource is exclusive of Reserves.
2. Indicated and Inferred Resource estimate reported above a 1.29 Au (g/t) cut-off.
3. Mineral Resources are not Mineral Reserves and are not demonstrably economically recoverable.
4. Grades reported using dry density.
5. The effective date of the MRE was November 30, 2025.
7. The MRE numbers provided have been rounded to the estimate relative precision. Values cannot be added due to rounding.
8. The MRE is delimited by Mining tenement areas.
9. The MRE was estimated using ordinary kriging in 4 m x 4 m x 3 m blocks according to mineralization zone dimensions to guarantee volumetric adherence.
10. The MRE report table was produced in Leapfrog Geo software.
11. The MRE was restricted by a pit shell defined using metal prices of 3,100.00 US$/oz Au, Mining cost of 67.93 US$/t mined, and processing cost of 20.39 US$/ t processed.

Source: GE21, 2026.

12 MINERAL RESERVE ESTIMATES

12.1 Introduction

GE21 has estimated the Mineral Reserve for the mineralized zones at the MSG's deposit, as requested by Aura. GE21 visited the site and conducted various checks to verify the procedures and local infrastructure in preparing the MSG Mineral Reserve estimate. The Mineral Reserves are classified as either Probable or Proven and are based on Indicated and Measured Mineral Resources only, in accordance with the S-K 1300 Definition Standards. Inferred Mineral Resources were not converted into Mineral Reserves and reported as waste.

Geovia Whittle® software 2022 was used for open-pit optimization, defining pit shells based on the Lerchs-Grossmann algorithm. Several iterations were run by varying the revenue factor, and numerous nested pits were generated. The selected pit shell was designed considering operational parameters.

The Mineral Reserves have been estimated by GE21 using a diluted CoG of 1.85 g/t Au for the underground mine and 0.41 g/t Au for the open-pit mine. summarizes the Mineral Reserves for the MSG Mine as of the effective date of November 30, 2025.

12.2 Mineral Reserves

The Mineral Reserve estimate for the MSG Project, with an effective date of the Mineral Reserve estimate as of November 30, 2025, is presented in Table 12.1.

Table 12.1: MSG Project Mineral Reserves estimate (effective date – November 30, 2025)

Classification	Tonnage	Gold Grade	Contained Gold
	Mt	g/t	koz
Open Pit (OP)			
OP Proven	0.39	1.36	17.11
OP Probable	1.06	1.18	40.47
Total Proven & Probable OP	1.46	1.23	57.58
Underground (UG)			
UG Proven	2.02	2.41	156.17
UG Probable	8.46	1.98	539.01
Total Proven & Probable UG	10.47	2.06	695.18
OP + UG			
Total Proven (OP + UG)	**2.41**	**2.24**	**173.28**
Total Probable (OP+UG)	**9.52**	**1.89**	**579.49**
Total Proven + Probable (OP + UG)	**11.93**	**1.96**	**752.77**

Notes:
1. The definitions for Mineral Reserves followed S-K 1300.
2. Mineral Reserves have an effective date of November 30, 2025.
3. The base case CoG for the Mineral Reserves estimate is 0.41 g/t Au for open pit and 1.50 g/t Au for underground.
4. Open-pit Mineral Reserves are confined within an optimized pit shell that uses the following geometric and economic parameters:
   - Mine recovery of 95% and dilution 10%.
   - Gold price US$ 2,600/oz
   - Exchange rate of R$ 5.15: US$ 1.
   - Mining costs: US$ 2.82/t for mineralization and waste.

- Sustaining operating cost: US$ 0.57/t mined ore.
- Processing cost: US$ 23.98/t ore feed.
- Sustaining processing cost: US$ 0.75/t ore feed.
- General and administrative cost: 3.65/t ore feed.
- Selling cost: US$ 47.90/oz.
- CEFEM and Royalties: 2.25% of gross revenue.
- Metallurgical recovery: 95%.
- Overall slope angle: 30° to 68°.
- Overall strip ratio: 12.85 (ton per ton).

5. Underground Mineral Reserves are confined within optimized stopes that use the following geometric and economic parameters:
   - Mine Recovery of 90% and 35% of operational dilution for longitudinal sublevel open stoping, mine recovery of 68% and 50% of operational dilution for room and pillar, and mine recovery of 100% and 25% of operational dilution for development.
   - A minimum mining width of 1.80 m was used for the LSOS mining method and 4.0 m for the R&P mining method
   - Gold price US$ 2600 / oz
   - Exchange rate of R$ 5.95: US$ 1.
   - Total variable mining costs: US$ 67.93/t of ore, variable stoping costs of US$ 44.99/t of ore, and mine fixed costs of US$ 18.33/t of ore.
   - Processing cost of US$ 20,39/t of ore feed.
   - General and administrative cost: 3.65/t of ore feed.
   - Selling cost: US$ 47.90/oz.
   - Metallurgical recovery: 95%.
6. Tonnages and grades have been rounded in accordance with reporting guidelines. Totals may not sum due to rounding.
7. The Mineral Reserves estimate report table was produced in the GEOVIA Surpac software.
8. A minimum mining width of 1.80 m was used for the sublevel stope mining method, and 4.0 m for the room and pillars mining method.
9. Surface topography as of November 30, 2025.

Source: GE21, 2026.

12.3 Dilution and Extraction

The dilution modifying factor is determined by comparing estimated and actual tonnage and grades produced. Aura provides this information monthly through a series of spreadsheets used to calculate dilution and recovery factors. In underground operations, dilution is calculated using the ratio between overbreak volume and stope ore volume. Reconciliation between planned and mined stope tonnage is based on scanner monitoring system measurements and production records.

Based on local experience, underground dilution is linked to the geomechanical characteristics of the stopes, particularly their hydraulic radius. This relationship supports economic evaluations aimed at optimizing stope dimensions to maximize recovery while minimizing dilution and maintaining underground stability. Underbreak is used as an estimate of ore loss or recovery, while overbreak represents a measure of dilution. The mining recovery and dilution parameters applied to Mineral Resources during the mine design process are summarized in Table 12.2.

Table 12.2: Recovery and external dilution factors by method – underground mine

Mine	Method	Mine Recovery	Overbreak	Dilution
		%	%	%
Underground	Development	100%	25%	25%
	Room and pillar (R&P)	68%	50%	50%
	Longitudinal sublevel open stope (LSOP)	90%	35%	35%

Source: GE21, 2026.

For open-pit mining, extraction factors of 95% and 10% of operational dilution were applied in the Whittle pit optimization.

12.4 Cut-Off Grade

GE21 estimates the CoG based on projected budget costs and metal prices as agreed with Aura. CoG is estimated based on the site's operating and incremental costs. The cost CoG calculations for the underground and open-pit mines are shown in Table 12.3 and Table 12.4, respectively. The gold price used in the Mineral Reserves estimate is based on the price of gold currently practiced in the MSG operations, and although the QPs know that it is lower than the current price and projected price as adopted by other gold producers, banks, and financial institutions, the conservative nature of this assumption acts as a hedge against MSG's future results.

For the underground mine, given that the process plant currently has excess mine capacity, some material below the site operating cost CoG is also included in the Mineral Reserve. This incremental material is primarily comprised of secondary development, which must contain only sufficient gold to offset processing costs and marginal stoping material located adjacent to higher-than-CoG material, which only needs to offset stoping and processing costs.

Table 12.3: Underground CoG estimation

Parameters	Unit	Value
Exchange Rate	US$/R$	5.95
Ounce	Oz/gr	31.10348
Gold Price	US$/Oz	2,600
Mining Dilution	%	20.00%
MCF	%	100%
Metallurgical recovery	%	93.22%
Selling costs		
CFEM, Royalties, Refining and Transport costs	US$/oz	47.90
Mining Costs		
Mining Cost (without administration)	US$/t ore	67.93
Stoping Mining Cost	US$/t ore	44.99
Mine fixed cost (Administration)	US$/t ore	18.33
Other mining costs	US$/t ore	22.94
Sustaining mine cost	US$/t ore	1.93
Process, G&A, and other costs		
Total Processing Costs	US$/t ore	20.39
Variable Processing Cost	US$/t ore	7.58
Rehandle	US$/t ore	0.00
Cost for long Haulage	US$/t ore	0.00
G&A and Others	US$/t ore	11.38
Sustaining process cost	US$/t ore	6.60
Mine Closure cost	US$/t ore	0.00
CoG		
Full-Grade Ore	g/t	1.99
Site Operating Cost	g/t	1.85
Marginal Stope (MS)	g/t	1.50
Development Ore (DevO)	g/t	0.37

Notes:

1. The economic cut-off for Full-Grade Ore includes the sustaining costs for ore mining and processing, mining costs, and others, mine fixed costs, processing, G&A, and metallurgical recovery, compared to revenue.
2. The economic CoG for Site Operating Cost includes stoping mining costs and others, mine fixed costs, processing, G&A, and metallurgical recovery, compared to revenue.
3. The economic CoG for Marginal Stope is the grade for which stoping mining costs,mine fixed costs, processing, and G&A costs are compared to revenue.
4. The cost of Development Ore is the grade for which processing and G&A costs are compared to revenue.

Source: GE21, 2026.

Table 12.4: Open-pit CoG estimation

Parameter	Unit	Value
Exchange rate	US$/R$	5.50
Ounce	Oz/gr	31.10348
Gold Price	US$/Oz	2,600
Mining Dilution	%	10.00%
Mining Call Factor	%	100.0%
Metallurgical recovery	%	95.00%
Selling costs		
Royalty	%	0.75%
CFEM	%	1.50%
Refining and Transport Costs	US$/oz	47.90
Mining costs		
Referring to Mining Cost	US$/t moved	2.82
Sustaining mine cost	US$/t ore	0.57
Process, G&A, and other costs		
Total Processing Costs	US$/t ore	23.98
Variable Processing Cost	US$/t ore	7.58
G&A and Others	US$/t ore	3.65
Sustaining process cost	US$/t ore	0.75
CoG		
Full Grade Ore	g/t	0.42
Site Operating Cost	g/t	0.41
Marginal COG	g/t	0.40

Notes:
1. The economic cut-off for Full-Grade Ore includes the sustaining costs for ore mining and processing, G&A, and metallurgical recovery, compared to revenue.
2. The economic CoG for Site Operating Cost includes sustaining process costs, processing, G&A, and metallurgical recovery, compared to revenue.
3. The economic CoG for Marginal ore includes the processing, G&A, and metallurgical recovery, compared to revenue.

Source: GE21, 2026.

12.5 Optimization Parameters

12.5.1 Open Pit Mine Optimization Parameters

The following methodology has been used for estimating Mineral Reserves on the MSG Project:

- The Mineral Resource model is updated to reflect the expected status of mining blocks at the start date of the new mining plan.
- Only Indicated and Measured Mineral Resources have been converted to Mineral Reserves.
- The Mining Method is defined based primarily on the depth and geometry of mineralization, historic mining, anticipated CoG, and mining rate.
- Was used a dilution of 10%, and a recovery 95% factor was applied at optimization.

- Operating and capital costs are estimated for Serra Grande, based on the mining method and historical information. These costs are used to calculate cut-off values and delineate resource blocks that would be potentially economic to mine.
- Considering several factors, including distance to infrastructures, grade, and mineralogy, a life of mine (LOM) schedule is generated for potentially economic mining panels.
- An economic evaluation is performed on the entire schedule. The material in the base case LOM schedule includes only proven and probable reserves to verify the economic viability of the Mineral Reserve estimates.
- Risk analysis is performed to determine the sensitivity of economics to factors such as metal price, recoveries, capital cost, and operating cost.

Mine pit optimization was completed using operating costs and revenues supplied by the Aura Financial team, presented in Table 12.5 below.

Table 12.5: Pit optimization parameters

Item			Unit	Mineral Reserves
Financial		Exchange Rate	BRL/US$	5.15
		Gold Price	US$/oz metal	2600
Physicals	Resource		-	Measured + Indicated
	ROM Quality Limits	Density	g/cm³	Attribute in the Block Model
		Au Grade	g/t	Attribute in the Block Model
	Mining	Mining Recovery	%	95
		Dilution		10
	Block Model	Block Dimensions	Unit	
		X	m	Attribute in the Block Model
		Y		Attribute in the Block Model
		Z		Attribute in the Block Model
	Pit Slopes	Sector and Depth	Unit	
		Oxide	Degrees	30
		Transition		45
		Sulfide		68
	CoG	Au	g/t	Defined in GEOVIA Whittle ™
	Metallurgical recovery	Au	%	95.0
Costs		Mining	US$/t mined	2.82
		Processing	US$/t feed	23.98
		SG&A	US$/t feed	3.65
		Selling Cost	US$/oz metal	47.90
		Sustaining Costs mining	US$/t ore mined	0.57
		Sustaining Costs process	US$/t feed	0.75
		CFEM + Royalties	% of Gross	2.25

Source: GE21, 2026.

12.5.2 Open Pit Mine Optimization Results

The Whittle software defines pit shells using the Lerchs-Grossmann algorithm, which accounts for the total cost of ore recovery as the pit increases in depth and width. The sequence of optimal pits was obtained by varying the revenue factor from 30% to 200% concerning the product's selling price.

This subsection presents the optimal pit results from the GEOVIA Whittle 2022 software for Angicão, Baru, Corpo V Sul, Corpo Sul, Forquilha, Mina III, Palmeiras, Pequizão, and Venâncio, respectively.

12.5.2.1 Angicão Deposit

The optimization results for Angicão, show pit-by-pit, are illustrated in Figure 12.1. Table 12.6 presents the selected pit highlighted.

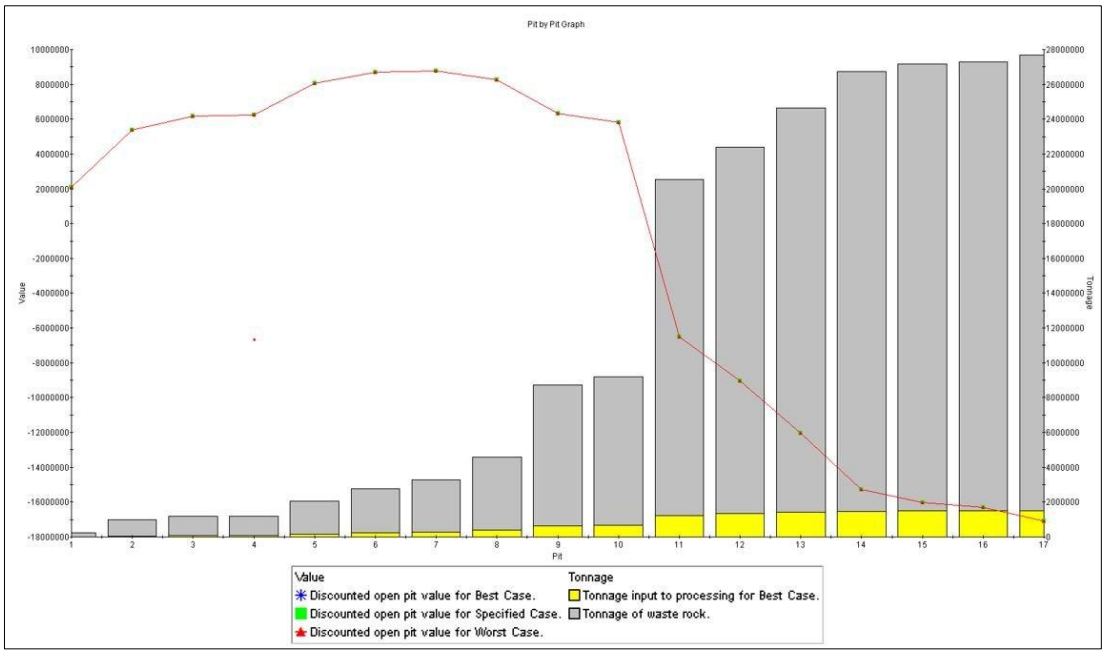


Figure 12.1: Angicão – pit optimization results graph

Source: GE21, 2026.

Table 12.6: Angicão – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.4	15	203	13.44	2.72	1.32
2	0.5	44	932	21.32	2.80	3.94
3	0.6	58	1,116	19.19	2.51	4.70
4	0.7	63	1,141	18.17	2.40	4.84
5	0.8	147	1,917	13.04	1.62	7.66
6	0.9	232	2,531	10.90	1.32	9.83
7	**1**	**282**	**3,004**	**10.64**	**1.22**	**11.10**
8	1.1	401	4,181	10.43	1.08	13.88
9	1.2	673	8,073	12.00	0.99	21.33
10	1.3	738	8,476	11.48	0.94	22.41
11	1.4	1,447	19,094	13.19	0.84	39.13
12	1.5	1,606	20,777	12.94	0.81	42.03
13	1.6	1,732	22,917	13.23	0.80	44.76
14	1.7	1,850	24,902	13.46	0.79	47.16
15	1.8	1,896	25,273	13.33	0.78	47.74
16	1.9	1,932	25,375	13.13	0.77	48.08
17	2	1,979	25,704	12.99	0.76	48.61

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.2 Baru Deposit

The optimization results for Baru, show pit-by-pit, are illustrated in Figure 12.2. Table 12.7 presents the selected pit highlighted.

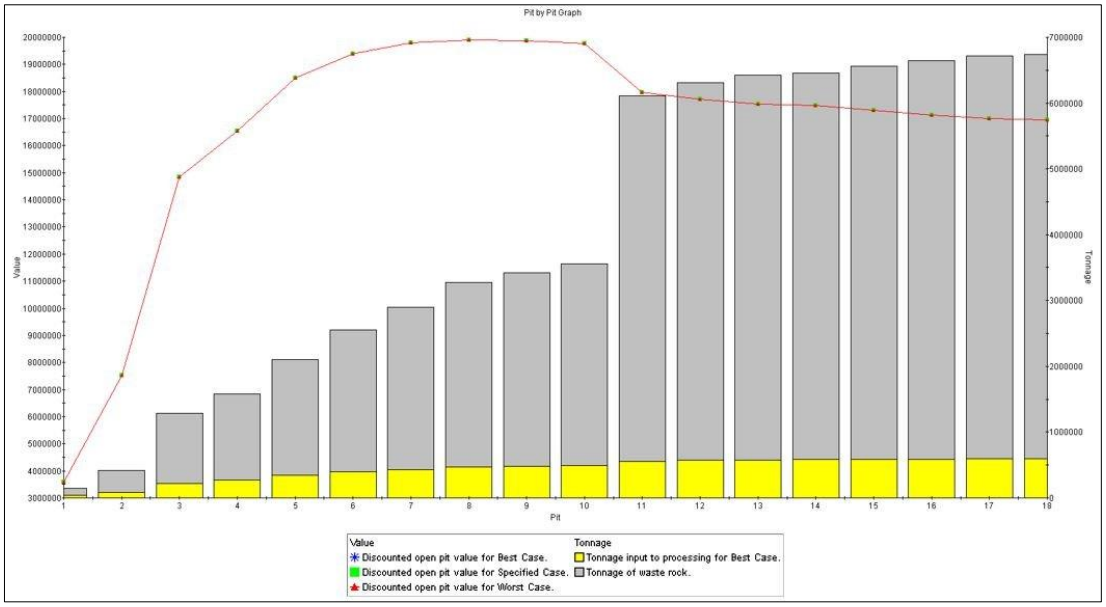


Figure 12.2: Baru – pit optimization results graph

Source: GE21, 2026.

Table 12.7: Baru – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	22	129	5.82	2.50	1.78
2	0.4	63	353	5.60	2.08	4.22
3	0.5	178	1,108	6.21	1.70	9.73
4	0.6	233	1,350	5.80	1.55	11.59
5	0.7	306	1,799	5.88	1.42	13.98
6	0.8	367	2,186	5.95	1.33	15.70
7	0.9	420	2,475	5.90	1.26	16.94
8	**1**	**470**	**2,800**	**5.96**	**1.20**	**18.07**
9	1.1	499	2,926	5.86	1.16	18.59
10	1.2	523	3,032	5.80	1.13	18.98
11	1.3	598	5,513	9.21	1.15	22.15
12	1.4	622	5,688	9.14	1.13	22.53
13	1.5	640	5,780	9.03	1.11	22.77
14	1.6	650	5,806	8.93	1.10	22.88
15	1.7	662	5,893	8.90	1.08	23.04
16	1.8	673	5,974	8.87	1.07	23.19
17	1.9	682	6,033	8.85	1.06	23.28
18	2	688	6,050	8.80	1.06	23.33

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.3 Corpo V Sul Deposit

The optimization results for Corpo V Sul, shown pit-by-pit, are illustrated in Figure 12.3. Table 12.8 presents the selected pit highlighted.

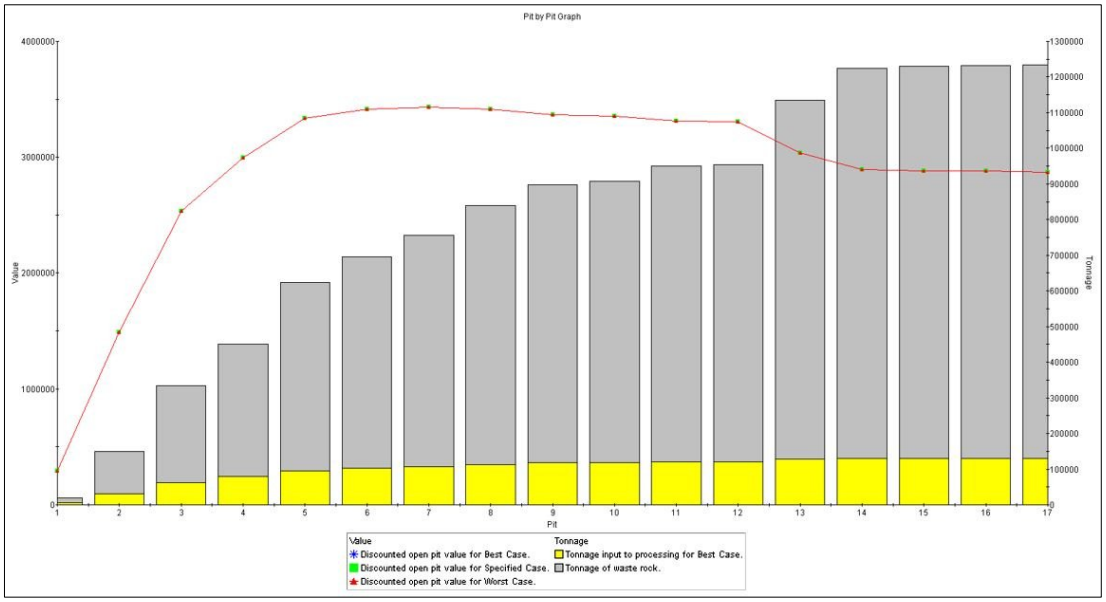


Figure 12.3: Corpo V Sul – pit optimization results graph

Source: GE21, 2026.

Table 12.8: Corpo V Sul – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.4	4	16	4.35	1.54	0.18
2	0.5	24	127	5.35	1.39	1.06
3	0.6	49	285	5.77	1.28	2.03
4	0.7	69	383	5.55	1.19	2.63
5	0.8	87	537	6.15	1.15	3.22
6	0.9	98	598	6.11	1.11	3.48
7	**1**	**107**	**649**	**6.04**	**1.07**	**3.67**
8	1.1	119	722	6.08	1.02	3.90
9	1.2	129	768	5.94	0.98	4.07
10	1.3	134	772	5.75	0.96	4.13
11	1.4	140	810	5.79	0.94	4.22
12	1.5	143	810	5.65	0.92	4.25
13	1.6	156	980	6.30	0.90	4.49
14	1.7	162	1,062	6.55	0.88	4.60
15	1.8	165	1,066	6.46	0.87	4.62
16	1.9	167	1,064	6.38	0.86	4.64
17	2	169	1,066	6.30	0.86	4.65

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.4 Corpo Sul Deposit

The optimization results for Corpo Sul, shown pit-by-pit, are illustrated in Figure 12.4. Table 12.9 presents the selected pit highlighted.

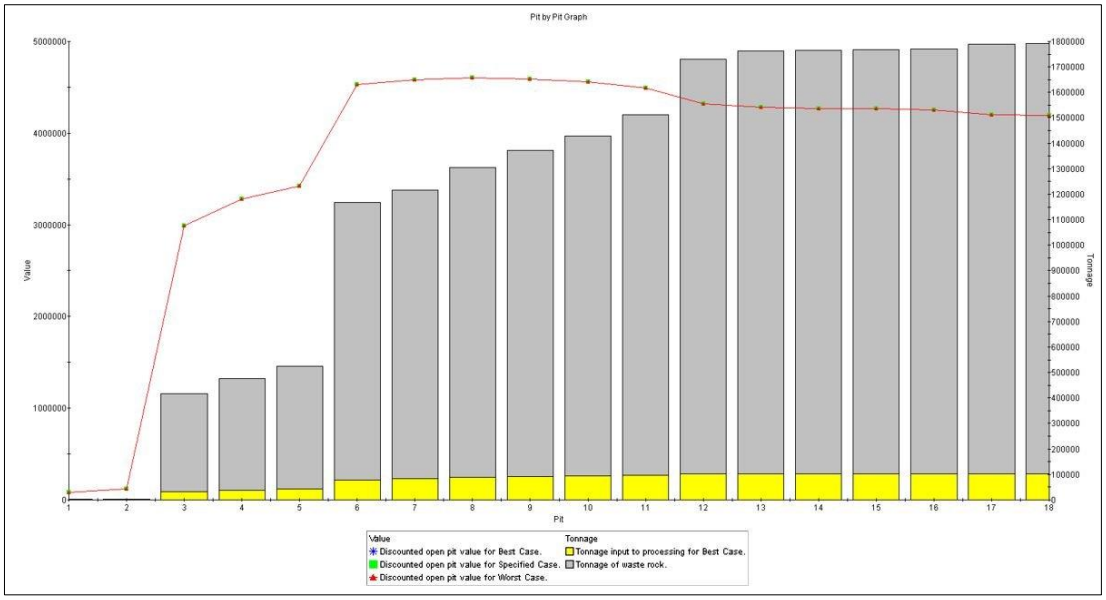


Figure 12.4: Corpo Sul – pit optimization results graph

Source: GE21, 2026.

Table 12.9: Corpo Sul – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	0.6	1.1	1.68	1.94	0.04
2	0.4	1.4	1.3	0.95	1.59	0.07
3	0.5	28	389	14.01	2.33	2.09
4	0.6	34	442	13.00	2.16	2.36
5	0.7	39	486	12.45	2.03	2.54
6	0.8	74	1,094	14.74	1.77	4.21
7	0.9	81	1,134	13.96	1.68	4.38
8	**1**	**88**	**1,217**	**13.82**	**1.62**	**4.58**
9	1.1	95	1,278	13.40	1.55	4.75
10	1.2	101	1,326	13.07	1.49	4.86
11	1.3	106	1,405	13.21	1.46	4.99
12	1.4	113	1,617	14.37	1.45	5.25
13	1.5	116	1,645	14.20	1.42	5.30
14	1.6	119	1,647	13.89	1.40	5.32
15	1.7	121	1,647	13.65	1.38	5.34
16	1.8	123	1,649	13.44	1.36	5.36
17	1.9	127	1,662	13.13	1.33	5.39
18	2	129	1,663	12.89	1.30	5.41

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.5 Forquilha Deposit

The optimization results for Forquilha, shown pit-by-pit, are illustrated in Figure 12.5. Table 12.10 presents the selected pit highlighted.

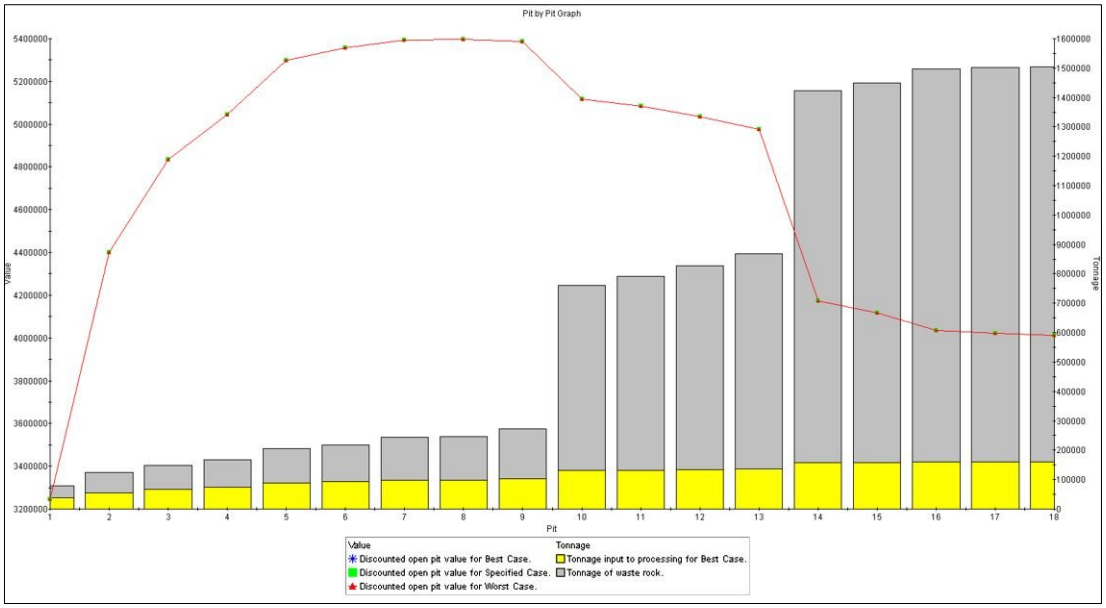


Figure 12.5: Forquilha – pit optimization results graph

Source: GE21, 2026.

Table 12.10: Forquilha – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	24	36	1.51	2.04	1.57
2	0.4	42	70	1.68	1.79	2.39
3	0.5	55	85	1.56	1.61	2.82
4	0.6	64	88	1.36	1.49	3.08
5	0.7	79	120	1.52	1.36	3.43
6	0.8	87	124	1.43	1.28	3.58
7	0.9	94	145	1.54	1.23	3.72
8	1	99	142	1.44	1.19	3.78
9	1.1	104	136	1.31	1.16	3.88
10	1.2	137	620	4.53	1.08	4.74
11	1.3	142	643	4.54	1.06	4.82
12	1.4	147	676	4.59	1.04	4.90
13	1.5	153	685	4.49	1.02	4.98
14	1.6	183	1,235	6.75	0.96	5.65
15	1.7	188	1,255	6.66	0.94	5.71
16	1.8	195	1,297	6.65	0.92	5.79
17	1.9	200	1,299	6.50	0.91	5.82
18	2	203	1,505	7.41	0.90	5.85

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.6 Mina III Deposit

The optimization results for Mina III, shown pit-by-pit, are illustrated in Figure 12.6. Table 12.11 presents the selected pit highlighted.

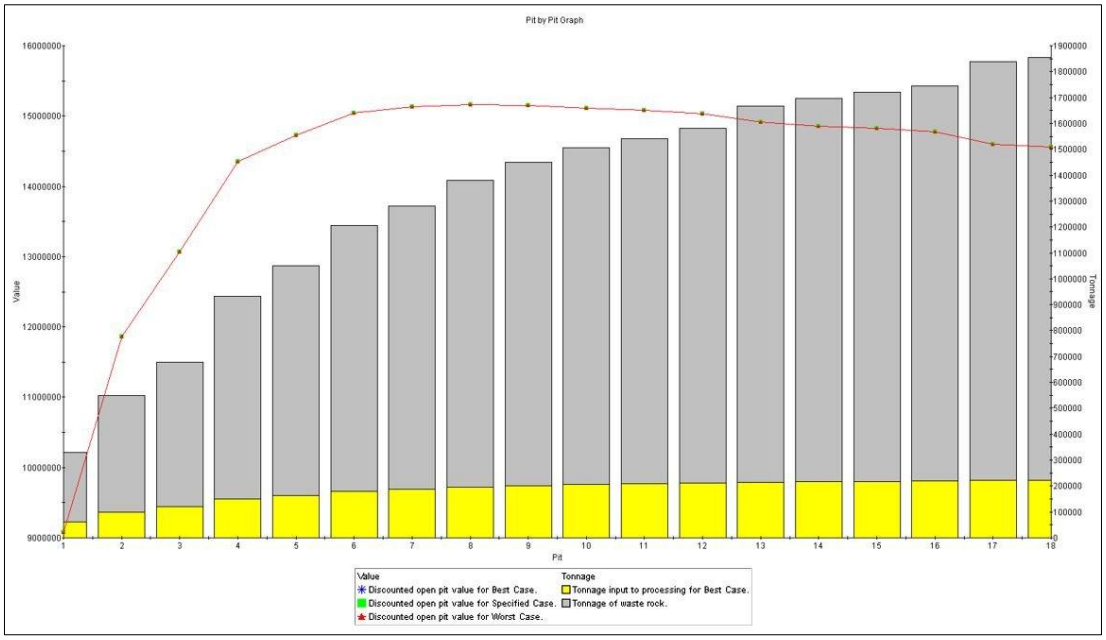


Figure 12.6: Mina III – pit optimization results graph

Source: GE21, 2026.

Table 12.11: Mina III – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	40	290	7.27	3.46	4.43
2	0.4	74	476	6.41	2.67	6.37
3	0.5	98	579	5.88	2.34	7.40
4	0.6	127	805	6.34	2.12	8.64
5	0.7	146	903	6.20	1.97	9.22
6	0.8	168	1,039	6.20	1.83	9.84
7	0.9	182	1,100	6.03	1.73	10.16
8	**1**	**196**	**1,183**	**6.04**	**1.66**	**10.46**
9	1.1	208	1,241	5.97	1.60	10.68
10	1.2	217	1,289	5.93	1.55	10.84
11	1.3	223	1,319	5.92	1.53	10.93
12	1.4	230	1,350	5.86	1.49	11.03
13	1.5	240	1,427	5.95	1.45	11.18
14	1.6	245	1,452	5.91	1.43	11.25
15	1.7	249	1,470	5.89	1.41	11.29
16	1.8	254	1,492	5.88	1.39	11.34
17	1.9	261	1,576	6.03	1.36	11.45
18	2	265	1,589	6.00	1.35	11.48

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.7 Palmeiras Deposit

The optimization results for Palmeiras, shown pit-by-pit, are illustrated in Figure 12.7. Table 12.12 presents the selected pit highlighted.

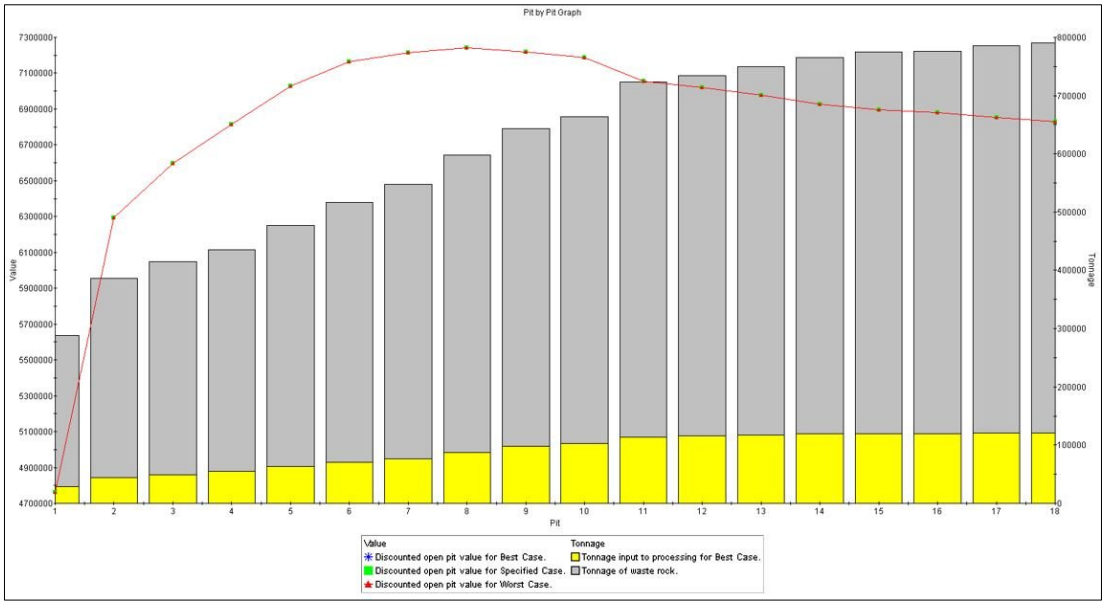


Figure 12.7: Palmeiras – pit optimization results graph

Source: GE21, 2026.

Table 12.12: Palmeiras – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	19	269	13.95	4.14	2.57
2	0.4	35	352	10.11	3.23	3.62
3	0.5	41	373	9.11	2.96	3.90
4	0.6	48	387	8.08	2.69	4.14
5	0.7	57	420	7.42	2.43	4.43
6	0.8	67	450	6.76	2.19	4.70
7	0.9	74	473	6.36	2.04	4.87
8	**1**	**88**	**510**	**5.82**	**1.83**	**5.16**
9	1.1	101	542	5.35	1.66	5.42
10	1.2	109	555	5.10	1.58	5.54
11	1.3	124	599	4.82	1.45	5.78
12	1.4	130	605	4.67	1.40	5.84
13	1.5	135	615	4.56	1.36	5.91
14	1.6	140	625	4.46	1.33	5.97
15	1.7	144	630	4.38	1.30	6.01
16	1.8	147	630	4.30	1.28	6.03
17	1.9	149	637	4.26	1.26	6.05
18	2	152	639	4.21	1.24	6.07

Source: GE21, 2026.

12.5.2.8 Pequizão Deposit

The optimization results for Pequizão, shown pit-by-pit, are illustrated in Figure 12.8. Table 12.13 presents the selected pit highlighted.

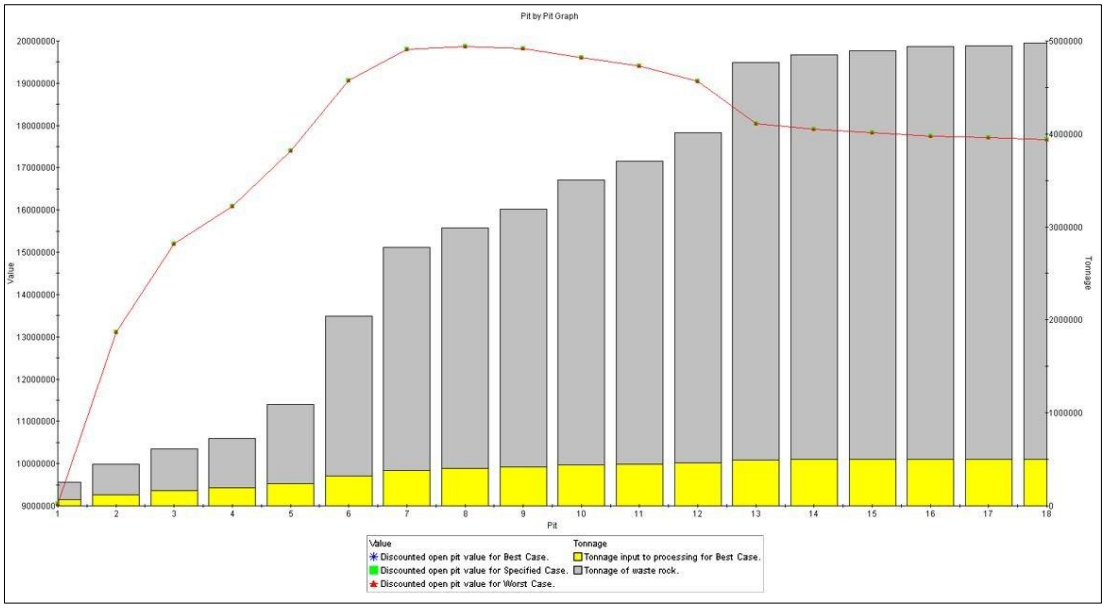


Figure 12.8: Pequizão – pit optimization results graph

Source: GE21, 2026.

Table 12.13: Pequizão – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	59	194	3.28	2.49	4.72
2	0.4	108	343	3.18	2.09	7.27
3	0.5	150	464	3.10	1.85	8.89
4	0.6	179	542	3.03	1.70	9.80
5	0.7	228	867	3.80	1.56	11.42
6	0.8	313	1,726	5.52	1.42	14.30
7	0.9	376	2,403	6.39	1.35	16.26
8	1	403	2,587	6.42	1.30	16.88
9	1.1	425	2,770	6.51	1.27	17.38
10	1.2	454	3,051	6.72	1.23	18.01
11	1.3	475	3,234	6.80	1.20	18.41
12	1.4	501	3,511	7.01	1.17	18.89
13	1.5	543	4,226	7.79	1.14	19.85
14	1.6	554	4,294	7.75	1.12	20.00
15	1.7	563	4,329	7.69	1.11	20.10
16	1.8	570	4,368	7.66	1.10	20.17
17	1.9	576	4,375	7.60	1.09	20.22
18	2	582	4,394	7.55	1.08	20.27

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.2.9 Venâncio Deposit

The optimization results for Venâncio, shown pit-by-pit, are illustrated in Figure 12.9. Table 12.14 presents the selected pit highlighted.

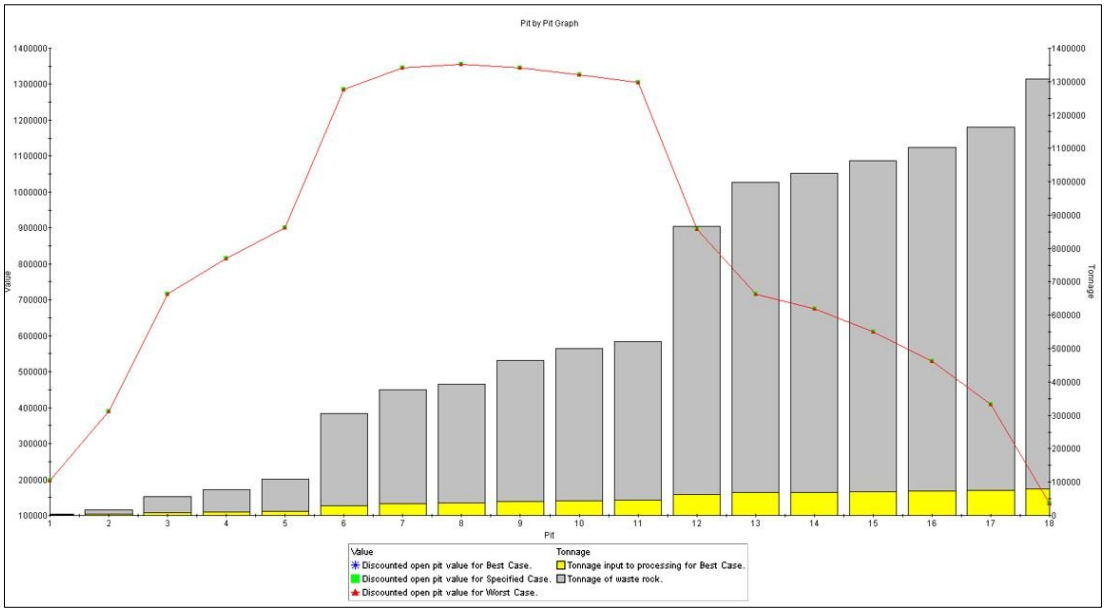


Figure 12.9: Venâncio – pit optimization results graph

Source: GE21, 2026.

Table 12.14: Venâncio – nested pit results

Pit	Revenue Factor	Ore (kt)	Waste (Kt)	Strip Ratio	Au Grade (g/t)	Contained Gold (koz)
1	0.3	1.1	3.1	2.78	2.77	0.10
2	0.4	3.1	13	4.14	2.18	0.22
3	0.5	7.3	50	6.78	1.94	0.46
4	0.6	9.4	68	7.28	1.82	0.55
5	0.7	12	98	8.52	1.76	0.65
6	0.8	28	278	9.82	1.38	1.25
7	0.9	35	343	9.78	1.29	1.45
8	**1**	**39**	**354**	**9.20**	**1.22**	**1.51**
9	1.1	44	422	9.66	1.18	1.66
10	1.2	47	454	9.65	1.15	1.73
11	1.3	49	472	9.64	1.12	1.77
12	1.4	67	799	11.88	1.03	2.23
13	1.5	76	923	12.21	0.99	2.41
14	1.6	78	947	12.15	0.98	2.45
15	1.7	81	982	12.11	0.96	2.50
16	1.8	85	1,019	12.01	0.93	2.55
17	1.9	90	1,074	11.98	0.91	2.62
18	2	96	1,213	12.68	0.89	2.74

Source: GE21, 2026.

The revenue factor 1 pit was selected as the final pit shell; it was the basis for the mine scheduling and mineral reserves statement.

12.5.3 Pit Design

The Pit Design consists of projecting, based on an optimal pit, an operational pit that allows for the safe and efficient development of mining operations. The methodology involves establishing an outline of the toes and crests of the benches, safety berms, work sites, and mining site access ramps while adhering to the geometric and geotechnical parameters used.

Table 12.15 presents the geometric parameters adopted to develop the pit design of the MSG Project.

Table 12.15: Pit design parameters of MSG Project

Description	Units	Value
Road Ramp Width	m	12
Ramp Grade	%	10
Bench Face Angle (detailed in Section 13)	degrees	39 to 85
Bench Height	m	10
Berm Width	m	5
Minimum Bottom Area	m²	25

Source: Aura, 2026.

The Mineral Reserves Pits were designed using Datamine software. Figure 12.10 shows the final pit design layout for open-pit targets.



Figure 12.10: Final pit design layout

Source: GE21, 2026.

12.6 Mineral Reserve Statement

12.6.1 Open Pit

Table 12.16 presents the Mineral Reserves statement for 9 open-pit targets of the MSG Project. Table 12.17 presents the totals of the Mineral Reserves for all the open-pit targets that present Mineral Reserves.

The updated Mineral Reserve table for the MSG Project has an effective date of December 31, 2025.

Table 12.16: Mineral Reserves statement for open-pit targets

Targets	Category	Tonnage*	Gold Grade**	Contained Gold
		Mt	g/t	koz
Angicão	Open Pit (OP)			
	Open Pit Proven	0.00	0.00	0.00
	Open Pit Probable	0.24	1.17	8.88
	Total Proven & Probable OP	**0.24**	**1.17**	**8.88**
Baru	Open Pit (OP)			
	Open Pit Proven	0.00	0.00	0.00
	Open Pit Probable	0.45	1.14	16.37
	Total Proven & Probable OP	**0.45**	**1.14**	**16.37**
Corpo Sul	Open Pit (OP)			
	Open Pit Proven	0.03	1.96	1.68
	Open Pit Probable	0.06	1.50	2.89
	Total Proven & Probable OP	**0.09**	**1.64**	**4.57**
Corpo V Sul	Open Pit (OP)			
	Open Pit Proven	0.03	1.04	0.93
	Open Pit Probable	0.03	1.00	0.97
	Total Proven & Probable OP	**0.06**	**1.02**	**1.90**
Forquilha	Open Pit (OP)			
	Open Pit Proven	0.00	0.00	0.00
	Open Pit Probable	0.09	1.18	3.37
	Total Proven & Probable OP	**0.09**	**1.18**	**3.37**
Mina III	Open Pit (OP)			
	Open Pit Proven	0.12	1.57	5.95
	Open Pit Probable	0.01	1.43	0.30
	Total Proven & Probable OP	**0.12**	**1.56**	**6.25**
Palmeiras	Open Pit (OP)			
	Open Pit Proven	0.00	0.00	0.00
	Open Pit Probable	0.07	1.61	3.67
	Total Proven & Probable OP	**0.07**	**1.61**	**3.67**
Pequizão	Open Pit (OP)			
	Open Pit Proven	0.22	1.21	8.55
	Open Pit Probable	0.10	0.99	3.14
	Total Proven & Probable OP	**0.32**	**1.14**	**11.68**
Venâncio	Open Pit (OP)			
	Open Pit Proven	0.00	0.00	0.00
	Open Pit Probable	0.03	1.06	0.89
	Total Proven & Probable OP	**0.03**	**1.06**	**0.89**
Total OP	Open Pit Proven	0.39	1.36	17.11
	Open Pit Probable	1.06	1.18	40.47
	Total Proven & Probable OP	**1.46**	**1.23**	**57.58**

Notes related to the Mineral Reserves Estimate:
1. Mineral Reserves are reported in accordance with the definitions for mineral reserves in S-K 1300.
2. Mineral Reserves are reported at a CoG of 0.41 g/t Au for open pit.
3. Open Pit Mineral Reserves were estimated using the Geovia Whittle 2022 software and following the geometric and economic parameters:
   - Mine Recovery of 95% and dilution 10.
   - Gold price USD 2600 / oz
   - Exchange rate of 5.15 BRL: USD 1.
   - Mining costs of USD 2.82 per ton for mineralization and waste.
   - Sustaining operating cost of USD 0.57/t ore mined.
   - Processing cost of USD 23.98 /t of ore feed.
   - Sustaining processing cost USD 0.75 /t of ore feed.
   - General and administrative cost of 3.65 /t of ore feed.
   - Selling cost of USD 47.90/ oz.
   - CEFEM and Royalties 2.25% of gross revenue.
   - Metallurgical recovery of 95%.
   - Overall slope angle 30° to 68°.
   - Overall strip ratio: 12.85 (ton per ton).
4. Grades reported using dry density.
5. The effective date of the MRE was December 31, 2025.
6. The Mineral Reserves Estimate numbers provided have been rounded to the estimate relative precision. Values cannot be added due to rounding.
7. The Mineral Reserves Estimate report table was produced in the GEOVIA Surpac software.
8. Specific values for each Deposit:
   - Angicão Pit: Strip Ratio 13.92 (ton per ton).
   - Baru Pit: Strip Ratio 9.69 (ton per ton).
   - Corpo Sul Pit: Strip Ratio 21.73 (ton per ton).
   - Corpo V Sul Pit: Strip Ratio 11.58 (ton per ton).
   - Forquilha Pit: Strip Ratio 2.79 (ton per ton).
   - Mina III Pit: Strip Ratio 13.14 (ton per ton).
   - Pequizão Pit: Strip Ratio 16.41 (ton per ton).
   - Palmeiras Pit: Strip Ratio 11.71 (ton per ton).
   - Venâncio Pit: Strip Ratio 22.99 (ton per ton).

Source: GE21, 2026.

Table 12.17: Open-pit Mineral Reserves statement

Classification	Tonnage	Gold Grade	Contained Gold
	Mt	g/t	koz
Open Pit Proven	0.39	1.36	17.11
Open Pit Probable	1.06	1.18	40.47
Total Proven & Probable OP	**1.46**	**1.23**	**57.58**

Notes related to the Mineral Reserves Estimate:
1. Mineral Reserves are reported in accordance with the definitions for mineral reserves in S-K 1300.
2. Mineral Reserves are reported at a CoG of 0.41 g/t Au for open pit.
3. Open Pit Mineral Reserves were estimated using the Geovia Whittle 2022 software and following the geometric and economic parameters:
   - Mine Recovery of 95% and dilution of 10.
   - Gold price USD 2600 / oz
   - Exchange rate of 5.15 BRL: USD 1.
   - Mining costs of USD 2.82 per ton for mineralization and waste.
   - Sustaining operating cost of USD 0.57/t ore mined.
   - Processing cost of USD 23.98 /t of ore feed.
   - Sustaining processing cost USD 0.75 /t of ore feed.
   - General and administrative cost of 3.65 /t of ore feed.
   - Selling cost of USD 47.90/ oz.
   - CEFEM and Royalties 2.25% of gross revenue.
   - Metallurgical recovery of 95%.
   - Overall slope angle 30° to 68°.
   - Overall strip ratio: 12.85 (ton per ton).
4. Grades reported using dry density.
5. The effective date of the MRE was December 31, 2025.
6. The Mineral Reserves Estimate numbers provided have been rounded to the estimate relative precision. Values cannot be added due to rounding.
7. The Mineral Reserves Estimate report table was produced in the GEOVIA Surpac software.

Source: GE21, 2026.

12.6.2 Underground

The underground Mineral Reserves were estimated in an appropriate manner, using software and procedures consistent with industry practices. The reserve envelopes were defined through a two-stage stope optimization workflow, using industry-standard software and validated inputs, and produced robust underground reserve envelopes that reflect both conservative and opportunistic mining scenarios.

The initial optimization, prepared by Aura using the SO Deswik software® and provided to GE21, established a core set of stopes at a US$ 2,100/oz price and 2.42 g/t COG, while the second, prepared by GE21 using the MSO Datamine software®, included a higher-price optimization at US$ 2,600/oz and 1.50 g/t COG (Figure 12.11).

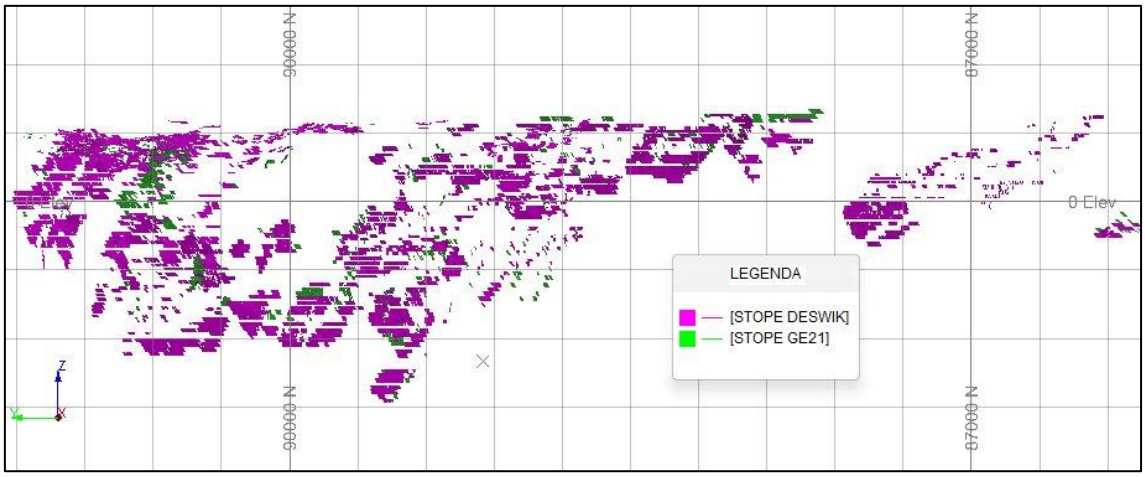


Figure 12.11: MSG stope optimization

Source: GE21, 2026.

GE21's checks confirmed that the solids and procedures followed best practices, resulting in a reasonable Mineral Reserve model suitable for detailed mine planning and economic evaluation. Table 12.18 shows the totals of the Mineral Reserves for all the open-pit targets that present Mineral Reserves.

Table 12.18: MSG Project underground Mineral Reserves estimate

Targets	Category	Tonnage*	Gold Grade**	Contained Gold
		Mt	**g/t**	**koz**
Angicão Lower Zone (Corpo 11 included)	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.02	1.95	1.28
	Total Proven & Probable UG	**0.02**	**1.95**	**1.28**
Baru (Goiabeira included)	Underground (UG)			
	Underground Proven	0.01	2.68	0.77
	Underground Probable	0.43	1.85	25.39
	Total Proven & Probable UG	**0.44**	**1.87**	**26.16**
Corpo A	Underground (UG)			
	Underground Proven	0.01	2.39	0.78
	Underground Probable	0.05	2.06	3.06
	Total Proven & Probable UG	**0.06**	**2.12**	**3.84**
Corpo IV (Forquilha and Sucupira included)	Underground (UG)			
	Underground Proven	0.31	2.38	23.46
	Underground Probable	1.30	1.60	66.94

Targets	Category	Tonnage*	Gold Grade**	Contained Gold
		Mt	g/t	koz
	Total Proven & Probable UG	**1.61**	**1.75**	**90.41**
Corpo Sul	Underground (UG)			
	Underground Proven	0.07	2.06	4.72
	Underground Probable	0.06	1.26	2.43
	Total Proven & Probable UG	**0.13**	**1.69**	**7.15**
Granada	Underground (UG)			
	Underground Proven	0.01	2.31	0.95
	Underground Probable	0.01	3.28	1.24
	Total Proven & Probable UG	**0.02**	**2.78**	**2.20**
Ingá Lower Zone	Underground (UG)			
	Underground Proven	0.03	2.97	2.43
	Underground Probable	1.05	2.31	78.42
	Total Proven & Probable UG	**1.08**	**2.33**	**80.86**
Ingá Zona Superior (Upper Zone)	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.55	2.21	39.24
	Total Proven & Probable UG	**0.55**	**2.21**	**39.24**
Limoeiro (Corpo V included)	Underground (UG)			
	Underground Proven	0.17	2.45	13.05
	Underground Probable	1.16	1.67	62.71
	Total Proven & Probable UG	**1.33**	**1.77**	**75.77**
Mangaba	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.42	2.36	31.98
	Total Proven & Probable UG	**0.42**	**2.36**	**31.98**
Mine III Lower Zone	Underground (UG)			
	Underground Proven	0.12	3.02	12.04
	Underground Probable	0.19	2.23	13.46
	Total Proven & Probable UG	**0.31**	**2.54**	**25.50**
Mine III Upper Zone	Underground (UG)			
	Underground Proven	0.10	2.38	7.83
	Underground Probable	0.26	2.46	20.67
	Total Proven & Probable UG	**0.36**	**2.44**	**28.50**
Mina Nova (Pitanga included)	Underground (UG)			
	Underground Proven	0.45	1.96	28.25
	Underground Probable	0.19	2.30	13.71
	Total Proven & Probable UG	**0.63**	**2.06**	**41.95**
Palmeiras (Palmeiras North included)	Underground (UG)			
	Underground Proven	0.10	2.79	8.73
	Underground Probable	0.58	2.13	39.59
	Total Proven & Probable UG	**0.68**	**2.22**	**48.32**
Palmeiras Sul	Underground (UG)			
	Underground Proven	0.01	2.34	0.50
	Underground Probable	0.05	1.78	2.98
	Total Proven & Probable UG	**0.06**	**1.85**	**3.49**
Palmeiras Sul 3.5	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.08	3.34	8.19
	Total Proven & Probable UG	**0.08**	**3.34**	**8.19**
Pequizão	Underground (UG)			
	Underground Proven	0.64	2.57	52.65
	Underground Probable	1.87	1.88	112.74
	Total Proven & Probable UG	**2.50**	**2.06**	**165.39**
Pequizão Norte	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.06	1.43	2.78
	Total Proven & Probable UG	**0.06**	**1.43**	**2.78**
Urucum	Underground (UG)			
	Underground Proven	0.00	0.00	0.00
	Underground Probable	0.13	2.83	12.19
	Total Proven & Probable UG	**0.13**	**2.83**	**12.19**
Total UG	Underground (UG)			
	Underground Proven	**2.02**	**2.41**	**156.17**
	Underground Probable	**8.46**	**1.98**	**539.01**
	Total Proven & Probable UG	**10.47**	**2.06**	**695.18**

Notes:
1. Mineral Reserves are reported in accordance with the definitions for mineral reserves in S-K 1300.
2. Mineral Reserves have an effective date of November 30, 2025.
3. The base case CoG for the estimate of Mineral Reserves is 1.50 g/t Au.
4. Mineral reserves are defined within stope designs that are designed by rock mechanics constraints, considering the specific characteristics of deposits, mineral domains, mining methods, and the mining sequence.
5. Longitudinal sublevel open stoping (LSOS) is the optimal mining method, with the room and pillar (R&P) method used where appropriate.
6. Mineral reserves are a subset of the measured and indicated mineral resource and do not include the inferred mineral resource.
7. Underground Mineral Reserves are confined within optimized stopes that use the following geometric and economic parameters:
   - Mine Recovery of 90% and 35% of operational dilution for longitudinal sublevel open stoping, mine recovery of 68% and 50% of operational dilution for room and pillar, and mine recovery of 100% and 25% of operational dilution for development.
   - A minimum mining width of 1.80 m was used for the LSOS mining method and 4.0 m for the R&P mining method
   - Gold price US$ 2600 / oz
   - Exchange rate of 5.95 BRL: US$ 1.
   - Total variable mining costs of US$ 67.93 per ton of ore, variable stoping costs of US$ 44.99 per ton of ore, and mine fixed costs of US$ 18.33 per ton of ore
   - Processing cost of US$ 20,39 /t of ore feed
   - General and administrative cost of 3.65 /t of ore feed.
   - Selling cost of US$ 47.90/ oz.
   - Metallurgical recovery of 95%.
8. Tonnages and grades have been rounded in accordance with reporting guidelines. Totals may not sum due to rounding.
9. The Mineral Reserves Estimate report table was produced in Datamine EPS software.
10. Underground Topography as of November 30, 2025.

Source: GE21, 2026.

13 MINING METHODS

The MSG Project includes both open-pit and underground operations, and its mining methods are defined based on the geostructural characteristics of the ore bodies. The studies for the development of open-pit mines are conducted for ore bodies near the surface, considering exploitation by bench mining. Otherwise, underground mining methods are used by cut and fill stope, longitudinal sublevel open stoping, room and pillar, or drift and slash methods. For this Mineral Reserves estimate, MSG has planned to limit the ore extraction to two mining methods only: room and pillar and longitudinal sublevel open stoping.

13.1 Open Pit

The mine operation involves conventional open-pit mine techniques and small-sized mining equipment. The ore and waste rock are loaded by small excavators and then hauled to a primary crusher, ROM stockpiles, or waste dumps.

The mine is developed with a 10 m bench height and 5 m berm width. The mine is divided into three sections with different mining angles according to the determined geotechnical definition. For oxide, the overall angle is 30º, for transition, the overall angle is 45º, and for sulfide, the overall angle is 68º.

In-pit ramps and haul roads have been designed at 12 m widths at a maximum grade of 10%. The 12 m wide roads are approximately four times the width of the selected haul truck. The road design presents the minimum requirements described in the Brazilian Mining Regulatory Standard (NRM-13). These limits refer to the presence of traffic signs, the minimum width of lanes, and the existence of safety berms and their dimensions.

13.1.1 Geotechnical Considerations for Open Pit

The geotechnical parameters adopted for the pit optimization and detailed pit design (Table 13.1) were provided by Serra Grande, based on comprehensive laboratory testing programs and geotechnical investigation.

Table 13.1: Geotechnical parameters

Geomechanical parameters	Unit	Angicão	Baru	Corpo Sul	Corpo V Sul	Forquilha	Mina III	Palmeiras	Pequizão	Venâncio
OXIDE 1= Oxide										
Soil General Angle Recalc	°	30	30	30	30	30	30	30	30	30
Berm width soil	m	5	5	5	5	5	5	5	5	5
Bench height Soil	m	10	10	10	10	10	10	10	10	10
Face angle oxide (calculated)	°	39	39	39	39	39	39	39	39	39
OXIDE 2= Transition										
Saprolite General Angle Recalc	°	45	45	45	45	45	45	45	45	45

Geomechanical parameters	Unit	Angicão	Baru	Corpo Sul	Corpo V Sul	Forquilha	Mina III	Palmeiras	Pequizão	Venâncio
Berm width Saprolite	m	5	5	5	5	5	5	5	5	5
Bench height Saprolite	m	10	10	10	10	10	10	10	10	10
Face angle saprolite (calculated)	°	63	63	63	63	63	63	63	63	63
OXIDE 3= Sulfide										
Rock General Angle Recalc	°	68	68	68	68	68	68	68	68	68
Berm width Rock	m	5	5	5	5	5	5	5	5	5
Bench height Rock	m	10	10	10	10	10	10	10	10	10
Face angle rock (calculated)	°	85	85	85	85	85	85	85	85	85

Source: Aura, 2025.

13.1.2 Hydrogeological Consideration for Open Pit

The regional hydrogeological information described below was extracted from the internal technical report prepared by AngloGold Ashanti (2021) for Mineração Serra Grande (MSG). The purpose of this reference is to provide context for the regional hydrostratigraphic model used as the basis for the hydrogeological assessment presented in this study.

Although highly influenced by the structural characteristics of the area, involving faults and folds, the local hydrogeology is strongly controlled by lithology, in which the intercalations of dolomites and schist rocks stand out. The dolomitic lenses have varying thicknesses and are predominantly oriented in the NNW-SSE direction. They have high secondary porosity and high transmissivity due to the existence of voids generated by dissolution, which can reach up to 3 m in thickness (AngloGold Ashanti, 2007), being generally conditioned to the existing banding in the dolomites or to the contacts with the schist rocks. The shales present in the area act as aquitards, due to their low hydraulic conductivity, allowing the connection between aquifers locally through faults and fractures, and also occasionally via drill holes that intercept more than one hydrostratigraphic unit and that are open, promoting this connection.

The surface layer, composed of soils and altered rocks, constitutes a porous aquifer of seasonal behavior, with a thickness varying from 0 to 19 m in depth according to surveys carried out for the installation of monitoring wells at MSG in 2007. The presence of quartz veins is frequent in this surface layer. This aquifer acts as a recharge zone for the lower aquifer.

13.1.3 Mine Production Schedule for Open Pit

The Life of Mine (LOM) plan and production schedule were developed to demonstrate that, at the time of reporting, extraction of the Mineral Reserve is economically viable under reasonable investment and market assumptions. The LOM plan represents the basis of determining the Mineral Reserve.

The production schedule was developed by Datamine software. An annual product plan supplied by the Aura team was the driving factor for the production schedule, and this resulted in ROM and waste quantities varying per annum. All mining included in the production schedule is planned within the final pits design and the underground mines, as described in Section 12.

To achieve the quality specification required by Serra Grand Plant, the main target of scheduling was the quantity of ounces produced.

Table 13.2 contains annual production data for each open pit over the 7-year period.

Table 13.2: MSG Project – mining schedule open pit

Mining schedule		2026	2027	2028	2029	2030	2031	2032	2033	2034	LOM
Total Open pit											
Total ore mined	kt	-	-	244	259	236	158	62	381	115	**1,455**
Total waste mined	kt	-	-	2,948	3,156	2,937	3,082	3,077	2,652	847	**18,699**
Total material moved	kt	-	-	3,192	3,415	3,174	3,240	3,139	3,033	962	**20,154**
Strip ratio	w:o	-	-	12.06	12.20	12.43	19.57	49.34	6.96	7.36	**12.85**
Au grade	g/t	-	-	1.00	1.25	1.17	1.63	0.98	1.31	1.15	**1.23**
Contained gold	oz	-	-	7,880	10,388	8,876	8,240	1,956	15,981	4,257	**57,578**
Corpo V Sul											
Total ore mined	kt	-	-	58	-	-	-	-	-	-	58
Total waste mined	kt	-	-	669	-	-	-	-	-	-	669
Total material moved	kt	-	-	727	-	-	-	-	-	-	727
Strip ratio	w:o	-	-	0.00	-	-	-	-	-	-	11.58
Au grade	g/t	-	-	1.02	-	-	-	-	-	-	1.02
Contained gold	oz	-	-	1,899	-	-	-	-	-	-	1,899
Baru											
Total ore mined	kt	-	-	187	259	-	-	-	-	-	445
Total waste mined	kt	-	-	2,278	2,036	-	-	-	-	-	4,315
Total material moved	kt	-	-	2,465	2,295	-	-	-	-	-	4,760
Strip ratio	w:o	-	-	12.21	7.87	-	-	-	-	-	9.69
Au grade	g/t	-	-	1.00	1.25	-	-	-	-	-	1.14
Contained gold	oz	-	-	5,981	10,388	-	-	-	-	-	16,369
Angicão											
Total ore mined	kt	-	-	-	0	236	-	-	-	-	236
Total waste mined	kt	-	-	-	1,120	2,170	-	-	-	-	3,289
Total material moved	kt	-	-	-	1,120	2,406	-	-	-	-	3,526
Strip ratio	w:o	-	-	-	0.00	9.18	-	-	-	-	13.92
Au grade	g/t	-	-	-	0.00	1.17	-	-	-	-	1.17
Contained gold	oz	-	-	-	0	8,876	-	-	-	-	8,876
Palmeiras											
Total ore mined	kt	-	-	-	-	0	71	-	-	-	71
Total waste mined	kt	-	-	-	-	513	317	-	-	-	830
Total material moved	kt	-	-	-	-	513	388	-	-	-	901
Strip ratio	w:o	-	-	-	-	0.00	4.48	-	-	-	11.71
Au grade	g/t	-	-	-	-	0.00	1.61	-	-	-	1.61
Contained gold	oz	-	-	-	-	0	3,671	-	-	-	3,671
Corpo Sul											
Total ore mined	kt	-	-	-	-	0	87	-	-	-	87
Total waste mined	kt	-	-	-	-	255	1,627	-	-	-	1,882
Total material moved	kt	-	-	-	-	255	1,714	-	-	-	1,969
Strip ratio	w:o	-	-	-	-	0.00	18.78	-	-	-	21.73
Au grade	g/t	-	-	-	-	,	1.64	-	-	-	1.64
Contained gold	oz	-	-	-	-	0	4,569	-	-	-	4,569

Mining schedule		2026	2027	2028	2029	2030	2031	2032	2033	2034	LOM
Pequizão											
Total ore mined	kt	-	-	-	-	-	0	62	256	-	319
Total waste mined	kt	-	-	-	-	-	1,138	3,077	1,014	-	5,229
Total material moved	kt	-	-	-	-	-	1,138	3,139	1,270	-	5,547
Strip ratio	w:o	-	-	-	-	-	0.00	49.34	3.96	-	16.41
Au grade	g/t	-	-	-	-	-	,	0.98	1.18	-	1.14
Contained gold	oz	-	-	-	-	-	0	1,956	9,728	-	11,685
Mina 3											
Total ore mined	kt	-	-	-	-	-	-	-	125	-	125
Total waste mined	kt	-	-	-	-	-	-	-	1,638	-	1,638
Total material moved	kt	-	-	-	-	-	-	-	1,763	-	1,763
Strip ratio	w:o	-	-	-	-	-	-	-	13.14	-	13.14
Au grade	g/t	-	-	-	-	-	-	-	1.56	-	1.56
Contained gold	oz	-	-	-	-	-	-	-	6,253	-	6,253
Forquilha											
Total ore mined	kt	-	-	-	-	-	-	-	-	89	89
Total waste mined	kt	-	-	-	-	-	-	-	-	249	249
Total material moved	kt	-	-	-	-	-	-	-	-	338	338
Strip ratio	w:o	-	-	-	-	-	-	-	-	2.79	2.79
Au grade	g/t	-	-	-	-	-	-	-	-	1.18	1.18
Contained gold	oz	-	-	-	-	-	-	-	-	3,372	3,372
Venâncio											
Total ore mined	kt	-	-	-	-	-	-	-	-	26	26
Total waste mined	kt	-	-	-	-	-	-	-	-	598	598
Total material moved	kt	-	-	-	-	-	-	-	-	624	624
Strip ratio	w:o	-	-	-	-	-	-	-	-	22.99	22.99
Au grade	g/t	-	-	-	-	-	-	-	-	1.06	1.06
Contained gold	oz	-	-	-	-	-	-	-	-	885	885

Source: GE21, 2026.

13.1.4 Waste Disposal for Open Pit

The waste disposal operation utilizes the ascending method, starting during the construction of the heap in the area. Waste rock is transported by truck, then uniformly distributed and leveled by an operator using a tractor. The process is repeated by stacking another bank above the original one, while maintaining a ramp for the trucks to access the area. Final steps for installing the drainage system and revegetation will be conducted on the top benches of the waste dumps.

Table 13.3 presents the geometric parameters of the projected waste dump. Figure 13.1 illustrates the MSG waste dump project.

Table 13.3: Waste dumps design parameters

Parameters	Units	Values
Slope Angle	°	37
Bench Height	m	10
Berm width	m	5
Road Ramp width	m	12
Ramp Grade	%	10

Source: GE21, 2026.

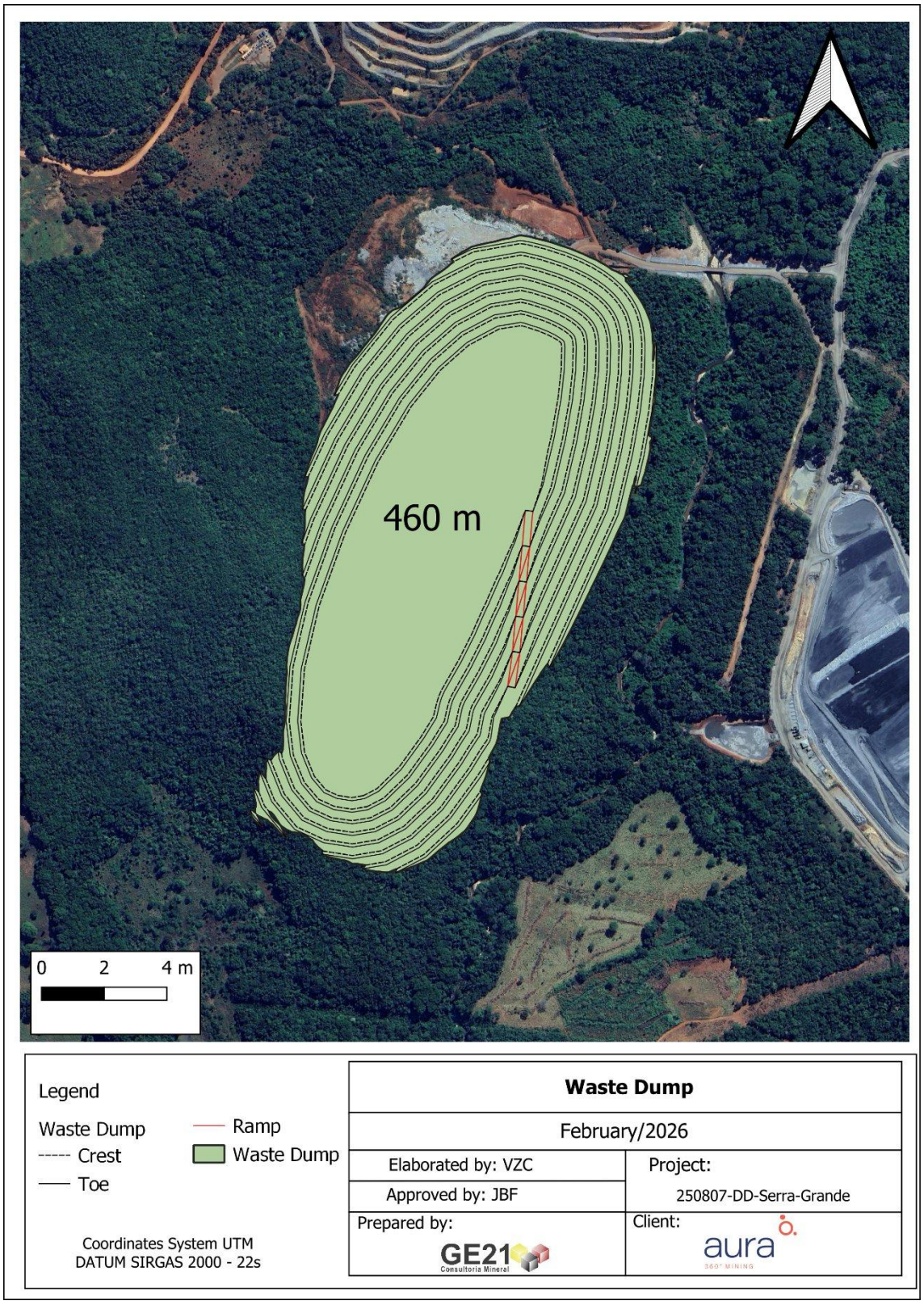


Figure 13.1: Final waste dump design layout

Source: GE21, 2026.

The designed waste dump has a total volumetric capacity of approximately 15 Mm³ and covers an area of approximately 41 ha.

13.1.5 Mine Equipment Selection and Performance for Open Pit

The contracted mining fleet will conduct mine operations at the Project, based on the production plan for ore and waste, along with yearly average haulage distances. Mining activities will primarily encompass the following:

- Drilling and blasting using explosives.
- Excavation, loading, and transportation of ore and waste materials.
- Haulage of Run of Mine (ROM) material.
- Haulage of waste material.
- Discharge of ROM material at the crushing circuit.
- Disposal of waste at designated waste dumps.
- Construction and maintenance of all internal accesses to the pits and the waste dumps.
- Maintenance of roads, including floor upkeep, drainage, coating, and signage, throughout the operational areas.
- Implementation and maintenance of the surface drainage systems at access points to mining operations, waste deposits, ore yards, and associated areas.
- Execution of mine infrastructure services, including construction and maintenance of accesses to mining areas, crushers, waste dumps, workshops, offices, mine drainage systems, access signaling, and mine dewatering.
- Loading the primary crusher via wheel loader.
- Establishment and maintenance of operational support facilities (offices, workshops, cafeteria, accommodations, warehouses, changing rooms, restrooms, septic systems, environmental, health, and safety emergency facilities, explosive storage, electrical and hydraulic installations, among others), ensuring compliance with Brazilian environmental standards and labor laws.

Additionally, estimates have been prepared for the infrastructure operations of the mine and the equipment needed to support these activities.

13.1.6 Mining Fleet Sizing for Open Pit

The decision to size the mining fleet at the Project considers several factors, including the volume of Run-of-Mine (ROM) material, waste removal requirements, availability of spare parts, and the diversity of mining contractors in the area. As a result, trucks with a load capacity of 44 tons, along with equivalent hydraulic excavators, were selected. Ancillary equipment was also chosen to align with the specifications of the trucks and excavators.

The operation will include the following equipment (Table 13.4):

Table 13.4: Equipment fleet

Equipment Type	Technical Specifications
Hydraulic Excavator	4.64 m³
Road Trucks	44 t
Drill	4” – 5” (225hp)
Bulldozer (Support)	215 hp
Wheel Loader	321 hp

Equipment Type	Technical Specifications
Motor Grader	183 hp
Infrastructure Excavator	300 hp
Water Truck	15,000 – 20,000 l
Hydraulic Breaker	-
Portable Lightning Tower	-

Source: GE21, 2026.

13.1.7 Excavation and Loading for Open Pit

Excavation and the loading of ore and waste rock will be conducted by hydraulic excavators in backhoe configuration.

Excavators with the backhoe configuration allow excavation by positioning the machine on the upper operating bench while keeping the haulage equipment on the lower operating bench. This model significantly enhances productivity as the truck is positioned approximately 30° from the longitudinal axis of the excavator, reducing turning time during excavation and loading. With the upper positioning of the loading machine, the operator's field of view increases, thereby enhancing operation safety, productivity, load positioning on the truck, and enabling better selectivity in ore mining. A truck with a payload capacity of 44 t has been adopted for this Project for cost-effectiveness, as it widely used in medium-sized mining operations in Brazil, offering economic advantages.

For fleet sizing purposes in drilling, blasting, haulage, and waste disposal, an average moisture content of 2% and a swell factor of 32%. The mine plan model for Serra Grande defined a 10% dilution and a 95% mining recovery from the mine reconciliation data.

GE21 has estimated the yearly requirements for the mine fleet to perform the projected mining schedule. Table 13.5 presents equipment specifications, and Table 13.6 presents the quantities of mining equipment. Table 13.6 represents the Drilling, Loading and Transportation Fleet and auxiliary equipment.

Table 13.5: Equipment specifications

Equipment Type	Brand	Model	Technical Specifications	Quantity
Hydraulic Excavator	Volvo	EC750D	4.64 m³	2
Road Trucks	Volvo	G500 8x4	44 t	6
Hydraulic Drill	Sandvik	DP1500L	4" – 5"	1
Auxiliary Equipment				
Bulldozer (Support)	Caterpillar	CAT D6T	215 hp	1
Wheel Loader	Caterpillar	CAT 966	321 hp	2
Motor Grader	Caterpillar	CAT 140	183 hp	1
Infrastructure Excavator	Caterpillar	CAT 336	300 hp	1
Water Truck	Volvo	VM330	20,000 l	2
Hydraulic Breaker	Caterpillar	H120 GC	-	1
Portable Lightning Tower	Patria	LS4	-	2

Source: GE21, 2026.

Table 13.6: Equipment fleet – open pit

		Years								
Equipment Type	**Model**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
Productive Fleet										
Hydraulic Excavator	EC750D	-	-	2	2	2	2	2	2	2
Road Trucks	G500 8x4	-	-	4	6	5	6	6	5	2
Hydraulic Drill	DP1500L	-	-	1	1	1	1	1	1	1
Auxiliary Equipment										
Bulldozer (Support)	CAT D6T	-	-	1	1	1	1	1	1	1
Wheel Loader	CAT 966	-	-	2	2	2	2	2	2	2
Motor Grader	CAT 140	-	-	1	1	1	1	1	1	1
Infrastructure Excavator	CAT 336	-	-	1	1	1	1	1	1	1
Water Truck	VM330	-	-	2	2	2	2	2	2	2
Hydraulic Breaker	H120 GC	-	-	1	1	1	1	1	1	1
Portable Lightning Tower	LS4	-	-	2	2	2	2	2	2	2

Source: GE21, 2026.

13.2 Underground Mining

Mining at Serra Grande underground is primarily performed by sublevel stopping, in top-down and ascending (bottom-up) sequences, the latter relying on backfilling with waste rock (sublevel bench stopping) whenever the orebody geometry is favorable. This relies on steeper dipping stopes. In areas where the stopes are not steep enough, cut and fill with rescue stopping is applied. Mina Nova, where the orebody is even flatter, is mined by room and pillar.

Mineral Reserve stope shapes were designed based on the Mineral Resource block model. Preliminary designs of stope shape for various mining lodes were generated with Datamine mineable shape optimization tools (MSO) based on the marginal CoG (1,50 g/t). The MSO software generates strings on sections, linking these to create a wireframe shape, and then evaluates the wireframes against a block model.

The MSO provides a stope shape that maximizes recovered Mineral Resource value above a cut-off while also catering for practical mining parameters such as minimum and maximum mining width, anticipated wall dilutions, minimum and maximum wall angles, minimum separation distances between parallel and sub-parallel stopes, minimum and maximum stope heights and widths, etc.

13.2.1 Geotechnical Considerations for Underground

The design parameters used by Underground mine planning are defined by the Rock Mechanics and Hydrogeology Division (DVMR) of Mineração Serra Grande (MSG) after evaluating studies involving geomechanical aspects of the rock mass to define the mining layout and development.

Tests to determine the physical properties of the lithotypes in the mineralized zones, mapping of different geomechanical domains and persistent structures, geotechnical description of borehole core samples, and tests to determine supports and cabling are considered for the geomechanical dimensioning and design parameters for the MSG Underground mine. In the short

term, all excavation projects (development or mining) are submitted by Mine Planning and are evaluated by the Rock Mechanics team before being passed on to the Mine Operation team, verifying that the standards proposed in the table below are being followed.

The numerical models created by the MSG team are for evaluating the stress variation that occurs around excavations during their opening, allowing for verification of pillar stability, excavation stability, and the potential for overbreak in mining stopes. Empirical analyses are used for span dimensioning, column dimensioning, and dilution estimates.

The monitoring of MSG's underground operations aims to minimize geotechnical risk by monitoring the rock mass's reaction to the effects of new excavations, periodically verifying the variation in deformations caused by changes in the rock mass's stress state. Excavation monitoring is performed using Smart Cable Convergence Meters (Stretch Measurement to Assess Reinforcement Tension), MPBX (Multiple Point Borehole Extensometer), TDR (Time Domain Reflectometer), seismography, and Gatorcam.

13.2.2 Hydrogeological Considerations for Underground

MSG’s hydrogeological monitoring system covers the region where the mines are located and the area of influence of these mines with respect to the hydrological sub-basin. Hydrogeological monitoring is carried out using water level monitoring instruments and flow measurement points in underground galleries.

Mine dewatering is carried out by a series of pump stations in the main ramps extending to the bottom of the central ventilation raise. Water is then pumped to the surface through two additional pump stations.

13.2.3 Design and Optimization

The stope design optimization was carried out using the Mineable Stope Optimization (MSO) tool. This software enabled the generation of stopes based on predefined geometric parameters, ensuring that all shapes met the cut-off criteria established from economic evaluations. The process was performed using MSO Version 2.8.60.0.

Mine design was carried out based on a gold CoG calculation specific to each mining method considered within the resource model. The CoG was determined using estimated gold price, metallurgical recovery, mining, processing, G&A costs, and applicable royalties. The input parameters used for CoG calculation are summarized (Table 13.7).

Table 13.7: CoG calculation inputs

Parameter	Unit	Value
Exchange rate	U$/R$	5.50
Ounce	Oz/gr	31.10
Gold Price	US$/Oz	2,600
Mining Dilution	%	20.00%
MCF	%	100%
Metallurgical recovery	%	93.22%

Parameter	Unit	Value
Selling costs		
CFEM, Royalties Refining and Transport costs	U$/oz	47.90
Mining Costs		
Mining Cost (without administration)	USD/t ore	67.93
Mining Cost (just for the stope)	USD/t ore	44.99
Mine fixed cost (Administration)	USD/t ore	18.33
Other Mining Costs	USD/t ore	22.94
Sustaining Mine Cost	USD/t ore	1.93
Process, G&A and Other Costs		
Total Processing Costs	USD/t ore	20.39
Variable Processing Cost	USD/t ore	7.58
Rehandle	USD/t ore	0.00
Cost for Long Haulage	USD/t ore	0.00
G&A and Others	USD/t ore	11.38
Sustaining Process Cost	USD/t ore	6.60
Mine Closure Cost	USD/t ore	0.00
CoG		
Full Grade Ore (FGO)	g/t	1.99
Site Operating Cost	g/t	1.85
Marginal Stope (MS)	**g/t**	**1.50**
Development Ore (DevO)	g/t	0.37

Source: GE21, 2026.

A detailed set of optimization parameters for the Sublevel Open Stoping method is presented in Table 13.8. Table 13.9 provides the equivalent parameter set used for the Room and Pillar design.

Table 13.8: Optimization parameters – sublevel open stopping

Parameter		Unit	Value
Method		-	Sublevel Open Stope
COG		g/t	1.5
Density Default		t/m³	2.78
Optimization Method		-	Maximize Stope Grade/Value Above Cut-off
Minimum Stope Thickness		m	1.8
Maximum Stope Thickness		m	100
Minimum Width Between Parallel Stopes		m	8
Stope Height		m	20
Stope Width		m	4
Equal dip angle for both walls		º	"35 / 140
Maximum Change		º	30
Strike direction		º	"-45 / +45
Maximum Change		º	45
Maximum Stope Thickness Ratio	Top – Bottom	m	2.25
	Left - Right	m	2.25
Materials	Distance to Mined Area (along the optimization axis)	m	8
	Maximum Percentage of Mined Material	%	30

Source: Aura, 2025.

Table 13.9: Optimization parameters – room and pillar

Parameter		Unit	Value
Method		-	Room and Pillar
COG		g/t	1.5
Density Default		t/m³	2.78
Optimization Method		-	Maximize Stope Grade/Value Above Cut-off
U-Axis Length		m	8
V-Axis Length		m	8
Maximum Height		m	6
Minimum Stope Thickness		m	4
Maximum Stope Thickness		m	7
Minimum Footwall Stope Dip		º	-15
Maximum Footwall Stope Dip		º	15
Minimum Hangwall Stope Dip		º	-30
Maximum Hangwall Stope Dip		º	30
Materials	Distance to Mined Area (along the optimization axis)	m	10
	Maximum Percentage of Mined Material	%	30

Source: Aura, 2025.

Following stope optimization, mine development, and access layouts were designed to ensure practical and efficient extraction sequences. Subsequently, the production schedule was optimized using Datamine's Enhanced Production Scheduler (EPS).

13.2.4 Underground Access

13.2.4.1 Main Ramp

The Main Ramp reaches the elevation at which mining viability has been confirmed, featuring a cross-section of 5.0 x 5.50 m. Its slope is -15%. These dimensions facilitate the installation of all necessary infrastructure for the mine's operation, as well as the transit of equipment.

The ramps will be used to haul mineralized material and waste, and will be used as general access. The decline will also be used as a fresh airway. Main development is serviced with power, ventilation, and piping for air and water.

13.2.4.2 Crosscuts

Starting from the ramp, crosscuts are opened that intercept the mineralized body, allowing its exposure and the opening of the levels. In areas where mining is carried out using the sublevel stoping method, the crosscuts are opened at the level (+1%) and can vary up to +15% in slope. They are designed every 20 m vertically, with a cross-section of 5.0 x 5.50 m, to allow for upwards and downwards mining.

Table 13.13 shows all types of drifts applied in the Serra Grande mine.

Table 13.10: Development standards

Development	Abbreviation	Width (m)	Height (m)	Section	Length (m)	Slope (%)	Frequency
Ramp	RP	5.00	5.50	Arc	-	15%	-
Ventilation Widening	ALARG_VENT	6.50	5.50	Arc	20	15%	The 20 m preceding the exhaust entry.
Crosscut	TR_INT	5.00	5.50	Arc	-	SP	-
Sublevel – Reduced Section	INT	4.30	4.40	Arc	-	1%	-
Sublevel	INT	4.50	4.80	Arc	-	1%	-
Secondary Ramp / BYPASS	RP_SEC / BYPASS	5.00	5.50	Arc	-	15%	-
Ventilation Crosscut	TR_VENT	4.50	4.80	Arc	-	SP	-
Free-Face Crosscut	TR_FL	4.50	4.80	Arc	-	SP	
Exploration Drift	GP	5.00	5.50	Arc	-	5%	Add a 1×1 m water storage box at the start of the heading.
Drilling Niche	NS	4.50	4.80	Arc	12	5%	Check design for each drill type.
Pump Station	EB	4.50	4.80	Arc	30	1%	55 m head pressure. Located on the Right Side.
Sump	SUMP	4.50	4.80	Arc	PE	SP	8 m sump on ramp (-18%). EB sump 15–21 m (always above the EB, -15% to -18%). Located on the Right Side.
Water Tank	CX	4.50	4.80	Arc	12	1%	100 m head pressure. Located on the Right Side.
Refuge Chamber	CREF	4.50	4.80	Arc	12	1%	750 linear meters.
Substation	SE	4.50	4.80	Arc	12	1%	500 linear meters. Located on the Left Side.
Loading Point	PC	5.00	5.50	Arc	15	1%	Every 120 linear meters.
Explosives Transfer Area	PE	4.50	4.80	-	-	SP	-
Raise – Transformer	TRANS_RB	-	-	-	-	SP	-
Raise – Sump Pool	PISC_RB	-	-	-	-	18%	-
Raise – Shaft	RB	3.10		Cir	-	SP	-
Ventilation Raise	CH_VENT	4.00	4.00	Quad	16	SP	-
Emergency Egress	CEM	3.10		Cir	-	SP	-

Source: Aura, 2025.

13.2.5 Underground Mining Fleet

The mobile equipment fleets for the underground mines consist of modern, mechanized equipment, with the primary units including:

- Load-Haul-Dump (LHD);
- Haul trucks;
- Jumbo;
- Fan drills.
- The current underground fleet is presented in Table 13.11.

Table 13.11: MSG underground mining fleet

Type	Description	QTY
Articulated Trucks (Owner)	CAT AD45 / AD30 – VOLVO A30G	16
8X4 (Outsourced)	Mercedes-Benz 3131	6
Fork-Lift	-	8
Load Haul Dump	CAT1700 / 1600 Epiroc	7
Wheel Loader (Outsourced)	CAT 950	6
Crane	Crane	1
Backhoe (Outsourced)	CAT 416	3
Jumbos	Epiroc MC2 / M2D / H282 | Sandvik DD321	16
Fandrill	Epiroc S7 / M4C / H1354 | Sandvik DL 321/421	6
Telehandler	JCB Telehandler	15
Diamond Drill Rig	Diamond Drill Rigs	4
Concrete Projector	Concrete Projector	3
Scaler	Scalers	2

Source: Aura, 2026.

13.2.6 Mine Ventilation

The ventilation circuit of the underground mines consists of main supply and exhaust wells with powers between 450 and 500 horsepower, static pressure around 2.6 Kpa, together with auxiliary ventilation with axial fans with a flow rate between 20 and 30 m^3 per second and pressure between 1 and 2.6 Kpa. The raises are connected to the main ramp in the active mining areas, and secondary ventilation fans and tubing are used to carry fresh air into individual stoping areas. The air quality is reasonable for an underground operation using diesel-powered mining equipment.

13.2.6.1 Cooling Plant

MSG has a cooling plant that was necessary to reduce the temperature in certain areas of the mine. The cooling plant has a cooling capacity of 3,600 kWR and it is shown in Figure 13.2.



Figure 13.2: Cooling plant

Source: AGA, 2019.

13.2.7 Ground Support

Ground support requirements for the underground excavations were defined according to the geometry, function, and expected lifespan of each development type. Based on geomechanical conditions and operational needs, the excavations were grouped into three categories, each with a specific support standard. The recommended support strategies for all excavation categories are summarized in Table 13.12 and Table 13.13, while the corresponding support layouts are illustrated in Figure 13.3 to Figure 13.8.

Tables and figures referenced in this section provide details of bolt specifications, mesh characteristics, installation requirements, and representative support patterns for each excavation category:

- **Category I**: Ramp (RP), Crosscut (TR_INT), and Loading Point (PC).
- **Category II**: Pump Station (EB), Sump (SUMP), Substation (SE), Exploration Drift (GP), Water Tank (CX), Restroom (SANIT), Refuge Chamber (CREF), and Ventilation Crosscut (TR_VENT).
- **Category III**: Sublevel (INT) and Free-Face Crosscut (TR_FL).

Table 13.12: Support specification – I and II

Support Specification	I *	II
Bolt Tor 25TNO Helicoidal 7/8	2.4	2.4
°	75	75
Elongation (%)	10	10
Diameter Ø (mm)	22	22
Tensile strength (t)	25	25
Bolts per Row	9	7
Resin 28 mm fast/slow (m)	1.10/1.10	1.10/1.10
Spacing × Burden (m)	1.5 x 1.5	1.5 x 1.5
Maximum Distance from Face (m)	1.5	1.5
Maximum Drilling Length (m)	2.3	2.3
Drilling Diameter Ø (mm)	35	35
Plate (mm)	300 x 300 x 4.8	300 x 300 x 4.8
Maximum Floor Mesh Height (m)	1.50	1.50
Mesh Dimensions (m)	1.80 x 3.30	1.80 x 3.30
Wire (mm)	5	5
Minimum Overlap (cm)	30	30
Application	In-cycle	In-cycle

Note: * The last support row at the development face may be installed using 2.4-m dowels. The next support cycle must restart using full-capacity rock bolts.
Source: GE21, 2026.

Table 13.13: Support specification – III

Support Specification	III
Split Set (m)	2.4
Thickness (mm)	3
Diameter Ø (mm)	48
Ring Ø (mm)	8
Plate (mm)	250 x 250 x 4.25
Tensile strength (t)	17
Minimum anchoring strength (t)	17
Split Set per Row	7
Maximum Drilling Length (m)	2.4

Support Specification	III
Drilling Diameter Ø (mm)	45
Spacing × Burden (m)	1.5 x 1.5
Minimum Overlap (cm)	30
Maximum Floor Mesh Height (m)	1.50
Mesh Dimensions (m)	1.80 x 3.30
Wire (mm)	5
Application	In-cycle

Source: GE21, 2026.

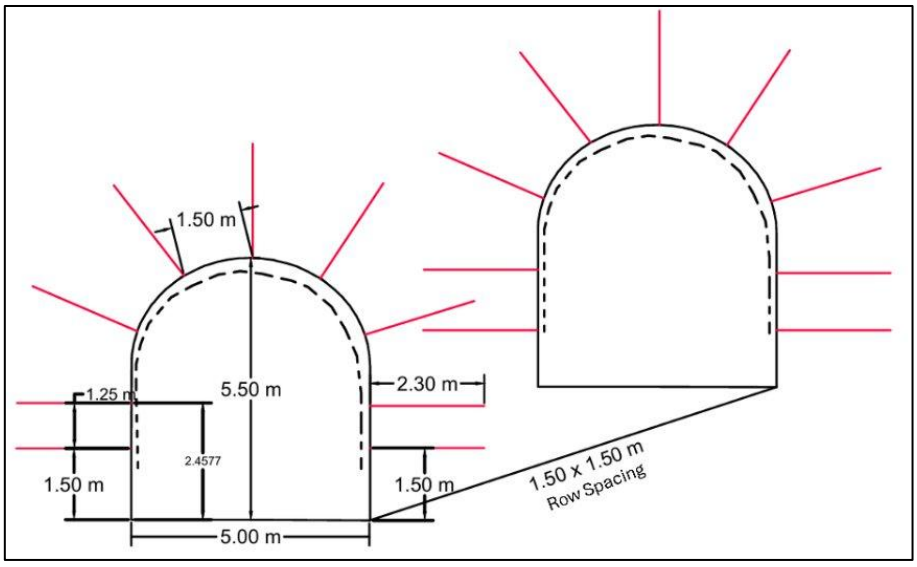


Figure 13.3: Support specification (Section 5.0 x 5.5) – I

Source: AGA, 2019.

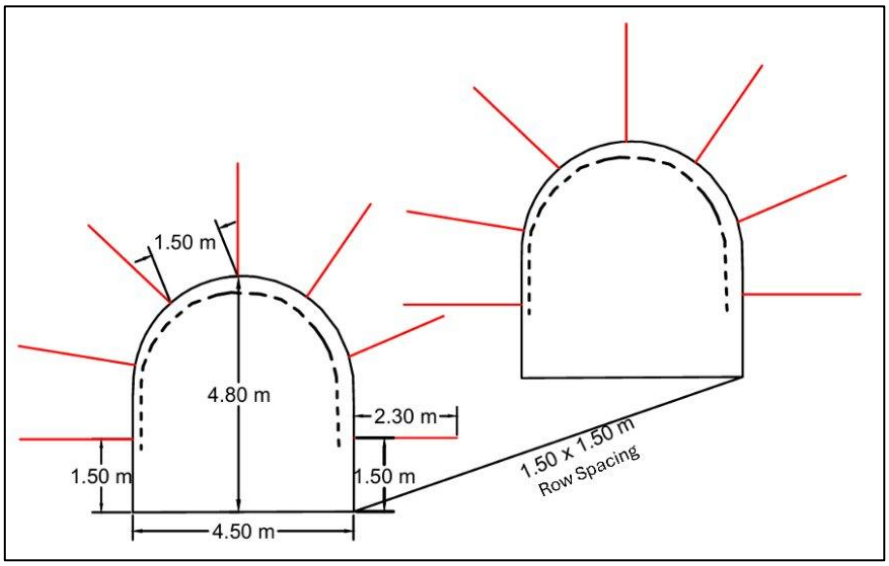


Figure 13.4: Support specification (Section 4.5 x 4.80) – II

Source: AGA, 2019.

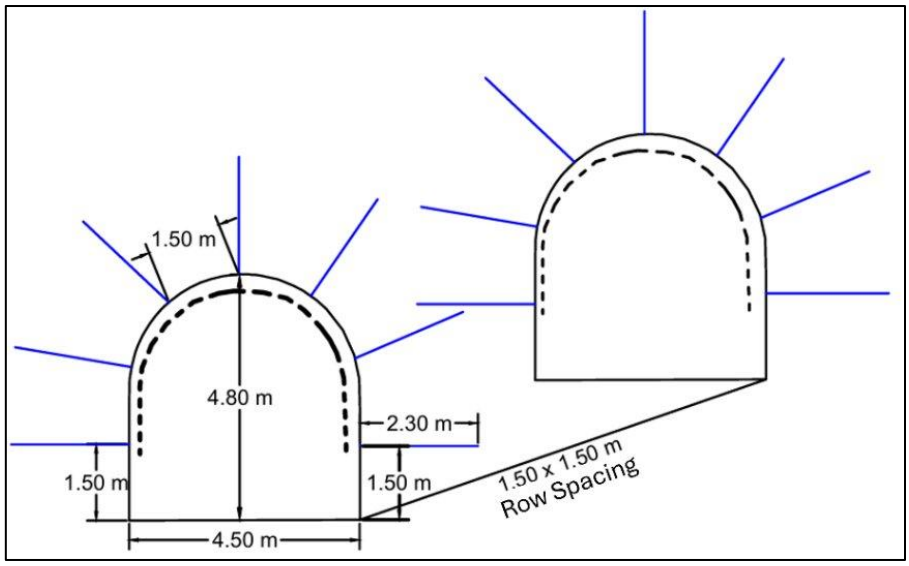


Figure 13.5: Support specification (Section 4.5 x 4.80) – III

Source: AGA, 2019.

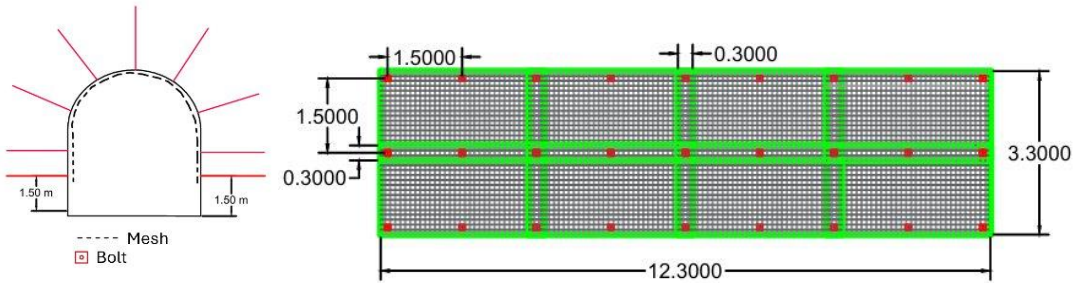


Figure 13.6: Galvanized electrowelded mesh installed with bolts – I

Source: AGA, 2019.

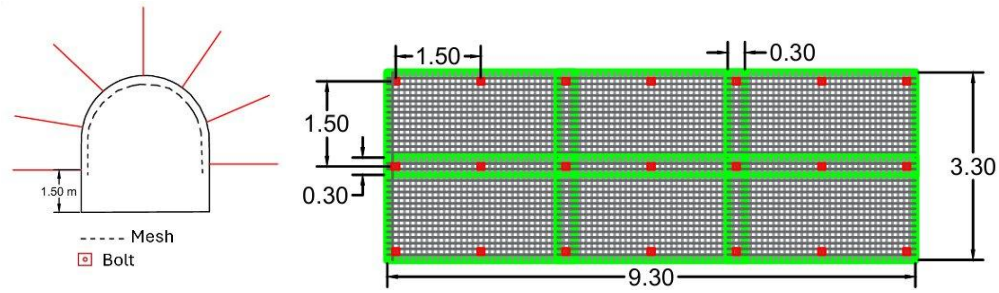


Figure 13.7: Galvanized electrowelded mesh installed with bolts – II

Source: AGA, 2019.

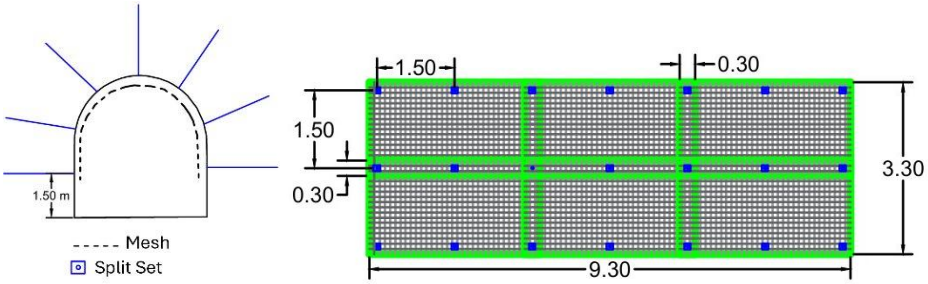


Figure 13.8: Galvanized electrowelded mesh fixed with 2.4 m split set – III

Source: AGA, 2019.

Intersections and bifurcations in a “Cross”, “T”, or “Y” (Figure 13.9) configuration require additional ground support reinforcement. For these geometries, the primary support mesh must be installed with a spacing of 1.5 × 1.5 m, complemented by dowels at the same spacing in secondary excavations. Intersections or convergence areas with a span greater than 8 m must be cable-bolted, using 5-m cable bolts installed in a 2.0 × 2.0 m pattern, ensuring adequate deep support for the increased demands associated with these openings. Development may advance up to 15 m before the cable bolting is fully completed, provided that minimum operational safety conditions are maintained.

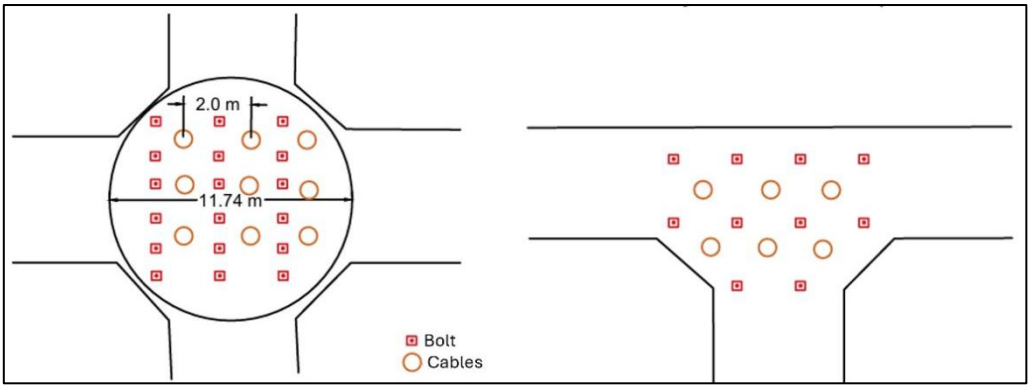


Figure 13.9: Intersections and bifurcations in a “Cross”, “T”, or “Y”

Source: AGA, 2019.

In regions where quartz veins exceed 3 m in thickness, as well as in areas located within shear zones, the application of shotcrete with a minimum thickness of 5 cm is required to ensure proper surface support and to control loosening and deformation in these structurally complex zones.

13.2.8 Numerical Analysis

Geotechnical analyses are carried out using numerical models developed in Map3D to evaluate stress variations around excavations as they are advanced and to predict rock mass response. These models assess pillar stability by applying the Modified Parameters for Ubiquitous-Plane Mohr-Coulomb Strength Criterion (IP) and contouring the excess in-plane shear stress ($\Delta\tau_{ip}$) to identify areas prone to shear failure. Excavation stability is evaluated by comparing stress states before and after mining to define zones influenced by mining and to judge local stability using the Mohr-Coulomb criterion, with particular attention to stresses on ramps and permanent accesses. Potential overbreak in stopes and damage in the surrounding rock mass are checked using the Modify the Parameters for Ubiquitous-Plane Mohr-Coulomb Strength Criterion (UB) and contouring the excess ubiquitous-plane shear stress ($\Delta\tau_{ub}$) to identify likely failure in hanging walls and stope boundaries. Complementary empirical analyses support design decisions: calibrated versions of the Modified Potvin and ELOS stability chart are used for span and stope dimensioning and dilution estimates, integrating stope geometry, rock mass quality, induced stress, discontinuity orientation, and gravity effects, while the Lunder and Pakalnis column stability chart quantifies confinement effects related to column slenderness

(length-to-height ratio). These combined numerical and empirical approaches provide a comprehensive assessment of stability for pillars, excavations, and stopes as shown in Figure 13.10 and Figure 13.11.

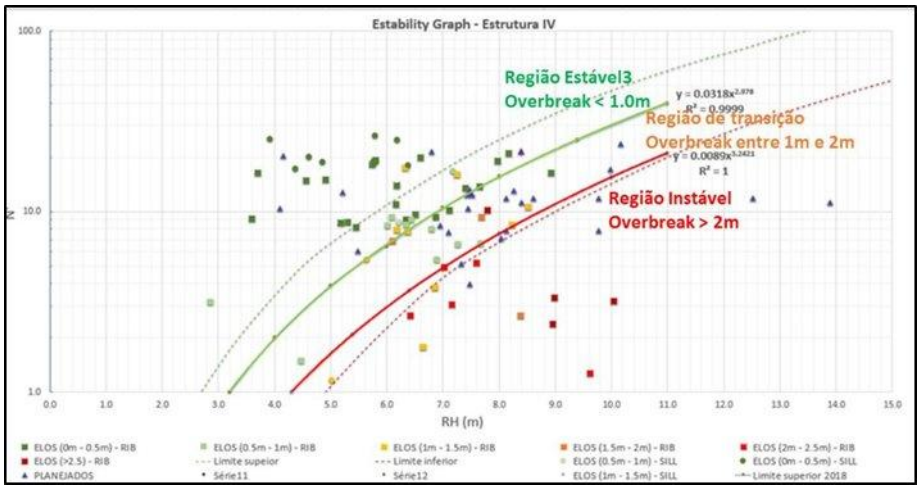


Figure 13.10: Stability chart used for span dimensioning and dilution estimates

Source: AGA, 2019.

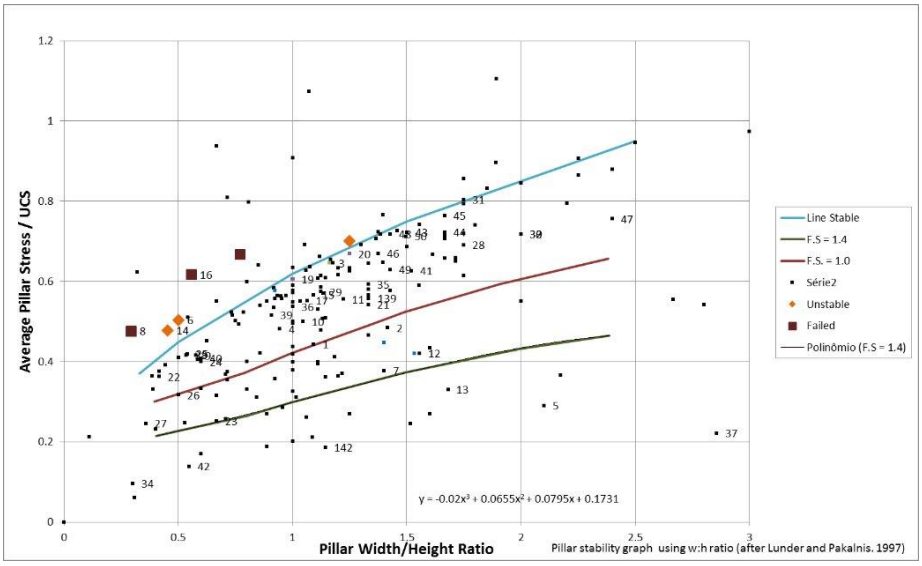


Figure 13.11: Column stability chart according to the Lunder and Pakalnis methodology

Source: AGA, 2019.

13.2.9 Room and Pillar

At Serra Grande Mining, room and pillar mining is favored in shallower mining areas, where ore bodies generally have a low inclination (<15º). The method involves the following steps:

- Primary development until access to the ore body;
- Geological assessment of the face through drilling and sampling;
- Opening of chambers 4.0 m high by 8 m wide along the ore body.

For roof support, 4x8 m pillars are left in place, along with the application of rockbolts to the roof. Figure 13.12 shows the room and pillar mining scheme carried out at the Mina Nova:

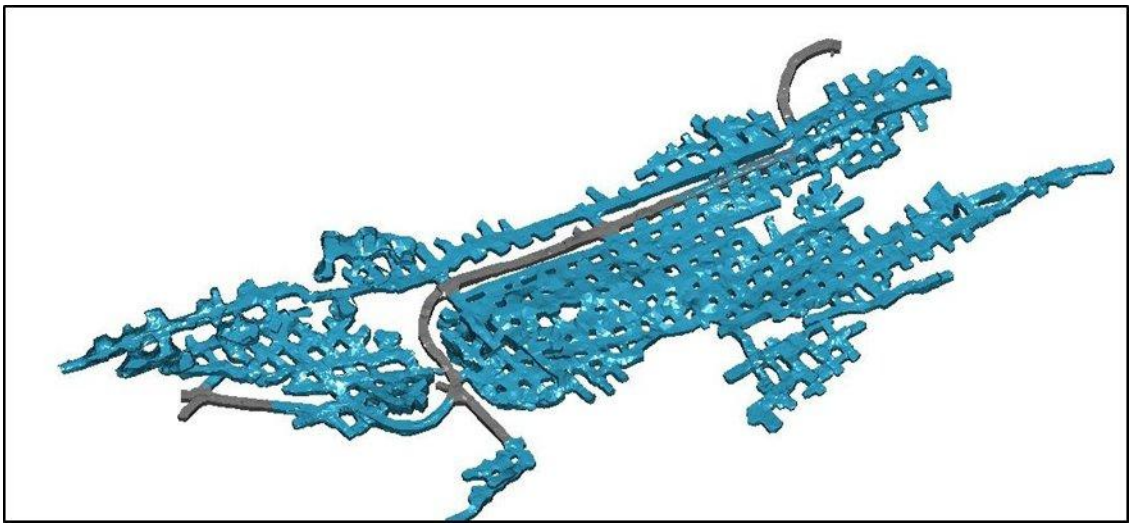


Figure 13.12: Room and pillar mining, showing primary development (in gray) and chambers (in blue)

Source: AGA, 2019.

13.2.10 Longitudinal Sublevel Open Stope

In zones where the dip of the ore body is equal to or greater than 35º, the sublevel stoping method can be applied. A combination of roof bolts, cable bolts, shotcrete, and steel mesh provides roof support. Inspections of the roof condition at each slice within the stope determine the extent of artificial support required. Stope thickness and the rock conditions are the critical parameters to define the amount of artificial support for the stopes.

Figure 13.13 shows a typical panel of the longitudinal sublevel open stopes, and the main parameters are described below:

- Main panel height (vertical): 80 m
- Interlevel every 20 m vertically
- Interlevel cross-section: 4.0 m x 4.8 m
- Sill pillar height: 10 m
- Rib pillar width: 4 m
- Maximum stope spam: 36 m
- Minimum stope width: 1.80 m

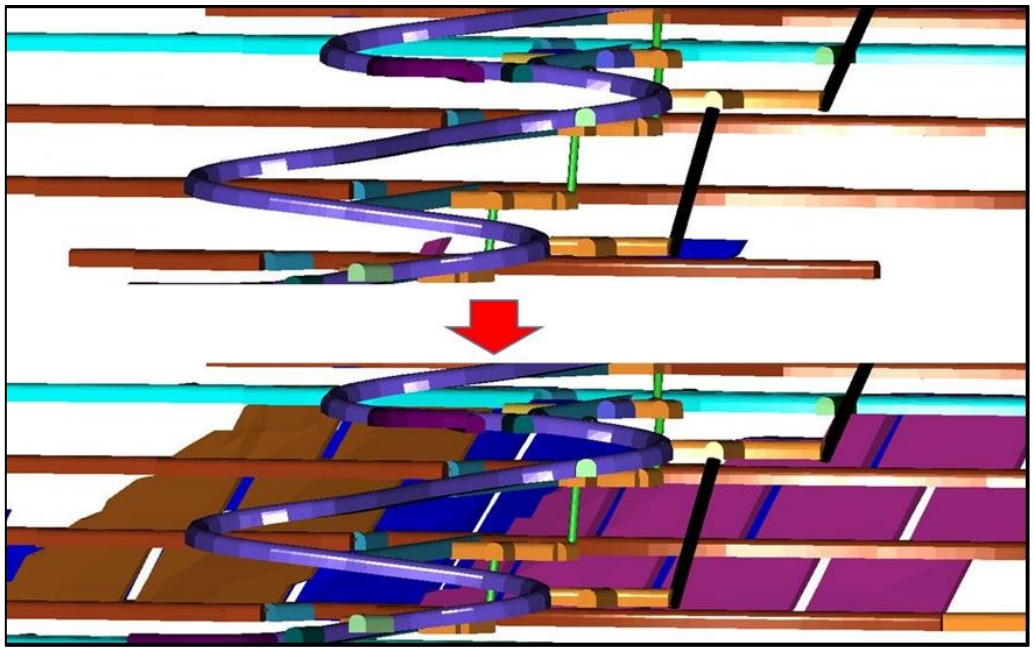


Figure 13.13: Typical panel of sublevel stoping sequence

Source: AGA, 2019.

13.2.11 Production Schedule

The LOM production schedule is presented in Table 13.14.

Table 13.14: MSG LOM production schedule

Mining schedule		LOM	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Open pit												
Total ore mined	kt	1,455	0	0	244	259	236	158	62	381	115	0
Total waste mined	kt	18,699	0	0	2,948	3,156	2,937	3,082	3,077	2,652	847	0
Waste Opex	kt	18,699	0	0	2,948	3,156	2,937	3,082	3,077	2,652	847	0
Waste Sustaining Capex	kt	0	0	0	0	0	0	0	0	0	0	0
Waste Non Sustaining Capex	kt	0	0	0	0	0	0	0	0	0	0	0
Total material moved	kt	20,154	0	0	3,192	3,415	3,174	3,240	3,139	3,033	962	0
Strip ratio	w:o	12.85	0.00	0.00	12.06	12.20	12.43	19.57	49.34	6.96	7.36	0.00
Au grade	g/t	1.23	0.00	0.00	1.00	1.25	1.17	1.63	0.98	1.31	1.15	0.00
Contained gold	oz	57,578	0	0	7,880	10,388	8,876	8,240	1,956	15,981	4,257	0
Underground												
Total ore mined	kt	10,417	984	856	1,256	1,264	1,301	1,313	1,450	1,195	460	337
Stope Ore	kt	7,089	641	642	932	929	929	929	932	713	161	280
SLOS Ore	kt	6,297	576	576	866	863	863	863	866	648	95	82
R&P Ore	kt	792	66	66	66	66	66	66	66	66	66	198
Development Ore	kt	3,328	342.8	214.9	323.6	335.1	371.9	383.2	518.2	482.0	298.9	57.0
Total Waste mined	kt	10,318	955	1,259	1,238	921	960	1,251	1,328	1,189	652	564
Waste Opex	kt	4,906	430	567	646	326	524	771	834	269	314	225
Waste Capex	kt	5,412	526	693	592	595	435	480	494	919	338	339
Total material mined	kt	20,735	1,940	2,116	2,494	2,186	2,261	2,564	2,778	2,384	1,112	901
Au grade	g/t	20	2.24	2.14	2.07	2.07	2.09	2.16	1.99	2.03	1.48	2.01
Stope Ore	g/t	24	2.41	2.42	2.41	2.42	2.51	2.53	2.52	2.72	2.27	2.24
SLOS Ore	g/t	25	2.43	2.44	2.43	2.43	2.54	2.56	2.55	2.77	2.45	2.44
R&P Ore	g/t	22	2.20	2.19	2.19	2.21	2.05	2.23	2.19	2.19	2.01	2.16

Mining schedule		LOM	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Development Ore	g/t	12	1.94	1.32	1.09	1.11	1.04	1.24	1.03	1.01	1.06	0.86
Contained gold	oz	690,593	70,992	58,941	83,640	84,189	87,399	90,966	92,745	78,027	21,942	21,752
Total Development	m	146,971	16,973	17,440	17,505	16,361	16,346	15,292	16,374	14,235	10,984	5,461
Primary Development	m	54,700	7,521	7,206	7,014	6,532	5,268	4,451	4,071	4,315	4,300	4,021
Secondary Development	m	92,270	9,452	10,234	10,491	9,829	11,077	10,840	12,303	9,919	6,684	1,440
Total Mine												
Total ore mined	kt	11,872	984	856	1,500	1,523	1,538	1,470	1,512	1,576	575	337
Total Waste mined	kt	29,017	955	1,259	4,186	4,077	3,897	4,333	4,405	3,841	1,499	564
Total material mined	kt	40,889	1,940	2,116	5,686	5,600	5,434	5,803	5,917	5,417	2,074	901
Au grade	g/t	1.96	2.24	2.14	1.90	1.93	1.95	2.10	1.95	1.85	1.42	2.01
Contained gold	oz	748,171	70,992	58,941	91,520	94,576	96,275	99,206	94,702	94,008	26,199	21,752
Processing schedule												
Total ore processed	kt	11,872	984	856	1,500	1,500	1,500	1,500	1,500	1,500	694	337
Processed grade	g/t	1.96	2.24	2.14	1.90	1.93	1.95	2.09	1.95	1.86	1.49	2.01
Contained gold	oz	748,171	70,992	58,941	91,520	93,146	93,912	100,935	94,066	89,578	33,322	21,752
Recovery	%	95.00%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Recovered gold	oz	710,764	67,443	55,994	86,944	88,489	89,217	95,888	89,362	85,099	31,656	20,671
Gold produced	oz	710,764	67,443	55,994	86,944	88,489	89,217	95,888	89,362	85,099	31,656	20,671
Gold sold	oz	710,764	67,443	55,994	86,944	88,489	89,217	95,888	89,362	85,099	31,656	20,671

Source: GE21, 2026.

14 PROCESSING AND RECOVERY METHODS

14.1 Process Summary

The Serra Grande Metallurgical Plant began operations in October 1989 with a processing capacity of 1.30 tpd. Currently, after a series of optimizations, it processes an average of 4,200 tpd of ore (1,500,000 tpa) with a metallurgical recovery of 95%. The work schedule at the Serra Grande Metallurgical Plant is 3 shifts of 8 hours.

The production process is split into crushing, milling, gravity concentration with intensive leaching, thickening, leaching, adsorption, acid scrubbing, elution, electrolysis, smelting, and activated carbon regeneration.

The ore is first crushed (primary, secondary, and tertiary crushing), sorted by particle size on screens (primary, secondary), run through a spiral classifier, and stored in two silos. Ore from the silos feeds the milling circuit. Part of the circulating load from the mills (underflow from the hydrocyclones) feeds the gravity concentration circuit. The overflow from the hydrocyclones and the spiral classifier is sent to the thickening circuit to adjust the solids percentage for the leaching step in tanks with sodium cyanide. Post that, the dissolved gold is absorbed onto activated carbon in the CIL tanks. The solid tailings from this process are pumped to filters and, once dry, stacked as tailings. Gold is recovered from both the gravity circuit and the CIL circuit.

Figure 14.1 shows the metallurgical plan layout at MSG. The current flowchart of the MSG industrial processing plant is shown in Figure 14.2.

Details of each processing step are described in the following sections.

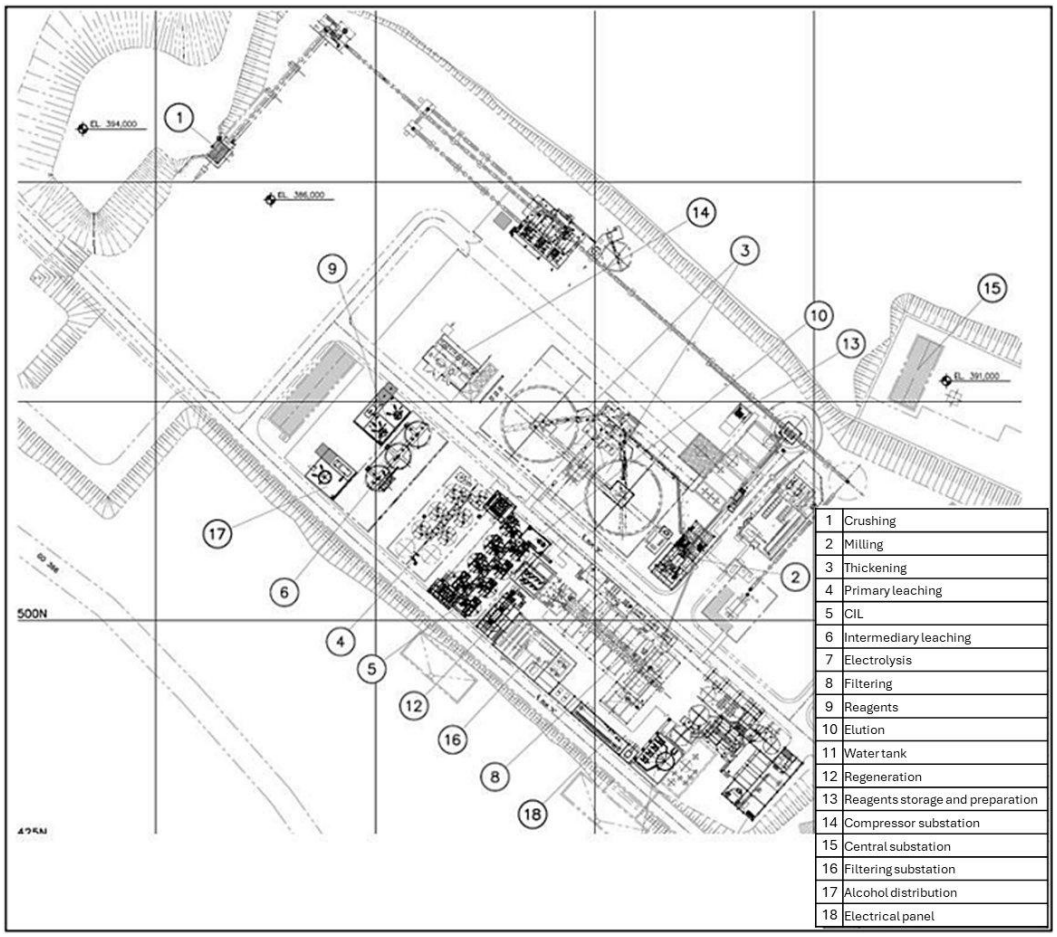


Figure 14.1: Metallurgical plant layout

Source: AGA, 2024.

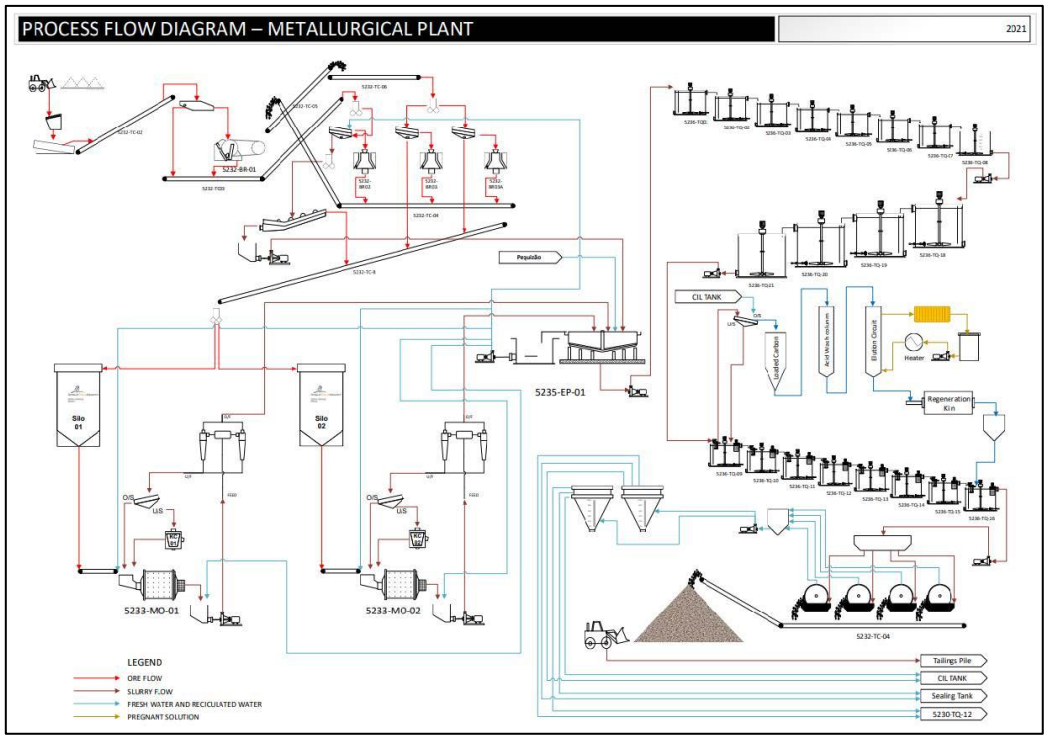


Figure 14.2: MSG process flow diagram

Source: Arcadis, 2025.

14.2 Crushing

The loaded trucks from different mines unload the ore into several piles in the crushing square, thus allowing the blending of the typologies and control of the fed contents. The stacked ore is taken up by a loader that feeds the vibrating feeder hopper, with a frequency inverter controlling the primary crusher feed rate.

The first crushing stage uses a single-shaft jaw crusher that operates in an open circuit. The crushed material passes through an electromagnet to remove uncrushable material, then proceeds to a vibrating screen with two decks (2” and 1/4”) at a 20° incline.

The oversize from the two decks feeds the secondary crusher, while the undersize from the 1/4” screen is divided into two operations: the dry route (alternative route), is transported to 2 silos with capacities of 1,800 t and 1,100 t of ore, or the wet route (main route), feeding a spiral classifier, with the overflow from this being pumped to the thickener and the underflow feeding the silos.

The secondary crusher is a hydroconic type, with an eccentric shaft, 5/8” opening, which also operates in an open circuit. Its product feeds two vibrating screens with two decks each: the first with a 2” and 1/4” opening, and the second with 1/4” and 5/16” opening. These screens operate in a closed circuit with the tertiary crushing stage, which includes crushers 03 (hydroconic with an eccentric shaft and a final chamber opening of approximately 15 mm) and 03A (hydroconic with an eccentric shaft and a final chamber opening of approximately 13 mm). The undersized from the 5/16” deck feeds the conveyor belt that goes to the silos, and the oversized from both decks returns to the crushers, closing the circuit. The final product of the crushing process should reach 100% smaller than 1/4”.

14.3 Milling

Grinding is performed in a single-stage, closed-circuit, wet grinding configuration, including two ball mills in parallel with classification hydrocyclones. The underflow corresponds to the circulating load of the grinding process, and the overflow constitutes the milling product. The feed rate and circulating load of the mills are, respectively, 120 tph of ore (dry basis) and 400% for mill 1, and 45 tph (dry basis) and 300% for mill 2. The typical particle size of the ore feeding the mills is 100% smaller than 8.0 mm, with an F80 of 4.7 mm.

14.4 Gravimetric Concentration

The MSG gold gravimetric circuit was installed with 2 centrifugal concentrators (model Knelson XD30), to treat approximately 15% of the mass of the circulating load of mill 01 and 40% of mill 02. The tailings from the concentrators return to the mills, while the concentrate feeds the intensive leaching system.

14.5 Intensive Cyanide Leaching

The product of the intensive leacher, called “rich solution”, is pumped to the electrolytic cell, and the solubilized gold is recovered by the electrorecovery process.

The overflow, containing approximately 80% of the particles passing through a 150 mesh (106µm) screen, a size that guarantees the exposure/release of the gold contained in the ore, passes through a vibrating screen to remove any undesirable matter, and proceeds to the stage of adjusting the percentage of solids via a conventional thickener.

The thickener is gravity-fed by the overflow from the hydrocyclones of the grinding mills (30% solids) and by the overflow from the spiral classifier located in the crushing area. The thickened pulp, a product of sedimentation, has approximately 58% solids (underflow) and is pumped to the leaching area. The overflow returns to the grinding mill as process water.

14.6 Leaching in Tanks (CIL)

The leaching area consists of 16 tanks with a capacity of 202 m^3 each, of which 8 are also used for adsorption. The other 4 tanks, each with a capacity of 404 m^3, complete the circuit. All tanks have a mechanical agitation system with a propeller, supplemented by compressed air injection at the bottom of the tanks. Leaching is divided into three stages: pre-lime, cyanidation, and adsorption.

14.6.1 Pre-lime

The “pre-lime” process is conducted in the first 3 tanks, consisting of pH pulp homogenization and cyanicidal agents pre-oxidizing via the addition of peroxide. For leaching, the pH must be maintained at approximately 10.5, and control is achieved by adding lime to the mill feed. The analysis is performed online by a pH meter installed in the first tank of the circuit, and the correction is made by the operator based on the analysis results.

The dissolved oxygen concentration must be maintained at 12 mg/l by adding hydrogen peroxide, which passivates the cyanicides in the ore.

The contact time in the “pre-lime” is approximately 3.5 hours, for a pulp with 58% solids.

14.6.2 Cyanidation

The cyanidation process begins in tank number 4. A 24% w/v sodium cyanide solution is added to this tank. The concentration of free cyanide in this tank is controlled at 400 ppm. The concentration of free cyanide and the pH gradually decrease from tank to tank, reaching 100 and 10 ppm, respectively, in the last tank. Dissolved oxygen has a concentration between 4 and 7 mg/l in the pulp, and its presence is essential for perfect solubilization, as it actively participates in this reaction. The residence time for the leaching stage is approximately 22 hours.

14.6.3 Adsorption (CIL)

The last set of eight tanks has a hybrid leaching and adsorption function, called carbon-in-leaching (CIL). The pulp from the leaching circuit goes to the trash screen and then passes through a distributor that feeds the CIL circuit, where activated carbon is present along with the pulp at an average concentration of 25 g/L. All tanks are equipped with rotating interstage screens.

From the CIL first tank, the pulp flows by gravity through the interstage screens and successively to the next tanks, where the remaining gold from the leaching is solubilized and, at the same time, recovered/adsorbed by activated carbon.

The coal flows in batch mode in countercurrent with the ore pulp. Regenerated and/or new coal is added to the last tank in the circuit, or alternatively to the penultimate tank. The transfer of coal between tanks is via vertical pumps installed in each tank, pumping to the previous tank, and so on. The coal is moved daily from tank to tank until it reaches the first, or alternatively, the second. In each tank, the coal is loaded with gold. In the first tank of the CIL, the circuit will reach its maximum load. The coal is retained in the tanks by interstage screens, which allow the pulp to flow from tank to tank.

In these adsorption tanks, compressed air is also added to facilitate the final leaching of gold in the presence of oxygen.

From the first adsorption tank, the coal loaded with gold is pumped to the loaded coal screen, which separates the coal from the ore pulp. The pulp without coal returns to the same tank, and the coal retained on the screen is discharged by gravity into the loaded coal tank, which has a capacity for one day's storage.

14.7 Elution and Regeneration

The loaded coal tank is located immediately above the acid scrubbing column, and the activated carbon is transferred by gravity.

Acid washing is performed in batches, lasting approximately 3 hours. Acid washing involves recirculating a 3% cold hydrochloric acid (HCl) solution to remove precipitated carbonates from the coal for 80 minutes. Immediately afterwards, the pH is neutralized using a 20% sodium hydroxide (NaOH) solution for 40 minutes. Then, the coal is washed with process water for 60 minutes to remove chlorides. After the acid washing, the loaded coal is transferred to one of the elution columns through the ejector.

The process of desorbing gold from activated carbon is carried out in columns with a pre-prepared 2% sodium hydroxide solution at 95°C, with 2.2% hydrated ethyl alcohol added directly to the suction of the pump that feeds the columns. The pumped solution first passes through the heater and is injected into the column at the bottom, percolating upwards through the entire carbon bed, promoting the removal of adsorbed gold.

The eluate (the rich solution) overflows from the top of the column, falling into the flow tank and is pumped to the electrodeposition cell, where the contained gold is recovered. The solution, now depleted after electrolysis, feeds a pump box and is transferred to the preparation and storage tank, returning to the beginning of the process. The solution is then pumped back into the elution column, closing the circuit. This entire cycle lasts approximately 12 hours.

After elution is complete, the coal is transferred via ejectors to the dewatering screen in the regeneration area. The oversize from the screen falls into the feed tank of the regeneration furnace.

The thermal reactivation process is carried out in a rotary kiln with external gas heating, in which the coal is heated to 750 ºC in an oxygen-free atmosphere (reducing atmosphere) promoted by steam.

After reactivation, the hot coal is discharged/cooled into the coal cooling and storage tank. This tank also receives new coal to replenish the coal consumed in the circuit. The regenerated/new coal is pumped by recessed rotor slurry pumps for adsorption. Before the water+coal slurry reaches the last adsorption tank, it passes through a static screen for dewatering. The oversize (dewatered coal) is discharged by gravity into the last tank of the CIL.

14.8 Smelting

The smelting process consists of receiving and melting the cathode from the gold concentrate obtained from the adsorption and gravimetric circuits, respectively, by electrolysis. The ingots obtained in the smelting processes have purity levels of approximately 85% to 94%. These are sent to Asahi Refining Canada in Brampton, Canada, for electrorefining to obtain gold with a purity of 99.9%.

15 INFRASTRUCTURE

15.1 Summary

Crixás city is situated in the mid-region of Goiás state, near (approximately 300 km radius) other big mining companies, such as Hochschild Mining plc™ and Anglo American™. There are paved roadways between the Crixás town and the major regional cities, such as Goiânia and Brasília. The route from Crixás town to the MSG entrance is 4km long and can be accessed through the unpaved state road GO-336 that offers year-round access for two-wheel-drive vehicles.

MSG has been operating since 1989 and has developed all the infrastructure it requires to operate. The water supply is sourced from local sources, while it is also recycled from the operations to feed the plant and mine. The power supply is provided by public companies as well as by diesel self-generation.

The Project's communications system is based on fiber-optic cabling and an infrastructure of wireless network, radiocommunications, telephone system, and mobile telephony.

The main on-site infrastructure at the MSG unit includes the following:

- Internal road network
- Open pit
- Underground mine
- Waste dumps
- Tailings dam
- Tailings filtering
- Metallurgical process plant
- Auxiliary, administrative, and support facilities

Currently, Serra Grande Mining has three underground mine entrances: Mina III, Mina Nova, and Mina Palmeira. Access to the underground is from the surface via their respective mine access (portals).

Table 15.1 presents the main structures that comprise Serra Grande Mining, and Figure 15.1 shows a map of their locations.

Table 15.1: MSG main structures

Structure	Identification
Internal road network	- Haul Road - Internal access roads
Open pit	- Mina III - Corpo Sul - Corpo V - Pequizão - Venâncio
Underground mine	- Mina III access - Mina Palmeiras access - Mina Nova access
Waste dumps	- PDE Leste Mina III - PDE Corpo Sul (backfilling) - PDE Pequizão 1A - PDE 2 - PDE Sul Pequizão - PDE Norte Pequizão - PDE Corpo V Norte - PDE Corpo V Sul A - PDE Corpo V B - PDER 03 (Corpo V backfilling)
Tailings dam	- Tailings Dam - Wastewater treatment plant
Tailings filtering	- Tailings filter system
Metallurgical process plant	- Crushing circuit (primary, secondary, and tertiary) - Grinding with cyclone classification - Centrifugal gravity - Intensive cyanide leach reactor - Cyanidation and adsorption circuit (CIL) - Elution circuit - Electrowinning tank
Auxiliary, administrative, and support facilities	- Minesite gate - Administrative and mine offices - Refectory - Medical and emergency response facilities - Maintenance workshops - Warehouse - Fuel station - Water intake and distribution system - Core shed - Laboratories - Power substation - Transmission power line - Communications and data transmission networks - Explosive magazine - Domestic wastewater treatment plant

Source: Modified from Arcadis, 2025.

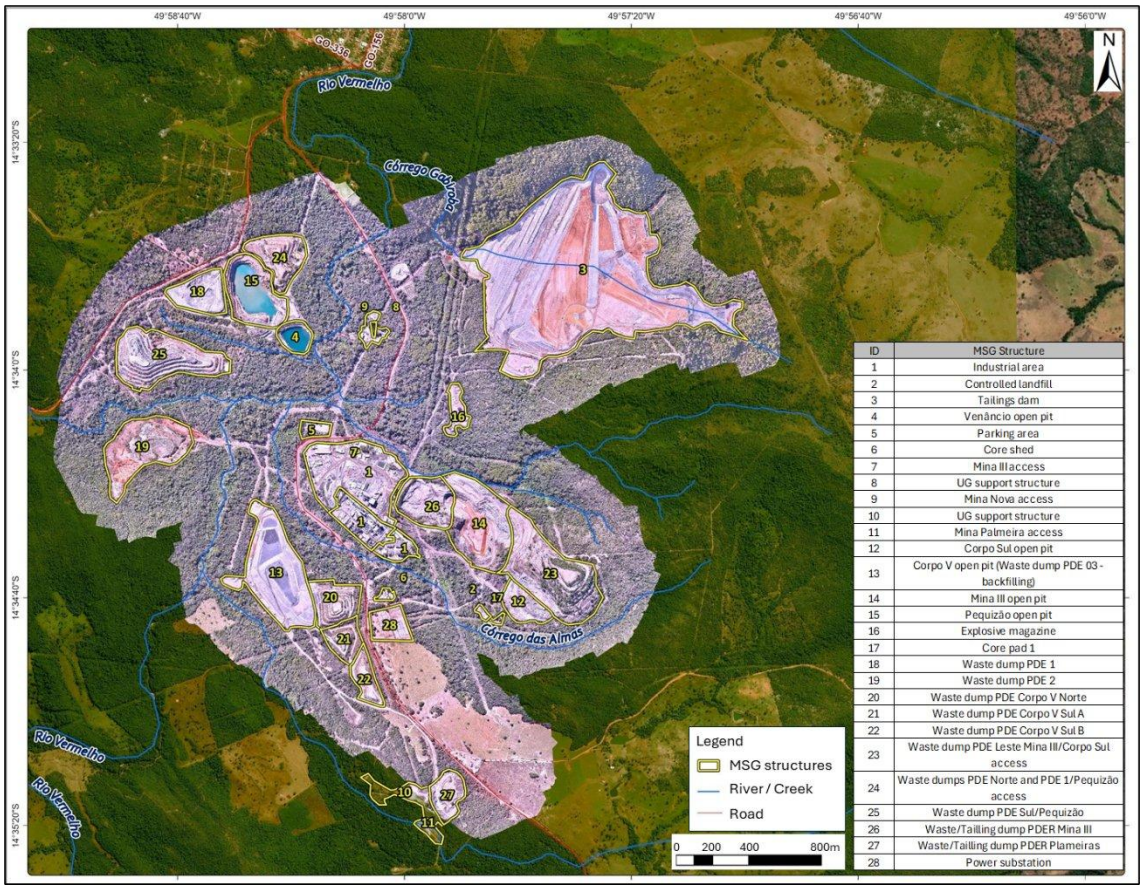


Figure 15.1: Location of MSG main structures

Source: Modified from Arcadis, 2025.

15.2 Internal Road Network

Haul roads, pit ramp, and internal temporary in-pit access are important to plan for based on geology, haul truck requirements, and water drainage. Access is planned to cause as little interference with the ore zone, thereby minimizing ore loss and dilution. Ramps must allow two trucks to pass safely while still meeting slope and curvature requirements for heavy mining equipment. Drainage channels are allowed along the sides of the ramps, which feed into in-pit sumps where the water is collected and pumped out of the pit. Water management is important for maintaining the ramps and preventing seepage into the benches, which can cause truck inefficiencies. To address the above, ramps are currently planned at 10 m wide with a grade of 10% (they could vary between 8% and 10%).

15.3 Open Pit Mines

The Serra Grande operation comprises the open-pit mines Pequizão, Venâncio, Mina III, Corpo Sul, and Corpo V. The open pits use standard drill-blast and load-and-haul mining.

15.3.1 Pequizão Open Pit

The Pequizão Open Pit has an area of 8.6 ha with a depth of 75 m. The pit is 432 m long and 195 m wide. The terrain elevation is 415 m. The slope's height is 10 m with a face angle of 85°. The berms are 5 m wide.

Historical data from AGA (Arcadis, 2025) registered a mine production of 435,916 t of ore and 7,758,334 t of waste up to 2020, when mining activities at Pequizão Open Pit ceased. The mined ore was converted into 34 koz of gold after processing.

Currently, the pit is being used as a treated effluent reservoir. The water from the metallurgical plant, dam, and pumped from underground mines, after undergoing a treatment process, is directed to this reservoir (Figure 15.2).



Figure 15.2: Aerial view of Pequizão Open Pit

Source: Arcadis, 2025.

15.3.2 Venâncio Open Pit

The Venâncio Open Pit is located in the northwestern region of the MSG, where metasedimentary rocks outcrop. The pit is positioned in the transition between the structures, Structure IV and Structure III – Upper Zone. These structures are composed mainly of carbonaceous phyllites, metagraywackes, dolomites, and chlorite greenschists with layers dipping approximately 15° to the SW.

The pit is approximately a rounded shape, around 170 m in diameter, and occupies an area of 2.3 ha. The slope's height is 10 m with a face angle of 85°. The berms are 5 m wide.

Like the Pequizão Open Pit, currently, the Venâncio Open Pit is being used as a treated effluent reservoir (Figure 15.3).



Figure 15.3: Aerial view of Venâncio Open Pit

Source: Arcadis, 2025.

15.3.3 Mina III Open Pit

The Mina III Open Pit has an area of 16.7 ha, with a depth of 125 m, located in the central portion of MSG, southeast of the processing plant (Figure 15.4). The pit is 835 m long and 380 m wide. The slope height is 10 m with a face angle of 65°. The berms have widths of 3 m to 5 m.

The pit was mined from 2006 to 2024 and is currently being used to refill the excavated pit with waste rock and tailings, forming the waste/tailing dumps PDER Mina III.

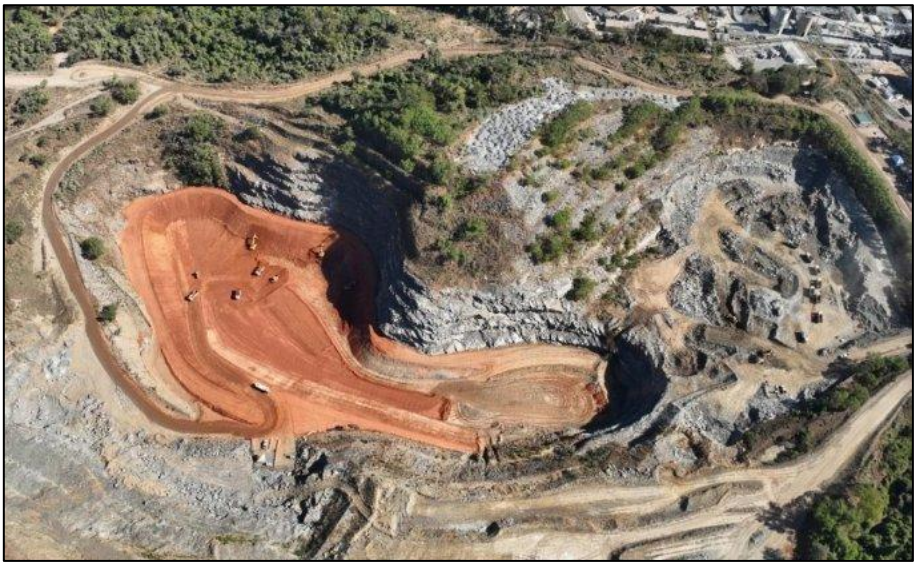


Figure 15.4: Aerial view of Mina III open pit

Source: Arcadis, 2025.

15.3.4 Corpo Sul Open Pit

The Corpo Sul Open Pit is located southeast of Mina III Open Pit. Originally, the pit occupied an area of 3.7 ha, being approximately 270 m long and 160 m wide. The pit was mined in 2017 and 2018 and is located within the lower zone of the Structure III shear zone. Mineralization occurs associated with quartz veins.

After 2019, the area was partially used to refill the excavated pit with waste rock, forming the southwest portion of the waste dump PDE Leste Mina III/Corpo Sul.

15.3.5 Corpo V Open Pit

The Corpo V Open Pit is located in the southern portion of the MSG area. The pit was mined in 2017 and 2018, occupying an area of 9.9 ha when mining activities ceased. The pit is positioned within the Structure IV shear zone. Mineralization is mainly associated with quartz veinlets with disseminated sulfides hosted in graphite schists.

Originally, the pit was 580 m long and 310 m wide. The terrain elevation is 380 m. The slope's height is 10 m with a face angle of 85°. The berms have a width of 5 m.

After 2022, the area was used to refill the excavated pit with waste rock, forming the waste dump PDE 03.

15.4 Underground Mines

MSG underground operations comprise three underground mines: Mina III (including orebodies IV, V, and Inga), Mina Nova (including Pequizão orebody), and Mina Palmeiras (including Palmeiras Sul orebody). Three underground mining methods are used: sub-level stoping (bottom-up and top-down), cut-and-fill, and room-and-pillar.

15.4.1 Mina III

Mina III is located in the central portion of MSG's operating area and began operations in 1989. In the area of the Mine III ramp, outcrops of metasedimentary rocks of the Ribeirão das Antas Formation. Mina III includes the orebodies IV, V, and Ingá (Figure 15.5).

The main mining method adopted at Mina III is Sublevel Atoping. Room-and-Pillar and Cut-and-Fill are also used depending on the characteristics of each ore body. The equipment used in the mine is medium-sized, including jumbos with two drilling arms, loaders, LHDs, and trucks with a capacity of up to 30 t, used for transporting both ore and waste rock.

The Mina Portal is 300 m from the processing plant. Currently, the mine has 8 ventilation shafts and reaches a total depth of 1,100 m.



Figure 15.5: Mina III access portal

Source: Arcadis, 2025.

15.4.2 Mina Nova

The Mina Nova access is located in the northern portion of MSG's operating area, including the underground galleries of the Pequizão orebody, and is approximately 1,400 m north of Mine III (Figure 15.6).

The host rocks of the mineralization are schists of the Ribeirão das Antas Formation, close to the contact between metabasic rocks of the Rio Vermelho Formation and metasedimentary rocks of the Ribeirão das Antas Formation. Gold mineralization is mainly associated with sulfides (pyrrhotite and arsenopyrite) disseminated in carbonaceous schists and in quartz veins, where it can be coarse.

The mining method applied at Mina Nova is mostly the mechanized Room and Pillar. This method has been chosen because of the physical characteristics of the orebodies, including horizontal to subhorizontal orebodies with very low orebody dips (0° to 10°), the absence of significant folds, and ore zone thicknesses ranging from 4 m to 20 m.

The Mina Nova Portal is 900 m from the processing plant. Currently, the mine has 10 ventilation shafts, 5 in Mina Nova and 5 in Pequizão. At Mina Nova, the underground mine reaches a total depth of 600 m, while at Pequizão the depth is 970 m.



Figure 15.6: Mina Nova access portal

Source: Arcadis, 2025.

15.4.3 Mina Palmeiras

The Mina Palmeiras belongs to a group of mineralized bodies located approximately 1,300 m south of the process plant.

The Palmeiras structure is stratigraphically positioned above Structure IV. The ore bodies are developed in areas of hydrothermal alteration in metabasic rocks of the Rio Vermelho Formation. The gold mineralization is associated with pyrrhotite, pyrite, and arsenopyrite, and is locally coarse and visible in veins, narrow veins, and veinlets of quartz.

The Mina Nova Portal is 3,100 m from the processing plant. Currently, the mine has 6 ventilation shafts and reaches a total depth of 570 m.



Figure 15.7: Mina Palmeiras access portal

Source: Arcadis, 2025.

15.5 Waste Dumps

Currently, the waste dumps PDE Norte Pequizão, PDE Sul Pequizão, PDE Corpo V Sul A, PDE Corpo V Sul B, and Corpo V Norte are inactive. The waste dumps PDE 1, PDE 2, PDE Leste Mina III/PDE Corpo Sul extension, and the waste/tailing dumps PDER Palmeiras and PDER 3 (Corpo V backfilling) are active and operational (Figure 15.8).

The PDER Mina III is currently under an environmental licensing process and considers the backfilling of Open Pit Mina III with waste and tailings.

Table 15.2 lists the current status and technical features of the waste dumps and waste/tailings dumps structures of MSG.

Table 15.2: Technical features of waste dumps and waste/tailings dumps structures

Technical Features	PDE Norte Pequizão	PDE Sul Pequizão	PDE Corpo V Norte	PDE Corpo Sul A	PDE Corpo Sul B	PDER Palmeiras	PDE Leste Mina III	PDE 2	PDER 3	PDER Mina III
Location	East of Pequizão Open Pit	West of Pequizão Open Pit	Near Corpo V Open Pit	Near Corpo V Open Pit	West of Pequizão Open Pit	Near Palmeiras UG	Open Pit Mina III and UG	South of PDE Pequizão	Open Pit Corpo V backfilling	Open Pit Mina III backfilling

Technical Features	PDE Norte Pequizão	PDE Sul Pequizão	PDE Corpo V Norte	PDE Corpo Sul A	PDE Corpo Sul B	PDER Palmeiras	PDE Leste Mina III	PDE 2	PDER 3	PDER Mina III
Waste Origin	Pequizão Open Pit	Pequizão Open Pit	Corpo V Open Pit	Corpo V Open Pit	Pequizão Open Pit	Palmeiras UG	Open Pit Mina III and UG	Open Pit Mina III	Waste/ Tailings	Waste/ Tailings
Status	Inactive	Inactive	Inactive	Inactive	Inactive	Active	Active	Active	Active	Licensing
Area (ha)	3.85	9.57	5.36	3.41	5.0	14.9	20.31	86.84	11.93	16.7
Volume (m^3)	489,003	946,372	246,115	116,555	797.127	1,837,935	813.405	3,564,730	4,556,054	Approx. 7.0 M
Elevation (m)	421.9	429.0	423.0	422.0	-	455.0	501.0	450.0	408.6	-
Slope Height (m)	8.0	8.0	10.0	10.0	10.0	5.0	-	10.0	10.0	-
Berm Width (m)	5.0	5.0	10.0	10.0	10.0	5.0	7.0	5.0	5.0	-
Slope inclination (V:H)	1.0V:1.8H	1.0V:1.8H	1.0V:1.4H	-	-	1.0V:2.0H	1.0V:1.6H	1.0V:1.3H	1.0V:3.0V	-

Source: Compiled from Arcadis, 2025.

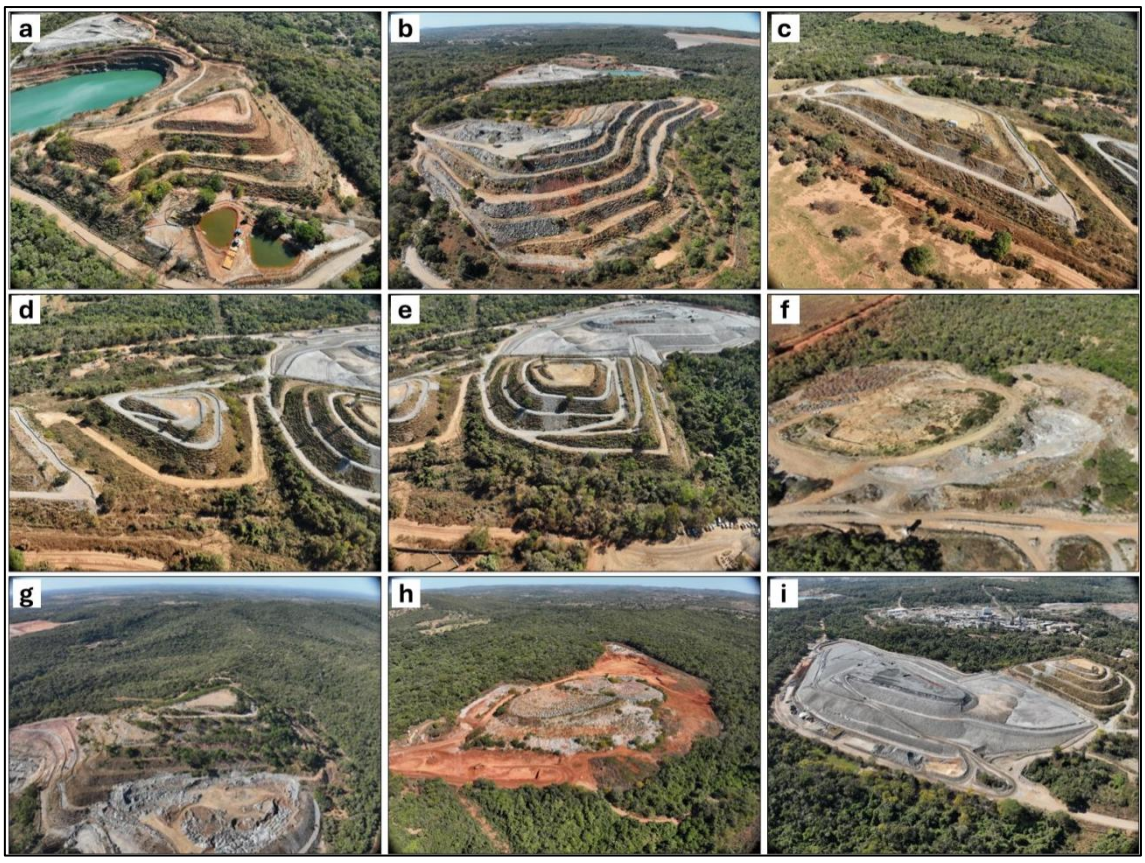


Figure 15.8: Waste dumps at MSG

Legend: (a) PDE Norte Pequizão, (b) PDE Sul Pequizão, (c) PDE Corpo V Norte, (d) PDE Corpo Sul A, (e) PDE Corpo Sul B, (f) PDER Palmeiras, (g) PDE Leste Mina III/PDE Corpo Sul extension, (h) PDE 2 and (i) PDER 3.
Source: Compiled from Arcadis, 2025.

15.6 Tailings Dam

The tailings dam was constructed in the late 1980s and was the main Tailings Storage Facility (TSF) for MSG until 2021. The initial dam was approximately 30 m high and was

constructed using compacted earth fill with silty-clayey characteristics. Subsequent raises followed the centerline method. The effluent from its bottom drain is directed to the MSG Wastewater Treatment Plant (WWTP).

After 1994, an internal drainage system was implemented. From this point, subsequent raises followed the upstream method, employing cyclone tailings (underflow), until reaching an elevation of 445.0 m. In 2010, the dam was raised to an elevation of 455.0 m, using the downstream method and mine waste. The downstream slopes of the dam had a 26.5° inclination, with berms approximately 7.0 m wide.

The MSG Tailings Dam Decommissioning Project was presented in September 2021, in accordance with the Brazilian Technical Standard for Dam Design for Tailings Disposal, Sediment Containment and Water Storage – NBR 13.028 (ABNT, 2017), Resolution N° 13 (ANM, 2019), and Resolution N° 95 (ANM, 2022).

Traditional tailings disposal into the dam was completed in September 2021. Since then, MSG started the process of decommissioning and transitioning to the dry stacking tailings management method.

Figure 15.9 illustrates the tailings dam under the decommissioning process.



Figure 15.9: Tailings dam under decommissioning process

Source: Arcadis, 2025.

15.7 Tailings Filtering

In 2021, MSG invested in a tailings filtration facility to meet ANM requirements and support the transition to the dry-stacking tailings management method.

Currently, MSG has two tailings filtration plants, one being inoperative, the second in operation (Figure 15.10). Both are located in the Industrial Area.

The tailings filtration plant integrates the thickening and filtration process. The operational filtration plant performs continuous filtration, cake washing, and cake discharge. The drums are coated with suitable filtration material. An automatic valve in the center of the drum activates the filtration, drying, washing, and cake removal cycle.

The filtrate is expelled through the rotating shaft. There are separate passages for the filtrate and for the washing liquid.

After the tailings' filtration process, the trucks are loaded and destined for tailings dry stacking disposal in waste/tailings dump areas.

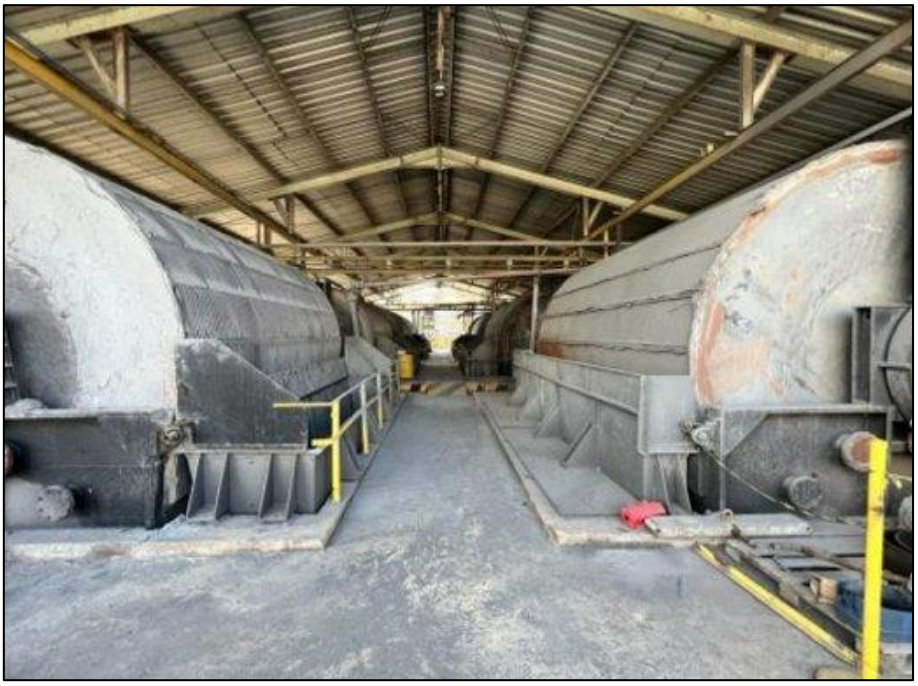


Figure 15.10: MSG tailing filtering facility

Source: Arcadis, 2025.

15.8 Metallurgical Process Plant

The metallurgical plant has the capacity of 1.5 Mtpa, combining CIL and gravimetric circuits. The ore is blended to feed the crushing circuit, which has a capacity of 4,100 tpd.

There are two mills in operation, and 20 leach tanks with a capacity of 4,800 m^3, divided between pre-liming and cyanidation stages. Approximately 58% of gold is captured in the parallel gravity circuit. The remaining gold is recovered by the CIL process to form doré, which is then sent to the Nova Lima refining process.

The processing flowsheet encompasses:

- Crushing circuit
- Primary
- Secondary
- Tertiary

- Grinding with cyclone classification
- Gravity recovery of coarse free gold from the cyclone underflow stream using a batch centrifugal gravity equipment
- Intensive cyanide leach reactor
- Cyanidation and adsorption circuit (CIL)
- Elution (or desorption) circuit for gold removal
- Electrowinning tank and gold removed using electro-winning cells

15.9 Auxiliary, Administrative and Support Facilities

MSG has been operating in Crixás since 1989, and it is a mature operation that has all the necessary support infrastructure in place.

In summary, the site infrastructure currently in place consists of:

- Mine site gate: Entrance gate control and other entrance controls with integrated electronic tags and automated access systems, ensuring only trained personnel can enter specific areas.
- Administrative and mine offices: Administrative buildings designed for daily business operations, including management, planning, record-keeping, and logistics. Including an Operational Training Center for employers, contractors, staff, and visitors.
- Refectory: The company has a refectory with a capacity compatible with the number of employees. A technical manager is present to ensure the proper conditions of the food preparation and supply areas for employees, through a specialized contractor.
- Medical and emergency response facilities: A specific building to accommodate equipment and specialized personnel for health care or action in emergency cases.
- Maintenance workshops: Mobile equipment maintenance activities take place within the mines, underground workshops, and also in the central surface workshop.
- Warehouse: Central logistics sector responsible for receiving, storing, organizing, and distributing materials (spare parts, consumables, tools, supplies, etc.) necessary for operations.
- Fuel station: The local fuel station is exclusively for refueling MSG's own internal fleet and has been in operation for approximately 32 years. The fuel storage system is above ground, with 4 horizontal tanks each with a storage capacity of 30,000 l, 2 fuel pumps, and 2 diesel fuel filters.

- Water intake and distribution system: The water supply is sourced from local sources, while it is also recycled from the operations to feed the plant and mine. Raw water for service is obtained through existing infrastructure. Drainage is carried out through the installation of pumping stations, one at each level, equipped with a slurry pump to receive all the water generated at that level, as well as from the level immediately below. The main pumping station is installed at the first exposed level, receiving water from the lower and upper levels to pump all the water from the mines to the main pumping circuit. The water (slurry) pumped from underground is reused after passing through a settling basin. The water distribution system is fully automated, with level control in tanks and a fully automated pumping system to supply it. The service water used in the open pit comes from collection points installed in the administrative area of the headquarters. This water originates from underground water pumped and reused after passing through a settling basin. This water is used for access humidification and in drilling services.
- Core shed: Dedicated building for storing core boxes, with an area for geological logging and core sampling.
- Laboratories: In-house laboratory containing all equipment necessary for preparation and routine analyses, certified by ISO 9001: 2008 since October 2005 and by ISO 9001: 2015 since April 2019. The MSG laboratory participates in annual inter-laboratory round robin proficiency surveys conducted by ITAK.
- Power Substation and transmission power line: The power supply is provided by public companies as well as by diesel self-generation. Power is distributed via a 13.8 kV line from the MSG main substation and stepped down in substations to supply equipment.
- Communications and data transmission networks: The radio frequency communication system consists of two radio control centers with digital repeaters, one installed at the entrance to mine 03 and the other at the entrance to the Palmeiras mine, providing radio frequency signal coverage to the surface and underground areas of the mines. Telephone and internet networks are provided by private companies.
- Explosive magazine: MSG has a specific infrastructure for the storage and handling of explosives and accessories. The explosives and accessories magazine area consists of 4 pavilions. Pavilion 01 is intended for the storage of packaged explosives, detonating cords, and boosters. Pavilion 02 houses active accessories, such as detonators and fuses. Pavilion 03, previously used as an ammonium nitrate storage facility, is deactivated. Pavilion 04, which housed the explosives factory, is also deactivated. In addition, the area has a guardhouse and control room, ensuring security and continuous monitoring of the facilities.
- Domestic wastewater treatment plant: The wastewater treatment system is composed of two stages. Initially, an anaerobic reactor is used to digest the organic matter present in the sewage and acts as a primary settling tank, retaining a large portion of the solids that are not digestible by microorganisms. The second stage functions as an aerobic reactor, where the remaining organic matter is oxidized. After treatment, the effluent is discharged into the natural drainage system.

16 MARKET STUDIES

16.1 Market Study

The market analysis reflects a scenario of significantly elevated prices compared to previous years. According to the analyst consensus from the CIBC Global Mining Group (March 2026), the gold price has reached a spot level of US$5,322/oz.

While the spot price demonstrates unprecedented historical appreciation, projections indicate a gradual correction trend over the coming years, as detailed in Table 16.1.

Table 16.1: Consensus forecast summary

Consensus Forecast Summary (NOMINAL US DOLLARS)						RELEASED: March 3, 2026		
FORECASTS								
Commodity		Unit	Spot	2026	2027	2028	2029	LT
Precious Metals	Gold	$/oz	5,322	4,648	4,554	4,207	3,971	3,515

Source: CIBC Global Mining Group, 2026

Unlike the 2020 scenario, where the metal sought to break the US$2,000/oz barrier, the current market has consolidated at much higher levels. Gold reaffirms its position as the primary safe-haven asset and portfolio diversifier, especially during periods of global economic volatility.

Demand continues to be driven by institutional investors and central banks seeking to mitigate risk in uncertain environments. Even with a forecast long-term downward adjustment to the US$ 3,515/oz range, projected prices remain substantially above the historical averages of the past decade.

The economic model for this Project incorporates the price forecast curve as established by the CIBC Global Mining Group analyst consensus.

16.2 Contracts

There are no material contracts or agreements in place as of the effective date of this Technical Report. Refining contracts are typically put in place with well-organized international refineries, and sales are made based on spot gold prices.

17 ENVIRONMENTAL STUDIES, PERMITTING, AND PLANS, NEGOTIATIONS, OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

GE21 evaluated the environmental and socioeconomic aspects of the MSG Project to ensure compliance with S-K 1300 requirements.

This assessment focuses on the Brazilian environmental licensing framework, primarily Federal Law N° 6,938/1981 and Decree N° 99,274/1990N°N°. The analysis is based on official public records, approved environmental studies, and technical information provided by Aura, ensuring data traceability and reliability.

17.1 Introduction

The MSG Project is an established gold mining complex in Crixás, Goiás, which Aura Minerals acquired in December 2025. The operation integrates environmental management practices to mitigate impacts from its long-term history of exploration and mining dating back to 1989.

17.2 Brazilian Mining Regulatory Framework

Mining in Brazil is governed by the Brazilian Federal Constitution of 1988, the Brazilian Mining Code, and other decrees, laws, ordinances, and regulations. This legal and regulatory framework establishes requirements for, among other things, mineral exploration and exploitation, health and safety of workers and local communities, as well as environmental protection and remediation measures.

Mining activities within Brazil are regulated by the Ministry of Mines and Energy (“Ministério das Minas e Energia” – MME) and the ANM—a federal agency linked to the MME. The MME is responsible for formulating and coordinating Brazilian public policies on mineral resources and energy production and has jurisdiction over the government agencies and federal public companies that implement these policies in the electricity, oil, gas, mining, and other energy sectors.

The ANM is responsible for, among other matters, monitoring, analyzing, and promoting the performance of Brazil’s mineral economy; awarding rights to explore and exploit mineral resources; and planning and inspecting mineral exploration and exploitation activities in Brazil.

Under the Brazilian Federal Constitution, surface property rights are distinct from mineral rights, which belong exclusively to the Brazilian federal government, the sole entity responsible for governing mineral exploration and mining activity in Brazil.

The Brazilian Mining Code currently establishes different regimes for regulating mineral exploration and mining activities, which may vary according to mineral type and project size. The

regimes applicable to the Project are (i) exploration authorization, (ii) mining concessions, and (iii) mining licenses.

For mining activities, it is also necessary for the entrepreneur to prove that he is the holder of the right to exploit the intended mineral substance, which is granted by the ANM, considering that the mineral resources are Union property, pursuant to art. 20, IX of the Federal Constitution of 1988.

17.2.1 Land Access and Occupation

Surface owners must allow access to holders of mineral rights whenever necessary for exploration and mining activities, as provided under applicable legislation. When the holder of the mineral right or mining concession does not own the surface land, access may be secured by easements, negotiations with landowners, or judicial processes. Furthermore, when mining activity is characterized as being of public utility, a Declaration of Public Utility ("Declaração de Utilidade Pública" – DUP) may be issued, which is a legal instrument that recognizes the public interest of the activity and allows the establishment of an administrative easement or the expropriation of the area.

Holders of mineral rights must compensate the surface landowner for the use of the land and for any losses arising from mining activities, including direct and indirect damage to the property. Compensation amounts may be negotiated between the parties, in accordance with the parameters established in the Mining Code, and the ANM must be formally notified of the agreed terms. If no agreement is reached, the mineral right holder, after obtaining the exploration authorization or the mining concession, may request the courts to determine the compensation amounts in accordance with applicable legislation, without affecting ongoing administrative procedures related to the DUP, where applicable.

17.2.2 Legal Reserve

Under the Brazilian Forest Code (Law N° 12,651/2012), rural properties within the national territory must maintain at least 20% of their total area as native vegetation, known the Legal Reserve, as specified in Article 12 of that law. The purpose of the Legal Reserve is to promote sustainable use of natural resources, conserve biodiversity, protect native fauna and flora, and support vital ecological processes and associated ecosystem services.

17.2.3 Mine Closure

In Brazil, pursuant to Federal Decree N° 97,632/1989, mining projects must prepare and submit a Degraded Areas Recovery Plan ("Plano de Recuperação de Áreas Degradadas" – PRAD) as part of the environmental licensing process, in coordination with the environmental studies required by the competent environmental authority, so that the recovery of areas affected by mining activities is planned from the project's conception phase.

In parallel, to obtain a mining concession, mining companies must submit to the ANM an Economic Exploitation Plan ("Plano de Aproveitamento Econômico" – PAE), a technical instrument that must address, among other aspects, guidelines for environmental rehabilitation and the decommissioning of mined areas.

These studies must describe the measures to be implemented throughout the entire life of the mine to prevent severe environmental degradation and minimize the environmental impacts associated with mining activities and ancillary structures. Under ANM regulations, information on decommissioning and area rehabilitation must be updated periodically to reflect operational evolution. Mine closure is contingent upon demonstrating compliance with the technical, environmental, and legal obligations established in the approved plans, with the final decision made by the MME.

17.2.4 Environmental Regulation

The analysis of the operational history of the MSG Project was carried out within the scope of environmental licensing, an instrument mandatory in Brazil for mining activities, under Federal Law N° 6,938/1981, which instituted the National Environmental Policy, regulated by Federal Decree N° 99,274/1990. Responsibility for the project's environmental regularization lies with the Goiás State, pursuant to federal legislation and CONAMA Resolution N° 237/1997.

The Brazilian environmental licensing process generally adopts the three-phase model defined by CONAMA Resolution N° 237/1997, comprising the Preliminary License ("Licença Preliminar" – LP), Installation License ("Licença de Instalação" – LI), and Operation License ("Licença de Operação" – LO), which respectively certify environmental and locational feasibility, authorize the implementation of structures, and allow the operation of the project, subject to compliance with the environmental control and monitoring measures required under applicable legislation.

MSG has been conducting gold mining and processing activities at the MSG since 1989. The first geological studies in the region began in 1973, with photointerpretation and bibliographic research. In 1976, prospecting activities commenced in the Mina III area, and in 1985, an underground ramp was developed to confirm reserves previously identified at the surface. In the same year, a drill hole intersected gold mineralization at Mina Nova, leading to detailed exploration campaigns between 1989 and 1991, which resulted in the estimation of a geological resource of 2.85 Mt at an average grade of 5.83 g/t.

Between 1987 and 1989, earthworks, electromechanical assembly, and the start-up of the Metallurgical Plant were carried out. The plant began operations in October 1989 with an initial capacity of 240,000 tpa, reaching 360,000 tpa in 1990. Subsequent expansions increased capacity to 420,000 tpa in 1990, 485,000 tpa in 1991, and 540,000 tpa by the mid-1990s. In parallel, the Mina III and Mina Nova underground mines were developed, with production at Mina Nova commencing in 1996.

Between 1995 and 2005, exploration activities and feasibility studies were carried out for the Palmeiras Orebody, whose development began in 2008. Between 1997 and 2001, industrial testing and investments enabled the expansion of plant capacity to 800,000 tpa, with continuous shift operations. In 2006, open-pit mining (Open Pit) commenced at Mina III, with extraction down to the 50 level. The initial mining front was exhausted in 2009, while the second front was suspended in 2015.

From 2009 onward, new mineralized orebodies were developed, including Pequizão and Ingá, prioritizing underground access integrated with existing infrastructure in order to reduce environmental impacts. During this period, in response to declining average grades, MSG implemented optimizations at the Metallurgical Plant, enabling the processing of up to 1,150,000 tpa of ROM and extending the mine life.

In 2014, the Open Pit Corpo V was licensed and subsequently completed, with waste rock disposal in exhausted pits and licensed waste dumps. Between 2016 and 2018, expansions were implemented at the Mina III Open Pit (South Body), and the Pequizão Open Pit was developed, which began operations in March 2018, with a total estimated production of 8,194,250 t of ore and waste. The Project obtained multiple environmental licenses, including LI, unified LOs, vegetation suppression authorizations, and environmental registrations, consolidating the environmental regularity of operations.

From 2019 onward, MSG's environmental licenses were unified, tailings dam reinforcement and decharacterization processes were implemented, and expansions of pits and waste dumps were carried out, along with the repowering of electrical infrastructure and improvements to access roads and drainage systems. In 2021, an LI was issued for the MSG Expansion Project, covering expansions of open pits, waste rock dumps, and tailings structures. Between 2022 and 2024, new environmental registrations, vegetation suppression authorizations, and licenses for dam reinforcement, reservoirs, waste dumps, and mineral exploration were granted, with environmental compensation formalized through an Environmental Compensation Commitment Agreement.

In January 2025, the renewal request for the unified LO was formally submitted, ensuring the continuity of mining complex operations, and a new environmental registration was issued for vegetation suppression associated with drainage works and sumps under the dam decharacterization project, maintaining the environmental and operational regularity of MSG.

Environmental compliance and associated obligations are reviewed by the environmental authority through regular inspections and license renewals. For example, as part of the renewal of the LO, an Environmental Performance Report was formalized in 2024, which primarily includes evidence of compliance with environmental obligations, results of monitoring programs, and compliance with the environmental control plan required under the current license.

Subsequently, still within the context of the environmental regularization process of the MSG complex, Conduct Adjustment Agreement (*Termo de Ajustamento de Conduta* – TAC) N°

2025012722639 was executed under Administrative Proceedings N° 202400076304. The agreement was entered into by Mineração Serra Grande S.A., the Goiás State (SEMAD), and the Goiás State Public Prosecutor's Office, and was electronically executed on November 27, 2025. The purpose of the TAC was to establish conditions, deadlines, and additional technical obligations for the adjustment and improvement of the project's socio-environmental management, enabling the controlled continuity of operations during the integration procedure of LO N° 88/2023. The instrument is complementary to existing environmental licenses and establishes a set of obligations related to implementation, monitoring, mitigation, compensation, and remediation of environmental impacts, provides for mechanisms of periodic follow-up, independent technical auditing, and graduated penalties, thereby ensuring the maintenance of environmental regularity.

17.3 Summary of Environmental Diagnosis

The MSG Project is located approximately 5 km south of the city of Crixás, in the northwestern portion of the Goiás State, Brazil. The region is part of the Crixás Greenstone Belt, an area of significant mineral interest associated with Paleoproterozoic and Archean metasedimentary and metavolcaniclastic rocks that host mesothermal/orogenic-type gold mineralization.

The local geology is characterized by a sequence of metamorphic and metavolcanic rocks with significant mineralization, interlayered with quartzite, shale, and altered basalt formations. These lithotypes are typical of greenstone belts occurring in Archean and Paleoproterozoic terrains, forming complex geological structures controlled by ancient tectonic events.

The regional climate is classified as tropical semi-humid, with well-defined dry seasons and a rainy period from October to March. The area lies within the Crixás Açu River watershed, an important drainage system in northern Goiás that influences water availability and the dynamics of aquatic ecosystems near the mining operations.

The predominant vegetation within the Project's area of influence is typical of the Cerrado biome, characterized by Brazilian savanna formations, including open savanna (Campo Sujo), dense woodland savanna (Cerradão), palm swamps (Veredas), and gallery forests along watercourses. This biome is recognized for its high biodiversity, with plant species adapted to acidic soils and prolonged dry periods, and it also supports fauna typical of tropical savannas.

The Crixás region has been strongly influenced by gold mining since the 1980s, which has shaped both the local economy and environmental aspects, such as vegetation cover, land use, and water quality.

17.4 Socio-environmental Control Actions

To support the maintenance of its LOs, Aura has a management system for socio-environmental indicators to ensure the Project's environmental quality in accordance with

applicable laws, and compliance with the legal obligations established under the current environmental permits. The main environmental control and monitoring programs, including socio-environmental monitoring, are detailed below.

17.4.1 Properties and Legal Reserve

The land tenure status of the MSG complex is duly regularized, comprising areas owned by Mineração Serra Grande S.A. (MSG) and third-party areas subject to valid agreements that ensure the use required for mining activities. The owned properties and the surface-right areas within the Directly Affected Area ("Área Diretamente Afetada" – ADA) have valid registrations in the Rural Environmental Registry ("Cadastro Ambiental Rural" – CAR) that are compatible with the mining rights and with the layout of the project's structures. According to Aura (2026), no relevant non-compliances or irregular overlaps with Permanent Preservation Areas or Legal Reserves were identified. It is noted that only the CAR registered under the ownership of Mineração Serra Grande S.A. is undergoing a rectification process, which is progressing regularly within the official system, while the remaining registrations remain consistent with the Project's land tenure and operational reality, thereby ensuring environmental regularity.

The conservation of native vegetation is maintained through the company's own monitoring of the Legal Reserve areas.

17.4.2 Air Quality Monitoring

Atmospheric emissions associated with the project arise mainly from the movement of machinery and equipment on unpaved roads, wind action on waste rock dumps, tailings stacks, and other exposed soil surfaces, as well as from the crushing stage, which generates particulate matter. In addition, diesel-powered equipment and vehicles emit atmospheric gases such as nitrogen oxides (NOx) and sulfur oxides (SOx). These emissions are inherent to mining activities and occur throughout the entire Project's life.

The control measures adopted include water spraying on unpaved roads, misting systems in crushing areas, and preventive maintenance of equipment and vehicles. Monitoring emissions from diesel engines is carried out in accordance with ABNT NBR N° 6,016/1986 by assessing soot content using the Ringelmann scale, while air quality monitoring complies with CONAMA Resolution N° 03/1990, which establishes ambient air quality standards and applicable reference methods.

17.4.3 Noise and Vibration Monitoring

Noise and vibration monitoring assesses sound pressure and vibration levels generated by the Project's operational activities to protect the environment, workers, and surrounding communities. The main noise sources during the operational phase include equipment movement and mineral processing plant operations. Preventive measures include source isolation, proper equipment maintenance, and the mandatory use of Personal Protective Equipment (PPE), in accordance with labor legislation.

Rock blasting operations are monitored for vibration and air overpressure and controlled by specific blasting plans. Compliance with vibration criteria is ensured in accordance with ABNT NBR 9653:2018, which establishes limits for particle vibration velocity, while external noise levels are assessed in accordance with ABNT NBR N° 10,151 and applicable environmental legislation, namely CONAMA Resolution N° 01/1990.

17.4.4 Surface and Groundwater Monitoring Program

Surface and groundwater quality monitoring aims to carry out periodic, systematic assessments of water quality at strategically defined sampling points within the project's area of influence. This monitoring supports the evaluation of the effectiveness of environmental control systems, particularly those related to stormwater drainage and effluent management, and the identification of any changes in surface and groundwater quality resulting from Project operations.

The parameters analyzed are predefined to ensure representativeness in light of environmental quality indicators. The program is conducted in accordance with CONAMA Resolution N° 357/2005, which establishes the classification of water bodies, and COPAM Normative Deliberation N° 216/2017, which sets out the requirements applicable to laboratories responsible for environmental analyses, in addition to other relevant legislation that establishes water quality standards.

17.4.5 Solid Waste Management

The Solid Waste Management Plan ("Plano de Gestão de Resíduos Sólidos" – PGRS) is an instrument of the National Solid Waste Policy (Federal Law N° 12,305/2010) that establishes procedures for the environmentally sound management of waste.

In compliance with the National Solid Waste Policy (Federal Law N° 12,305/2010) and other applicable legal provisions, the PGRS is structured to ensure the environmentally appropriate management of waste, encompassing segregation, packaging, collection, temporary storage, transportation, and environmentally sound final disposal.

17.4.6 Erosion Control Program

The Erosion Control Program aims to minimize erosion in areas affected by the Project through planning, control, monitoring, and corrective actions. The program seeks to prevent the siltation of water bodies and to ensure the proper functioning of drainage systems and sediment containment structures.

The actions under this program integrate engineering solutions and revegetation practices, contributing to the stabilization of exposed surfaces, the preservation of downstream water quality, and technical support for the environmental rehabilitation activities under the PRAD.

17.4.7 Acid Drainage Event Monitoring

Monitoring Acid Drainage Events aims to assess the impact of mining activities on surface and groundwater resources, with a focus on managing acid drainage generated by sulfide oxidation. Early identification of the acid-generating potential of rocks enables effective control measures, minimizing environmental impacts and corrective costs. Predictive techniques are also applied to identify risk areas and to estimate water quality in the short and long term.

17.4.8 Hydrological and Hydrogeological Monitoring Program

The Hydrological and Hydrogeological Monitoring Program aims to monitor and analyze variations in the behavior and availability of surface and groundwater resources resulting from MSG's mining activities. Based on continuous monitoring, forecasts of water dynamics are developed, supporting the creation of management tools, decision-making, and the adoption of preventive actions.

17.4.9 Environmental Education and Social Communication

The Environmental Education Program ("Programa de Educação Ambiental" – PEA) and the Social Communication Program ("Programa de Comunicação Social" – PCS) aim to promote awareness, engagement, and participation among internal and external audiences on relevant environmental topics, strengthening a culture of socio-environmental responsibility associated with the Project's activities. The PEA actions are structured in accordance with the National Environmental Education Policy (Federal Law N° 9,795/1999) and are based on permanent and participatory non-formal environmental education processes, focused on the development of social values, knowledge, skills, attitudes, and competencies oriented towards environmental conservation and the improvement of quality of life.

The activities focus on responsible water use, reducing solid waste, and valuing local fauna and flora. They include educational campaigns, lectures, school and community programs, and the distribution of native seedlings and edible plant species. The PCS, in turn, aims to ensure transparency, information dissemination, and continuous dialogue with stakeholders through the use of direct and indirect communication channels, such as public meetings, institutional communications, and engagement with internal audiences, surrounding communities, municipal public authorities, and civil society organizations, thereby ensuring access to information and adequate follow-up of the project's environmental actions.

17.4.10 Fauna and Flora Monitoring Program

The Terrestrial Wildlife and Ichthyofauna Monitoring Programs, the Roadkill Fauna Monitoring Program, the Signage, Access, and Fauna Movement Areas Program, and the Flora Management and Monitoring Program aim to monitor biodiversity conditions within the Project's area of influence, assess impacts associated with operational activities, and support the adoption of mitigation measures and decision-making processes. Monitoring of terrestrial and aquatic

fauna includes common species as well as rare, endemic, and/or threatened species, allowing for continuous assessment of their occurrence and distribution.

Systematic monitoring of wildlife roadkill records supports the proposal of corrective actions to reduce the impacts of vehicle traffic. Preventive measures include educational campaigns, road signage, designated areas for wildlife movement, and speed control on project roads, all of which contribute to wildlife protection and user safety.

The Flora Management and Monitoring Program primarily aims to establish a database on vegetation and its conservation status in areas where MSG conducts its activities, providing technical support for environmental planning and the assessment of future industrial areas expansion.

17.4.11 Medical Importance Insect Program

In addition, monitoring of medically important insects is carried out. The Medical Importance Insect Program includes prevention and control actions targeting the *Aedes aegypti* mosquito, which are necessary due to its significance to public health. It is noteworthy that the mosquito class includes vectors that transmit serious diseases affecting populations, such as malaria, yellow fever, dengue, chikungunya fever, and filariasis.

17.5 Mine Closure Plan

In mine closure, the rehabilitation of degraded areas refers to the set of technical actions aimed at the physical, chemical, and biological stabilization of areas impacted by mining activities, with the objective of achieving safe and stable conditions compatible with the future land use defined for the post-closure period.

According to the Conceptual Mine Closure Plan for the MSG (Arcadis, 2025), mine closure is treated as a continuous process throughout the project life cycle, aligned with international best practices and corporate guidelines, rather than being restricted to the final decommissioning phase. In this regard, progressive rehabilitation is adopted as the central approach, allowing for the anticipation of environmental rehabilitation actions, the reduction of environmental liabilities, the validation of stabilization and revegetation techniques, and the mitigation of risks associated with closure.

According to Arcadis (2025), the conceptual environmental rehabilitation strategies aim to promote ecological succession processes through the gradual re-establishment of vegetation cover, using species compatible with regional edaphoclimatic and phytophysiognomic conditions. These actions seek to integrate rehabilitated areas into the surrounding landscape, taking into account the characteristics of the physical and biotic environments, as well as existing land use and occupation.

Environmental rehabilitation of areas impacted by mining, mineral processing, and waste rock and tailings disposal is carried out in compliance with applicable environmental legislation,

regulatory requirements for mine closure, and established corporate standards. As outlined in the Closure Plan prepared by Arcadis (2025), the main measures include topographic recontouring, implementation of surface and subsurface drainage systems, geotechnical stabilization of slopes and surfaces, soil grading and preparation, and the establishment of initial vegetation cover to control erosion and protect the soil.

The MSG Mine Closure Plan, prepared by ARCADIS (2025), also records that the dam decharacterization works were fully completed in July 2025. It is important to note that the structure remains under continuous monitoring, in compliance with applicable legislation and meeting the requirements of the competent authorities, as well as the safety and stability criteria established for this type of structure.

The ultimate objective is to ensure adequate safety, stability, and environmental functionality for the post-closure period, compatible with the defined future land use (Arcadis, 2025).

Mine closure cost estimates include expenses for preparing specific closure designs, implementing the PRAD, decommissioning and demolishing civil and industrial structures, removing equipment and foundations, land regrading, installing drainage systems and revegetation, as well as post-closure monitoring and maintenance activities. These costs are distributed over time through a physical and financial schedule, taking into account the evaluated operational scenarios (Arcadis, 2025).

According to Arcadis (2025), the total estimated cost of mine closure, including a 25% contingency, is BRL 97,567,007.63 under the ARO (current) scenario and BRL 201,746,411.12 under the life-of-mine (planned) scenario.

It is concluded that, to ensure the effectiveness of environmental rehabilitation actions and compliance with closure success criteria, the closure plan prepared by Arcadis (2025) provides for the implementation of post-closure monitoring and maintenance programs, which will remain in effect until environmental rehabilitation of the impacted areas is demonstrated. Monitoring includes, among other aspects, the geotechnical stability of remaining structures, the efficiency of drainage systems, the quality of surface and groundwater, and revegetation performance, in accordance with previously defined environmental indicators and applicable legal requirements.

17.6 Conclusion

Based on the documentation reviewed, it is understood that the MSG Project is operating regularly, supported by an environmental license currently under revalidation, and by a valid TAC executed with the competent environmental authority.

The assessment of environmental liabilities and/or the environmental quality of the Project’s area of influence was not within the scope of this report, and such responsibilities remain

under the authority of the environmental agencies, in the exercise of their licensing, monitoring, and enforcement instruments.

Accordingly, the assessment presented herein is limited to a high-level analysis from an environmental management perspective, considering the main environmental control and monitoring actions implemented by Aura, as well as the measures adopted to maintain the environmental regularity required for the continuity of operations.

Based on the foregoing, it can be concluded that the continuation of operations at Aura's MSG is considered viable, provided that the control and monitoring actions set forth in the various environmental programs and conditions required by the environmental authority are duly complied with.

18 CAPITAL AND OPERATING COSTS

MSG's forecasted capital and operating costs estimates are derived from annual budgets and historical actuals over the long life of the current operation.

Mine Closure costs were not considered as part of the Capex and Opex for the MSG Project.

18.1 Capex

Once the MSG is a mature project with a processing plant and OP and UG mines already in place.

The MSG Project will require sustaining capital to maintain the equipment and all supporting infrastructure necessary to continue operations until the end of its projected production schedule. The sustaining capital cost estimate developed includes the costs associated with re-investment in site, engineering, environmental compliance, UG mine fleet replacement, plant maintenance, and TSF.

18.2 Opex

Operating costs for the LOM are based on the 2026 plan, considering OP and UG Mine Operating Costs, Processing Operating Costs, and General and Administrative (G&A) Operating Costs. Currently, there are no identified items that should significantly impact operating costs either positively or negatively for the evaluation period. Minor year-to-year variations should be expected based on maintenance outages and production schedules.

The OP and UG Mining Operating Costs were developed from recent actual costs. GE21 has estimated the required mining equipment fleet, required production operating hours, and manpower to arrive at an estimate of the mining costs that the mining operations would incur. Regarding the OP, the drilling, blasting, loading, and hauling operations will be outsourced. A maintenance cost was allocated to each category that required equipment maintenance related to the UG mining operation.

Processing costs consist of crushing, milling, gravity concentration with intensive leaching, thickening, leaching, adsorption, acid scrubbing, elution, electrolysis, smelting, and activated carbon regeneration, along with tailings basin disposal and shop allocations.

G&A costs include management, accounting, human resources, environmental and safety compliance, laboratory, community relations, communications, insurance, legal, training, and other costs not associated with either mining or processing.

A summary of operating costs is presented in Table 18.1.

Table 18.1: MSG operating costs summary

Operation Cost	Cost (US$/t ore)
Mining OP	21.30
Mining UG	67.12
Processing	20.39
G&A	3.65

Source: GE21, 2026.

19 ECONOMIC ANALYSIS

The economic analysis for the MSG Project is based on Mineral Reserves data, including annual mining scheduling, previously presented in this TRS. The economic analysis result is subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from them. Information on which this analysis is based is listed below:

- Mineral Resource estimates.
- Assumed gold prices.
- Assumed currency exchange rates based on the Focus Report by the Central Bank of Brazil.
- The proposed mine production plan.
- Projected mining and process recovery rates.
- Fixed installed processing plant capacity.
- Assumptions as to closure costs and closure requirements.
- Assumptions regarding environmental, permitting, and social risks.
- Changes to the costs of production from what is assumed.

This analysis is not based on:

- Unrecognized environmental risks.
- Unanticipated reclamation expenses.
- Unexpected variations in quantity of mineralized material, grade, or recovery rates.
- Geotechnical or hydrogeological considerations during mining are different from what was assumed.
- Unexpected variations in quantity of mineralized material, grade, or metallurgical recovery and plant recovery efficiency.
- Assumptions regarding geotechnical or hydrogeological conditions during mining.
- Failure of mining methods to operate as anticipated.
- Failure of plant, equipment, or processes to operate as anticipated.
- Accidents, labor disputes, and other mining industry risks.
- Changes to tax rates.
- Assumption of commercial discounts in financial analysis.

19.1 Methodology

An economic model was developed to estimate the Project's annual post-tax cash flow and to perform sensitivity analyses based on an assumed 5% discount rate. The capital and operating cost estimates were summarized in Section 18 of this TRS. The economic analysis has been run with no inflation.

The economic analysis was performed using the following assumptions:

- Year 1 is based on January 2026.

- LOM of 10 yearly feed rate.
- Price inflation and escalation factors are ignored (constant dollar basis).
- Results are based on 100% ownership, under 100% equity assumption basis.
- Project revenue is derived from the sale of gold produced.
- All the products are exported.
- 100% of the production is intended for export.

19.2 Exchange Rate Forecast

The exchange rate used in the economic analysis was based on the Central Bank of Brazil's Focus Report, issued on November 21, 2025 (Table 19.1).

Table 19.1: Exchange rate

Assumptions	2026	2027	2028	2029	2030	2031
Exchange rate (BRL/US$)	5.40	5.50	5.50	5.50	5.50	5.50

Source: GE21, 2026.

19.3 Taxes

Taxes due were estimated by applying existing tax laws to revenues associated with Complex production.

19.3.1 Financial Compensation for the Exploitation of Mineral Resources (CFEM)

The CFEM tax is a federal royalty paid to the Government of Brazil for the extraction and economic exploration of Brazilian mineral resources. The tax rate varies between 1% and 3%, depending on the type of mineral product, and is applied to net revenues. For gold, the tax rate applied is 1.5%.

19.3.2 Income Tax

The income tax (Imposto de Renda sobre Pessoa Jurídica) applies to the profit earned by companies and other legal entities. It is calculated based on the accounting result determined by the legal entity at the end of a reporting period, such as a quarter or fiscal year. In Brazil, the corporate income tax rate for companies taxed under the Actual Profit (Lucro Real) regime is 15% of taxable income, with the possibility of an additional 10% on the portion of profit that exceeds the calculation base of BRL 20,000/month or BRL 240,000/year.

19.3.3 Social Contribution

The Social Contribution tax is used to finance social security matters, including health, social security, and social assistance. The tax rate is 9%, and it is also applied to the earnings before income taxes.

19.3.4 PIS, COFINS, and ICMS

The PIS (Social Integration Program) and COFINS (Contribution for Social Security Financing) rates are social contributions levied on the gross revenue of companies in Brazil. These contributions have variable rates depending on the company's tax regime.

On the other hand, ICMS (Tax on Circulation of Goods and Services) is a Brazilian State tax that applies to the circulation of goods, interstate and intermunicipal transportation, communication, and services. The ICMS rate also varies by Brazilian state and by the type of product or service.

PIS, COFINS, and ICMS are considered value-added taxes based on Brazilian tax law. The taxes paid for these concepts may be creditable when the Project is in commercial operation.

The financial model does not consider these taxes because these taxes do not apply to exports.

19.4 Net Operating Losses Benefit (NOL)

The financial model incorporates the benefit of accumulated tax losses, or Net Operating Losses (NOLs), generated in prior operating periods. Under Brazilian tax regulations, these accumulated tax losses and the negative base of the Social Contribution (CSLL) can be carried forward indefinitely to offset future taxable income. However, the use of these credits is legally capped, allowing the company to reduce its taxable income by up to 30% in any given fiscal year.

The Project's economic analysis applies a benefit of US$ 19.0 million to reduce the effective tax burden, assuming that the necessary corporate and legal frameworks are maintained to preserve the entity's statutory right to utilize these specific tax credits

19.5 Royalty Right

Regarding the ore bodies Baru, Caja, Corpo IV, Corpo V Sul, Dolomito, Forquilha, Ingá, Limoeiro, Mangaba, Mina III VQZ, Mina Nova, Palmeiras, Palmeiras Sul, and Pequizão, an NSR participation, varying from 0.75% to 2.0%, is due to each landowner, proportional to their surface rights.

19.6 Working Capital

A high-level estimation of working capital was incorporated into the cash flow based on accounts receivable (30 days), inventories (30 days), and accounts payable (30 days).

19.7 Closure Costs, Remediation Costs, and Salvage Value

MSG already has the Conceptual Mine Closure Plan, which includes an assessment of activities necessary to minimize impacts associated with the activity's closure phase. The closure project costs are estimated at US$ 36.7 million. These costs were based on the report

“Conceptual Plan for the Closure of the Mineração Serra Grande” (Plano Conceitual de Fechamento da Mineração Serra Grande), prepared by Arcadis and dated October 2025. The cost model assumes certain expenses related to the elaboration of mine-closure executive projects, degraded-area recovery projects (PRAD), PRAD execution, decommissioning of structures, and other executive activities necessary for closure.

19.8 Results

19.8.1 Discounted Cash Flow

A simplified discounted cash flow basis was developed to assess the Project based on economic and financial parameters. The complete cash flow is provided in Table 19.2.

Table 19.2: Discounted cash flow

	Year	Total	1	2	3	4	5	6	7	8	9	10
Gold	kozt	710.76	67.44	55.99	86.94	88.49	89.22	95.89	89.36	85.10	31.66	20.67
Price Au	US$/oz	3,845.78	4,648.00	4,554.00	4,207.00	3,971.00	3,515.00	3,515.00	3,515.00	3,515.00	3,515.00	3,515.00
Revenue Au	M US$	2,733.44	313.47	255.00	365.77	351.39	313.60	337.05	314.11	299.12	111.27	72.66
Gross Revenue	M US$	2,733.44	313.47	255.00	365.77	351.39	313.60	337.05	314.11	299.12	111.27	72.66
Freight & Refining	M US$	34.05	3.23	2.68	4.16	4.24	4.27	4.59	4.28	4.08	1.52	0.99
Net Smelter Return	M US$	2,699.40	310.24	252.32	361.61	347.15	309.32	332.46	309.83	295.05	109.76	71.67
Tax Sales	M US$	40.49	4.65	3.78	5.42	5.21	4.64	4.99	4.65	4.43	1.65	1.08
Net Revenue	M US$	2,658.91	305.59	248.53	356.18	341.94	304.68	327.47	305.18	290.62	108.11	70.59
OPEX Total	M US$	1,236.05	114.30	113.47	146.60	145.89	148.62	147.69	153.09	135.73	74.49	56.16
Opex Mine	M US$	809.33	74.85	77.35	96.67	95.57	98.76	98.40	102.99	85.37	46.24	33.12
Opex Plant	M US$	242.02	20.07	17.46	30.58	31.05	31.34	29.97	30.83	32.13	11.72	6.87
Royalties	M US$	28.70	3.78	3.07	3.75	3.68	2.91	3.72	3.67	2.63	0.94	0.56
SG&A (other cash cost)	M US$	156.00	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60
Cash Cost	*US$/oz*	*1,843.91*	*1,811.60*	*2,142.02*	*1,796.44*	*1,755.47*	*1,765.75*	*1,640.14*	*1,813.03*	*1,694.90*	*2,452.99*	*2,816.76*
SG&A overhead	M US$	33.00	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
All in Sustaining Costs	*US$/oz*	*2,471.61*	*2,569.03*	*3,008.25*	*2,399.22*	*2,321.93*	*2,256.52*	*2,047.95*	*2,232.49*	*2,155.74*	*3,843.32*	*4,772.24*
Gross Profit	M US$	1,389.86	187.99	131.76	206.28	192.75	152.76	176.48	148.79	151.59	30.32	11.13
Depreciation	M US$	160.11	-	4.78	9.30	14.21	18.89	22.94	26.52	29.94	33.53	-
EBIT (US$)	M US$	244.32	-18.13	48.60	17.87	48.49	47.62	41.35	55.79	30.29	32.40	-29.31
NOL Useable	M US$	19.00	19.00	-	-	-	-	-	-	-	-	-
Taxable Income	MUS$	1,210.75	168.99	126.98	196.98	178.54	133.87	153.54	122.27	121.65	-3.21	11.13
Income Tax	M US$	412.75	57.46	43.17	66.97	60.70	45.52	52.20	41.57	41.36	-	3.79
Net Income	M US$	817.00	130.54	83.81	130.01	117.84	88.35	101.33	80.70	80.29	-3.21	7.35
(=) EBIT	M US$	1,229.75	187.99	126.98	196.98	178.54	133.87	153.54	122.27	121.65	-3.21	11.13
Depreciation	M US$	160.11	-	4.78	9.30	14.21	18.89	22.94	26.52	29.94	33.53	-
(=) EBITDA	M US$	1,389.86	187.99	131.76	206.28	192.75	152.76	176.48	148.79	151.59	30.32	11.13
Ebtida Margin			62%	53%	58%	56%	50%	54%	49%	52%	28%	16%
(-) Capex	M US$	-	-	-	-	-	-	-	-	-	-	-
(-) Sustaining	M US$	388.56	47.78	45.20	49.11	46.83	40.49	35.80	34.18	35.92	28.23	25.01
(+) Residual Value	M US$	228.45	-	-	-	-	-	-	-	-	-	228.45
(+-) Working Capital	M US$	-	21.44	-5.71	6.75	1.50	-2.25	0.92	-1.23	-1.39	-14.00	-1.67
(-) ARO	M US$	36.70	-	-	-	-	-	-	-	-	12.48	12.11
(-) Income Tax	M US$	412.75	57.46	43.17	66.97	60.70	45.52	52.20	41.57	41.36	-	3.79
(=) Post-tax Cash Flow	M US$	780.30	61.32	49.09	83.45	83.72	69.01	87.55	74.26	75.70	3.60	200.34

Source: GE21, 2026.

The estimated Project results are listed in Table 19.3. The base case estimates a post-tax NPV of US$ 588.1 million at a 5% per year discount rate.

Table 19.3: Simplified discounted cash flow results (post-tax)

Description	Value
Net Present Value Discounted at 5% (million US$)	588.09
Sustaining and Closure Capital (million US$)	425.26
Cash Cost (US$/ozt)	1,310.58
AISC (US$/ozt)	1,347.28

Source: GE21, 2026.

19.9 Sensitivity Analysis

A sensitivity analysis was conducted to evaluate the impact of the resulting economic indicators on the following attributes within the cash flow: Price, Capex, and Opex. The first four attributes were evaluated by varying their values from 80% to 120%, while the discount rate was evaluated by varying its value from 8% to 12% (Figure 19.1).

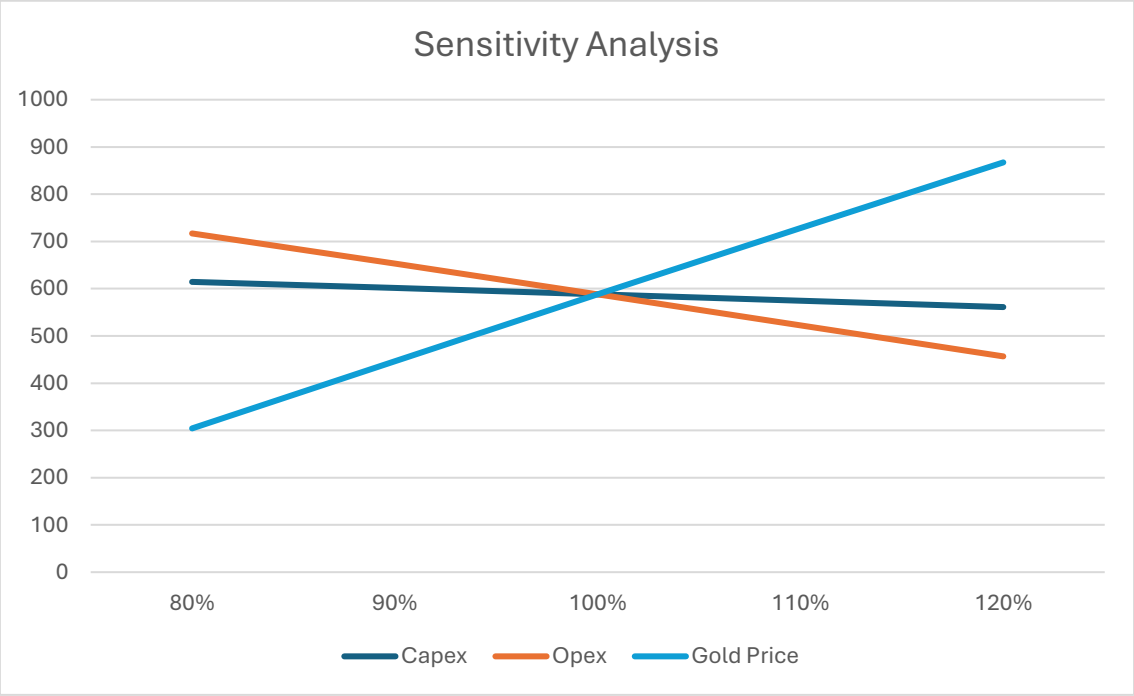


Figure 19.1: Sensitivity analysis

Source: GE21, 2026.

In conclusion, the asset's viability is intrinsically tied to market dynamics and cost efficiency, making it highly vulnerable. The strong correlation with commodity prices creates a significant market opportunity: a 20% drop would severely constrain cash generation, dragging the NPV down to US$ 300 million. Concurrently, the high sensitivity to Opex (reaching US$ 460 million in the worst-case scenario) demands strict governance of operating costs. On the other

hand, the Project demonstrates robustness against Capex overruns, safely absorbing potential fluctuations in initial capital expenditure.

20 ADJACENT PROPERTIES

Not applicable.

21 OTHER RELEVANT DATA AND INFORMATION

Not applicable.

22 INTERPRETATION AND CONCLUSIONS

22.1 Geology, Exploration, and Drilling

The Serra Grande gold deposit is an orogenic mesothermal deposit, associated with the development of shear zones that belong to the Upper Archaean Crixás Group. Mineralization at Serra Grande is associated with shear zones within the lithologies of the Rio Vermelho and Ribeirão das Antas Formations in the CGB.

Gold mineralization is associated with metasediments and metavolcanics from the Ribeirao das Antas and Rio Vermelho formations, respectively.

Mineralization control is related to the D1 and D2 deformational events of CGB.

- D1: Thrusting event (D1 from west to east), developed with irregular thrust ramp geometry. This event was responsible for stacking and inverting the stratigraphic sequences.
- D2: Thrusting of the Santa Terezinha sequence over the CGB, folding the rocks (F2) and generating the structural controls for gold mineralization, generally parallel to the fold axis.

The known mineralization is hosted in six main domains (structures): Structure II, III, 3.5, IV, Palmeiras, and V.

Over the more than 30 years from the initial development of commercial-scale mining at Serra Grande, more than 2,000 km of exploration drilling have outlined numerous mineralized bodies on the different structures.

Continued drilling is an essential component to progress exploration and resource upgrades for future mine development as resources are depleted. Currently, MSG operates company-owned drill rigs.

The geological, structural, and stratigraphic controls on mineralization are well understood by MSG geologists. Knowledge has developed over time, and MSG has been keen to encourage work leading to a more profound understanding. This has been an important factor that has led to further exploration, discoveries, and extensions to the resource base over the life of the operation.

22.2 Data Management and Analytical Quality Control

MSG data management is undertaken within the Century Systems (Fusion database). Industry standard data management protocols are adopted, which contribute to the availability of secure, valid, and appropriately formatted data for Mineral Resource estimation. Sample preparation and analysis for MSG drilling and channel samples are conducted according to best practice industry procedures. Samples are cut, crushed, split, and pulverized prior to analysis. Analytical laboratory performance is suitably monitored by an adequate mix of certified reference materials (CRMs), blanks, coarse duplicate samples, as well as external laboratory check

analysis. Regular visits to the analytical laboratories are made, and the results of laboratory performance are regularly charted and reported to management. Appropriate pass/fail criteria are in place. Observed analytical quality control results suggest that the analytical data is suitable for grade estimation.

22.3 Sample Preparation, Analyses, and Security

Core handling, logging, and sampling protocols and methods are compliant with industry best practices.

MSG's analytical laboratory was suitably monitored by external checks on commercial labs.

The results of the blank samples analysis indicate there was no significant or systematic contamination during the sample preparation and analysis stages. CRM materials charts were reviewed by the QP and present accuracy results within acceptance limits for mineral resource classification.

The gold duplicate results range between 46% and 90% below the 15% precision limit of Half Average Real Difference (HARD), which is a known issue representing moderate to low precision. The QP believes these results reflect a high variability of gold grades due to the gold grain sizes property of the MSG Project, and this feature must be investigated.

The quality of sampling security, sampling methods, preparation, and analytical quality is considered by the QP within acceptance limits for Mineral Resource classification purposes.

22.4 Mineral Resource Estimates

The QP validated the database and estimates by MSG using Surpac software by comparative methods to check the smoothness effect and swath plots. Mineral resource classification was validated using information from previous reports and checking over the quality and confidence in sampling and assay, location and spacing of sampling, geological modeling, and grade estimate methods.

The drilling database supplied by Aura was visually validated, considering the relationship between tables, gaps, overlaps, and the absence of essential information. No relevant inconsistencies were identified in this stage of the work, as they were verified in the data verification stage.

The block models inside mineralization zones were validated using Surpac software based on visual and volumetric validation of some selected targets. Visual adherence is inside acceptance limits.

The QP validated the estimate through visual verification and global and local bias verification. The global and local bias checks were carried out using GE21's NN, and OK estimates as the basis of a comparative analysis with the OK grade estimate by MSG. NN-Checks

plots show the results of the global bias analysis and the smoothing effect of the estimated Au ppm. The QP concluded that biases and shooting effects are inside acceptance limits for mineral resource classification. The QP also considered the MSG estimation inside acceptance limits for mineral resource classification by Swath Plot analysis results.

The QP validated and accepted the criteria applied by the MSG's mineral resource classification as measured, indicated, and inferred classes based on 15% confidence in the quarterly and annual production rules and parameters, and parameterized in sampling grid spacing.

The updated Mineral Resources table for the MSG Project has an effective date of November 30, 2025. Totals for open-pit mineral resource estimate exclusive from mineral reserves for Measured plus Indicated classes are 5.86 Mt at 1.25 g/t Au average grade, comprising about 236 koz of gold, and 8.91 Mt at 1.16 g/t, comprising about 332 koz of gold for the Inferred Mineral Resource class. Totals for underground mineral resource estimate exclusive from mineral reserves for Measured plus Indicated classes are 6.40 Mt at 4.19 g/t Au average grade, comprising about 863 koz of gold, and 13.37 Mt at 4.03 g/t, comprising about 1,733 koz of gold, for the Inferred Mineral Resource class.

22.5 Mineral Reserves

MSG is an active operation that consists of a number of underground mines, open-pit mines, and projects. The mineral reserves overwhelmingly come from the underground mines.

The Mineral Reserve Estimate was prepared using S-K 1300 definitions.

MSG's Proven Mineral Reserves are estimated at 0.39 Mt with a grade of 1.36 g/t Au for OP and 2.02 Mt with a grade of 2.41 g/t Au for UG. MSG's Probable Mineral Reserves are estimated at 11.06 Mt with a grade of 1.18 g/t Au for OP and 8.46 Mt with a grade of 1.98 g/t Au for UG.

The total OP and UG Mineral Reserve for the MSG Mine was estimated at 11.93 Mt at 1.96 g/t for 752.77 koz of gold.

The current Mineral Reserve for MSG supports a total mine life of 10 years.

The QP considers the modelled recoveries for all ore sources and process plant combined process and engineering unit costs, used within the Mineral Resource and Mineral Reserve process, to be acceptable.

22.6 Processing

The MSG process plant operational risks are materially reduced as a function of the two separate process streams and independent milling circuits. The process plant has demonstrated excellent improvements in throughput capability, even performing beyond the design capacity at 1.5 Mtpa, with consistent recovery performance. The ore feed plan is blended using both

underground ore and ore sourced from satellite open pits at MSG in order to provide a stable feed grade blend. The QP considers the modelled recoveries for all ore sources and the process plant and engineering unit costs applied to the Mineral Resource and Mineral Reserve process to be acceptable.

22.7 Environment

Based on the documentation reviewed, it is understood that the MSG Project is operating regularly, supported by an environmental license currently under revalidation, and by a valid TAC executed with the competent environmental authority.

The assessment of environmental liabilities and/or the environmental quality of the Project's area of influence was not within the scope of this report, and such responsibilities remain under the authority of the environmental agencies, in the exercise of their licensing, monitoring, and enforcement instruments.

Accordingly, the assessment presented herein is limited to a high-level analysis from an environmental management perspective, considering the main environmental control and monitoring actions implemented by Aura, as well as the measures adopted to maintain the environmental regularity required for the continuity of operations.

Based on the foregoing, it can be concluded that the continuation of operations at Aura's MSG is considered viable, provided that the control and monitoring actions set forth in the various environmental programs and conditions required by the environmental authority are duly complied with.

22.8 Economic Analysis

The Project's economic model demonstrates strong financial performance based on conservative long-term price assumptions. By prioritizing structural stability over short-term market volatility, the analysis confirms the Project's ability to generate consistent value throughout its operational life.

The results indicate that at a gold price of US$ 3,515/oz, the MSG Project returns a post-tax net present value (NPV) of US$ 588.1 million at 5%.

Table 22.1: Simplified discounted cash flow results (post-tax)

Description	Value
Net Present Value Discounted at 5% (million US$)	588.09
Sustaining and Closure Capital (million US$)	425.26
Cash Cost (US$/ozt)	1,310.58
AISC (US$/ozt)	1,347.28

Source: GE21, 2026.

The sensitivity analysis indicates that the Project's Net Present Value (NPV) is most responsive to fluctuations in commodity pricing and operational expenditures (OPEX).

Nevertheless, the results confirm that the operation remains robust, maintaining a significant margin of safety and solid returns even under stressed market conditions.

23 RECOMMENDATIONS

23.1 Exploration

In terms of exploration, Aura strongly believes that there is an exploration upside in the Project area to expand and improve Mineral Resources, and consequently, the future Project's Life of Mine (LOM). Aura has 10,540.07 ha of mineral rights, which represents a significant land position within CGB, and an excellent opportunity for growth.

Continued exploration and drilling are recommended for the expansion of current mines and near mine targets to further delineate mineralization in the area.

Regarding the Mineralization Model and the Resources Estimation, an additional drilling program is recommended, with the objective of:

- Checking the open High-Grade zones with potential to improve the Resource grades.
- Improving the geological model confidence and upgrading the mineral resources classification to Measured and Indicated.

23.2 Data Management and Analytical Quality Control

It's recommended a robust program of Screen Fire Assay analysis to characterize the moderate to low precision on duplicate QAQC sample results.

23.3 Mineral Resource Estimates

It's recommended to model a new low-grade mineralization zone based on the updated marginal cut-off grade for open pit due to the current increase in gold selling prices.

It's also recommended to conduct a study related to searching neighboring strategy for ordinary kriging to check the influence of the maximum number of samples on the grade estimate. It's possible that the maximum number of samples applied by MSG (40 samples) is too high and provides a significant smoothing effect on the grade estimate.

23.4 Environment

It is recommended that MSG maintain the continuous and integrated execution of environmental control actions and monitoring programs foreseen in the Unified Operating License N° 88/2023 and the current Conduct Adjustment Agreement (TAC), ensuring regulatory compliance and operational stability of the Project.

In this context, full compliance with the established conditions must be guaranteed through systematic control of deadlines, organization of documentary evidence, and proper protocol of technical reports with the competent environmental agency.

It is also recommended to ensure the continuity and traceability of environmental monitoring programs, with periodic critical analysis of results and timely adoption of corrective measures whenever necessary.

Additionally, it is recommended to keep environmental risk management instruments updated, such as risk matrices, Emergency Action Plan (when applicable), and operational procedures, ensuring permanent alignment with current legislation and good environmental management practices. Priority should also be given to addressing the technical demands of the environmental agency within the license renewal process. Continuous improvement of good management practices and ongoing enhancement of environmental performance are recommended.

24 REFERENCES

Almeida, F. F. M.; Hasui, Y. **O Pré-cambriano do Brasil**. São Paulo: Edgard Blücher, 1984. 378p.

Anglo Gold Ashanti. 2019. **Novo Plano Integrado de Aproveitamento Econômico**, August 2019.

Anglo Gold Ashanti. 2022. **Technical Report Summary Serra Grande Mine - A Life-of-Mine Summary Report**, March 2022.

Anglo Gold Ashanti. 2024. **Mineral Resource and Mineral Reserve at December 31, 2024**, December 2024.

Arcadis. 2025. **Plano Conceitual de Fechamento da Mineração Serra Grande. Anglo Gold Ashanti – Mineração Serra Grande S.A., Rev**. 4, outubro de 2025

Aura Minerals Inc. 2025. **Síntese da Geologia Regional e Local**. Aura Serra Grande. 25p.

Aura Minerals Inc. 2026. **Quem somos**. Disponível em: https://www.auraminerals.com/quem-somos/. Acesso em: jan. 2026.

Jost, H.; Apollo, J.F.H.; Weber, W.; Salles, R.d.R.; Marques, J.C.; Massucatto, A.J.; Costa, D.A.; dos Santos, B.A. 20219. Stratigraphic update, paleotectonic, paleogeographic, and depositional environments of the Crixás Greenstone Belt, Central Brazil. **J. South. Am. Earth Sci**. 2019, 96, 102329.

Magalhães, L.1991. **Cinturão de Cisalhamento de Empurrão Córrego Geral/Meia Pataca: Geologia, Deformação, Alteração Hidrotermal e Mineralizações Auríferas Associadas (Crixás, Goiás)**. Master's Thesis, Universidade de Brasília, Brasília, Brazil, 1991

Mineração Serra Grande Ltda. 1986. **Relatório de Impacto Ambiental (RIMA): Projeto Crixás**. Crixás, GO: Mineração Serra Grande Ltda., 1986.

Nota Técnica – **Avaliação e Situação do Cadastro Ambiental Rural (CAR) nas Propriedades da Área Diretamente Afetada (ADA) do Complexo Minerário Serra Grande, atendimento ao item 11.2.1 do TAC nº 2025012722639**, janeiro de 2026.

Queiroz, C. 1995. **Caracterização dos Domínios Estruturais e da Arquitetura do Greenstone Belt de Crixás, GO**. Master's Thesis, Universidade de Brasília, Brasília, Brazil, 1995.

Queiroz, C.; Alkmim, F.; Kuyumjian, R. 1995. Estudo dos lineamentos de relevo da região do Greenstone Belt de Crixás, GO, através de imagens de sensores remotos**. Boletim de Geociências do Centro-Oeste 1995**, 18, 57–65.

Sabóia, L.A.; Teixeira, N.C; Teixeira, S.A. 1981. **Geologia do greenstone belt de Crixás (GO) e suas implicações geotectônicas**. In: SIMPOSIUM CRÁTON SÃO FRANCISCO E SUAS FAIXAS MARGINAIS. Salvador, Bahia, Proceedings, pp. 39-50.

Ulrich, S.; Hageman, S.; Marques, J.C.; Figueiredo, F.L.A.R.; Ramires, J.E.F.; Frantz, J.C.; Petersen, K. 2021. The Orogenic Crixás Gold Deposit, Goiás, Brazil: A Review and New Constraints on the Structural Control of Ore Bodies. **Minerals 2021**, 11, 1050. https://doi.org/10.3390/min 11101050

25 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

This TRS has been prepared by GE21. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the QPs at the time of preparation of this TRS.
- Assumptions, conditions, and qualifications as set forth in this TRS.
- Data, reports, and other information supplied by Aura and other third-party sources.

The QPs have assumed and relied on the fact that all the information provided in existing technical documents listed in the References section of this TRS is accurate and complete in all material aspects. Although the QPs have carefully reviewed all available information, they cannot guarantee its accuracy or completeness. Information regarding the ownership, operating licenses, permits, and work contracts was provided by Aura and MSG. The information presented regarding the tenure, status, and work permitted by permit type is based on information published by the ANM of Brazil as of the effective date, November 30, 2025.

The QPs have taken all appropriate steps, in their professional opinion, to ensure that the above information from Aura is sound.