



NI 43-101 Technical Report

São Jorge Project, Pará State, Brazil

GoldMining Inc.

Prepared by:

SLR Consulting (Canada) Ltd.

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Qualified Persons:

Reno Pressacco, P. Geo., Associate Principal Geologist

NI 43-101 Technical Report for the São Jorge Project, Pará State, Brazil

SLR Project No. 233.65104.00000

Prepared by

SLR Consulting (Canada) Ltd.

55 University Ave., Suite 501

Toronto, ON M5J 2H7

for

GoldMining Inc.

1188 W. Georgia Street, Suite 1830

Vancouver, British Columbia V6E 4A2

Effective Date - January 28, 2025

Signature Date - February 26, 2025

Prepared by:

Reno Pressacco, P.Geol.

Peer Reviewed by:

Valerie Wilson, M.Sc., P.Geol.

Approved by:

Project Manager

Luke Evans, P.Eng., ing.



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1.0 Summary

1.1 Executive Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by GoldMining Inc. (GMI) to prepare an updated Mineral Resource estimate and an independent Technical Report on the São Jorge Project (the Project), located in Pará State, Brazil. The purpose of this Technical Report is to support the disclosure of the updated Mineral Resource estimate for the Project. This Technical Report was prepared in accordance with NI 43-101 Standards of Disclosure for Mineral Projects.

GMI is a Vancouver-based public mineral exploration company that is focused on acquiring and developing gold assets in the Americas. Its assets include a diversified portfolio of resource-stage gold and gold-copper projects located in Canada, the U.S.A., Brazil, Columbia, and Peru, along with share holdings in Gold Royalty Corp., U.S. GoldMining Inc., and NevGold Corp. Its shares trade on both the TSX (GOLD) and the NYSE American (GLDG) exchanges.

The major asset of the São Jorge Project is the São Jorge deposit, which was initially discovered by artisanal miners during the Tapajós gold rush that occurred from the late 1970s until the late 1990s. Continued exploration activities consisting of geological mapping, soil sampling and auger and diamond drilling programs on the property has resulted in defining the dimensions of the São Jorge deposit. This deposit is an example of an intrusion-related, fracture-controlled, disseminated/veinlet gold deposit that bears similar geological characteristics to other deposits located along the Tocantinzinho-São Jorge trend.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification. A summary of the updated Mineral Resource estimates is presented in Table 1-1.

Table 1-1: Summary of Mineral Resources as at January 28, 2025

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated	19,418	1.00	624
Inferred	5,557	0.72	129

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a break-even cut-off grade of 0.27 g/t Au for classified blocks above a constraining pit shell.
3. Mineral Resources are estimated using a long-term gold price of US\$1,950 per ounce.
4. A minimum mining width of five metres was used.
5. There are no Mineral Reserves estimated at the São Jorge Project. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
6. Totals may not add due to rounding.



1.1.1 Conclusions

The SLR QP offers the following conclusions by area:

1.1.1.1 Geology and Mineral Resources

- Observations made in drill core suggest that the gold mineralization is often associated with the presence of sulphide minerals where at least 99 percent of sulphides are pyrite. Statistical analyses of the relationship between sulphide abundance as logged in drill core and gold grades reveal a poor correlation. While the presence of sulphide minerals appears to be a prerequisite for elevated gold values, there is no clear and consistent correlation between sulphide abundance and gold grades. Many instances are noted in drill core where sulphide mineralization is present with little to no associated gold values.
- The SLR QP observes that a direct correlation is present between the location of the known extents of the São Jorge deposit and elevated chargeability values. The elevated chargeability values are attributed to the presence variable abundances of pyrite in the deposit occurring as disseminations and stockwork veinlets. The SLR QP notes that the elevated chargeability values continue along strike to the southeast from the known limits of the deposit into areas that are not extensively tested by diamond drilling.
- The SLR QP also observes that a bulge in the chargeability values is present to the south of the southeastern limits of the São Jorge deposit. Only a small number of diamond drill holes have been completed in this area.
- The 2024 auger drilling program was successful in discovering several instances of elevated gold values within the shallow levels of the saprolite zone at the William South area.
- The 2024 diamond drilling program was successful in confirming the interpreted location of the gold mineralization (DDH SJD-120-24), locating the northwestern strike extension of the mineralized zone (DDH SJD-122-24), intersecting the gold mineralization along a parallel mineralized zone located to the northwest of the main mineralized trend (DDH SJD-121-24), and intersecting previously untested mineralized zone (DDH SJD-123-24).
- The work completed by GMI has aided to advance the understanding of the controls on the distribution of the gold mineralization at the São Jorge deposit.
- While the gold mineralization is observed to be mostly correlated with increased concentrations of sulphide minerals, particularly pyrite, no clear fabric or indications of strain were observed in the drill core. Due to the lack of clear controls on the location of the gold values, a series of wireframe interpretations were prepared using a nominal assay threshold value of 0.25 g/t Au using the Leapfrog software package.
- A total of ten mineralization wireframes were prepared using a minimum width of approximately five metres. The mineralization wireframes together have a strike of approximately azimuth 110°, have a strike length of approximately 1.5 km, and dip sub-vertically from surface to a depth of approximately 430 m beneath the surface. The mineralization wireframes include gold assays found both within the weathered zone and the fresh host rocks.
- Neither the strike extensions nor the depth limits of the mineralized system have been well defined by drilling. Furthermore, drill hole SJD-121-24 was successful in demonstrating the presence of a parallel mineralized zone located to the northwest and



arranged in an en-echelon relationship with the main mineralized corridor. The strike limits of this new mineralized trend have also not been defined by drilling.

- A contour of the gold grades constructed for Domain 201 (the largest mineralized domain) reveals that they occur in higher grade pockets and shoots that plunge moderately to the west, steeply to the east, or can be horizontal. The contours for Domain 303 suggest that the gold grades occur along a zone plunging approximately 30° to the west.
- The conceptual operational scenario envisions that mineralized material would be extracted by means of an open pit mine at a potential mining rate on the order of 5,000 tpd to 15,000 tpd, with the gold recovered using a cyanide leach flowsheet.
- An upright, non-rotated, sub-blocked block model was created, using Dassault Systèmes Surpac version 2024 Refresh1 software package (Surpac), that comprised an array of parent blocks that measured 5 m x 5 m x 5 m (easting, northing, elevation). Two levels of sub-blocks were created to a minimum size of 1.25 m x 1.25 m x 1.25 m (easting, northing, elevation).
- Gold grades were interpolated into the individual blocks for the mineralized domains using the inverse distance cubed (ID³) interpolation method using a two-pass estimation approach. “Hard” domain boundaries and fixed search ellipse orientations were used to estimate the block grades. Only those samples contained within the respective domain models were allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. The capped, composited gold grades of the drill hole intersections were used to estimate the gold block grades.
- The mineralized material for each domain was classified into the Indicated or Inferred Mineral Resource category considering the ranges obtained from the variography study, the demonstrated continuity of the gold grades observed from the trend analysis study, the demonstrated spatial continuity of the mineralized wireframe domains, and the density of drill hole information. Clipping polygons were used to apply the final classification codes to the block model.
- In general, those portions of the mineralized wireframes for domains 104, 201, and 303 were classified into the Indicated Mineral Resource category (Class = 2) where the drill hole information was at a drill hole spacing of 60 m or less. Those portions of the mineralized wireframes were classified into the Inferred Mineral Resource category (Class = 3) where the drill hole information was at a drill hole spacing of 100 m or less.
- A base case pit shell surface was created using the pseudoflow algorithm option of the Whittle software package using estimated operating costs of US\$2.50/t for mining, US\$10.00/t for milling, and US\$5.50/t for general and administrative costs, and a long term gold price of US\$1,950/oz Au.
- Along with overall metallurgical recoveries of 90%, a selling cost of US\$6.00/oz Au, and a royalty rate of 3.5%, the SLR QP estimates the break-even cut-off grade to be 0.27 g/t Au and the pit discard cut-off grade to be 0.22 g/t Au.



1.1.1.2 Mineral Processing

- For met samples SJ-AL1-T1, which represents the sulphides, and SJ-AL2-T2, which represents the oxides, gold recovery for the finer ground samples (P_{80} 75 microns) ranged from 91.1% to 95.8% for the sulphides and between 86.1% to 91.2% for the oxides.
- At an anticipated head grade of approximately 1.57 g/t Au, the overall recovery is expected to be in the range of 94.0% or slightly higher, if the process incorporates a carbon-in-leach (CIL) circuit with a feed size of P_{80} equal to or less than 75 microns.
- The feed is categorized as medium to hard with a Ball Mill work index ranging from 13.7 to 15.7 kWh/t.
- Leach kinetics curves indicate that maximum gold recovery can be achieved after 22 hours of leaching for the sulphide material. Leach kinetic curves were not generated for the oxide material.

1.1.2 Recommendations

The SLR QP offers the following recommendations by area:

1.1.2.1 Geology and Mineral Resources

- 1 Consider completing mineral chemistry studies on both the mineralized and barren pyrite present in the São Jorge deposit to determine whether a difference in the pyrite chemistry can be used as an exploration tool.
- 2 Carry out exploration drilling to search for bedrock sources of the gold mineralization discovered by GMI's auger drilling program in the William South area.
- 3 Carry out additional exploration activities to search for the possible strike extensions of the São Jorge mineralized corridor as well as defining the extent of the mineralization in the northwestern zone.
- 4 Determine the bulk density of the weathered material prior to the preparation of future Mineral Resource estimates.
- 5 Carry out geotechnical studies in support of the selection of overall wall slope angles for fresh rock and for the soil and saprolite layers.

1.1.2.2 Mineral Processing

The SLR QP recommends that metallurgical testing be carried out to support metallurgical recoveries and future mineral processing plant design.

- 1 Prepare samples for each lithology as well as a master composite sample for the deposit. Samples should be chosen to be representative of the material that will be mined in the first five years of the mine life and should be selected by the Project Geologist in collaboration with the Lead Process Engineer and Mining Engineer.
- 2 Conduct the following metallurgical test work:
 - a) Variability testing in order to fully understand and define the metallurgical response of the oxide and sulphide deposits. These variability samples would be used not only to develop the resource block model but would also be used in the grinding and



- leach test program. The results of this test work would be inputted back into the block model in order to allow for metal extractions to be predicted across the deposit.
- b) Analyses on the samples for each lithology and the master composite sample:
 - i. Element analysis, specifically gold, silver, copper, sulphur, and iron.
 - ii. Mineralogical examination in order to obtain bulk modal analyses data and liberation data.
 - iii. QEMSCAN analysis on the final tails from the deposits in order to better understand the mineral composition within the deposit, thus indicating how metallurgical performance may be affected.
 - c) Comminution testing, including Modified Bond ball mill work index tests, several full Bond ball mill work index determinations, Bond rod mill work index, crushing work index, abrasion work index, Unconfined Compression tests (UCS), SAG Mill Comminution tests (SMC) and JKTech drop weight tests in order to properly size the comminution circuit.
 - d) HPGR (high pressure grinding rolls) testing on the master composite to evaluate the options for semi-autogenous (SAG) milling. This would require a Static Pressure Test (SPT) to be performed.
 - e) A series of flotation tests on both sulphide and oxide material types in order to establish if flotation would be an appropriate flowsheet option in order to optimize gold recovery.
 - f) Further gravity tests on both material types at various grinds in order to confirm original findings. The gravity concentrate recoveries should be stated with the grade of the concentrate produced.
 - g) Leaching of the gravity concentrate in order to determine overall recovery rates and establish leach kinetic curves along with reagent consumptions. Leach kinetic curves need to be established on master composite samples for both the oxide and sulphide material. Reagent optimization for both material types needs to be established.
 - h) Once optimum conditions have been established with the master composites, bench tests on the variability samples using the same set of conditions.
 - i) Once optimum conditions have been established from bench tests, locked-cycle testing and potentially a pilot plant trial in order to confirm initial findings.
 - j) Settling tests on the tailings for both material types are required. This would involve appropriate flocculent selection (ionic, cationic, neutral, coagulant) settling test work (feed percent solids, dosage, pH), specific gravity determination, and viscosity measurements on tailings, with and without thickening.
- 3 Ensure that the next phase of test work includes both gravity and leach test work on a composite sample that represents the ratio of oxide (laterite and saprolite) to sulphide material in the deposit in order to determine what effect a blended feed has on recovery, if any, as this may be a possible process route.
- a) Further testing needs to be carried out on the oxide material as it may be processed separately for the first 18 months of production. This would include the same test work that has been carried out on the sulphides.



- 4 Conduct test work involving thickening of the leach tails for both oxide and sulphide material in order to establish maximum obtainable densities for the counter current decantation (CCD) circuit.
- 5 Adequately define the feed rheology to manage any potential viscosity issues which may arise from the processing of the oxides alone.
- 6 Develop a plan and carry out environmental test work, as it relates to the proposed processing plant and tailings storage facility.

1.2 Technical Summary

1.2.1 Property Description and Location

The São Jorge Project is located in the southeastern portion of Pará State, Brazil, in the municipality of Novo Progresso, approximately 460 km southeast of the main regional city of Santarem and approximately 70 km north of the town of Novo Progresso. This region is known locally as the Tapajós region. Regional highway BR-163, an all-weather paved road, passes through the Project area. The city of Itaituba is located approximately 250 km north of the Project.

1.2.2 Land Tenure

The mineral tenure for the Project includes eight exploration licenses totalling approximately 46,485 hectares in size. GMI does not hold any surface rights.

1.2.3 History

From 1993 to 1998, Rio Tinto Desenvolvimento Mineraiis Ltda (RTDM), a subsidiary of Rio Tinto Plc Mineral Group held the exploration rights to the property.

In March 1998, Altoro Gold Corp. (Altoro) negotiated an agreement on the property with RTDM and reviewed all data by check sampling a selection of drill holes and conducting surface sampling at the garimpo pit. However, due to a merger with Solitario Resources Corporation, no further work was completed on the property. In early 2003, RTDM relinquished the four São Jorge exploration licenses.

One of the licenses (No 850.024/02), was immediately acquired by a private individual and subsequently optioned to Centaurus Mineração e Participações Ltda (Centaurus). No exploration work was undertaken by Centaurus.

From 2001 to 2005, garimpo operations were undertaken by Tapajós Mineração Ltda (TML). These operations included small heap leach pads using cyanide solutions to recover gold. Production by TML was reported at 15,000 t of ore per month grading 0.3 g/t to 0.7 g/t of gold.

After garimpo operations ceased on the property, a pit of approximately 400 m long, 80 m wide and 20 m to 30 m deep had been excavated over the Wilton Pit area.

On July 16, 2004, Talon Metals Corp. (Talon) acquired from Centaurus a 100% interest in the São Jorge exploration licenses and in April 2005 entered into an agreement with Jaguar Resources Limited acquiring a 100% interest in the three adjacent claims.

On June 14, 2010, Brazilian Gold Corporation (BGC) acquired from Talon a 100% interest in the São Jorge exploration licenses.



On November 22, 2013, BGC completed an agreement with Brazil Resources Inc. (BRI), pursuant to which BRI acquired all of the outstanding common share of BGC. Brazil Resources Inc. announced that effective December 6, 2016, it had changed its name to GoldMining Inc (GMI). As a result of its acquisition of BGC, GMI indirectly owns Brazilian Resources Mineração Ltda., Mineração Regent Brasil Ltda. and BRI Mineração Ltd., which in turn own the Project.

1.2.4 Geology and Mineralization

The São Jorge Gold Project is located within the Tapajós District situated in the south-central portion of the Amazon Craton. The primary gold mineralization in the Tapajós region is related to:

- Lode-like mesothermal orogenic gold deposits, in the context of quartz veins in shear zones with local hydrothermal alteration in the context of the basement rocks; and
- Stockwork and disseminated gold with a more pervasive hydrothermal alteration in the context of the granitic and volcanic rocks, similar to porphyry and epithermal styles of mineralization.

The São Jorge property geology consists of a granitoid pluton dominantly composed of an amphibole-biotite monzogranite. In the past, this pluton was interpreted to comprise one granitoid series, however geological research completed by the Federal University of Pará (UFPA) indicates that the pluton is heterogeneous and is comprised of two main granitoid series including:

- Older São Jorge granite: massive granites and granite porphyries composed of amphibolite, biotite monzogranite to quartz monzogranite rocks and biotite leuco-monzogranites to syenogranite rocks, massive, displaying only local, nonpenetrative foliation;
- Younger São Jorge granite: massive granites composed of biotite leuco-monzogranite and syenogranites occurring as circular shaped bodies, with locally brecciated foliation indicating brittle-ductile deformation as in the vicinity of gold mineralization.

Observations made in drill core suggest that the gold mineralization is often associated with the presence of sulphide minerals where at least 99 percent of sulphides are pyrite. Chalcopyrite, and very rare galena and molybdenite are also observed on occasion and comprise less than approximately 1% of the total sulphide abundance. Statistical analyses of the relationship between sulphide abundance as logged in drill core and gold grades reveal a poor correlation. While the presence of sulphide minerals appears to be a prerequisite for elevated gold values, there is no clear and consistent correlation between sulphide abundance and gold grades. Many instances are noted in drill core where sulphide mineralization is present with little to no associated gold values.

The sulphide minerals are present as either disseminated grains or within veins/veinlets or small semi-massive blebs/lenses, comprising up to a maximum of 10% by volume by metre of core. Grains are typically < 2mm fine euhedral to subhedral but in exceptional specimens sulphide grains may reach 8-10mm in size.

1.2.5 Exploration Status

Exploration work completed over the property by previous operators include Induced Polarization surveys and soil sampling programs. The Induced Polarization surveys demonstrated that a direct correlation is present between the location of the known extents of the São Jorge deposit and elevated chargeability values. The elevated chargeability values are



attributed by the SLR QP to the presence variable abundances of pyrite in the deposit occurring as disseminations and stockwork veinlets. The SLR QP notes that the elevated chargeability values continue along strike to the southeast from the known limits of the deposit into areas that are not extensively tested by diamond drilling.

The SLR QP also observes that a bulge in the chargeability values is present to the south of the southeastern limits of the São Jorge deposit. Only a small number of diamond drill holes have been completed in this area.

Exploration activities carried out by GMI include soil sampling and a multi-element assaying program along with a mapping and rock chip sampling program. The soil sampling program delineated several targets comprising gold ± copper ± molybdenum ± silver soil geochemical anomalies distributed over a large 12 km x 7 km geochemical footprint surrounding the São Jorge deposit.

An auger drilling program was also completed in 2024 by GMI. The auger program confirmed multiple contiguous primary gold anomalies in the shallow saprolite zones below the surface soil anomalies. These auger drilling results indicate that potential exists for the discovery of new gold mineralized zones hosted in throughout the full thickness of the saprolite layers and possibly in the fresh rock beneath.

1.2.6 Mineral Resources

The SLR QP prepared an updated estimate of the Mineral Resources present at the São Jorge gold deposit, which incorporated the results and knowledge gained from the drilling campaigns completed by GMI in 2024. In general terms, the recent GMI drilling program was successful in confirming the interpreted location of the gold mineralization (DDH SJD-120-24), locating the northwestern strike extension of the mineralized zone (DDH SJD-122-24), intersecting the gold mineralization along a parallel mineralized zone located to the northwest of the main mineralized trend (DDH SJD-121-24), and intersecting a previously untested mineralized zone (DDH SJD-123-24).

The work completed by GMI has aided to advance the understanding of the controls on the distribution of the gold mineralization at the São Jorge deposit.

A Mineral Resource estimate was prepared for the São Jorge deposit based upon the conceptual view that the mineralized material would be extracted by means of an open pit mine at an envisioned production rate of between 5,000 tpd and 15,000 tpd. The material would then be processed at an on-site facility where gold would be recovered using a cyanide leaching flowsheet.

Open pit Mineral Resources at a break-even cut-off grade of 0.27 g/t Au are estimated to total 19,418,000 t at an average grade of 1.00 g/t Au containing approximately 624 thousand ounces (koz) Au in the Indicated Resource category. An additional 5,557,000 t at an average grade of 0.72 g/t Au containing approximately 129 koz Au are estimated to be present in the Inferred Mineral Resource category.



2.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by GoldMining Inc. (GMI) to prepare an updated Mineral Resource estimate and an independent Technical Report on the São Jorge Project (the Project), located in Pará State, Brazil. The purpose of this Technical Report is to support the disclosure of the updated Mineral Resource estimate for the Project. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

GMI is a Vancouver-based public mineral exploration company that is focused on acquiring and developing gold assets in the Americas. Its assets include a diversified portfolio of resource-stage gold and gold-copper projects located in Canada, the U.S.A., Brazil, Columbia, and Peru along with share holdings in Gold Royalty Corp., U.S. GoldMining Inc., and NevGold Corp. Its shares trade on the TSX and the NYSE American exchanges.

The major asset of the São Jorge Project is the São Jorge deposit which was initially discovered by artisanal miners during the Tapajós gold rush from the late 1970s until the late 1990s. Continued exploration activities consisting of geological mapping, soil sampling and auger and diamond drilling programs on the property has resulted in defining the dimensions of the São Jorge deposit. This deposit is an example of an intrusion-related, fracture-controlled, disseminated/veinlet gold deposit that bears similar geological characteristics to other deposits located along the Tocantinzinho-São Jorge trend.

2.1 Sources of Information

The sources of information used to prepare the current Mineral Resource estimate include geological and drilling information collected by prior owners of the property along with geological and drilling information collected by GMI.

A site visit to the Property was carried out by Reno Pressacco, M.Sc.(A), P.Geo., Associate Principal Geologist with SLR, on May 3 and May 4, 2024, during which the style of mineralization was studied in selected drill core, and the local site conditions and drill hole collars were examined.

Discussions were held with personnel from GMI:

- Paulo Pereira, P.Geo., President, GoldMining Inc.
- Logan Boyce, P.Geo., Senior Geologist – Americas, GoldMining Inc.

Mr. Pressacco prepared all sections of this report and is the independent Qualified Person (QP) for this report.

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.



2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is US dollars (US\$) unless otherwise noted.

μ	micron	kVA	kilovolt-amperes
μg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m ²	square metre
cfm	cubic feet per minute	m ³	cubic metre
cm	centimetre	MASL	metres above sea level
cm ²	square centimetre	m ³ /h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	μm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft ²	square foot	MW	megawatt
ft ³	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
gr/ft ³	grain per cubic foot	s	second
gr/m ³	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day
hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in ²	square inch	US\$	United States dollar
J	joule	USg	United States gallon
k	kilo (thousand)	USgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km ²	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd ³	cubic yard
kPa	kilopascal	yr	year



3.0 Reliance on Other Experts

This Technical Report has been prepared by SLR for GMI. The information, conclusions, opinions, and estimates contained herein are based on:

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

For the purpose of this Technical Report, the SLR QP has relied on ownership information provided by GMI. This information was used in preparing Section 4.2 of this report. The SLR QP has not researched property title or mineral rights for the São Jorge Project and expresses no opinion as to the ownership status of the property.

The SLR QP has relied upon the royalty information provided by GMI as an input in the preparation of the cut-off grade estimate and for Section 4.4.

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



4.0 Property Description and Location

4.1 Location

The São Jorge Project is located in the southeastern portion of Pará State, Brazil, in the municipality of Novo Progresso, approximately 460 km southeast of the main regional city of Santarem and approximately 70 km north of the town of Novo Progresso (Figure 4-1). This region is known locally as the Tapajós region. Regional highway BR-163, and all-weather paved road, passes through the Project area. The city of Itaituba is located approximately 250 km north of the Project.

The Property is centred approximately at 657,400 mE and 9,282,750 mN (SAD69, Zone 21S EPSG:5531 datum). The centre of the currently delineated mineralization is located at approximately latitude 6°29'14" S and longitude 55°34'38" W.



Figure 4-1: Location Map



4.2 Land Tenure

4.2.1 Introduction

Mining activities in Brazil are governed by the Brazilian Federal Constitution of 1988 (the Brazilian Federal Constitution), the Brazilian Mining Code (Federal Decree-Law No. 227/1967), and various other decrees, laws, ordinances, and regulations such as the Decree No. 9.406/2018 which renews the regulation of the Brazilian Mining Code. These regulations impose several obligations on mining companies pertaining to items such as the manner in which mineral deposits are exploited, the health and safety of the workers and local communities where mines are located, and environmental protection and remediation measures.

Under the Brazilian Federal Constitution, mineral rights are recognized as being distinct from surface rights and belonging exclusively to the Brazilian federal government. The Brazilian federal government is the sole entity responsible for governing mineral exploration and mining activities in Brazil.

Amongst other ministries and agencies, the Ministry of Mines and Energy (MME) and the National Mining Agency (*Agência Nacional de Mineração* (ANM) in Portuguese, formerly the *Departamento Nacional de Produção Mineral* (DNPM) regulates mining activities in Brazil. The ANM is responsible for monitoring, analyzing, and promoting the performance of the Brazilian mineral industry by administering and granting rights related to the exploration and exploitation of mineral resources and other related activities in Brazil.

In Brazil, mineral resource tenure is achieved via exploration licenses (*Autorizações de Pesquisa*), mining concessions (*Concessões de Lavra*), mining concession applications (*Requerimento de Lavra*), and exploration license applications (*Requerimentos de Pesquisa*), which are together broadly referred to as mineral rights.

4.2.2 Mining Concessions Exploration Licenses

The mineral tenure for the Project includes eight exploration licenses totalling approximately 46,485 hectares in size (Figure 4-2, Table 4-1). GMI does not hold any surface rights.

Exploration licenses are granted for an initial period of up to three years. Once a company has applied for an exploration license, the applicant holds a priority right to the concession area as long as there is no previous ownership. The fees for holding the licenses during this initial three year phase is Brazilian Reais (R\$) 4.53/ha, to be paid annually. The owner of the license can apply to have the exploration license renewed for a one time extension period up to three years. The fees for holding the licenses during the second phase is R\$6.78/ha, to be paid annually. Renewal is at the sole discretion of ANM. Granted mining concessions and exploration licenses are published in the Official Gazette of the Republic (*Diário Oficial da União* [DOU]), which lists individual concessions and their change in status. The exploration licenses and mining concessions grant the owner subsurface mineral rights, while surface rights can be applied for if the land is not owned by a third party.

The owner of an exploration license is guaranteed, by law, access to perform exploration field work, provided adequate compensation is paid to third party landowners and the owner accepts all environmental liabilities resulting from the exploration work. Exploration licenses are subject to annual fees based on their size (*Taxa Anual por Hectare*). A final report that provides the results of any exploration activities carried out is required to be filed with the ANM upon expiry of an exploration license.



Table 4-1: Summary of Exploration Licenses

License No.	Title Holder	Status	Phase	Area (Ha.)
850.058/2002	Brazilian Resources Mineração Ltda.	Preliminary Economic Assessment Plan submitted to ANM with an application for the Mining License	Exploration License	1,660.56
850.275/2003	Brazilian Resources Mineração Ltda.	The license was renewed for three years on May 9, 2023	Exploration License	7,344.31
850.556/2013	Mineração Regent Brasil Ltda.	The license was renewed for three years on May 9, 2023	Exploration License	9,619.15
850.193/2017	BRI Mineração Ltda.	Application for License Renewal submitted to ANM	Exploration License	7,307.93
850.194/2017	BRI Mineração Ltda.	Application for License Renewal submitted to ANM	Exploration License	9,541.61
850.195/2017	BRI Mineração Ltda.	Application for License Renewal submitted to ANM	Exploration License	9,572.68
850.196/2017	BRI Mineração Ltda.	Application for License Renewal submitted to ANM	Exploration License	950.39
850.745/2024	BRI Mineração Ltda.	New Claim published on Dec 30, 2024 – First term for three years	Exploration License	488.45
Total				46,485.08

The resources presented in this report are encompassed by the Exploration license ANM no. 850.058/2002. ANM approved the final exploration report for this licence on October 30, 2023, and an Economic Assessment Plan (PAE) was submitted to ANM on October 20, 2024, together with the Application for a Mining License.

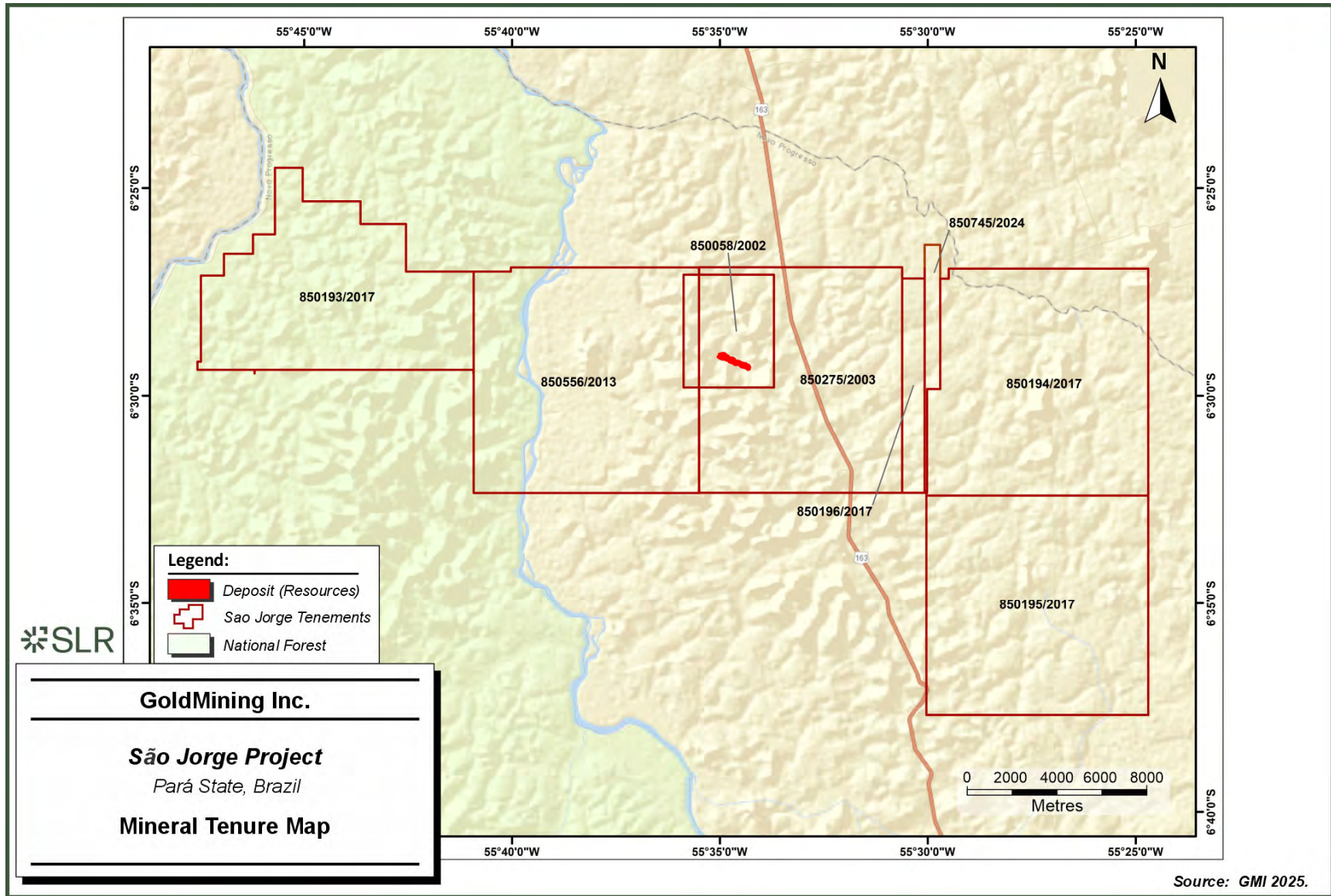
To obtain the Mining License, the company needs the approval of the PAE by ANM and an Environmental License from the Environmental Agency of Pará State SEMA-PA.

The Environmental License process has three steps. The first step is to obtain the Preliminary Environmental License (LP), which confirms the project's viability from an environmental point of view.

To obtain the LP, the company needs to conduct a series of baseline studies, which are presented under the EIA/RIMA report and submitted to the SEMA-PA and a public audience with the participation of the local communities. Once the LP has been approved, the next step is to obtain the Environmental Installation License (LI) that permits construction and, finally, the Environmental Operating License (LO) that is renewed yearly.



Figure 4-2: Mineral Tenure Map



4.3 Encumbrances

The SLR QP is not aware of any encumbrances related to the São Jorge Project.

The following payments and agreements listed below are the remaining contractual obligations to be completed by GMI:

- Payment by BRML to Pedro Pacheco dos Santos Lima Neto and Tapajós Mineração Ltda. of an amount equivalent to 1% of the proven Mineral Resources within the area represented by ANM process N.850.275/2003.

4.4 Royalties

Information provided by GMI indicates a number of underlying royalties on the São Jorge Property:

- 1.0% net smelter return (NSR) over entire property held by Osisko Gold Royalties Ltd.
- 1.0% NSR over entire property held by Gold Royalty Corp.
- 1.5% NSR over entire property held by the Brazilian National Mining Agency
- 1.0% NSR over concession 850.275/2003 on NI 43-101 Proven Reserves held by Tapajós Mineração Ltda. can be purchased for US\$2.5 million until September 30, 2006; however no Mineral Reserves have been identified on this concession to date.

Furthermore, if GMI is not the owner of the surface rights at the time of production, a further 0.75% NSR (set at half the ANM rate) is payable to the overlying surface rights owner.

4.4.1 Permitting and Environmental Liabilities

The São Jorge deposit is located on an exploration license outside environmentally restricted areas.

A small open pit and two small leach pads remain from the previous garimpo operation that was established in early 2000. The pit has since filled with water. With the exception of one exploration licence (850.193/2017) that is located to the west of Jamaxim river, and the western portion of another exploration license (850.556/2013), that lies on the Jamaxim National Forest protected area (on which mining is permitted under certain conditions), all the other exploration licences of the property are located outside of environmentally restricted areas.

New legislation requires preservation of natural vegetation areas including margins of drainages that were in part degraded by previous artisanal miners' activities. GMI will be required to comply with the minimum preservation area required by legislation, and this will be verified and established based on the environmental baseline studies that will be conducted as part of the Environmental Licensing work to be initiated after the ANM's approval of the Final Exploration Report.

The SLR QP is not aware of any environmental liabilities on the property. GMI has obtained all required permits to conduct the proposed work on the property. The SLR QP is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.



5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Project can be easily accessed from the town of Novo Progresso or from the city of Itaituba via all weather paved highway BR-163. Local saprolite-based roads provide access to the various parts of the exploration licenses.

5.2 Climate and Physiography

The climate is tropical with an annual rainfall of around 2,000 mm and seasonal variations with a drier period between July and November and a wetter period between December and May. Existing mining operations in the region can operate year-round. The average annual temperature is approximately 27.5° C with minimal month to month variations.

The topography is gently rolling with elevations ranging from 150 m to 400 m above mean sea level (masl). The natural vegetation consists of typical tropical rainforest, although many parts of the Project are located within farmed lands.

5.3 Local Resources

Itaituba, which is approximately 250 km north of the Project, is a well-established city with good port facilities on the Tapajós River and a capacity for large freight aircraft. Itaituba is located on the Transamazonian highway and is approximately 1,000 km west of Marabá, which is 1,500 km from Brasília via the Belem-Brasília highway. Itaituba can be reached by scheduled jet aircraft from Manaus and Belém, where international connections are available. The Project area can also be reached by a one hour flight from Itaituba using the un-paved airstrip in the village of Moraes de Almeida.

The town of Novo Progresso (population of approximately 35,000) is located much closer to the Project and provides many of the services, supplies, and labour required to support exploration activities on the Project.

The local economy consists mainly of cattle ranching, logging and small scale mining.

5.4 Infrastructure

The Project has an exploration camp comprising:

- Housing facilities for up to 40 persons
- Kitchen and mess hall
- Office with phone and internet
- Core storage and logging facility
- Powerline and emergency backup generator power

The Jamaxim River is located approximately 10 km west of the deposit.



6.0 History

6.1 Prior Ownership

From 1993 to 1998 Rio Tinto Desenvolvimento Minerais Ltda (RTDM), a subsidiary of Rio Tinto Plc Mineral Group, acquired the exploration rights to the property.

In March 1998, Altoro Gold Corp. (Altoro) negotiated an agreement on the property with RTDM and reviewed all data by check sampling of drill holes and surface sampling at the garimpeiro pit. However, due to a merger with Solitario Resources Corporation, no further work was completed on the property. In early 2003, RTDM relinquished the four São Jorge exploration licenses.

One of the licenses (No 850.024/02), was immediately acquired by a private individual and subsequently optioned to Centaurus Mineração e Participações Ltda (Centaurus). No exploration work was undertaken by Centaurus.

From 2001 to 2005, garimpo operations were undertaken by Tapajós Mineração Ltda (TML). These operations included small heap leach pads using cyanide solutions to recover gold. Production by TML was reported at 15,000 t of ore per month grading 0.3 to 0.7 g/t of gold.

By the time garimpeiro operations ceased on the property, a pit of approximately 400 m long, 80 m wide, and 20 m to 30 m deep had been excavated over the Wilton Pit area.

On July 16, 2004, Talon Metals Corp. (Talon) acquired from Centaurus a 100% interest in the São Jorge exploration licenses and, in April 2005, entered into an agreement with Jaguar Resources Limited acquiring a 100% interest in the three adjacent claims.

On June 14, 2010, Brazilian Gold Corporation (BGC) acquired from Talon a 100% interest in the São Jorge exploration licenses.

On November 22, 2013, BGC completed an agreement with Brazil Resources Inc. (BRI), pursuant to which BRI acquired all of the outstanding common share of BGC. Brazil Resources Inc. announced that effective December 6, 2016, it had changed its name to GoldMining Inc. As a result of its acquisition of BGC, GMI indirectly owns Brazilian Resources Mineração Ltda., Mineração Regent Brasil Ltda., and BRI Mineração Ltd., which in turn owns the Project.

6.2 Exploration and Development History

The Project is located in the eastern part of the region known as the “Tapajós Gold District”. Gold is reported to have been first discovered in the Tapajós region in the 18th century.

Significant regional production has been recorded from the since the end of the 1970s and beginning of the 1980s, when highway BR-163 (the Cuiaba–Santarém road) was opened. A gold rush started in the Tapajós region with thousands of garimpeiros entering the previously isolated region. Production from the region apparently peaked between 1983 and 1989, with as many as 300,000 garimpeiros reportedly extracting somewhere between 500,000 oz and one million oz of gold per year, predominantly from shallow alluvial gold sources. Up until 1993, cumulative gold production was officially estimated at approximately 7 Moz. Production has since declined, reaching an estimated average of 160,000 oz of gold per year in the late 1990s.

Garimpeiro mining at the Project reportedly commenced in the 1970s (the Wilton pit). There are no published records to support the timing or amount of production. The exploration of the São Jorge area was initiated by RTDM in 1993. At that time, the São Jorge garimpo workings (the Wilton Pit) were approximately 30 m in diameter. Following sampling in this small open pit,



RTDM applied for four exploration licences in order to acquire the bedrock mining rights, and negotiated an agreement with the landowner, Wilton Amorim, which enabled them to initiate exploration on the property.

A summary of the exploration and development history of the Project prior to being acquired by GMI is excerpted from GE21 Consultoria Mineral (2021) and is shown in Table 6-1.

Table 6-1: Exploration and Development History, São Jorge Project

Owner	Year	Work	Results
Artisanal miners	Pre-1990	Placer mining of the saprolite and alluvium	Minor quantities of gold produced
RTDM	1993 – 1995	Geological mapping, soil sampling, trenching, auger drilling, and diamond drilling (26 drill holes totalling 4,350 m in length)	Preparation of an internal Mineral Resource estimate by RTDM (non NI 43-101 compliant)
	1997 – 1998	Diamond drilling (16 drill holes) and preparation of a scoping study	
Centarus Mineração e Participações Ltda.	1998 - 2004	No exploration carried out	
Tapajós Mineração Ltda	2001 – 2005	Garimpo open pit mining	Gold production by heap leaching. Final pit dimensions 400 m in length, 80 m in width, and 20 m to 30 m depth.
Talon Metals Corp. (Talon, previously known as BrazMin Corp)	2005	Phase I diamond drilling, 48 drill holes totalling 10,104 m in length.	Defined an envelope of a sulphide vein and stockwork zone along a strike length of 700 m.
	2006	Airborne-based and ground-based geophysical surveys, Phase II diamond drilling of 34 drill holes totalling 7,952 m in length.	New targets and extensions from the Wilton Zone defined to the west (Kite Zone) and to the east (Wilton East Zone). First NI 43-101 compliant Mineral Resource estimate.
	2007	Extension of regional soil sampling grid coverage	Anomalous gold values discovered along a length of 600 m on one survey line.
Brazilian Gold Corporation (BGC)	2011	Soil geochemical surveys and geophysical (Induced Polarization) surveys totalling 120 line km in length. Diamond drilling of 37 drill holes totalling 14,708 m in length.	Increase in the overall Mineral Resources and upgrading of the resource classification.



6.2.1 RTDM Drilling

Diamond drilling undertaken by RTDM was comprised of an initial phase of 10 drill holes comprising FSJ-01 to FSJ-10 for a total of about 1,700 m with the deepest drill hole penetrating 150 m below surface. These holes were inclined at 50° to 55°. All core drilled was BQ (36.5 mm) diameter. The second phase of drilling by RTDM comprised 16 drill holes (FSJ-11 to FSJ-26) for a total of approximately 2,690 m. Drill holes were drilled with a 50° to 55° inclination with a north or south azimuth. Five drill holes were drilled at an azimuth ranging from 20° to 35°, approximately perpendicular to the deposit strike. Core drilled during this campaign was HQ (63.5 mm) and NQ (47.6 mm) in diameter. Details of RTDM drilling procedures were reviewed by Harron (2006). Downhole surveys were not completed for RTDM holes and possible deviation may have occurred but verification of this deviation is not possible.

6.2.2 Talon Drilling

In 2005 Talon completed a Phase I diamond drilling program with a total of 10,104 m from 48 drill holes completed, mainly targeting the existing garimpeiro pit.

From May to September 2006, Talon conducted a Phase II drilling program with a total of 34 drill holes completed for 7,952 m. From this phase, eight drill holes for 2,302 m targeted an in-fill program at the Wilton pit, and another 5,650 m tested prospective targets. Two new extensions, the “Kite zone”, located to the northwest, and the “Wilton East zone”, located east of the pit, were defined.

Drilling was contracted to Geoserv Pesquisas Geologicas SA of Rio de Janeiro, a subsidiary of Boart Longyear. Drilling equipment used on the Project included two Diakore and one Longyear 38 drilling rigs. Overburden, laterite and saprolite rock was drilled using HQ core equipment. Un-weathered rock was drilled with NQ diameter core.

The majority of drill holes over the Wilton Pit area were drilled with a north or south azimuth and inclined about 55°. Talon drilled five vertical drill holes and some drill holes with northeast and southwest orientations to test for sub-horizontal and oblique structures in the deposit.

The Talon drilling procedures include:

- Storage of all core in wooden core boxes at drill site;
- Twice daily collection of core from drill site;
- Storage of core in secure corrugated metal and wood core shed;
- Run markers with metal tags indicating drilled depth;
- Measurement and recording of core recovery for each drilling run;
- Photography of core before splitting;
- Measurement of RQD, and magnetic susceptibility for part of the drill holes;
- Detailed logging of alteration, lithology, structures and sulphides.

Collar coordinates are based on the UTM coordinate SAD69, UTM zone 21S datum. Talon holes were surveyed by the drilling contractor using a Sperry Sun multi shot tool and later a reflex single shot tool. Initially holes were surveyed at 3 m intervals and then with a better knowledge of drill hole deviations, variably from 40 to 90 m intervals. Several holes were oriented using the downhole “spear” technique. Drill collar coordinates are recorded using a differential GPS system by Terra Engineering based in Novo Progresso, Pará state.



6.2.3 BGC Drilling

BGC had drilled about 14,708 metres in 37 drill holes from January to December 2011. All of this data, along with the historical drill hole information, supports the updated Mineral Resource presented in this report. BGC implemented the exploration program keeping the same procedures and philosophy as Talon.

6.3 Historical Resource Estimates

Several historical Mineral Resource estimates have been prepared for the Project (Table 6-2). All of these estimates are considered to be historical in nature and should not be relied upon. A qualified person has not completed sufficient work to classify any of the historical estimates as a current Mineral Resource or Mineral Reserve, and GMI is not treating any the historical estimates as current Mineral Resources. The current Mineral Resources presented in Section 14.0 supersede all historical Mineral Resource estimates.

Table 6-2: Summary of Historical Mineral Resource Estimates, São Jorge Project

Year	Owner	Reference
1996	Rio Tinto Desenvolvimento Minerais Ltda.	MPH Consulting. 2004
2008	BrazMin Corp.	SRK Consulting. 2008
2010	Brazilian Gold Corporation	Coffey Mining. 2010
2013	Brazilian Gold Corporation	Coffey Mining. 2013

6.4 Past Production

Gold production from the Project has been only via artisanal mining operations that recovered gold from the shallow, saprolite profile. Approximately 1,500 oz of gold have been estimated to have been produced in this manner (MPH Consulting 2004).



7.0 Geological Setting and Mineralization

7.1 Regional Geology

The regional geological setting is summarized in GE21 Consultoria Mineral (2021) as follows:

The São Jorge Gold Project is located within the Tapajós District situated in the south-central portion of the Amazon Craton. The Amazon craton became tectonically stable at the end of the Late Proterozoic period. The Craton is generally divided into the Guyana Shield north of the Amazon River and the Brazil Shield south of the Amazon River. The provinces have a northwest trend across the shields. The Brazil Shield has, as its nucleus, the Archean granitoid-greenstone terranes of the Carajás-Imataca Province in the east. The structural provinces become younger towards the west and are dominantly granitic rocks of Paleoproterozoic age. There is a general agreement that in this region, initial oblique collision tectonism was associated with crustal shortening linked to subduction and or accretion of magmatic arcs and early continental nucleation.

The main units that form the basement of the Tapajós Gold Province are the Paleoproterozoic Cuiú-Cuiú Metamorphic Suite (2.0 to 2.4 Ga old), and the Jacareacanga Metamorphic Suite, also of possible Paleoproterozoic age (>2.1 Ga). The Cuiú-Cuiú Suite comprises gneisses, migmatites, granitoid rocks and amphibolites. The Jacareacanga Suite comprises a supracrustal sedimentary-volcanic sequence, which has been deformed and metamorphosed to greenschist facies. Both suites are intruded by granitoids of the Parauari Intrusive Suite consisting of a monzodiorite dated at 1.9 to 2.0 Ga. These form the basement of the extensive felsic to intermediate volcanic rocks of the Iri Group, dated at 1.87 to 1.89 Ga, including comagmatic and anorogenic plutons of the Maloquinha Suite with intrusive events dated at 1.8 to 1.9 Ga. The Iri - Maloquinha igneous event is associated with a strong extensional period. Regional structural analysis in the Tapajós area has identified important lineaments that trend mainly northwest to southeast with a less well defined transverse east to west set.

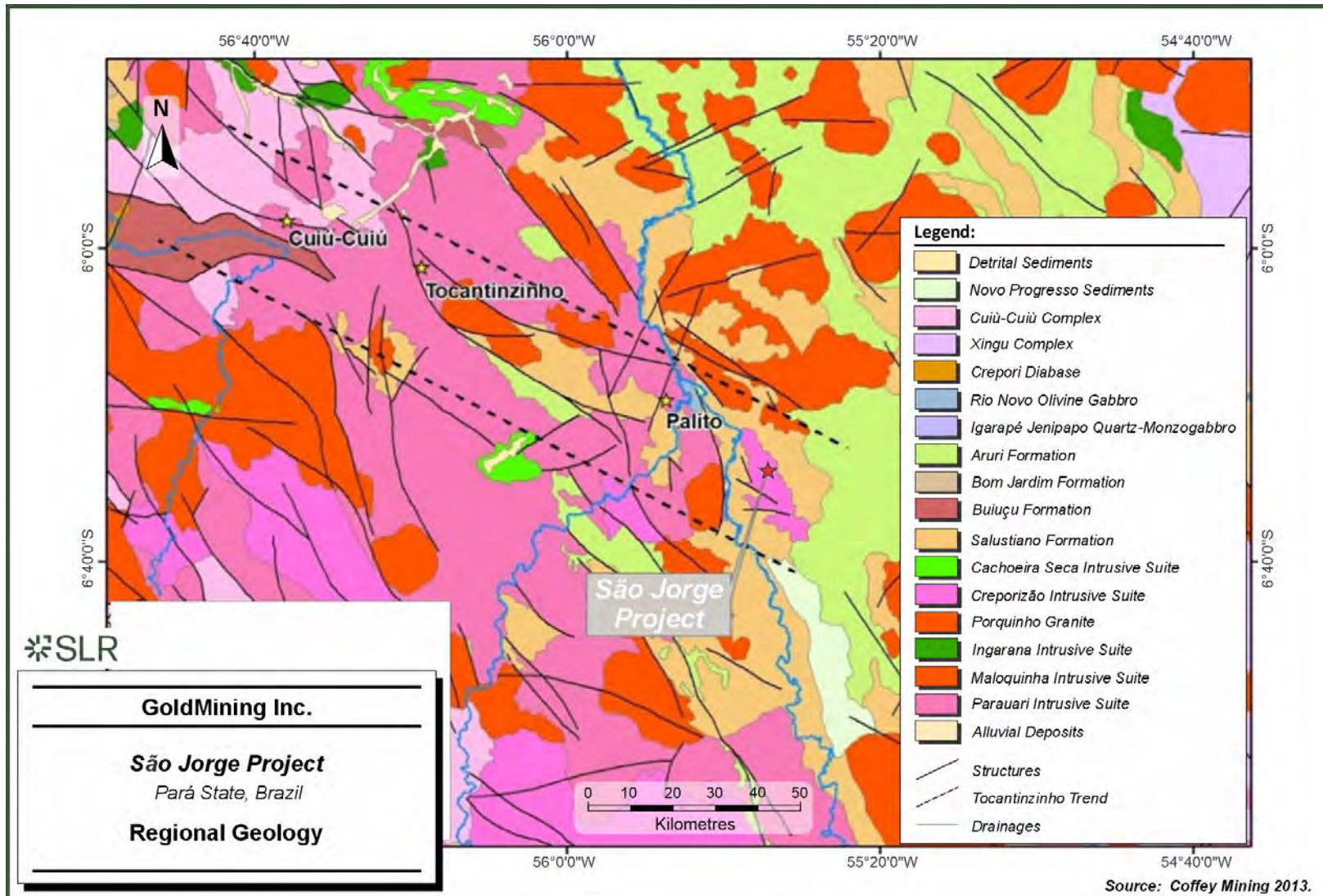
The primary gold mineralization in the Tapajós region is related to:

- Lode-like mesothermal orogenic gold deposits, in the context of quartz veins in shear zones with local hydrothermal alteration in the context of the basement rocks; and
- Stockwork and disseminated gold with a more pervasive hydrothermal alteration in the context of the granitic and volcanic rocks, similar to porphyry and epithermal styles of mineralization.

The São Jorge gold deposit is related to the east extension of the regional 450 km long northwest-southeast Cuiú-Cuiú - Tocantinzinho lineament which also hosts several important gold deposits including the Palito mine, Tocantinzinho and Cuiú-Cuiú deposits, and the Bom Jardim and Batalha gold prospects (Figure 7-1).



Figure 7-1: Regional Geology



7.2 Property Geology

The property scale geological setting is summarized in GE21 Consultoria Mineral (2021) as follows:

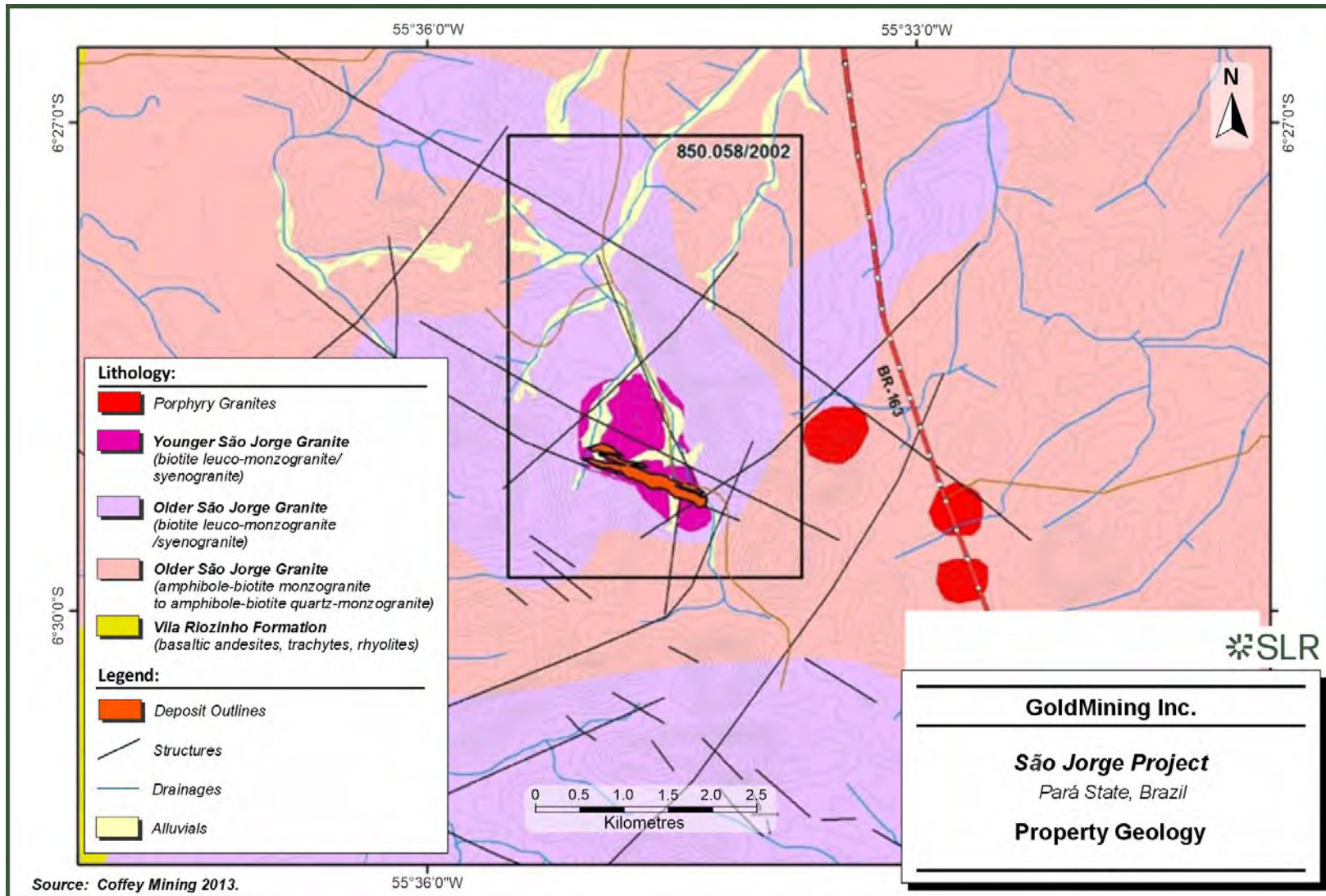
The São Jorge property geology consists of a granitoid pluton dominantly composed of an amphibole-biotite monzogranite (Figure 7-2). In the past, this pluton was interpreted to comprise one granitoid series, however, geological research completed by the Federal University of Pará (UFPA) indicates that the pluton is heterogeneous and is comprised of two main granitoid series including:

- Older São Jorge granite: massive granites and granite porphyries composed of amphibolite, biotite monzogranite to quartz monzogranite rocks and biotite leuco-monzogranites to syenogranite rocks, massive, displaying only local, nonpenetrative foliation;
- Younger São Jorge granite: massive granites composed of biotite leuco-monzogranite and syenogranites occurring as circular shaped bodies, with locally brecciated foliation indicating brittle-ductile deformation as in the vicinity of gold mineralization.

The São Jorge granites frequently include 5 cm to 10 cm long, oval-shaped mafic enclaves. They also display local rapakivi texture characterized by sparse crystals of K-feldspar mantled by plagioclase.



Figure 7-2: Property Geology



7.2.1 Lithologies

Typically soil, laterite, saprolite and saprock comprise the upper 30 m to 40 m. Below this is fresh granite of a fairly narrow range of primary composition. Microscope work on representative samples indicates the following ranges for the major rock forming minerals in the weakly to moderately altered lithologies:

Quartz:	20% to 35%
Plagioclase:	20% to 35%
K-feldspar (Microcline):	15% to 40%
Mafic minerals (chlorite/biotite/amphibole):	1% to 20%

Based upon these compositions the primary rock is mostly monzogranite though lesser amounts of granodiorite (where microcline content is lower) are present. Depending on the contribution of hornblende, biotite and magnetite, a prefix of hornblende or biotite may be added to the rock name.

Figure 7-3 shows typical São Jorge lithologies; from top to bottom they are monzogranite with large orange/pink microcline crystals, 35% plagioclase (largely altered to sericite), 20% quartz; granodiorite comprised of 35% quartz, 30% plagioclase, 15% microcline and 15% chlorite (reddish coloration is due to fine hematite within plagioclase); and very weakly altered hornblende monzogranite comprised of 20% quartz, 30% plagioclase, 20% microcline, 18% hornblende, 6% biotite and 1% chlorite. This sample is most representative of the original rock composition (Pedley 2011).



Figure 7-3: Typical Examples of São Jorge Host Lithologies



Source: Coffey Mining 2013.



The São Jorge granites are mostly medium grained and equigranular, but microcline crystals up to 100 mm size may give the rock a coarse porphyritic texture where potassic alteration is advanced. A small percentage (<0.5%) of the rock mass is comprised of fine grained aplites which are pink/orange K-feldspar rich, cross-cutting and up to three metres thick. A small amount of leuco-granite is present in some boreholes; comprised mainly of K-feldspar, possibly as a result of pervasive potassic alteration. Where intensely sheared, the granite composition and texture is un-recognizable and the lithology is best described as a low-grade metamorphic granite or meta-granite (Pedley 2011).

7.2.2 Alteration

The main variable in the São Jorge lithology is alteration. The main visible alteration types are:

- Sericitization of plagioclase
- Chloritization of hornblende and biotite
- Microclinization (potassic) alteration of plagioclase
- Epidotization of mafics and as a sassauritization product within plagioclase
- Hematite development probably after magnetite
- Carbonatization. Although widespread (in small quantities of 0 to 4%) it is difficult to recognize in core samples and has not been used in the classification of assemblages

In addition to the above is the development of new quartz (silicification) (Pedley 2011).

The intensity of alteration and the relative proportions of the main alteration minerals is variable and changes are typically gradational, but five alteration assemblages have been recognized as those which can be identified relatively easily in core and importantly, correlated between boreholes. The alteration minerals, in probable order of genesis/advancement, reflecting change from potassic to phyllic alteration, are: Fe-oxide→ chlorite→ microcline and epidote→ sericite and quartz.

Detailed descriptions of the alteration assemblages observed at the São Jorge deposit follow.

7.2.2.1 'Nada' Zone – Very weak or no alteration

Figure 7-4 presents an example of the un-altered pale grey hornblende-magnetite monzogranite, sometimes with clusters of biotite and magnetite, in this case totally unaltered. Crystals are typically euhedral.



Figure 7-4: Example of Fresh, Un-altered Monzogranite



Source: Coffey Mining 2013.

7.2.2.2 Fe-oxide +/- Chlorite Alteration (Fe-Ox-Chl zone)

Hematite formation within feldspar crystals gives this alteration type a distinct reddish coloration. Chlorite typically forms veins and patches. Hornblende is partially/largely preserved. Crystals are euhedral to subhedral. Primary magnetite is largely replaced. Widely spaced narrow (<0.2m) mineralized zones of quartz-sericite alteration may be present. With increasing pervasive alteration, this zone grades into the K-feldspar – epidote – chlorite (K-feld-ep-chl) zone, or, with a greater frequency of fracture controlled alteration/mineralization, may be classified as the heterogeneous ore type. Figure 7-5 illustrates the Fe-oxide +/- chlorite assemblage, in this case very little chlorite is present (hornblende remains largely unaltered).



Figure 7-5: Example of Fe-oxide +/- Chlorite Alteration



Source: Coffey Mining 2013.

7.2.2.3 K-feldspar – Epidote– Chlorite Alteration (K-feld – ep – chl zone)

Sericite comprises less than 4% to 5% of the rock. Increased alteration is present, notably microclinisation forming overgrowths and new large K feldspar crystals. Microcline crystals may reach 100 mm or more. Plagioclase takes on a light greenish appearance due to replacement by epidote. New quartz is not as abundant as it is in the mixed assemblage.

Chlorite is abundant forming veins and aggregates.

Figure 7-6 illustrates the K-feld-ep-chl zone. It presents large K-feldspar crystals and visible chlorite veins.



Figure 7-6: Example of K-Feldspar-Epidote-Chlorite Alteration



Source: Coffey Mining 2013.

7.2.2.4 Sericite – K-feldspar – Chlorite – Epidote Alteration (mixed zone)

Sericite is an essential component of this assemblage, and epidote and K-feldspar are always present in varying amounts. A distinguishing criteria of this assemblage is that the alteration is pervasive. There is some variation in the relative proportion of sericite which may comprise between 5% and 50% by volume; largely reflecting the intensity of the alteration. With increasing intensity, the epidote and K-feldspar component is reduced, replaced by a sericite quartz assemblage; it may be possible to subdivide the assemblage based upon the amount of sericite and epidote present.

Typically this alteration assemblage has a greenish/grey patchy or 'marbled' appearance. Original crystal forms are largely/entirely destroyed though less intensely altered varieties exist. New quartz is common, probably after K-feldspar (Pedley 2011). It is distinct in core and provides a useful 'marker' for correlation. Figure 7-7 illustrates the mixed zone, in this case sericite is present in relatively small amounts (15%).



Figure 7-7: Example of Mixed Zone Alteration Type



Source: Coffey Mining 2013.

7.2.2.5 Heterogenous (variable) Zone

The importance of this assemblage was recognized midway through the re-logging exercise; on some sections it may be incorrectly logged as Fe-Ox +/- chl or K-feldspar-epidote-chlorite assemblage. It is typified by weak to moderately altered rock of these assemblages but with small (10 mm to 0.5 m) altered zones with quartz, sericite, epidote and appears to be fracture controlled as opposed to pervasive.

Figure 7-8 illustrates the heterogeneous (variable) zone alteration. In this picture there are several small zones of intense sericite-quartz alteration separated by sections of weak Fe-Ox +/- chl alteration. This heterogeneous appearance is typical of this mineralization type.



Figure 7-8: Example of Heterogenous Alteration Type Zone



Source: Coffey Mining 2013.

7.2.3 Structure

The mineralized and altered portions of the São Jorge granite reflect zones of moderate shearing evident as numerous small (less than two to three metres, mostly less than 0.5 m) ductile shears with foliation approaching mylonitic textures in places, and widespread micro-shearing and brecciation. Quartz and feldspar crystals are affected by cataclasis forming cryptocrystalline aggregates.

The shear zones are typically discontinuous; they can be correlated between some boreholes but not others. Generally, shear zones are present within the most advanced alteration zones. Quartz veining, boudin structures, carbonate veinlets and hematite are typical of the shear zones. Sericite may comprise up to 60% of the central parts of the shear zones, and this lithology is logged as meta-granite. Adjacent to these zones the granites showing micro-shearing and brecciation and a general destruction of the igneous textures (cataclasis) for several metres around the structure (Pedley 2011).

Figure 7-9 shows a typical small shear zone with foliation and cataclastic textures. Figure 7-10 shows a typical quartz veining adjacent to most intense shearing then rock becomes less sheared but still brecciated. In both cases alteration is advanced (sericite dominated) and very intense. Figure 7-11 shows a surface view of a shear zone contained within the saprolite portion of the weathering profile. In this location the shear zone dips vertically, is on the order of



three metres to four metres in width and contains thin, centimetre-scale veinlets of semi-massive to massive pyrite that are oriented either parallel to the foliation, or are at a low angle. Disseminated pyrite is also present.

Figure 7-9: Example of a Small Scale Shear Zone in Drill Core



Source: Coffey Mining 2013.



Figure 7-10: Examples of Shear Zones Containing Quartz Veins in Drill Core



Source: Coffey Mining 2013.



Figure 7-11: Example of Shear Zone in Saprolite Containing Sulphide Veinlets. View Looking East



Source: SLR 2024.



7.3 Mineralization

Observations made in drill core suggest that the gold mineralization is often associated with the presence of sulphide minerals where at least 99 percent of sulphides are pyrite. Chalcopyrite, and very rare galena and molybdenite are also observed on occasion and comprise less than approximately 1% of the total sulphide abundance. Statistical analyses of the relationship between sulphide abundance as logged in drill core and gold grades reveal a poor correlation. While the presence of sulphide minerals appears to be a prerequisite for elevated gold values, there is no clear and consistent correlation between sulphide abundance and gold grades. Many instances are noted in drill core where sulphide mineralization is present with little to no associated gold values.

The SLR QP recommends that mineral chemistry studies be undertaken on both the mineralized and barren pyrite present in the São Jorge deposit to determine whether a difference in the pyrite chemistry can be used as an exploration tool.

The sulphide minerals are present as either disseminated grains (Figure 7-12) or within veins/veinlets (Figure 7-13) or small semi-massive blebs/lenses (Figure 7-14), comprising up to a maximum of 10% by volume by metre of core. Grains are typically < 2mm fine euhedral to subhedral but in exceptional specimens sulphide grains may reach 8 mm to 10 mm in size.

Mineralization is best developed within the central portions of the deposit, typically associated with sericite (phyllitic alteration):

- within the mixed zone, as disseminations and semi-massive accumulations. Sulphide is more abundant in the mixed zone than in any other assemblage, but gold mineralization appears to be equally well developed within the less pervasively altered heterogeneous zone.
- within numerous small fracture controlled altered and mineralised concentrations within the heterogeneous and Fe-Ox +/- chlorite zones. This style of mineralization is typically within sulphide veins up to 100 mm thick and is more likely to contain chalcopyrite than the other mineralization styles. Some of the best grade intersections are within this fracture controlled style.



Figure 7-12: Example of Fine Disseminated Pyrite Mineralization within the Mixed Alteration Zone



Source: Coffey Mining 2013.



Figure 7-13: Example of Fracture Controlled Vein-Style Pyrite Mineralization within the Fe-Ox-Chlorite Alteration Zone



Source: Coffey Mining 2013.



Figure 7-14: Example of Semi-Massive, Veinlet, and Disseminated Pyrite Mineralization



Source: Coffey Mining 2013.



8.0 Deposit Types

The São Jorge mineral deposit is best classified as a granite-hosted, intrusion-related gold deposit. Intrusion related gold deposits were defined by Thompson et al. (1999) with the following characteristics:

- Deposits hosted within or zoned proximal to intermediate to felsic granitic rocks.
- Intrusions are typically moderately reduced to moderately oxidized (ilmenite through to magnetite series) I-type granitic rocks.
- The associated pathfinder elements are typically Bi, Te, Mo, W in the core of the intrusion system, zoning outward to distal As, Sb, Pb and Zn.
- The deposits have a range in styles including sheeted, breccia, stockwork, flat-vein, and disseminated to greisen that is controlled by proximity to intrusions, depth of emplacement and structural controls on intrusions.
- Mineralization is coeval with the related intrusions demonstrated through zonation with respect to the causative intrusion and mineralized magmatic-hydrothermal transition textures. These may include miarolitic cavities, vein dykes, unidirectional solidification textures, brain rock, and granite- facies control on gold distribution. In addition, age dating in global examples has confirmed synchronicity between intrusions and mineralization.
- Mineralization is typically characterized by reduced, low sulfide (< 2%) mineral assemblages including pyrite, pyrrhotite and arsenopyrite with magnetite less common and hematite rare. Proximal gold is typically high fineness and paragenetically related to Bi ± Te.
- Alteration is usually more limited than in typical porphyry environments, and characterized by early, high temperature quartz-feldspar (both potassic and sodic) alteration intimately associated with magmatic-hydrothermal transition textures that evolve to lower temperature white mica / sericite- carbonate-chlorite-quartz alteration and veining typically associated with the main mineralization stage.
- The mineralization formed from H₂O-CO₂ ± salt magmatic fluids.
- The majority of known deposits are Phanerozoic in age and formed in continental arc to back arc settings.

Analogous deposits associated with granitic intrusives in the Amazonian craton are the multi-million ounce Omai gold deposit in Guyana (Goldfarb et al. 2001) and the Tocantinzinho gold deposit, located approximately 90 km northwest from the São Jorge property along the same regional lineament.



9.0 Exploration

9.1.1 Exploration by Previous Owners

Exploration work completed over the property by previous operators work and described by GE21 Consultoria Mineral (2021) includes:

- Induced polarization (IP) survey over the deposit and immediate surrounding area covering 24.6 km²
- Soil sampling survey over 15.0 km² on a 200 m by 50 m grid and 100 m by 50 m infill sampling grid, for a total of 4,445 surficial soil samples collected and analyzed for gold.

9.1.1.1 Induced Polarization (IP) Survey

In the period between May 3rd and August 8th, 2011, a Spectral IP survey with acquisition and preliminary processing of data was completed over the property totaling 101,550 linear metres of IP profiles.

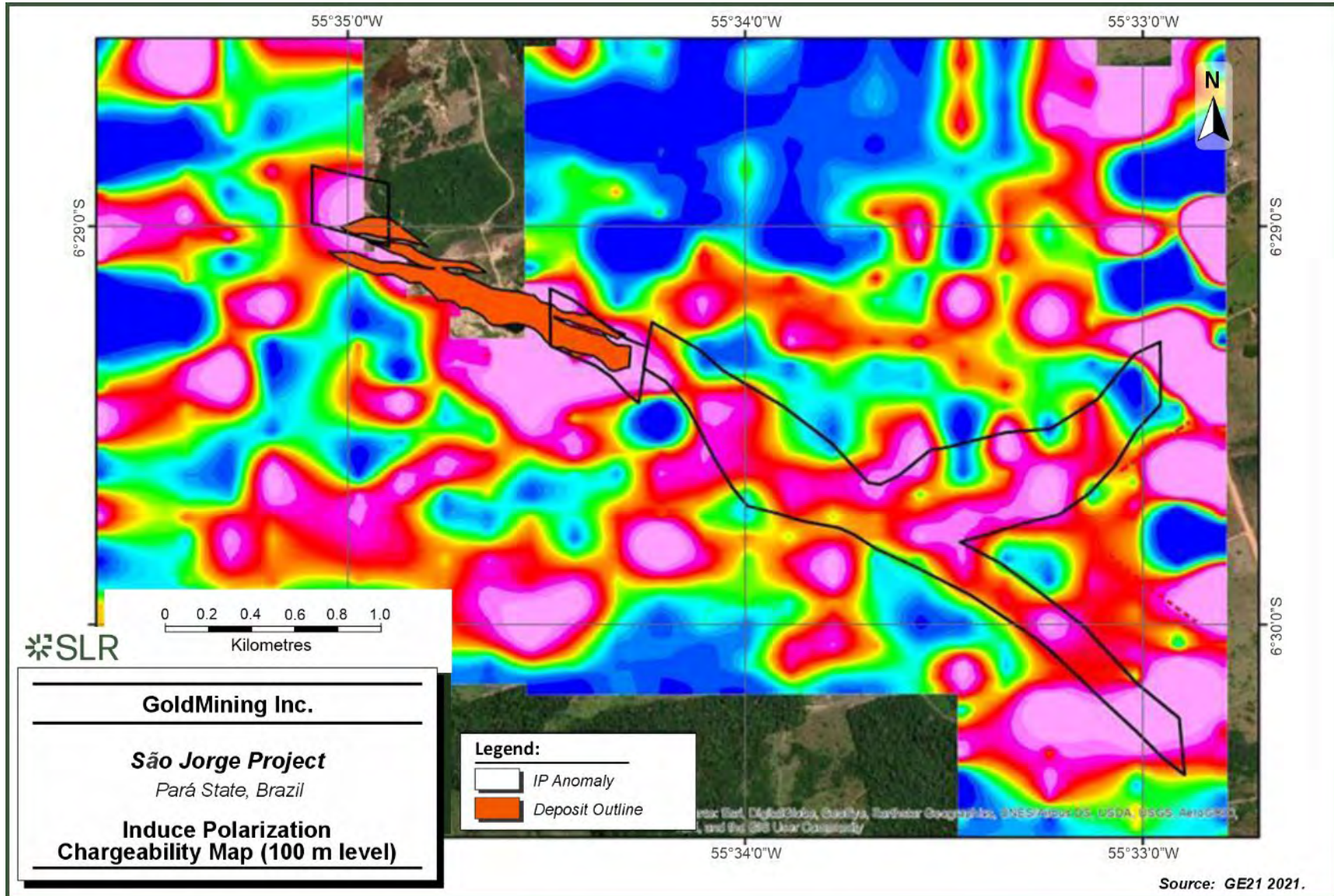
The time domain Spectral Induced Polarization survey was performed along lines using the Dipole-Dipole arrangement with spacing of 100 m and advances of 50 m between stations. The survey equipment included a VIP4000 Transmitter in conjunction with IP Receiver ELREC- PRO – both from IRIS.

The data was processed using the GEOSOFT Interactiv™ IP Processing System.

Figure 9-1 shows the chargeability distribution in plan view at the 100 m level. The image is a representation of the chargeability at depths in the fresh rock close to the rock-saprolite contact.



Figure 9-1: Induce Polarization Chargeability Map (100 m level)



The SLR QP observes that a direct correlation is present between the location of the known extents of the São Jorge deposit and elevated chargeability values. The elevated chargeability values are attributed to the presence of variable abundances of pyrite in the deposit occurring as disseminations and stockwork veinlets. The SLR QP notes that the elevated chargeability values continue along strike to the southeast from the known limits of the deposit into areas that are not extensively tested by diamond drilling.

The SLR QP also observes that a bulge in the chargeability values is present to the south of the southeastern limits of the São Jorge deposit. Only a small number of diamond drill holes have been completed in this area.

9.1.2 Exploration Completed by GoldMining Inc.

GMI's exploration efforts include an extensive soil sampling and multi-element assaying program comprising over 6,000 samples, collected from July 2022 to December 2024 (Figure 9-2), and a mapping and rock chip sampling program. An auger drilling program was also completed in 2024 and is described in Chapter 10.

The soil sampling program delineated several targets comprising gold ± copper ± molybdenum ± silver soil geochemical anomalies distributed over a large 12 km x 7 km geochemical footprint surrounding the São Jorge deposit.

In addition to extending the São Jorge mineral system surrounding the deposit, the sampling program identified for the first time several copper ± molybdenum ± gold soil geochemical anomalies associated with distinct magnetic geophysical features suggestive of potential copper-porphyry style mineralization.

9.1.2.1 Soil Sampling Procedures and Parameters

At selected regions of interest, the sampling grid spacing ranges from 200 m x 100 m to 50 m x 50 m. Samples were collected using shovels excavating up to 30 cm deep to obtain material below the organic soil.

The samples were dried in the air and homogenized in the field. One representative sample, approximately 1 kg, was sent for laboratory analysis. The remaining material was stored until the final results were received and quality assurance (QA) and quality control (QC) procedures were completed.

The samples were sent to the SGS Geosol Laboratórios Ltda. (SGS) that is located in Vespasiano, Minas Gerais, Brazil. The samples were then dried at 105° C, crushed to 3 mm, homogenized, quartered, and an aliquot of 250 g to 300 g was pulverized to 150 mesh in a steel mill. These were then analyzed for gold by the FAA505 method (fire assay with atomic absorption finish on 50 g of material) and for 33 other elements by the GE_ICP40Q method (multi-acid digestion with an inductively coupled plasma optical emission spectroscopy finish on 0.25 g of material).

SGS is a certified commercial laboratory and independent of GMI. GMI has implemented a quality assurance and quality control program for the sampling and analysis of drill core and auger samples, including duplicates, mineralized standards and blank samples for each batch of 100 samples.

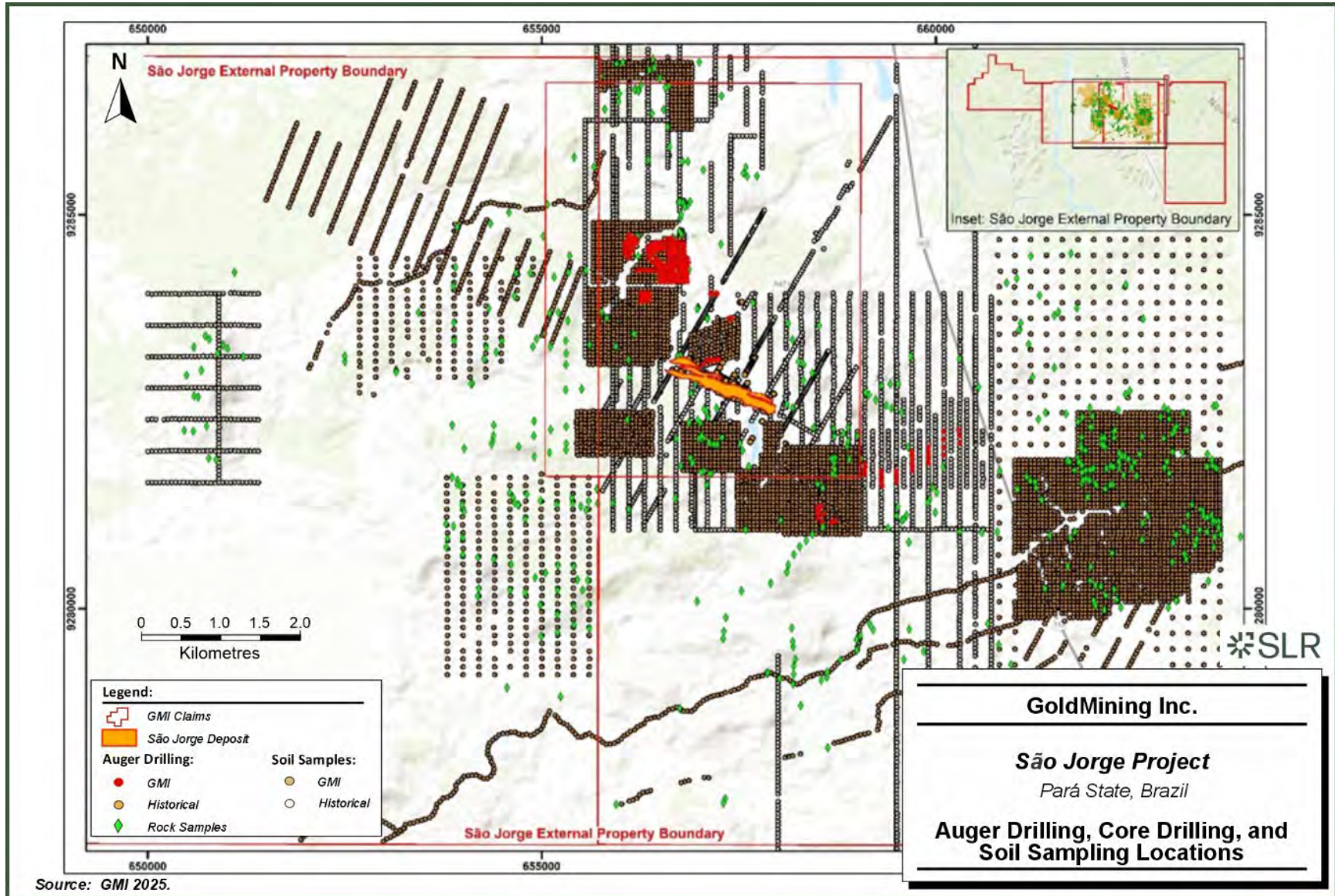


9.1.2.2 Mapping and Rock Chip Sampling

Rock samples from natural outcrops and exposed saprolite zones and quartz veins exposed in artisanal mine workings (“garimpos”) were collected during the surface sampling program. A total of 1,164 rock and saprolite samples were collected (Figure 9-2).



Figure 9-2: Auger Drilling, Core Drilling, and Soil Sampling Locations



Saprolite channel samples were collected along profiles on exposed vertical faces and across floors of garimpo workings. Several mineralized veins were identified in these zones, helping to delineate structural orientation and distribution of mineralization in the surrounding areas of the São Jorge deposit.

A total of 751 rock samples were analyzed for whole-rock geochemistry and 38 elements. The rock samples were sent to the SGS laboratory located in Goiânia, Goiás, Brazil, where they were dried at 105° C, crushed to 3 mm, homogenized, quartered, and an aliquot of 250 g to 300 g was pulverized to 150 mesh in a steel mill. These were then analyzed for gold by the FAA505 method (fire assay with atomic absorption (AA) finish on 50 g of material) and IPC95A, determination by fusion with lithium metaborate – inductively coupled plasma optical emission spectroscopy (ICP OES) and loss on ignition test due to calcination of the sample at 1,000° C.

The combination of surficial and outcrop geology mapping, soil and rock chip geochemistry, and geophysics has helped with the interpretation of underlying primary geology across the São Jorge Project, and also the delineation, characterization and prioritization of exploration targets within the São Jorge mineral system.

The signature of the rock geochemistry permitted the identification of several different types of granitoids.

An excellent correlation was identified between the soil geochemistry and the subjacent rock geochemistry units, showing that is possible to separate the geological units using the soil geochemistry and geophysics.

It was also confirmed that the soil transportation of the anomalies is very proximal (on the order of tens of metres), and the anomalies located in the soil indicate very local proximal sources.

Some elements, like Mn, Fe, Cu, and As, are helpful for discriminating between the topsoil, transported lateritic horizons, and saprolite bedrock; abrupt gradients can help identify the contacts between these units.



10.0 Drilling

10.1 Introduction

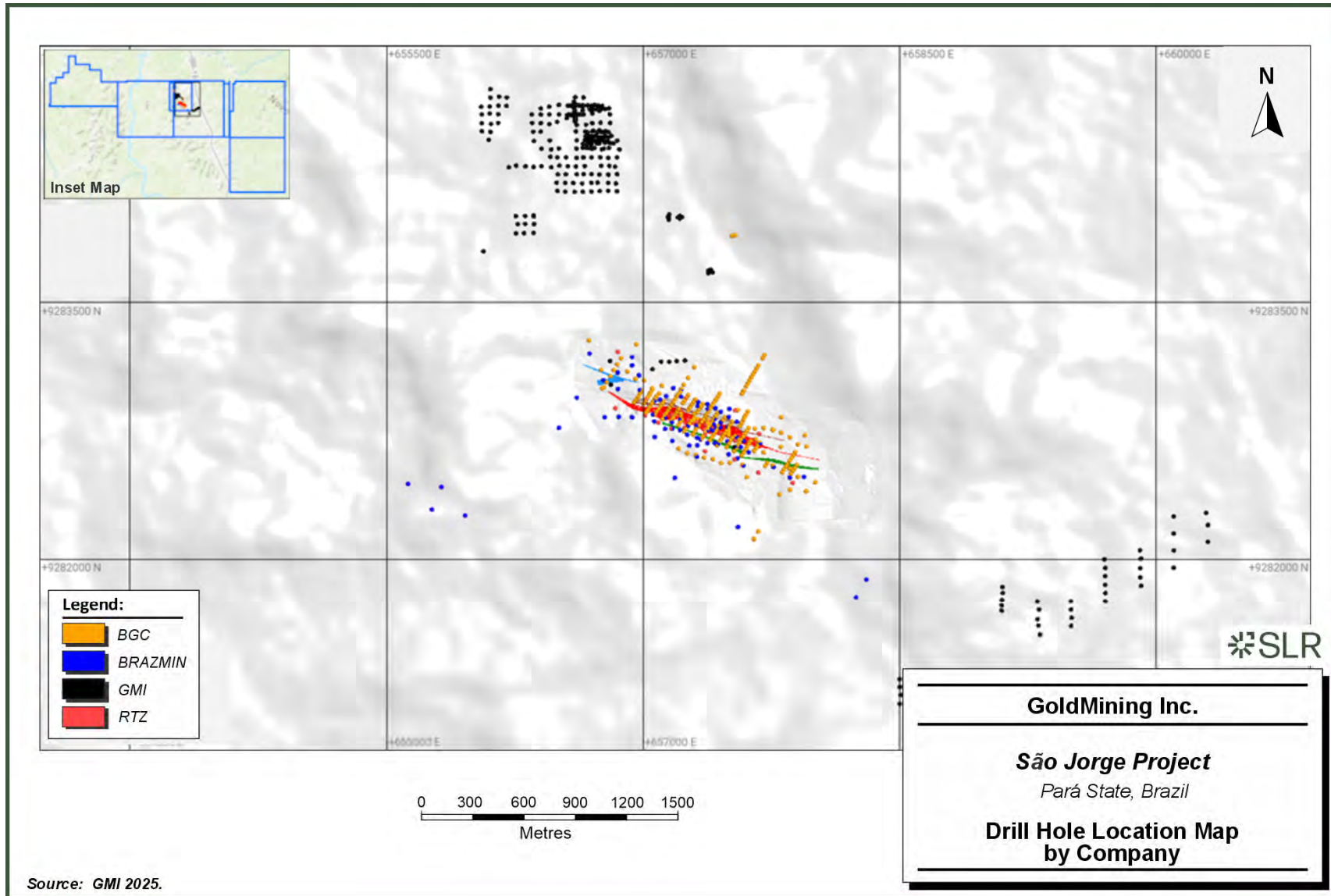
Several drilling programs have been carried out on the property by the various claim owners. The historical drilling completed on the entire Property is documented in Section 6.0 of this report. As of December 31, 2024, a total of 562 drill holes have been completed on the property totalling 43,573 m in length (Table 10-1, Figure 10-1). These drilling programs include diamond drill holes (DDH) and auger drill holes (Figure 10-2).

Table 10-1: Summary of Drilling Completed at the São Jorge Project

Company	Years	Drilling Type	No. of Holes	Metres Completed
Rio Tinto	1993 to 1995	DDH	26	4,391
Talon Metals Corp. / BrazMin Corp	2005 & 2006	DDH	84	18,392
Brazil Gold Corporation	2011	Auger	202	1,868
		DDH	39	14,747
GoldMining Inc.	2024	Auger	206	3,098
		DDH	5	1,077
Total			562	43,573



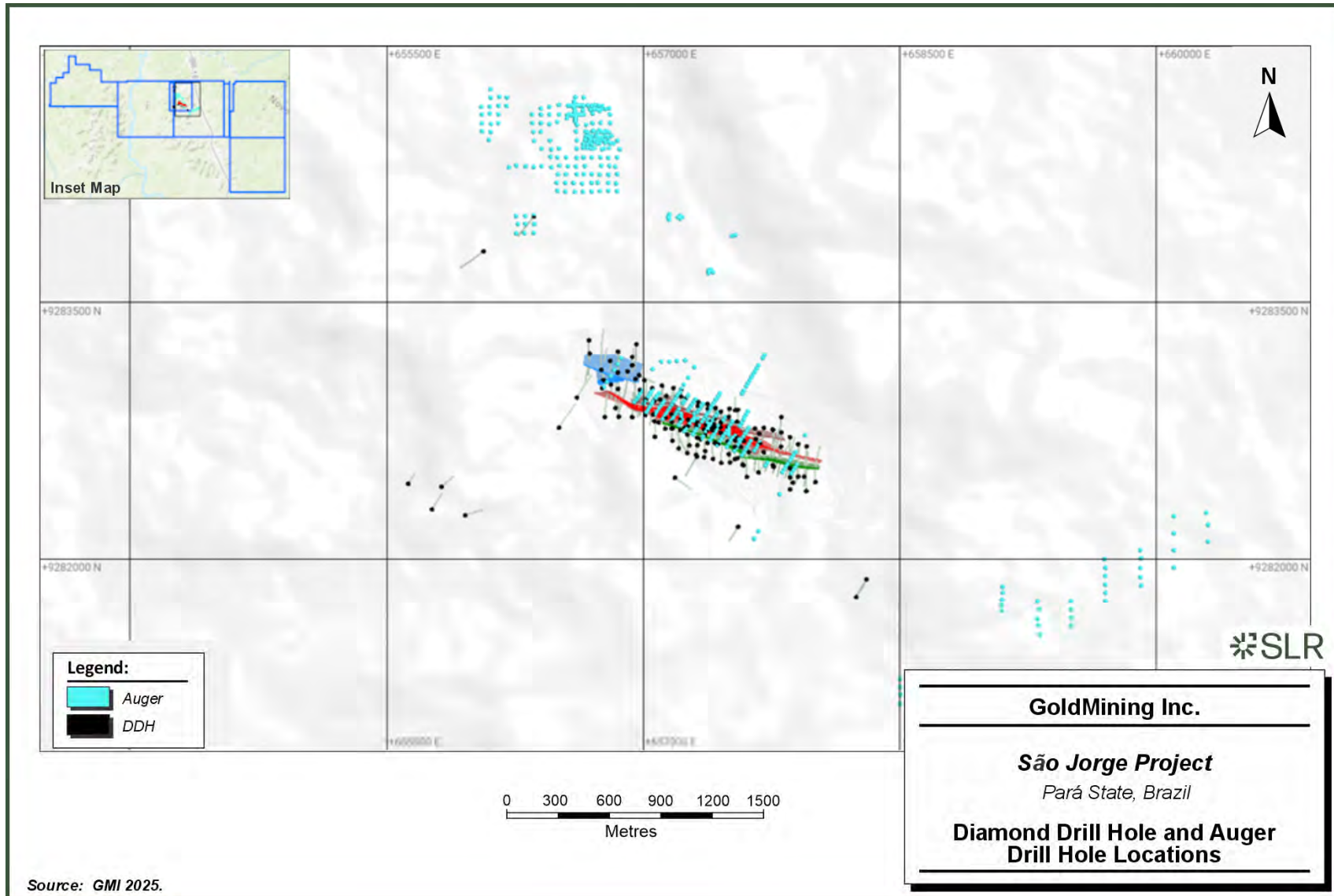
Figure 10-1: Drill Hole Location Map by Company



Source: GMI 2025.



Figure 10-2: Diamond Drill Hole and Auger Drill Hole Locations



10.2 Drilling, Logging, and Sampling Procedures

10.2.1 Auger Drilling

GMI completed an auger drilling program comprising 206 holes for a total length of approximately 3,098 m between April 2024 and November 2024. This auger drilling program targeted primarily the high priority 'William South' area located approximately two kilometres north of the São Jorge deposit. The William South area comprises a broad high-tenor zone of anomalous gold-in-soil samples, measuring approximately 2 km x 2 km (Figure 10-3). The auger program confirmed multiple contiguous primary gold anomalies in the shallow saprolite zones below the surface soil anomalies. These auger drilling results indicate that potential exists for the discovery of new gold mineralized zones hosted in throughout the full thickness of the saprolite layers and possibly in the fresh rock beneath.

The auger drilling program was completed by Geoscan Consulting utilizing a diesel powered 20-cm diameter rotary drill head capable of penetrating to depths of 15 m to 20 m, with vertical drill holes completed on an approximately 25-50 m x 50 m grid pattern. A geologist or technician supervised the drilling, logged the drill cuttings, and discriminated between transported overburden from in situ weathered bedrock. Sampling is conducted at one metre intervals, with assaying being done with assay methods with detection limits of 5 parts per billion (ppb) Au. The drilling method is an open hole, therefore contamination and/or dilution of precious metal grades by material from higher in the hole is possible.

The one-metre auger sample intervals were dried in the air and homogenized in the field and a representative sample of 1 kg from each sample interval was sent for analysis. The remaining material was stored until the final results were received and QA/QC was completed.

A summary of the significant intersections encountered in the 2024 auger holes is provided in Table 10-2.

The SLR QP recommends that exploration drilling be carried out to search for bedrock sources of the gold mineralization discovered by GMI's auger drilling program in the William South area.



Figure 10-3: Auger Hole Location Map

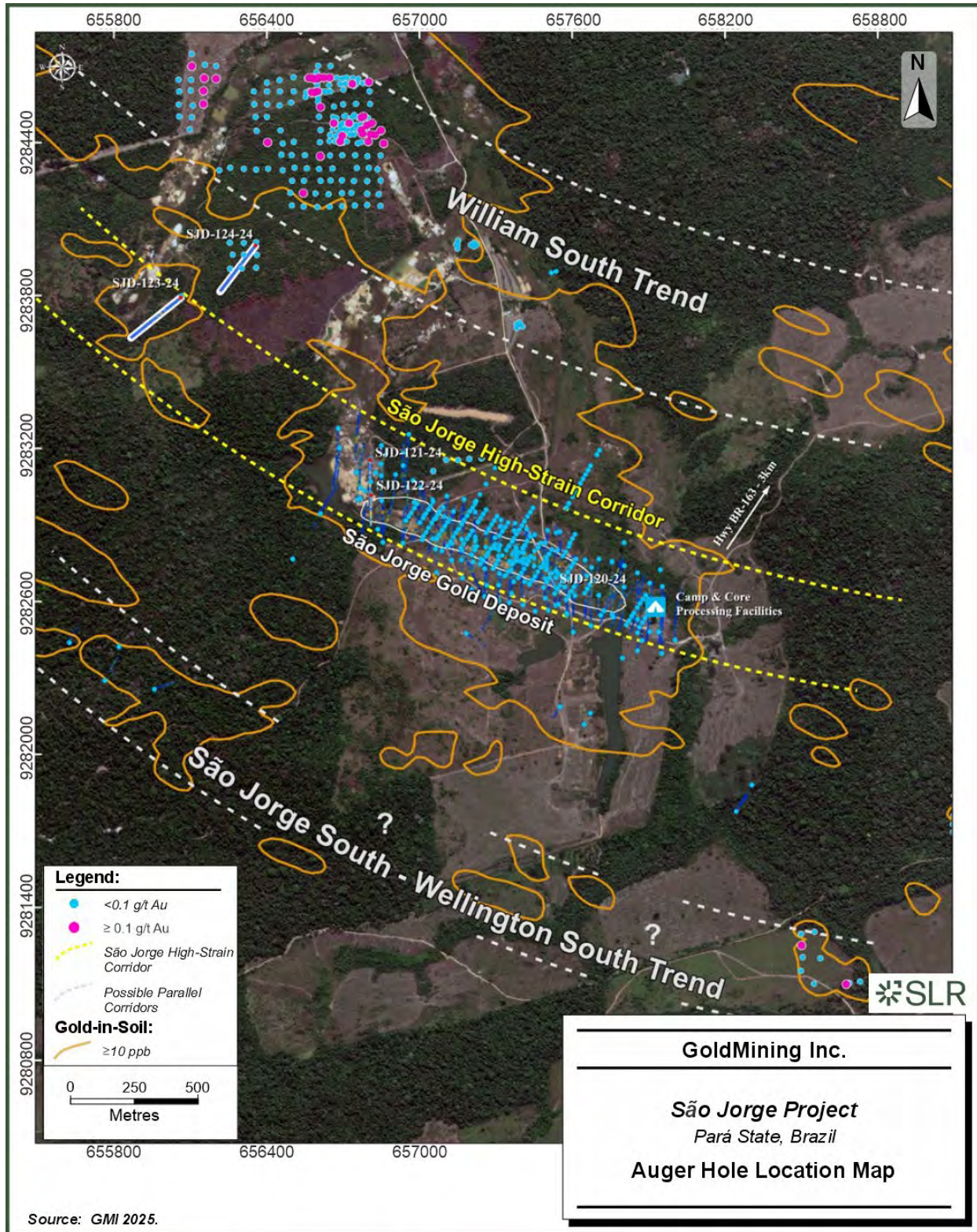


Table 10-2: List of Significant Intersections from the 2024 Auger Drilling Program

Hole Number	Interval From (m)	Interval To (m)	Sample Length (m)	Au Grade (g/t)
SJTRD-054-24	9.00	10.00	1.00	0.22
SJTRD-055-24	10.00	11.00	1.00	0.96
SJTRD-077-24	7.00	9.00	1.00	3.05
SJTRD-079-24	4.00	5.00	1.00	0.12
SJTRD-080-24	5.00	6.00	1.00	0.18
SJTRD-081-24	4.00	5.00	1.00	0.32
SJTRD-082-24	8.00	9.00	1.00	2.03
And	12.00	13.00	1.00	17.14
SJTRD-084-24	17.00	18.00	1.00	0.92
SJTRD-086-24	5.00	7.00	2.00	4.41
Including	6.00	7.00	1.00	8.01
SJTRD-090-24	9.00	10.00	1.00	0.83
SJTRD-091-24	9.00	11.00	2.00	1.47
SJTRD-096-24	6.00	7.00	1.00	0.28
SJTRD-098-24	6.00	8.00	2.00	0.38
SJTRD-108-24	10.00	11.00	1.00	0.10
SJTRD-109-24	9.00	10.00	1.00	0.11
SJTRD-110-24	7.00	8.00	1.00	0.21
SJTRD-112-24	5.00	6.00	1.00	0.19
SJTRD-113-24	10.00	11.00	1.00	0.17
SJTRD-121-24	8.00	9.00	1.00	0.11
SJTRD-124-24	9.00	11.00	2.00	2.06
Including	10.00	11.00	1.00	3.78
SJTRD-128-24	13.00	14.00	1.00	0.78
SJTRD-147-24	14.00	15.00	1.00	10.20
SJTRD-148-24	6.00	7.00	1.00	0.13
SJTRD-152-24	9.00	10.00	1.00	0.26
SJTRD-154-24	11.00	12.00	1.00	0.10
SJTRD-158-24	11.00	12.00	1.00	0.12
SJTRD-162-24	7.00	8.00	1.00	0.12
SJTRD-163-24	8.00	9.00	1.00	0.10
SJTRD-166-24	11.00	12.00	1.00	0.71



Hole Number	Interval From (m)	Interval To (m)	Sample Length (m)	Au Grade (g/t)
SJTRD-187-24	10.00	15.00	5.00	2.78
SJTRD-197-24	7.00	8.00	1.00	0.17
and	12.00	15.00	3.00	1.05
SJTRD-204-24	5.00	8.00	3.00	0.48
and	13.00	15.00	2.00	0.12
SJTRD-205-24	10.00	14.00	4.00	0.18
SJTRD-210-24	13.00	15.00	2.00	0.16
SJTRD-211-24	5.00	6.00	1.00	0.30
SJTRD-214-24	8.00	9.00	1.00	0.17
SJTRD-228-24	9.00	10.00	1.00	0.55
SJTRD-251-24	14.00	15.00	1.00	0.11
SJTRD-257-24	8.00	12.00	4.00	0.29
Including	10.00	11.00	1.00	0.57

10.2.2 Diamond Drilling

GMI completed diamond core drilling program comprising five drill holes and totalling approximately 1,077 m in length between May 2024 and September 2024. The goal of this drilling program was to primarily target the São Jorge deposit and its potential extension along strike to the west.

The proposed drill hole collar locations for GMI's 2024 diamond drilling campaigns were marked in the field by the geologist and field technicians using a hand-held GPS unit. A wooden picket, marked with the drill hole number and orientation, was placed at the site of the proposed drill hole, and foresight and backsight pickets were also put into place to help in the alignment of the diamond drill. The drilling rig was then brought to a level orientation over the location of the proposed drill collar and aligned to the foresight and backsight pickets. The dip of the hole was set using an adjustable, graduated leveling device that had a precision of one degree.

The diamond drill holes were completed by Layne do Brasil Sondagens S/A using a wireline drill rig model CS10-358, having a depth capacity for 400 m using NQ2 diameter bits. Sample recovery data is collected during the core preparation workflow. The São Jorge deposit is hosted in a competent monzogranite with a saprolite cover, with recovery averaging approximately 97% across both units (Figure 10-4).



Figure 10-4: Typical Drill Core Recovery



Source: GMI 2024.

Note: Hole SJD-120-24, 95.0 m – 132 m: 2.26 g/t Au / 37.00 m

Drill hole collars were spotted using hand-held Garmin GPS units. No final survey, or collar checks were completed. All collar data accuracy from the 2024 program is estimated to be +/-3 m horizontally and +/-5 m vertically. Following completion of the drill hole, the location of the collar was marked with a wooden picket that was marked with the drill hole number. The drill hole collar locations were determined using the UTM SAD69 Zone 21S EPSG:5531 datum relative to four topographic control points that have been established on the property.

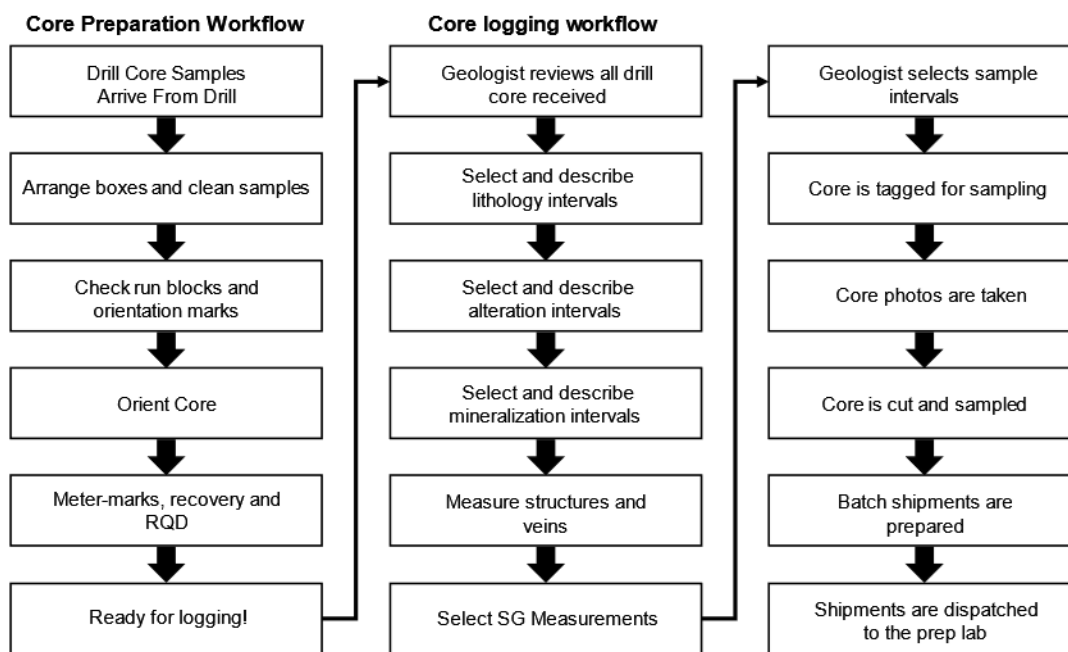
Downhole surveying of the drill hole deviation was conducted by the drilling contractor using a Reflex Sprint Gyro tool. Single shots were taken approximately every 30 m to 50 m downhole during drilling, and a continuous in/out survey (3 m station intervals) was completed at the end of the hole. No secondary downhole surveys were completed to verify the accuracy or calibration of the tool in use. A magnetic declination of 19° was applied. The drill core was delivered to a secured core logging facility once per day where it was prepared for processing.

At the core shack, the core was re-aligned by the geologist to a consistent orientation and was measured to confirm the accuracy of the depth markers placed in the core boxes by the



diamond drilling crews. The core was then examined, and the depths of geological, structural, or alteration features were marked onto the core using a wax marker. An examination of the distribution of magnetic intensity of the drill core was conducted using a hand-held pen magnet. Subsequently, the rock quality determination (RQD) and joint/fracturing intensity of the core was determined by a geological technician at a nominal interval of three metres. Figure 10-5 shows the core processing workflow used at São Jorge. Spot checks for data completeness and accuracy were carried out throughout the project to ensure consistent data collection throughout the program. Descriptions of the lithologies, alteration styles and intensities, structural features, occurrences and orientations of quartz veins or sulphide veins and the style, amount and distribution of sulphide minerals were then recorded in the diamond drill logs by the logging geologist. Drill hole logs were backed up periodically throughout the program from the cloud to the GMI's servers.

Figure 10-5: Core Logging Workflow



The 2024 diamond drilling program was successful in confirming the interpreted location of the gold mineralization (DDH SJD-120-24), locating the northwestern strike extension of the mineralized zone (DDH SJD-122-24), intersecting the gold mineralization along a parallel mineralized zone located to the northwest of the main mineralized trend (DDH SJD-121-24), and intersecting previously untested mineralized zone (DDH SJD-123-24). A summary of the significant intersections encountered in the 2024 drill holes is provided in Table 10-3.



Table 10-3: Summary of GMI Significant Intersections in the 2024 Drill Holes

Hole ID	From	To	Core Length (m)	Uncapped Average Grade (g/t Au)	Capped Average Grade (g/t Au)
SJD-120-24	44.00	207.00	163.00	1.02	1.02
Incl.	44.00	64.00	20.00	1.37	1.37
and	95.00	132.00	37.00	2.26	2.26
and	148.00	159.00	11.00	1.00	1.00
and	166.00	179.00	13.00	1.35	1.35
and	195.00	207.00	12.00	1.15	1.15
SJD-121-24	82.00	103.00	21.00	0.61	0.61
SJD-122-24	67.00	75.00	8.00	2.64	2.59
SJD-123-24	93.00	103.00	10.00	0.66	0.66

Notes:

True widths are estimated to range from 70% to 90% of the core lengths.

Capped average grades use a capping value of 15 g/t Au

10.2.3 Drill Core Resampling Program

In 2021, GMI carried out a 14-hole confirmatory assay program of existing unsampled core intervals from previous drilling programs. Results indicated that the previously un-sampled intervals were variably mineralized, principally comprising low to nil or marginal (below cut-off) gold grades. Exception with the results of an interval of weak to moderate alteration and mineralization within a previously unsampled interval from 50.0 m to 70.0 m in hole SJD-094-11 and extensive sections of SJD-058-06 from 140.0 to 259.0 m, which was drilled as a twinned hole next to SJD-058A-06 with the majority of the hole previously un-sampled that contained extensive sections of strongly altered and mineralized materials.

The complete assay results also delineated mineralized saprolite intervals that were not only previously un-sampled but, importantly, located at the surface and outside of any known mineralization or resource models.



11.0 Sample Preparation, Analyses, and Security

11.1 Sample Preparation and Analysis

11.1.1 Auger Drill Holes

The samples from the auger drilling program were sent to the SGS laboratory in Vespasiano, Brazil, where they were dried at 105° C, crushed to 3 mm, homogenized, quartered, and an aliquot of 250 g to 300 g was pulverized to 150 mesh in a steel mill. These were then analyzed for gold by the FAA505 method (fire assay with AA finish on 50 grams of material) and for 33 other elements by the GE_ICP40Q method (multi-acid digestion with an inductively coupled plasma optical emission spectroscopy [IES OES] finish on 0.25 grams of material).

SGS is a certified commercial laboratory under ISO:IEC Standard 17025:2017 for gold analysis and independent of GMI. GMI has implemented a quality assurance and quality control program for the sampling and analysis of drill core and auger samples, including duplicates, mineralized standards, and blank samples for each batch of 100 samples.

11.1.2 Diamond Drill Holes

The logging geologist marked off those sections of the drill hole to be sampled using a wax crayon and the core was then forwarded to the core technician for sample cutting. In general, the entire length of the diamond drill holes completed in 2024 were selected for sampling using a nominal sample length of one metre. Care was taken to ensure that the samples corresponded to either geological or alteration intervals present in the core. Aside from occasional intervals of fault gouge and blocky core in the drill holes no drilling, sampling, or recovery factors were encountered that would materially impact the accuracy and reliability of the analytical results from samples of the drill holes. The drill core provides samples of high quality, which were representative of any alteration, veining, or sulphide accumulations that were intersected by the drill hole. No factors were identified which may have resulted in a sample bias.

The core was then transferred to the core technician who proceeded to separate the core into two halves by means of cutting the samples using an electrical core saw equipped with a diamond impregnated blade. One half of the core was placed into an 8-mil plastic bag and then forwarded to the assay laboratory. The remaining half core was placed back into the core box for storage and future reference. The core technician assigned an identification number to the sample using a uniquely numbered sample tag. One tag was placed into the assay sample bag, while the second tag was placed into the core box at the appropriate location. Once sufficient samples had accumulated, they were transported by GMI personnel from site to a trucking company in Novo Progresso, who then transported the samples to the sample receiving facilities of SGS, located in Goiânia, Goiás, Brazil, for sample preparation.

Once all the samples had been split, the remaining core was stored in a secure indoor location.

Samples of cut drill core were delivered to the sample receiving facilities of SGS. Once received into the prep shop area, the samples were moved from the inspection table and individually placed, in sequence, into well cleaned pans on the large table. The samples were placed into drying ovens whose temperatures are set to a nominal temperature of 105°C. Drying time varies with the amount of moisture in the sample, sample volume, and the type of sample. Core samples will normally be dry in one to three hours. After the samples in the oven are suitably



dried, the sample pans are transferred in sequence onto a mobile steel rack. The rack is then moved to the crushing area.

Each of the samples is crushed to a minimum of 75% minus 3 mm. The operator makes a screen test on first crushed sample to ensure that the crushed sample material meets minimum size distribution requirements for splitting. Screen tests are conducted on a random basis from then on. A 250 g sample of crushed material is collected using a rotary divider and is then sent to the milling station, where the sample will be pulverized for to a minimum of 95% passing through a 150 mesh sieve. The sieve test is performed each shift on a test sample selected at random by the shift leader.

The pulp sample resulting from the preparation stage was then sent to the SGS laboratory in Vespasiano, Minas Gerais for analysis. SGS is independent of GMI. The gold content of all samples was determined using the fire assay / atomic absorption spectroscopy method (SGS method code FAA505). In addition, multi-element assaying was also carried out on all samples using Inductively Coupled Plasma (SGS method code GE-ICP40Q). SGS is certified under ISO:IEC Standard 17025:2017 for gold analysis.

11.1.3 Drill Core Resampling Program

The historical core resampling program samples were taken from the NQ/HQ core by sawing the drill core in half, with one-half sent to SGS and the other half retained for future reference. SGS is a certified commercial laboratory located in Goiânia, Goiás, Brazil. GMI implemented a stringent quality assurance and quality-control (QA/QC) program for the sampling and analysis of drill core, which included insertion of duplicates, mineralized standards, and blank samples for each batch of 100 samples. The gold analyses were completed by fire-assays with an AA finish on 50 grams of material. Repeats were carried out by fire-assay.

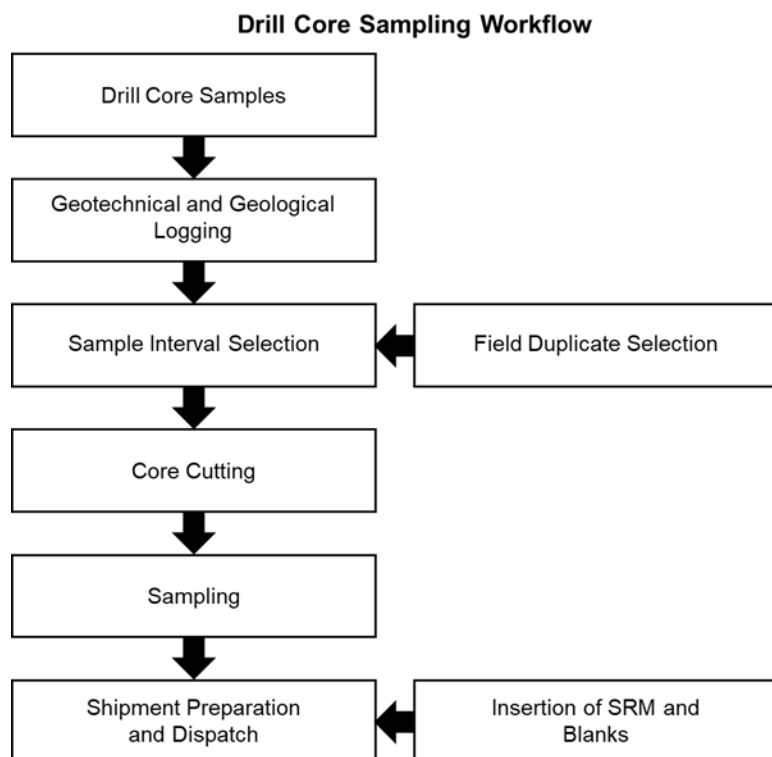
Assays have been incorporated into the São Jorge Project database, with all assayed intervals replacing the previous unsampled intervals.

11.2 Quality Assurance and Quality Control

Certified gold standards (Certified reference materials (CRM) or Standard reference material (SRM)) were inserted every 20 samples, alternating with blank material every 20 samples. Standard material represented a variety of grades and material types. Pulp duplicate samples were selected approximately every 50 samples with preference biased towards material that appeared to be mineralized, where possible. The sample preparation workflow is illustrated in Figure 11-1.



Figure 11-1: Drill Core Sampling Workflow



Eight CRMs were used to represent a range of Au grades from low grade (0.34 ppm Au) to high grade (7.92 ppm Au), as listed in Table 11-1.

Table 11-1: List of Certified Reference Materials

	SRM ID	Accepted Value (g/t Au)	+2SD g/t Au	-2SD g/t Au
High Grade	ITAKA-678 CRM	7.92	8.36	7.48
High Grade	OREAS 17C	3.04	3.21	2.87
Low Grade	OREAS 52C	0.346	0.379	0.312
High Grade	OREAS 54PA	2.90	3.12	2.68
Low Grade	OxE86	0.613	0.655	0.571
Medium Grade	OxH55	1.282	1.358	1.206
Low Grade	SE58	0.607	0.645	0.569
Medium Grade	SG56	1,027	1.093	0.961

Notes: SD standard deviation.

Blank material used for laboratory QA/QC checks was collected from a local outcrop which was known to be barren of gold grades.

During 2024, a total of 123 blanks and standards (61 and 62, respectively) were inserted into sample shipments to test the precision and consistency of the SGS laboratories. There were a



total of five failures where a standard returned a gold assay value 3 standard deviations (SD) above or below certified values. Four of these failures resulted in the surrounding material (+/- 5 samples) being sent for re-assay, with no appreciable changes being recognized between the original assay certificates and the re-assay results. The fifth outstanding failure was not sent for re-assay after inspection of the surrounding results determined that there was little risk to significant material contamination or over/under estimation.

An example of a CRM control chart is presented in Figure 11-2 and the blank control chart is presented in Figure 11-3. With regards to the blank control chart, assay values returning below detection limit were reported as -0.005 ppm Au by SGS. Gold values below the detection limit were converted to positive values at half the detection limit (0.0025 ppm Au), for the purposes of numerical comparison.

Figure 11-2: Control Chart for Certified Reference Material SE58

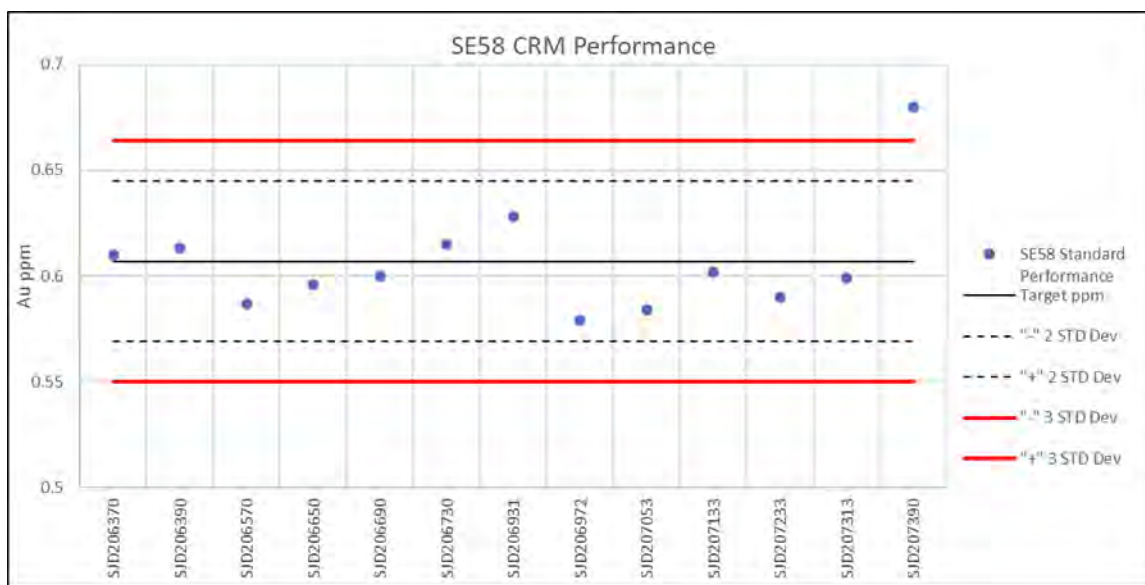
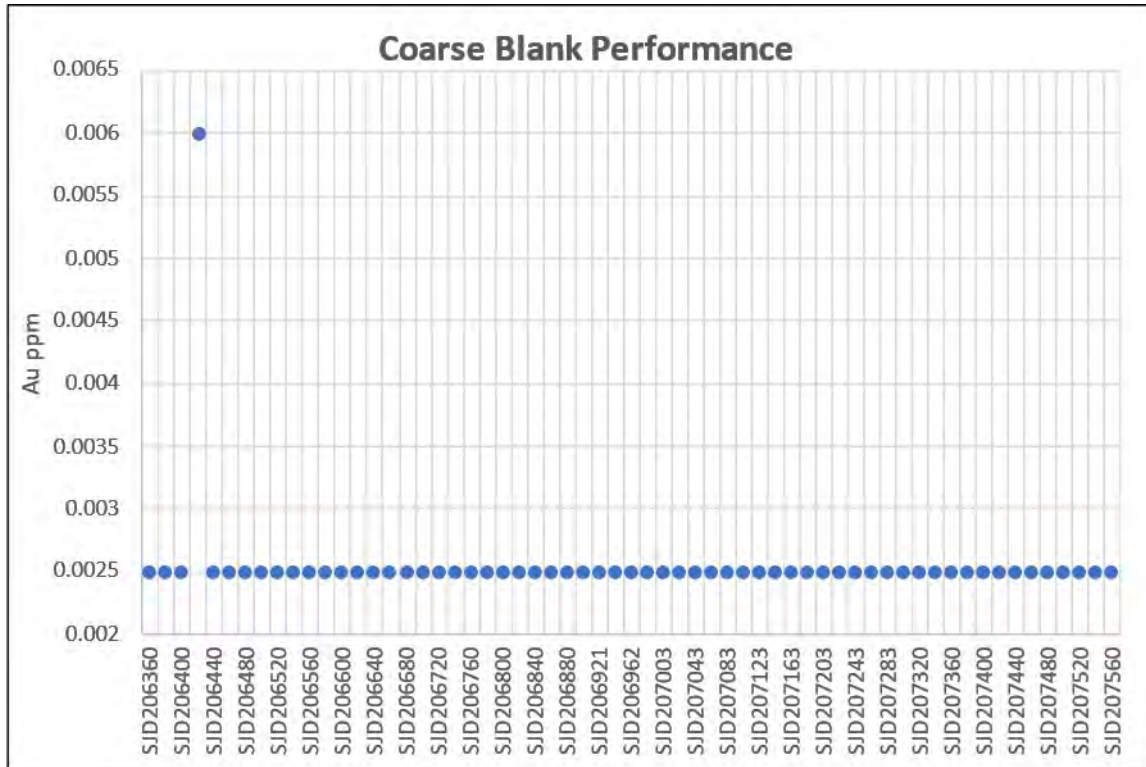


Figure 11-3: Control Chart for Coarse Blank Material



In the SLR QP's opinion, the sample preparation, analysis, and security procedures at São Jorge are adequate for use in the estimation of Mineral Resources.



12.0 Data Verification

Mr. Reno Pressacco, P.Geol., SLR Associate Principal Geologist, carried out a site visit to the São Jorge Project on May 3, 2024, and May 4, 2024.

During the site visit, Mr. Pressacco examined existing site infrastructure and access, observed the topographic control points present, visited the location of the diamond drill rig to observe the drilling procedures and equipment used, reviewed a selection of mineralized intersections and the host rocks in drill core, and observed the surface expression of the strike projection of the mineralized corridor.

During the site visit, he was accompanied by Mr. Paulo Pereira, President, GoldMining Inc. and Logan Boyce, Senior Geologist – Americas, GoldMining Inc.

The SLR QP carried out a program of validating the historical digital drill hole database by means of spot checking the assay results for a selection of drill holes that intersected the mineralized wireframe domains, thus relevant to the Mineral Resource estimate. The assay results in the drill hole database for all diamond drill holes completed during the 2024 drilling campaign were confirmed by cross checking with the certificates supplied to the SLR QP directly from the assay laboratory.

In addition, a number of standard data integrity checks were performed by the software programs on the drill hole database such as:

- Intervals exceeding the total hole length (from-to problem)
- Negative length intervals (from-to problem)
- Inconsistent downhole survey records
- Out-of-sequence and overlapping intervals (from-to problem; additional sampling/quality assurance/quality control/check sampling included in table)
- No interval defined within analyzed sequences (not sampled or missing samples/results)
- Inconsistent drill hole labelling between tables
- Invalid data formats and out-of-range values

The SLR QP is of the opinion that database verification procedures for the São Jorge Project comply with industry standards and are adequate for the purposes of Mineral Resource estimation.



13.0 Mineral Processing and Metallurgical Testing

A summary of the metallurgical test work completed on the Project has been modified from GE21 (2021) as follows:

13.1 Metallurgical Testing – 2006

In 2006, SGS was commissioned to undertake metallurgical tests. Test work was performed on three carefully composed drill core samples from the São Jorge Project of high, medium and low-grade samples. The gold head grades of samples SJ MET-01, SJ MET-02 and SJ MET-03 were 6.5 g/t Au, 1.8 g/t Au and 0.6 g/t Au, respectively.

SGS performed a comprehensive mineralogical and analytical approach of sample SJ MET-01, including fire assay, heavy liquid separation, super-panning, mineral microscopy, and electron microprobe. Results showed that the gold was present mainly in its native form with the native gold content ranging from 74.6% to 95.5% of the total gold occurrence. In terms of liberation, gold occurred as liberated particles, particles associated with pyrite, and particles associated with non-sulphides. The grain size ranged from 1 µm to 212 µm, with the majority of grains below 50 µm.

The gold balance shows that liberated gold accounted for approximately 17% of the head grade, with the majority of gold grains being less than 50 µm in size. Approximately 62% and 13% of the gold was associated with pyrite and pyrite/non-sulphide binaries, respectively. Test work showed this gold can be recovered by flotation, followed by cyanidation. Gold attached to pyrite can be recovered by direct cyanidation. To extract gold locked in pyrite, however, finer grinding will be required.

The Bond ball mill work index of a composite of the three samples was determined to be 16.8 kWh/t in a test using a 150 mesh closing screen.

The recovery of gold by gravity separation ranged from 33% to 43%. Gold extraction by carbon-in-leach (CIL) from the gravity separation tailing ranged from 97% from the highest-grade sample to 86% from the lowest grade sample, resulting in overall gold recoveries by gravity separation and CIL ranging from 98% (SJ MET-01) to 91% (SJ MET-03). The cyanide consumption was low at 0.1 to 0.3 kg/t NaCN. Test results of the recovery of gold from the gravity separation tailing by flotation ranged from 94% to 98%.

Summaries of test work results are shown in Table 13-1 (head analysis), Table 13-2 (gravity separation tests), and Table 13-3 (leaching tests). Figure 13-1 through Figure 13-3 illustrate the recovery versus grade curves for the metallurgical test work results.

Table 13-1: Head Analysis (excluding SJ-MET-01)

Head Sample Assays	SJ-MET-01		SJ-MET-02	
	Au (g/t)	S (%)	Au (g/t)	S (%)
Average	1.82	0.87	0.64	0.52



Table 13-2: Summary of Gravity Separation Tests

Test No.	Sample	K80 (µm)	Wt %	Gravity Concentrate		Gravity Tail Assay	Head Assay	
				Assay (g/t Au)	% Au Recovery	(g/t Au)	Calc. (g/t Au)	Direct (g/t Au)
G2	SJ-MET-02	92	0.092	5.22	35.2	0.88	1.36	1.82
G3	SJ-MET-03	91	0.088	2.62	32.8	0.47	0.70	0.64

Table 13-3: Summary of Leaching Tests

Test No.	Sample	Reagent Addition (kg/t)		Reagent Consumption (kg/t)		% Extr'n	Residue (g/t Au)	Leach Feed (calc, g/t Au)	Overall Gold Recovery (%)	
		NaCN	CaO	NaCN	CaO				Gravity Only	Gravity + CIL
CIL2	SJ-MET-02	0.70	0.69	0.10	0.64	89.6	0.09	0.87	35.2	93.3
CIL3	SJ-MET-03	0.77	0.71	0.12	0.67	86.1	0.07	0.51	32.8	90.7

A comparison of the metallurgical test work results is presented in Table 13-4. In summary, the mineralized samples responded very well to Gravity + CIL and Gravity+ Flotation tests. Although flotation gave the highest overall gold recovery, further upgrading and/or treatment of the flotation concentrate would be required with the added risk of some, undefined, gold loss associated with the downstream processes. Overall gold recoveries by gravity separation and flotation were 95.6% to 97.3%.

Table 13-4: Comparison of Metallurgical Test Results

Sample	Gold Recovery (%)		
	Gravity Only	Gravity + CIL	Gravity + Flotation
SJ-MET-02	35.2	93.3	97.3
SJ-MET-03	32.8	90.7	95.6



Figure 13-1: São Jorge Gravity Recovery Result

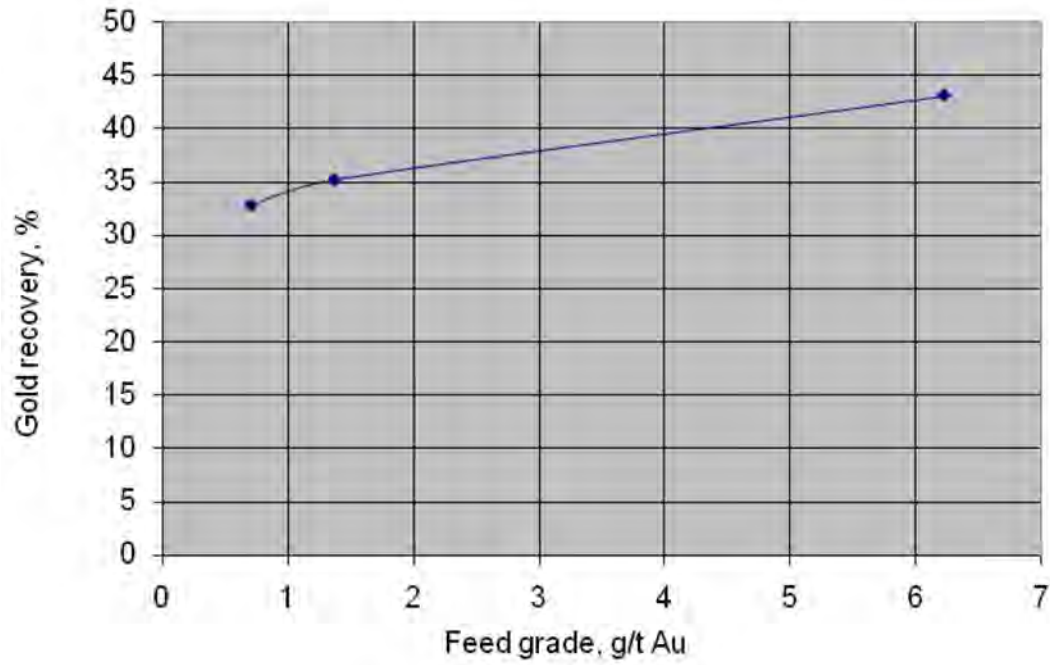


Figure 13-2: Leaching Recovery Test Result

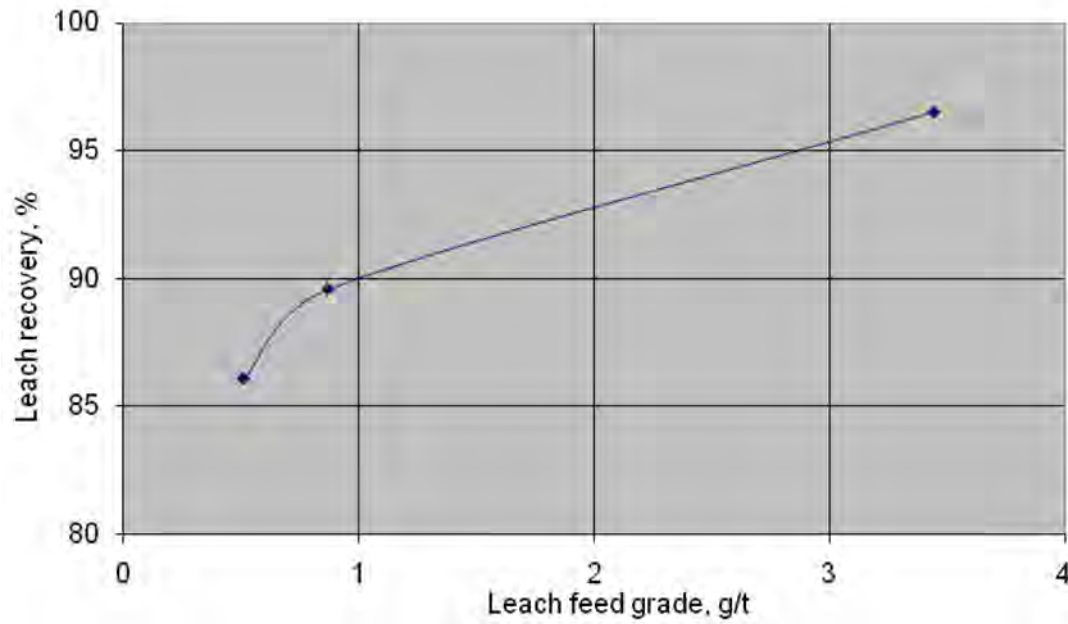
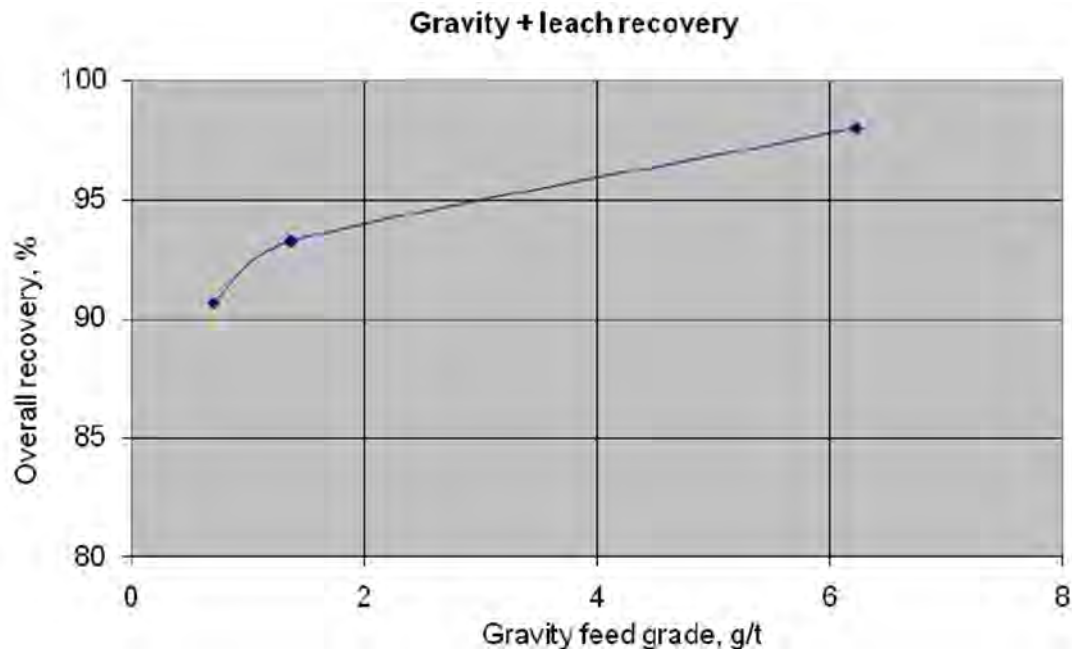


Figure 13-3: Gravity Plus Leach Recovery Test Result



13.2 Metallurgical Testing – 2012

A second phase of test work was carried out by Testwork Desenvolvimento de Processo Ltda in order to determine the most economical processing route for the mineralization based on using CIL as the metal extraction method.

The test work comprised chemical analysis on head samples, size by size distribution, leaching of the individual size fractions in order to establish leaching kinetics and gravity test work. Leaching was conducted on both gravity concentration tails and non-gravity tails with and without the addition of activated carbon. Finally, the effects on recovery with variation in cyanide addition rates were examined.

13.2.1 Sample Selection and Location

Samples were selected from nine bore holes covering a strike length of 600 m over a vertical depth of 60 m to 350 m below surface in the main portion of the São Jorge deposit. The samples were the remainder of the original 3.5 kg to 4.0 kg core samples submitted for assays. A selection of 30 samples with a grade of between 0.5 g/t Au and 1.5 g/t Au were taken. A weighted average grade calculated for the 30 samples was made. From the 30 samples selected, samples were added and removed until a representative combination of 18 samples with an average grade of close to 1.0 g/t Au was defined. All samples were crushed to $P_{80} = 1.68$ mm and composited into a single representative sample from which a number of one kilogram sub-samples were taken for leach and gravity recovery test work. The mean calculated head grade for the range of tests carried out was 0.78 g/t Au, well below the diluted resource grade of 0.91 g/t Au as reported by Coffey Mining (2013).

The mineral samples were delivered in bags that were labelled MET-01. This was the only sample that was used for the metallurgical test work program for this phase.



13.2.2 Head Samples and Assays

Four 1-kg sub-samples were selected at random, homogenized once more and divided into six 500 g samples and one 1-kg sample in order to perform the following analyses:

- Au analysis via fire assay on the six 500 g samples;
- Ag, S, Fe, Cu, As, Hg, CO₃²⁻, ICP multi-element, C_{TOTAL} (total carbon) analyses on the 1-kg sample.

Assay results obtained from the head sample MET-01 chemical analysis are listed in Table 13-5 and Table 13-6, and the calculated grade results for the same samples analysed for gold content can be seen in Table 13-7.

Table 13-5: Chemical Analysis for Sample MET-1

Element	Unit	Quantity
Hg	ppm	<0.001
Ag	ppm	<3
As	ppm	<10
Fe	%	2.84
Cu	Ppm	166
C (organic)	% 0.027	
C (Elemental)	%	<0.005
C (Carbonitic)	%	0.424

Table 13-6: Gold Analysis for Sample MET-1

Sample	Assay (g/t)
1	0.587
2	0.744
3	1.177
4	0.872
5	0.618
6	0.684
Average	0.780

Table 13-7: Calculated and Assayed Heads for Sample MET-1 Tests

Description	Gold Assays (g/t)
Head assay	0.78
Test 1 experimental test work	0.49
Test 2 experimental test work	0.59
Granulometric weighted average	0.91



Description	Gold Assays (g/t)
Gravity concentration test	0.86
Kinetic leaching w/o gravity (w/o carbon) (P ₈₀ 106 microns)	0.67 – 0.87
Kinetic leaching w/o gravity (w carbon) (P ₈₀ 106 microns)	0.61 – 0.78
Kinetic leaching w/o gravity (w/o carbon) (P ₈₀ 75 microns)	0.72 – 1.10
Kinetic leaching w/o gravity (w carbon) (P ₈₀ 75 microns)	0.55 – 0.79

13.2.3 Granulometric Test Work

A 3kg sample was crushed to P₈₀ = 125 µm, dried and separated into size fractions of +100, +115, +150, +200, +325 and -325 mesh.

These fractions were leached, and both the solids and the solutions were analysed to verify gold distribution by fraction. Results can be seen in the Table 13-8.

The recovery of gold per fraction varied between 90.6% and 74.4%, with an average of 81.8%. The recalculated concentration of gold per fraction varied between 1.44 g/t Au and 0.63 g/t Au, having a head concentration of 0.91 g/t Au.

Table 13-8: Recovery of Gold by Size Fraction for Sample MET-1

Tyler Mesh	Size (µm)	Au Concentration (g/t Au)	Tailings (g/t Au)	Recovery Au per Fraction (Au %)	Recovery of Au per fraction in relation to the feed	
					(Au %)	(Cumulative Au %)
100	150	1.44	0.14	90.6	18.9	18.9
115	125	0.63	0.14	77.0	6.3	25.2
150	106	0.72	0.19	74.4	2.8	28.0
200	75	1.18	0.17	85.3	19.4	47.4
325	45	0.70	0.16	76.4	2.4	49.9
-325	-45	0.78	0.10	86.9	35.8	85.7
Weighted Average		0.91	0.13			

13.2.4 Grindability Testing

Test work was carried out to determine the Bond Ball Mill work index on three samples collected from drill holes at different depths along the deposit. Sample SJ-WI-LOW was from approximately 200 m to 250 m below surface, SJ-WI-INT was from approximately 135 m to 175 m below surface and SJ-WI-SUP was from 30 m to 45 m below surface.

The results are shown below in Table 13-9. The Bond ball mill work index of the three samples varied from 13.7 to 15.5 kWh/t in a test using a 150 mesh closing screen. From the values obtained, the mineralization can be categorized as medium to hard in regard to the Ball Mill Work Index.



Table 13-9: Bond Work Index Values for Selected Samples

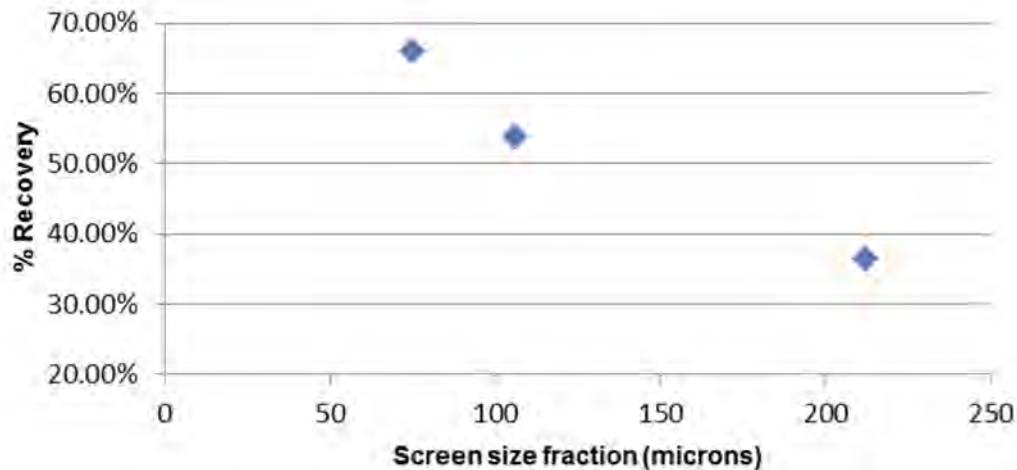
Sample Identification	Bond Ball Work Index (kWh/t)
SJ-WI-LOW	15.2
SJ-WI-Int	15.5
SJ-WI-SUP	13.7

13.2.5 Gravity Concentration Test Work

The test was conducted to determine the Gravity Recoverable Gold according to the Knelson procedure for small quantities of material.

A 10 kg sample was crushed into three different granulometric fractions ($P_{80} = 212 \mu\text{m}$, $P_{80} = 106 \mu\text{m}$, and $P_{80} = 75 \mu\text{m}$), and at each increment of crushing the material was passed through the Knelson MD3 concentrator to recover the free coarse gold (Figure 13-4).

Figure 13-4: Gold Recovery Versus Grind Size



The gravity concentration test work was conducted by testing for gold recovery, then grinding the tails to a smaller particle size and retesting the gravity recovery. This was repeated down to the 75 micron size fraction.

The test results indicate that 66% recovery of gold is achievable, however, this conclusion has been based on a test methodology that may not be replicated in a commercial-scale mill, hence the results will require verification.

From the test results it was shown that an overall recovery of 36.5% with a gold grade of 38.91 g/t Au was achieved when the entire sample was ground to a P_{80} of 212 microns. The gravity tailings were further ground to a particle size of P_{80} 106 microns which then recovered an additional 17.2% of the gold in relation to the feed grade. The tailings from the second stage of concentrating were then ground to a particle size of P_{80} 75 microns and returned a further gold recovery of 12.4%. The cumulative recoveries total 66% recovery.

The gravity concentrate is of low grade, less than 50 g/t Au, and would require further upgrading, likely at some loss of recovery, if it were to be sold to a smelter. An alternative would be to further treat this material in an Intense Leach Reactor (ILR), however, this process was not explored in this phase of test work program.



13.2.6 Kinetic Curves for Leaching Without Gravity Concentration

The leach kinetic curves were conducted individually for different values of P_{80} (106 and 75 μm). For each assay, a 1.2 kg sample was taken from the head sample, ground to the desired P_{80} size, dried, homogenized and sampled into six 200 g sub-samples, which were then individually leached during various pre-determined time periods.

- Test conditions are defined below:
- With and without the addition of activated carbon to the pulp;
- $P_{80} = 75$ and 106 μm ;
- Without pre-dosing the material with lime;
- pH adjusted to between 10-11;
- 50% solids;
- Total residence time of 32 hours;
- Leaching kinetics (recovery of gold as a function of time) – Collection of aliquots (gold, cyanide, pH) at 2, 6, 10, 20, 24 and 32 hours; and Cyanide concentration – 1,000 mg/L.

The results are presented in Table 13-10.

Table 13-10: Leach Recovery Without the Use of Gravity Separation – Sample MET-01

Time (h)	$P_{80} = 106 \mu\text{m}$ without activated carbon		$P_{80} = 106 \mu\text{m}$ with activated carbon		$P_{80} = 75 \mu\text{m}$ without activated carbon		$P_{80} = 75 \mu\text{m}$ with activated carbon	
	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)
0	0	0	0	0	0	0	0	0
2	46.4	47.9	66.4	56.2	41.5	41.6	50.3	50.4
6	78.1	79.1	74.9	84.5	86.6	76.9	89.0	83.1
10	79.1	85.4	87.9	88.4	91.8	87.5	81.0	89.7
20	83.9	86.9	87.4	89.0	90.7	91.9	91.4	91.4
24	86.2	86.9	86.3	89.0	90.0	92.1	71.8	91.4
32	87.0	87.0	89.0	89.0	92.1	92.1	87.9	91.0

13.2.7 Kinetic Curves for Leaching With Gravity Concentration

Gravity concentration on the sample was carried out prior to leaching in order to remove the maximum amount of free gold possible with the least amount of mass.

The leach kinetic tests were conducted on individual tailing samples that were generated from the gravity tests having P_{80} values of 106 and 75 μm . For each assay, a 1.2 kg sample of gravity concentration tailings was sampled and sub-divided into six 200 g samples that were leached individually.



Test conditions are defined below:

- With and without the addition of activated carbon to the pulp;
- $P_{80} = 75$ and $106 \mu\text{m}$;
- Without pre-dosing the material with lime;
- pH adjusted to between 10-11;
- 50% solids;
- Total residence time of 32 hours;
- Leaching kinetics (recovery of gold as a function of time) – Collection of aliquots (gold, cyanide, pH) at 2, 6, 10, 20, 24 and 32 hours; and
- Cyanide concentration – 1,000 mg/L.

Table 13-11 and Table 13-12 indicate the result of the gravity test work on the different grind sizes prior to gravity separation, and Table 13-13 indicates the gold recovery on the tails produced from gravity separation.

Table 13-11: Gravity Concentration Before Leaching P_{80} 106 microns

ID	Wt (kg)	% mass	Au concentration (g/t Au)	Au (mg)	Cumulative Au concentration (g/t)	% Recovered
Conc. 1	0.047	1.60	26.582	1.254	26.58	49.50
Final Tailings	2.953	98.40	0.434	1.285	0.85	50.50
Calculated Feed	3.000		0.850	2.536		
Analyzed Feed	3.000		0.700			

Table 13-12: Gravity Concentration Before Leaching P_{80} 75 microns

ID	Wt (kg)	% mass	Au concentration (g/t Au)	Au (mg)	Cumulative Au concentration (g/t)	% Recovered
Conc. 1	0.035	1.12	25.808	0.901	25.81	40.75
Final Tailings	2.965	98.80	0.442	1.311	0.74	59.25
Calculated Feed	3.000		0.740	2.212		
Analyzed Feed	3.000		0.700			



Table 13-13: Leach Recovery Rates of the Gravity Tails from Sample MET-01

Time (h)	P ₈₀ = 106 µm without activated carbon		P ₈₀ = 106 µm with activated carbon		P ₈₀ = 75 µm without activated carbon		P ₈₀ = 75 µm with activated carbon	
	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)	Real (%)	Adjusted (%)
0	0	0	0	0	0	0	0	0
2	61.90	61.80	64.90	64.70	77.40	76.70	67.30	67.50
6	80.10	84.30	83.70	84.50	84.30	88.50	79.80	87.20
8	82.20	86.10	85.80	85.70	76.90	88.70	88.40	88.30
20	86.20	86.20	82.80	85.80	88.70	88.70	86.10	88.40
24	81.70	86.20	76.50	85.80	85.40	88.70	75.50	88.40
36	86.10	86.20	84.20	85.80	87.10	88.70	78.20	88.40

Recovery rates for the samples that were subjected to gravity separation followed by leaching of the gravity tails have been adjusted to reflect possible overall recovery rates for the combined processes. In order to derive a final recovery, it was estimated that a recovery rate of 98% can be achieved when the gravity concentrate is subjected to leaching. This needs to be confirmed in the next phase of metallurgical testing. The results are listed in Table 13-14.

Table 13-14: Calculated Overall Recoveries from Gravity and Leaching- Sample Met-01

Time (h)	P ₈₀ = 106 µm without activated carbon	P ₈₀ = 106 µm with activated carbon	P ₈₀ = 75 µm without activated carbon	P ₈₀ = 75 µm with activated carbon
0	0	0	0	0
2	76.55	78.27	87.24	82.60
6	89.88	90.00	93.20	92.55
8	90.95	90.71	93.30	93.10
20	91.01	90.77	93.30	93.15
24	91.01	90.77	93.30	93.15
36	91.01	90.77	93.30	93.15

From the data obtained, it has been observed that a finer grind size of P₈₀ 75 microns results in higher gold recovery. When comparing overall recovery rates for samples ground to P₈₀ 75 microns the recovery was similar regardless of if the samples were subjected to gravity separation prior to leaching. A coarser grind size of P₈₀ 106 microns resulted in lower overall recoveries even when the samples were subjected to gravity separation prior to leaching. This is illustrated in Figure 13-5. Figure 13-6 and Figure 13-7 illustrate the effect of both grind size and gravity separation on recovery.



Figure 13-5: Leaching Test – Percentage Recovery Versus Time

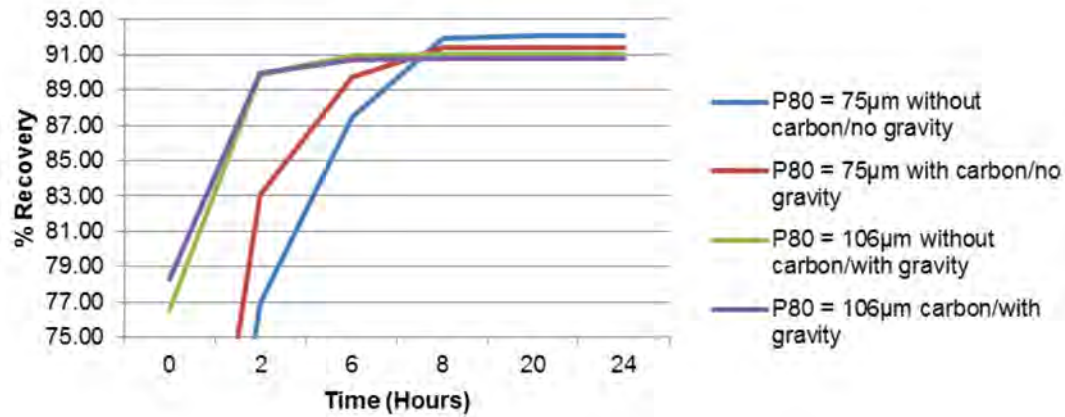


Figure 13-6: Recovery Versus Leach Time P₈₀ = 106 microns

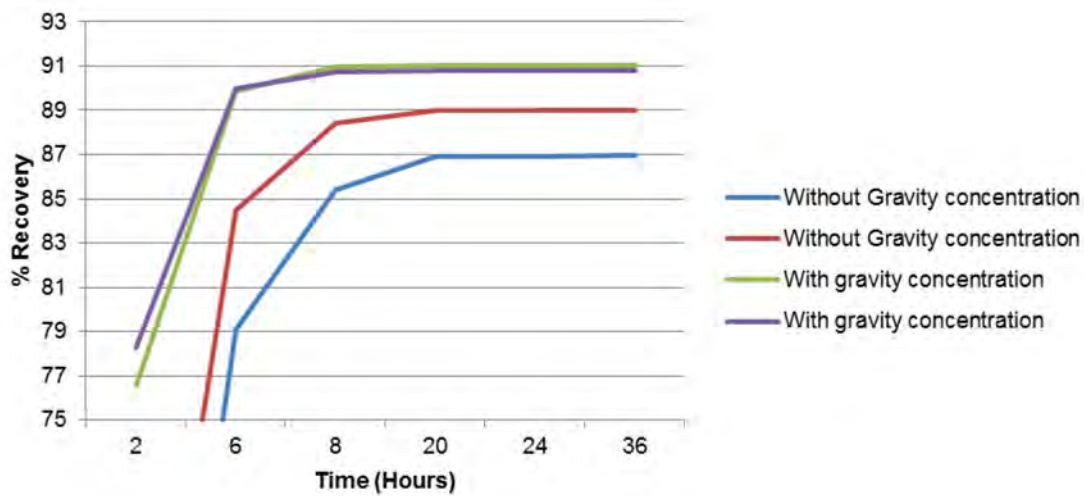
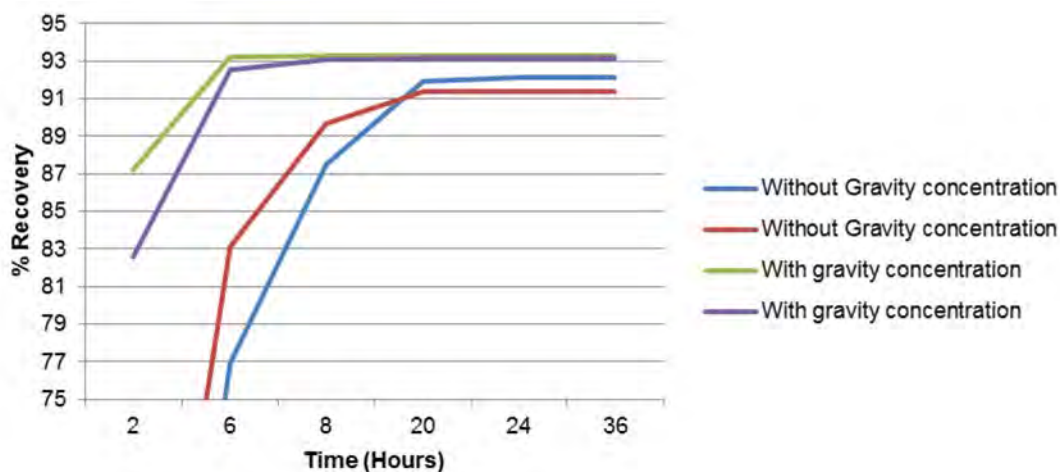


Figure 13-7: Recovery Versus Leach Time P₈₀ = 75 microns



13.3 Conclusions

The data reviewed suggests that collection of gold through gravity concentration is viable based on recovery, but not feasible based on the low concentrate grades reported. It would have been beneficial to have performed gravity upgrading and/or leach tests on the first pass gravity concentrate in order to establish cyanide consumption rates and overall recoveries.

Gravity concentrate recoveries should be revised and stated with the grade of the concentrate produced.

The selection of the metallurgical sample needs to be verified in order to determine if the samples represent the deposit as it is currently defined.

The recoveries by granulometric fraction were between 74% and 87% for the finer fractions and 90.6% for the coarser, 150 µm, fraction. As the process of sieving classifies material exclusively with respect to size, this may indicate that part of the gold (coarse and liberated) has been retained in the mesh.

For met sample SJ-AL1-T1, which represents the sulphides, and SJ-AL2-T2, which represents the oxides, gold recovery for the finer ground samples P₈₀ 75 microns ranged from 91.1% to 95.8% for the sulphides and between 86.1% and 91.2% for the oxides.

For met samples SJ-AL1-T1, gold recovery was increased from an average of 92.4% to 93.7% using a finer grind that is a P₈₀ 75 microns as compared to a P₈₀ 106 microns.

For met samples SJ-AL2-T2, the finer grind size did not affect recovery as both a grind size at P₈₀ 75 microns and of P₈₀ 106 microns resulted in the same recovery rates.

For met sample SJ-AL2-T2, low gold recoveries averaging 88% may be attributed to organic fouling.

The Gravity Recoverable Gold tests show how the gold is gradually liberated during the crushing process, and the results indicated that it was possible to attain a maximum gold recovery of 66% when the material is crushed in stages to a P₈₀ equalling 74 µm. It should be noted that the material was initially ground to a P₈₀ of 212 microns and then subjected to gravity concentration. From the test results it was shown that an overall recovery of 36.5% with a gold grade of 38.91 g/t Au was achieved when the entire sample was ground to a P₈₀ of 212 microns. The gravity tailings were further ground to a particle size of P₈₀ 106 microns which then recovered an additional 17.2% of the gold in relation to the feed grade. The tailings from the second stage of concentrating were then ground to a particle size of P₈₀ 75 microns and returned a further gold recovery of 12.4%. The cumulative recoveries total 66% recovery. As a result of the three stages of grinding, the final gravity recovery that was achieved could be overstated.

The tailings from the gravity concentration were subjected to leaching with and without carbon present. It was observed that carbon reported to the solid residue which increased the reported tailings grade and reduced the gold recovery (24 hour test).

Gravity gold recovery reached 49.5% and 40.7% when the material was crushed at P₈₀ levels of 106 µm and 75 µm, respectively.

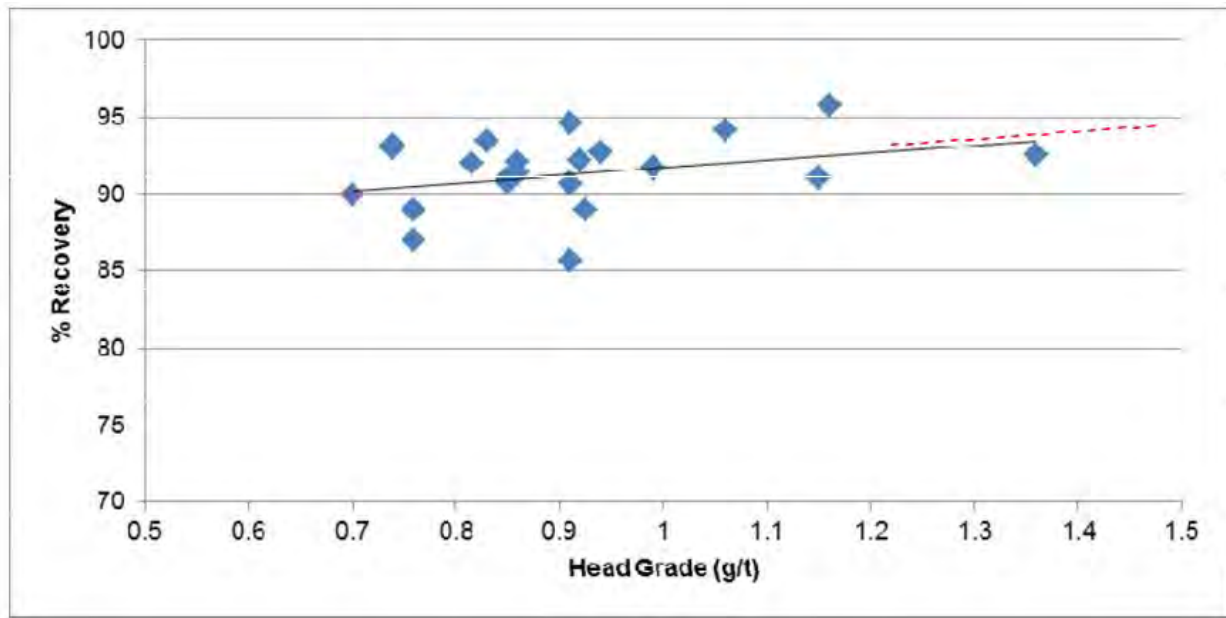
For met sample MET-01, a grind size of P₈₀ = 75 microns resulted in an overall recovery of 92.1% and was achieved without the use of gravity separation. With gravity separation gold recovery can be slightly increased to 93%. At the coarser grind size of P₈₀ = 106 microns, overall recovery was slightly lower at 91.0% with the aid of gravity separation. Overall recovery



is a combination of gravity recovery and leaching. Further test work is recommended to validate the benefit of gravity separation.

As the test work was performed on a lower grade material, it is expected that as the head grade is increased, so too will the recovery of gold, as can be seen in Figure 13-8.

Figure 13-8: Predicted Grade Versus Recovery for Higher Grade Mineralization



At an anticipated head grade of approximately 1.57 g/t Au, the overall recovery is expected to be in the range of 94.0% or slightly higher, if the process incorporates a CIL circuit with a feed size of $P_{80} = 75$ microns or finer.

The results from sample MET-01 indicates no great consumers of cyanide, such as thiocyanate, ferrocyanide or copper cyanide, exist in large concentrations in the solution.

The feed is categorized as medium to hard with a Ball Mill work index ranging from 13.7 kWh/t to 15.7 kWh/t.

Results indicate that, at a fine grind of P_{80} 75 microns, and a slightly higher grade of mineralized material (1.18 g/t Au), a recovery of 93.7 % is achievable.

Leach kinetics curves indicate that maximum gold recovery can be achieved after 22 hours of leaching for the sulphide material. Leach kinetic curves were not generated for the oxide material.

13.4 Recommendations

In order to fully understand and define the metallurgical response of the oxide and sulphide deposits a number of variability samples would be required. These samples would be used not only to develop the resource block model but would also be used in the grinding and leach test program. The results of this test work would be inputted back into the block model in order to allow for metal extractions to be predicted across the deposit.



Future samples must be chosen to be representative of the material that will be mined in the first five years of the mine life. They should be selected by the Project Geologist in collaboration with the Lead Process Engineer and Mining Engineer.

The different lithologies along with the master composite for each deposit should be submitted for head analysis. Elements for analysis would include gold, silver, copper, sulphur and iron.

A representative sample from each lithology along with the master composites for the deposit should be submitted for mineralogical examination in order to obtain bulk modal analyses data and liberation data. Also, QEMSCAN analysis should be performed on the final tails from the deposits in order to better understand the mineral composition within the deposit thus indicating how metallurgical performance may be affected.

The next phase of the program requires more comminution data such as; Modified Bond ball mill work index tests, several full Bond ball mill work index determinations, Bond rod mill work index, crushing work index, abrasion work index, Unconfined Compression tests (UCS), SAG Mill Comminution tests (SMC) and JKTech drop weight tests in order to properly size the comminution circuit.

On the master composite for the sulphide material, a HPGR (high pressure grinding rolls) evaluation should be considered as an option to SAG milling. This would require a Static Pressure Test (SPT) to be performed.

A series of flotation tests should be considered on both material types in order to establish if flotation would be an appropriate flowsheet option in order to optimize gold recovery.

Further gravity tests should be carried out on both material types at various grinds in order to confirm original findings.

Leaching of the gravity concentrate should be carried out in order to determine overall recovery rates and establish leach kinetic curves along with reagent consumptions.

Leach kinetic curves need to be established on master composite samples for both the oxide and sulphide materials.

Once optimum conditions have been established with the master composites, further bench tests should be performed on the variability samples using the same set of conditions.

Once optimum conditions have been established from bench tests, locked-cycle testing and potentially a pilot plant trial should be conducted in order to confirm initial findings.

Reagent optimization for both feed types needs to be established.

Settling tests on the tailings for both feed types are required. This would involve appropriate flocculent selection (ionic, cationic, neutral, coagulant) settling test work (feed percent solids, dosage, pH), specific gravity determination and viscosity measurements on tailings, with and without thickening.

As the deposit consists of approximately 15% oxide (laterite and saprolite) material and 85% sulphide material the next phase of test work needs to include both gravity and leach test work on a composite sample that represents this ratio in order to determine what effect a blended feed has on recovery, if any, as this may be a possible process route.

Further testing needs to be carried out on the oxide material as it may be processed separately for the first 18 months of production. This would include the same test work that has been carried out on the sulphides.



Test work involving thickening of the leach tails is recommended for the next phase of work for both oxide and sulphide material in order to establish maximum obtainable densities for the CCD circuit.

The feed rheology needs to be well defined and understood to thwart any potential viscosity issues which may arise from the processing of the oxides alone.

Environmental test work, as it relates to the processing plant and tailings storage facility is required.



14.0 Mineral Resource Estimates

14.1 Summary

The SLR QP prepared an updated estimate of the Mineral Resources present at the São Jorge deposit, which incorporated the results and knowledge gained from the drilling campaigns completed by GMI in 2024. In general terms, the recent GMI drilling program was successful in confirming the interpreted location of the gold mineralization (DDH SJD-120-24), locating the northwestern strike extension of the mineralized zone (DDH SJD-122-24), intersecting the gold mineralization along a parallel mineralized zone located to the northwest of the main mineralized trend (DDH SJD-121-24), and intersecting previously untested mineralized zone (DDH SJD-123-24).

The work completed by GMI has aided to advance the understanding of the controls on the distribution of the gold mineralization at the São Jorge deposit.

A Mineral Resource estimate was prepared for the São Jorge deposit based upon the conceptual view that the mineralized material would be extracted by means of an open pit mine at an envisioned production rate of between 5,000 tpd and 15,000 tpd. The material would then be processed at an on-site facility where gold would be recovered using a cyanide leaching flowsheet.

Open pit Mineral Resources at a break-even cut-off grade of 0.27 g/t Au are estimated to total 19,418,000 t at an average grade of 1.00 g/t Au containing approximately 624 thousand ounces (koz) Au in the Indicated Resource category. An additional 5,557,000 t at an average grade of 0.72 g/t Au containing approximately 129 koz Au are estimated to be present in the Inferred Mineral Resource category (Table 14-1).

Table 14-1: Summary of Mineral Resources as at January 28, 2025

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated	19,418	1.00	624
Inferred	5,557	0.72	129

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a break-even cut-off grade of 0.27 g/t Au for classified blocks above a constraining pit shell.
3. Mineral Resources are estimated using a long-term gold price of US\$1,950 per ounce.
4. A minimum mining width of five metres was used.
5. There are no Mineral Reserves estimated at the São Jorge Project. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
6. Numbers may not add due to rounding.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.



14.2 Resource Database

The drill hole database used to prepare the estimate of the Mineral Resources of the São Jorge deposit was compiled from various sources including drill hole information collected from prior claim owners and from drill hole information collected by GMI. The drill hole data consisted of detailed collar, survey, major lithology, and assay information. The locations of the drill holes throughout the Property are presented in Section 10.0 Drilling.

An initial review by GMI of the assay information revealed that not all samples from the historical drilling campaigns for drill holes located in and about the São Jorge deposit contained complete sampling and assay coverage for all portions of the drill holes located within the mineralized wireframes. In 2021, GMI carried out a program of re-sampling and re-assaying for selected drill holes where the core was stored in the on-site core shack. The results of this re-sampling program were included in the final database used to prepare the Mineral Resource estimate. For the remaining drill holes containing un-sampled intervals, zero values were inserted into the assay table of the drill hole database at the outset of the Mineral Resource estimation workflow.

GMI carried out a re-surveying program in 2022 for as many of the historical drill hole collars as could be located in the field and included the revised collar locations into the drill hole database. A total of 55 historical drill hole collars were re-surveyed using a GPS geodesic model RTK – COMNAV T300 unit and the SAD69, Zone 21S EPSG:5531 datum. For those historical drill holes that could not be located in the field, their elevations were edited to match with the revised topographic surface at the outset of the Mineral Resource estimation workflow. In general, these collar elevation corrections varied up to five metres in elevation.

The drill hole information was imported into the Seequent Leapfrog version 2024.1 (Leapfrog) and the Dassault Systèmes Surpac version 2024 Refresh1 (Surpac) software packages. The drill hole database contains information for 608 drill holes and auger/channel samples (Table 14-2), of which only 155 drill holes were used, as all auger drill holes were excluded from preparation of the Mineral Resource estimate. The SLR QP is of the opinion that the drill hole and sampling database is suitable for use in preparation of the Mineral Resource estimate for the São Jorge deposit.

Table 14-2: Summary of the Drill Hole Database as of December 31, 2024

Table Name	Data Type	Table Type	Records
assay_cap_jan06	interval	time-independent	8,987
assay_nulled	interval	time-independent	30,789
collar			608
comps_1m	interval	time-independent	10,698
litho	interval	time-independent	7,907
minz_flags_2024	interval	time-independent	262
survey			3,333

14.3 Topography and Excavation Models

GMI carried out a program of drone-based topographic surveying in 2024 of the area in the immediate vicinity of the existing pit excavation. This topographic information was merged with a larger, regional-scale ASTER satellite digital elevation model data obtained from NASA (2024).



14.4 Weathering, Lithology and Mineralization Wireframes

14.4.1 Weathering

The top portion of the São Jorge deposit consists of a layer of deeply weathered saprolite unit that varies in depth up to approximately 40 m. The saprolite unit is in turn overlain by a thin layer of artisanal sheet-wash material that is typically on the order of one to three metres in thickness. Both units can contain gold values above the wireframe threshold value.

A combined wireframe model of the saprolite and soil unit was created in Leapfrog using available drill hole information and was used to code the block model.

14.4.2 Lithology

The fresh host rock lithologies to the São Jorge deposit are relatively straightforward, consisting of units modelled as a monzogranite intrusion and a syenogranite intrusion. The gold mineralization is hosted almost exclusively in the monzogranite intrusion. Wireframe models of each of these two intrusive types were created in Leapfrog and were used to code the block model.

14.4.3 Mineralization

The gold mineralization is observed to be mostly correlated with increased concentrations of sulphide minerals, particularly pyrite. No clear fabric or indications of strain were observed in the drill core. Due to the lack of clear controls on the location of the gold values, a series of wireframe interpretations were prepared using a nominal assay threshold value of 0.25 g/t Au using the Leapfrog software package.

A total of ten mineralization wireframes were prepared using a minimum width of approximately five metres. The mineralization wireframes together have a strike of approximately azimuth 110°, have a strike length of approximately 1.5 km, and dip sub-vertically from surface to a depth of approximately 430 m beneath the surface (Figure 14-1 and Figure 14-2). The mineralization wireframes include gold assays found both within the weathered zone and the fresh host rocks.

SLR observes that neither the strike extensions nor the depth limits of the mineralized system have been well defined by drilling. Furthermore, drill hole SJD-121-24 was successful in demonstrating the presence of a parallel mineralized zone located to the northwest and arranged in an en-echelon relationship with the main mineralized corridor. The strike limits of this new mineralized trend have also not been defined by drilling.

The SLR QP recommends that additional exploration activities be carried out to search for the possible strike extensions of the main mineralized corridor as well as defining the extent of the mineralization in the north-western zone.

The mineralized wireframes, along with the table of mineralized intervals were imported into the Surpac software package for completion of the Mineral Resource estimation workflow.



Figure 14-1: Plan View of the Mineralized Wireframes

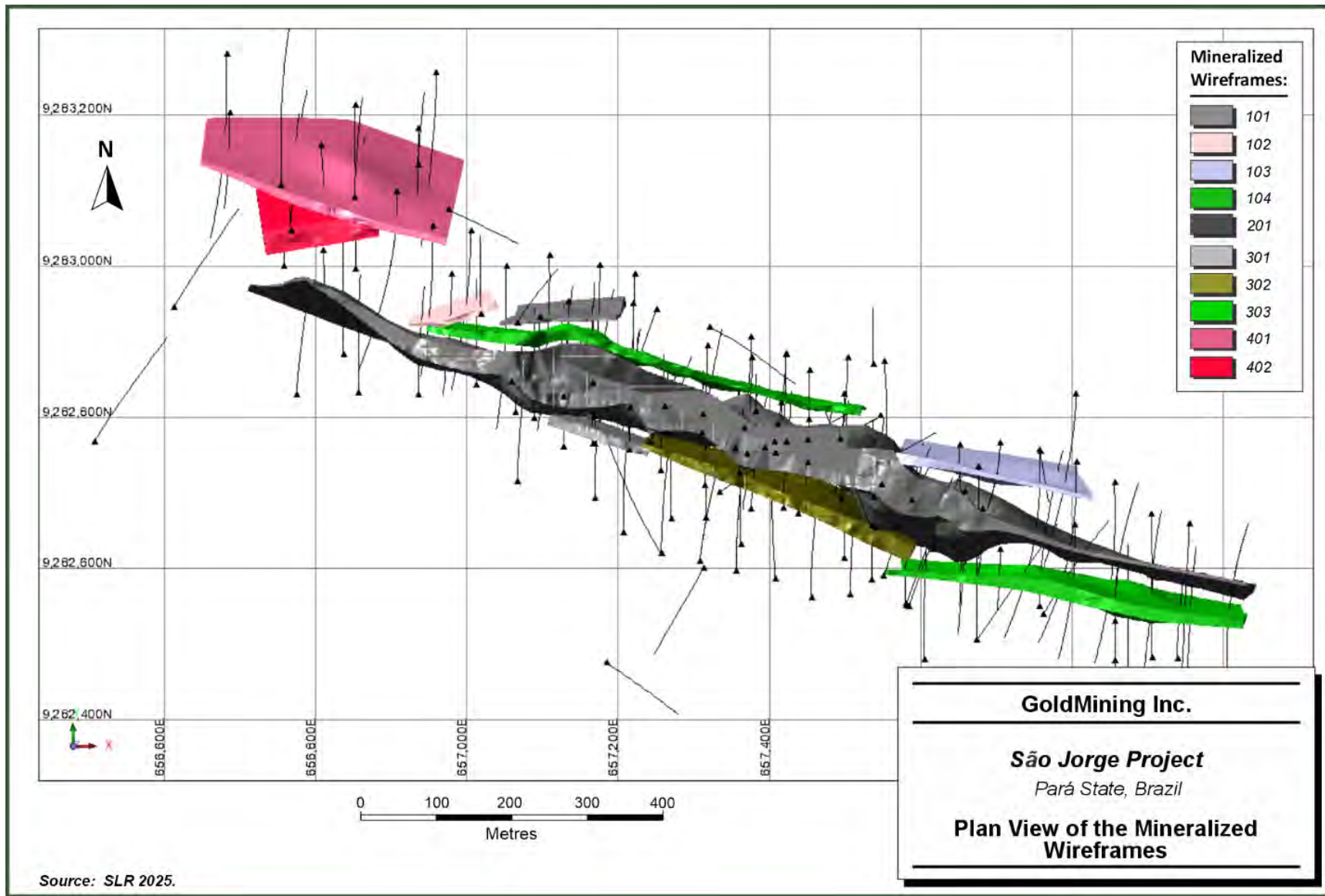
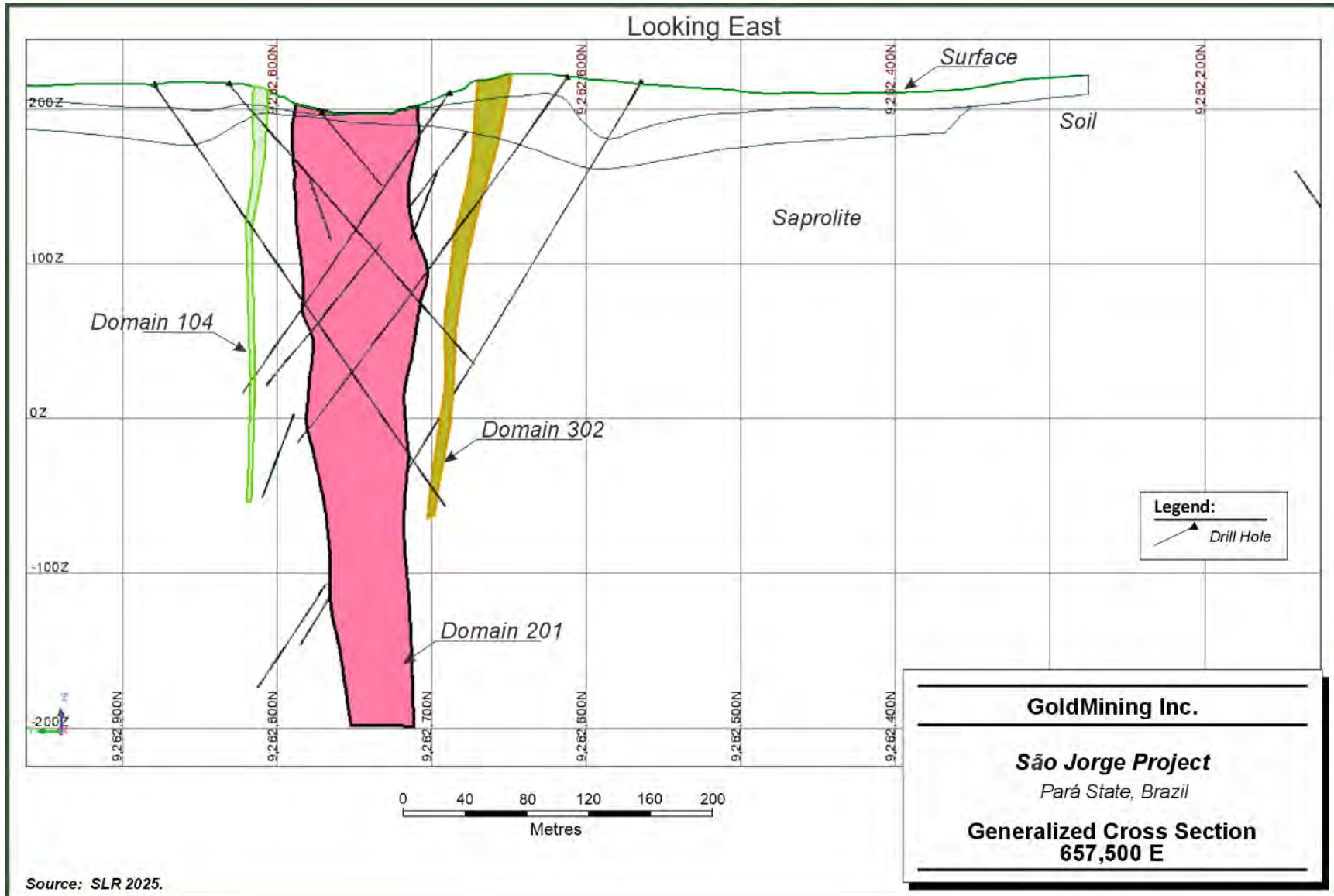


Figure 14-2: Generalized Cross Section 657,500 E (looking east)



Source: SLR 2025.



14.5 Sample Statistics and Grade Capping

The mineralization wireframe intervals contained within the selection table of the drill hole database were used to extract those samples from the database contained within the mineralized wireframe volumes, combined together to form one sample population, and then subjected to statistical analyses by means of histograms. A total of 8,987 samples comprised the mineralized population. The sample statistics for both the uncapped and capped assay values are summarized in Table 14-3, and the sample histogram is provided in Figure 14-3.

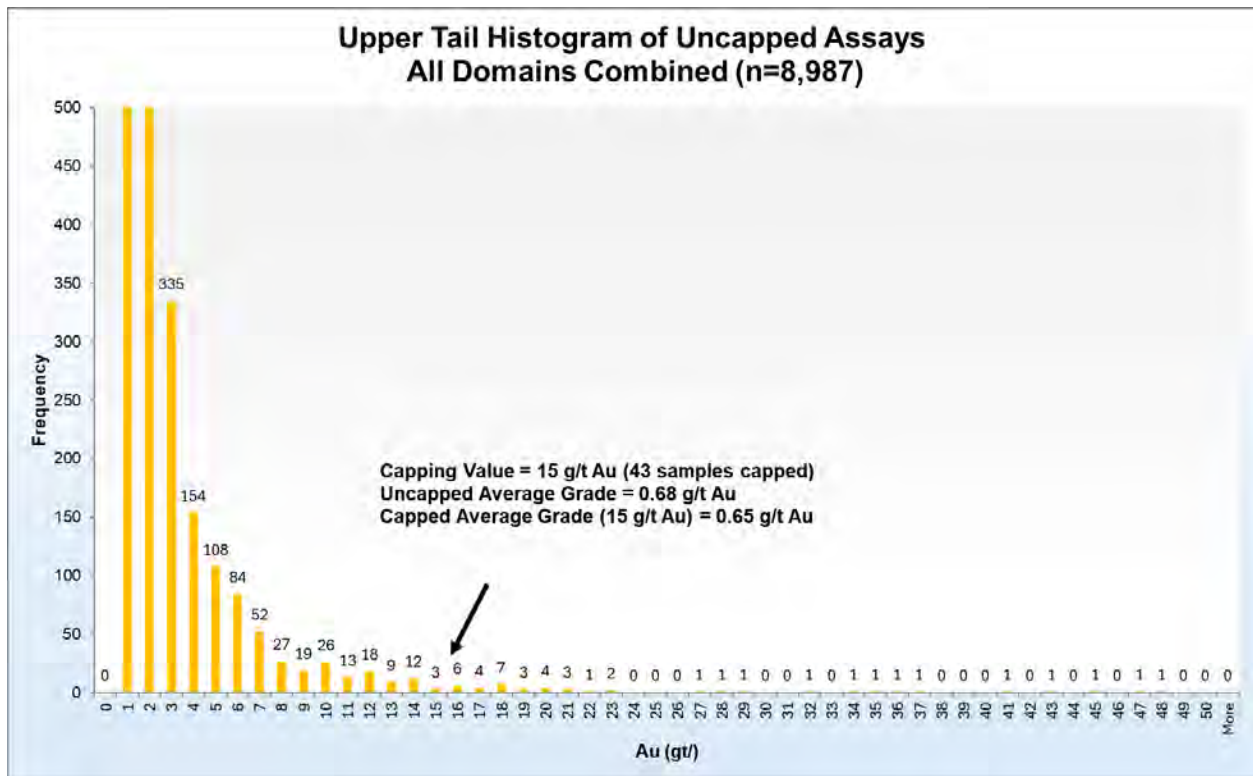
On the basis of its review of the assay statistics, the SLR QP assigned a capping value of 15 g/t Au to the gold assays contained within the mineralized wireframes.

Table 14-3: Descriptive Statistics of the Uncapped and Capped Gold Grades

Item	Uncapped	Cap 15 g/t Au
Length-Weighted Mean	0.68	0.65
Median	0.15	0.15
Mode	0.0001	0.0001
Standard Deviation	2.32	1.85
Coefficient of Variation- Length Weighted	3.44	2.84
Sample Variance	5.40	3.41
Minimum	0.0001	0.0001
Maximum	47.50	15.00
Count	8,987	8,987



Figure 14-3: Upper Tail Histogram of the Combined Gold Assays



14.6 Compositing

The selection of an appropriate composite length began with review of the sample length frequency histogram (Figure 14-4). Consideration was also given to the size of the blocks in the model. On the basis of the available information, the SLR QP is of the opinion that a composite length of one metre for all samples is reasonable. All capped gold assays contained within the mineralized wireframes were composited to a nominal one metre length using the best fit compositing function of the Surpac mine modelling software package. In this function, the lengths of the composite samples are varied so as to avoid creating “short-length” composite samples at the bottom contact of the mineralization. The descriptive statistics of the composited samples are provided in Table 14-4.



Figure 14-4: Histogram of Sample Lengths

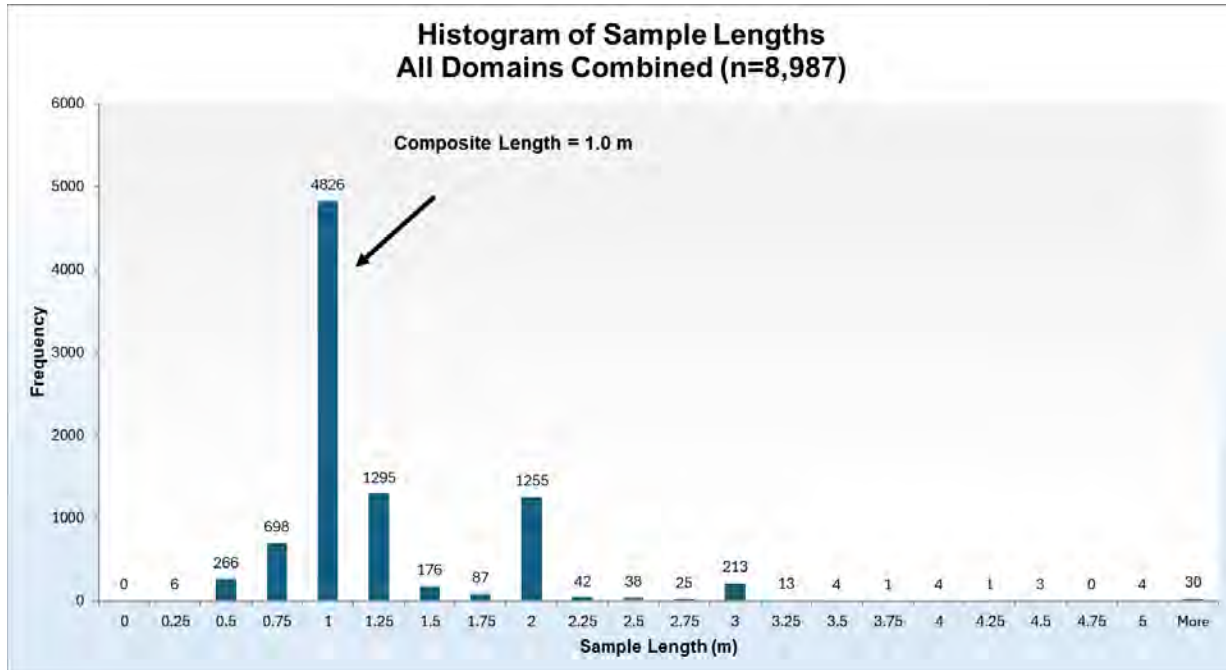


Table 14-4: Descriptive Statistics of the Uncapped and Capped Composite Samples

Item	Uncapped Composite	Capped Composite (15 g/t Au)
Mean	0.69	0.66
Median	0.16	0.16
Mode	0.0001	0.0001
Standard Deviation	1.72	1.47
Sample Variance	2.96	2.16
Minimum	0.0001	0.0001
Maximum	33.68	15.00
Count	10,698	10,698

14.7 Bulk Density

Bulk density measurements were collected by BGC in 2011 from selected drill holes using the water immersion (Archimedes) method. The bulk densities were determined only on samples of the fresh host rocks. A summary of the bulk densities used to code the block model is provided in Table 14-5.

No bulk densities were determined for the weathered saprolite material. Consequently, the SLR QP derived an estimate of the bulk density of 1.70 t/m³ for the weathered material using measurements made on comparable deposits.



The SLR QP recommends that the bulk density of the weathered material be determined during the preparation of future Mineral Resource estimates.

Table 14-5: Summary of Bulk Densities

Item	Monzogranite	Metagranite	Syenogranite
Mean (t/m ³)	2.70	2.70	2.67
Median (t/m ³)	2.69	2.71	2.67
Standard Deviation	0.07	0.03	0.03
Minimum (t/m ³)	2.13	2.65	2.61
Maximum (t/m ³)	3.95	2.78	2.82
Count	521	87	503

14.8 Trend Analysis

14.8.1 Grade Contouring

As an aid in understanding the three dimensional distribution of the gold grades within the main mineralized domains, the SLR QP conducted a short study of the overall trends of the gold grades by means of contours created using the radial-basis function of the Leapfrog Geo (v2024.1) software package on the capped, composited assay values.

The results are shown as vertical projections in Figure 14-5, Figure 14-6, and Figure 14-7. Examination of the contours for Domain 201 reveals that the gold grades occur in higher grade pockets and shoots that plunge moderately to the west, steeply to the east, or can be horizontal. The contours for Domain 303 suggest that the gold grades occur along a zone plunging approximately 30° to the west.



Figure 14-5: Vertical Projection of the Contoured Gold Grades, Domain 201 Looking Towards Azimuth 020°

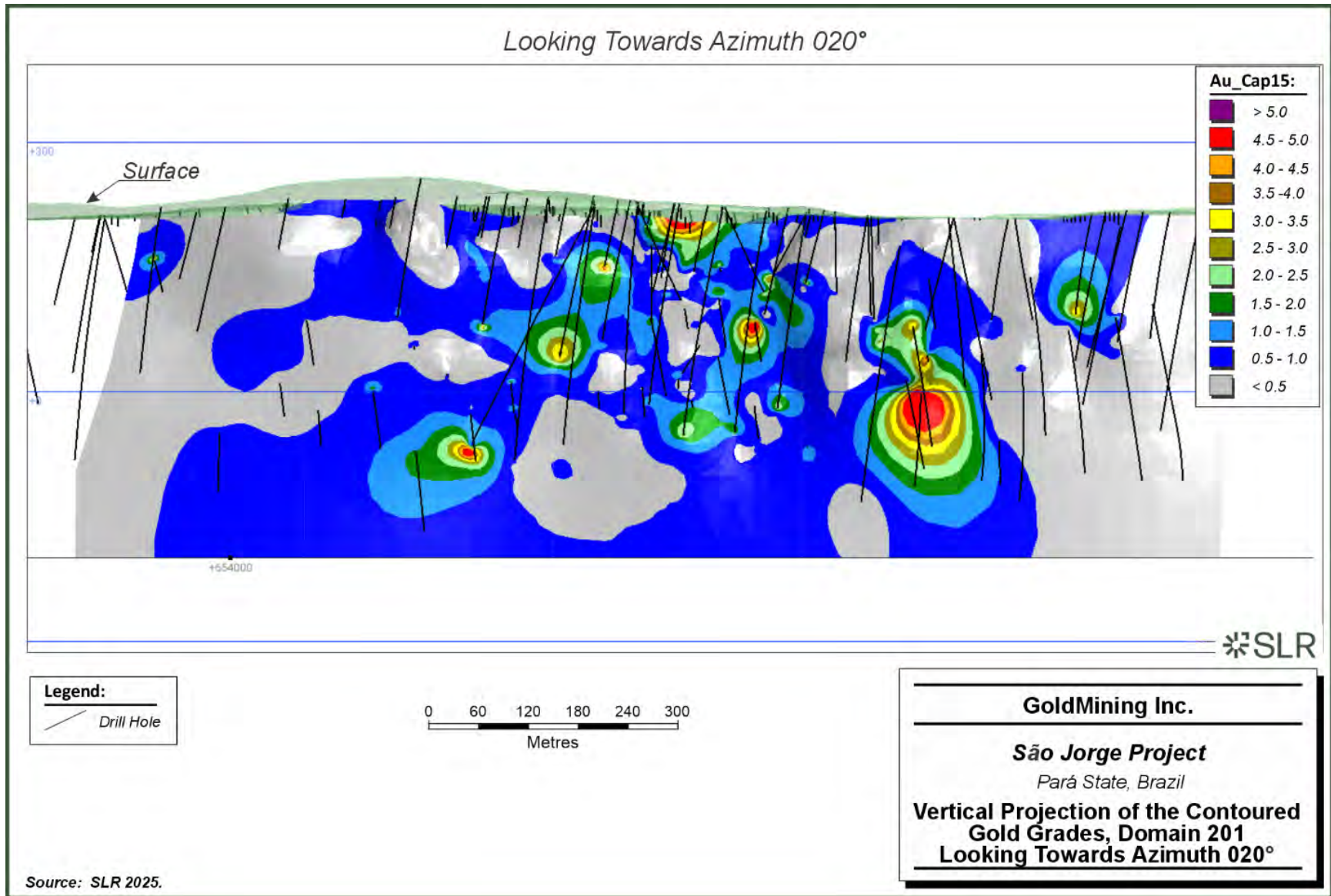


Figure 14-6: Vertical Projection of the Contoured Gold Grades, Domain 201 Looking Towards Azimuth 200°

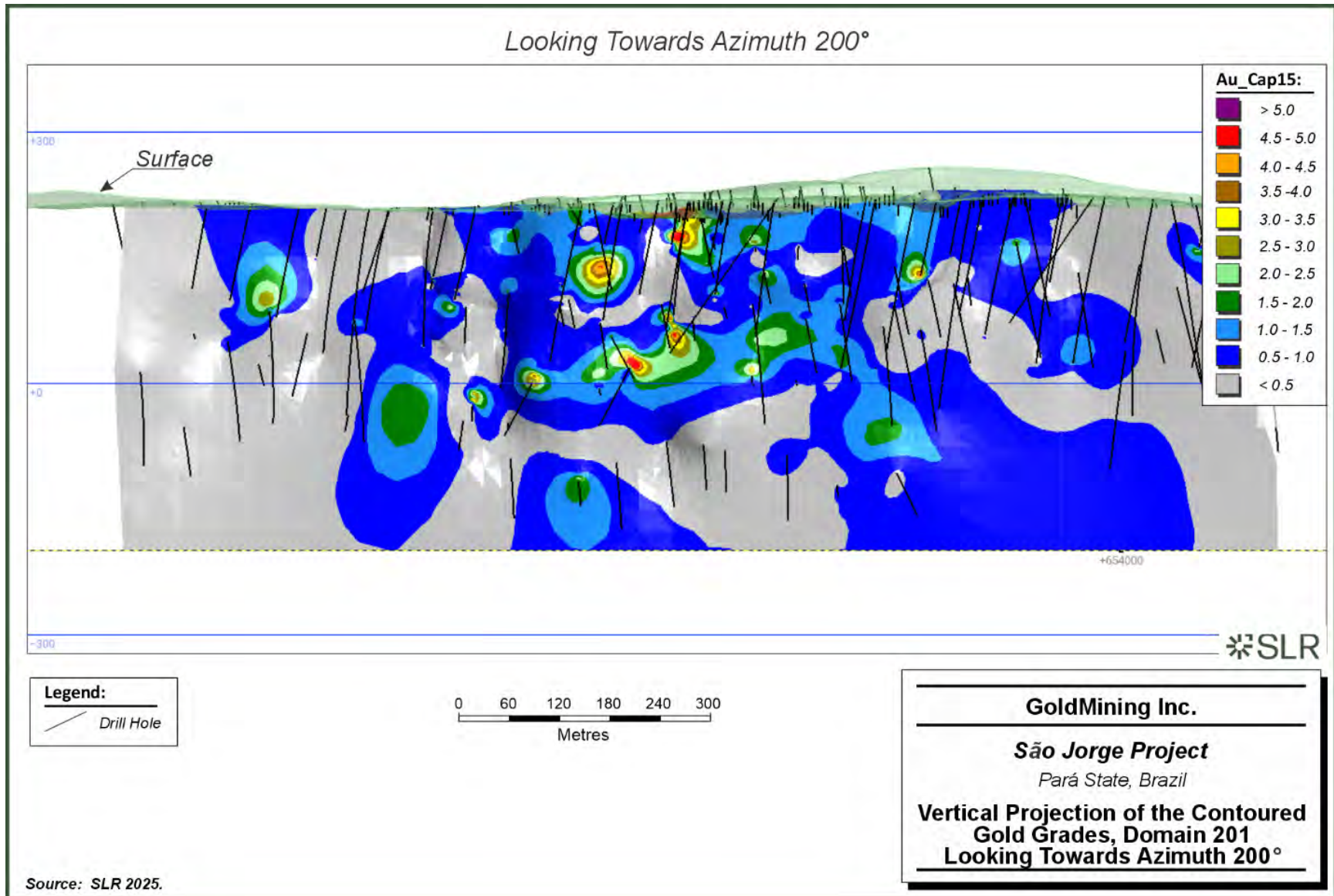
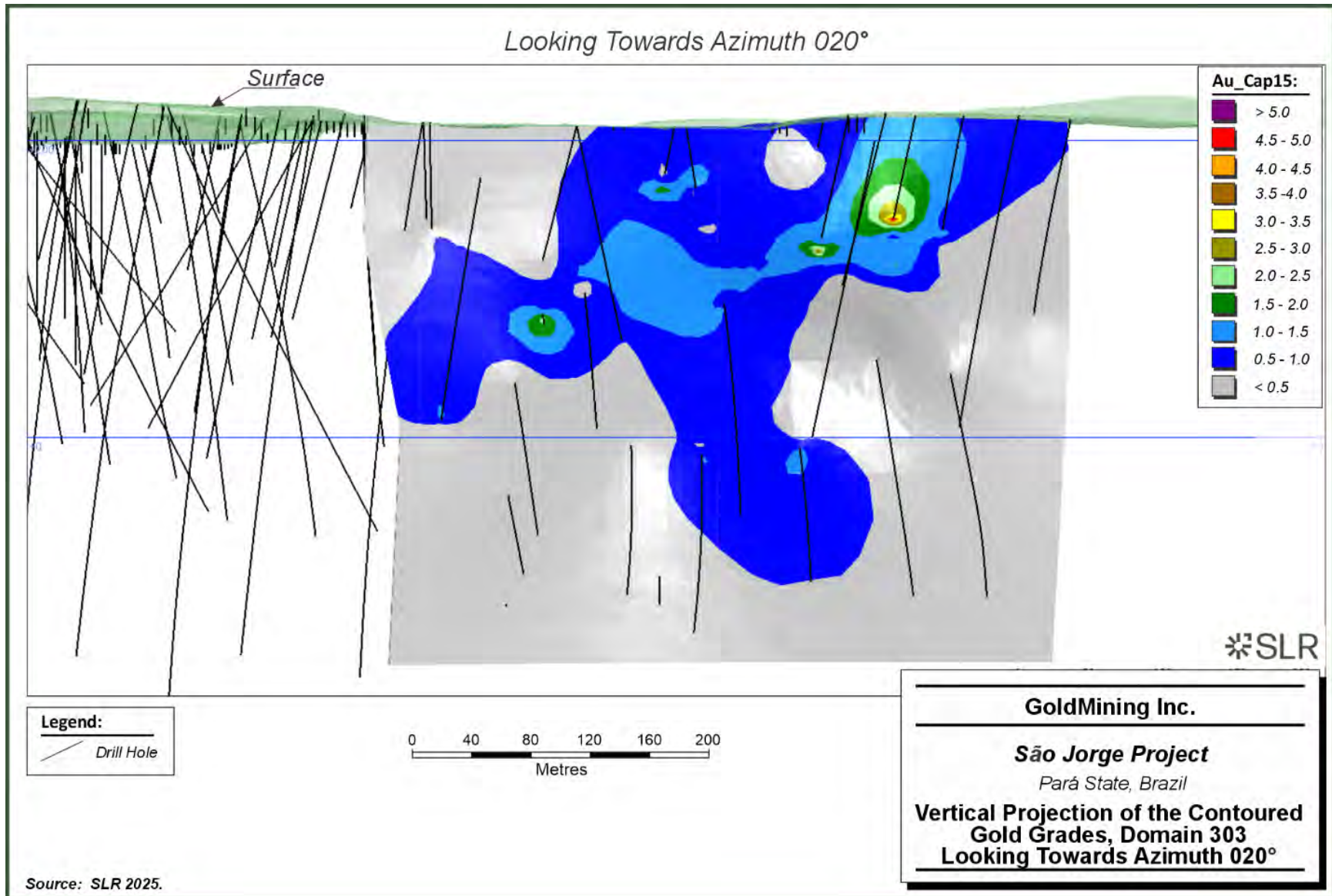


Figure 14-7: Vertical Projection of the Contoured Gold Grades, Domain 303 Looking Towards Azimuth 020°



14.8.2 Variography

The directional continuity of the mineralization contained within the larger of the ten mineralized wireframes was examined using the variography functions contained within the Surpac software package. Reasonable model fits with a high nugget (C_0) were developed for the largest mineralized wireframe (Domain 201) as shown in Figure 14-8 and Figure 14-9. A summary of the variogram parameters developed for Domain 201 is presented in Table 14-6.

A weak model fit was developed only for the down-plunge direction of Domain 303, while no good model fits were observed for any of the remaining mineralized wireframe domains.

Figure 14-8: Directional Variogram #1, Domain 201

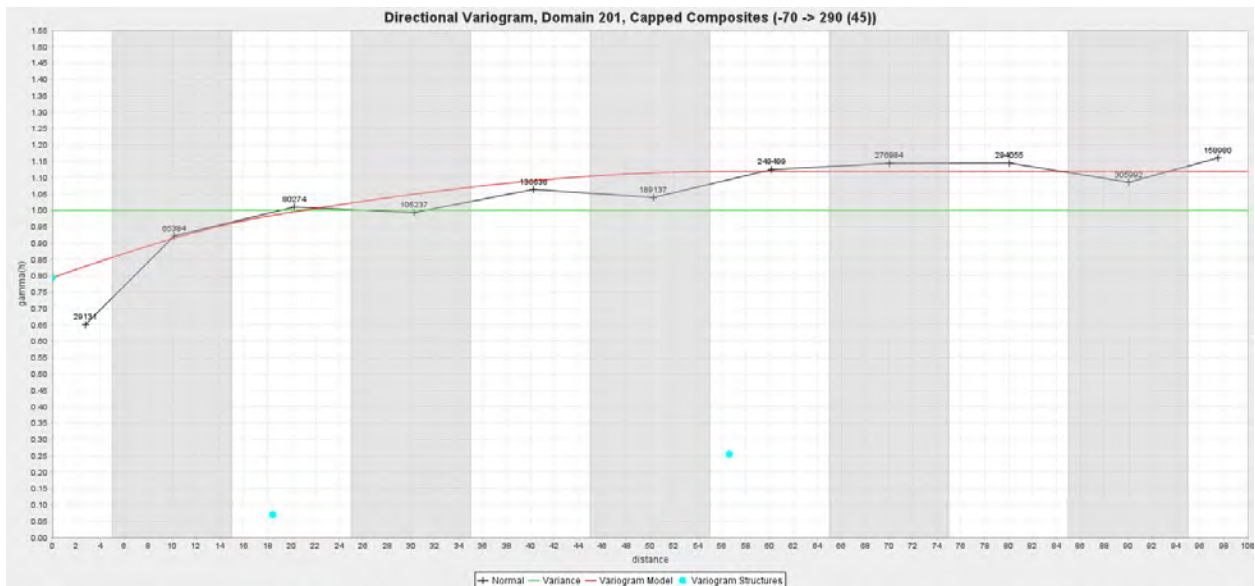


Figure 14-9: Directional Variogram #2, Domain 201

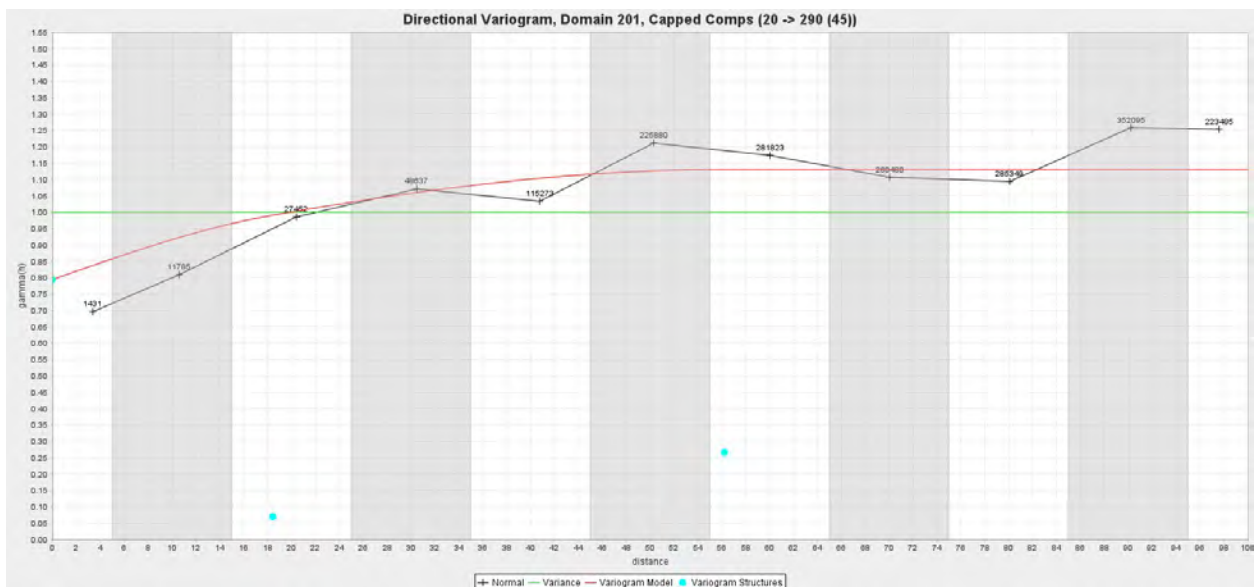


Table 14-6: Summary of Variogram Parameters, Domain 201

Item	Value
Variogram Type	Standard
Variogram Model	Spherical
Direction #1	Down-plunge (west)
Orientation	-70° → 290° (45 degree angular tolerance)
Nugget (C ₀)	0.80
Sill, range (C ₁)	0.07, 18 m
Sill, range (C ₂)	0.25, 57 m
Direction #2	Down-plunge (east)
Orientation	+20° → 290° (45 degree angular tolerance)
Nugget (C ₀)	0.80
Sill, range (C ₁)	0.07, 18 m
Sill, range (C ₂)	0.25, 57 m

14.9 Block Model Construction

The conceptual operational scenario envisions that mineralized material would be extracted by means of an open pit mine at a potential mining rate on the order of 5,000 tpd to 15,000 tpd, with the gold recovered using a cyanide leach flowsheet.

An upright, non-rotated, sub-blocked block model was created, using the Surpac software package, that comprised an array of parent blocks that measured 5 m x 5 m x 5 m (easting, northing, elevation). A summary of the block model dimensions and block sizes is presented in Table 14-7. Two levels of sub-blocks were created to a minimum size of 1.25 m x 1.25 m x 1.25 m (easting, northing, elevation). A number of attributes were created to store such information as the rock code, material densities, estimated metal grades, mineral resource classification code, and the like. A full listing of the block model attributes is presented in Table 14-8.

It is important to note that given the early stage of the Project development, selection of the most appropriate production rate(s) or selection of the specific mining methods which would ultimately be employed is not possible. Consequently, the selection of block dimensions is preliminary in nature based on the envisioned conceptual operating scenario. The block sizes may need to be revised at a later date as new information permits the identification of the most appropriate production rate and equipment selection.



Table 14-7: Block Model Definition

Type	Y (Northing)	X (Easting)	Z (Elevation)
Minimum Coordinates (m)	9,282,200	656,300	-300
Maximum Coordinates (m)	9,283,500	658,300	400
User Block Size (m)	5	5	5
Min. Block Size (m)	1.25	1.25	1.25
Rotation (degrees)	0.000	0.000	0.000

Table 14-8: Listing of Block Model Attributes

Attribute Name	Type	Decimals	Background	Description
aucap15_ID ³ _aniso	Real	2	0	Au by ID ³ , Capped to 15 g/t Au, Anisotropic search ellipse
aucap15_ID ³ _iso	Real	2	0	Au by ID ³ , Capped to 15 g/t Au, Isotropic search ellipse
avg_dist_true_ID ³	Real	1	0	True average distance of informing samples, ID ³
class	Integer	-	0	Classification: 2=indicated, 3=inferred,4=exploration potential
density	Real	2	2.7	monzonite/granite=2.70, syenite=2.67, saprolite=1.7, air=0
dist_nearest_tru	Real	1	0	True distance to nearest informing sample
domain	Integer	-	0	Domain ID's
hole_id	Character	-	none	Area of Influence of DDH by NN
litho	Character	-	monzonite	monzonite, granite, syenite, volcanic, saprolite, or air
material_4whit	Integer	-	99	Air=0, Waste=99, Mineralization=400
no_samples_ID ³	Integer	-	0	Number of informing samples, ID ³
pass_no_ID ³	Integer	-	0	Estimation pass

14.10 Search Strategy and Grade Interpolation Parameters

Gold grades were interpolated into the individual blocks for the mineralized domains using the inverse distance cubed (ID³) interpolation method. A two-pass approach was used that utilized the search strategies presented in Table 14-9. “Hard” domain boundaries and fixed search ellipse orientations were used to estimate the block grades. Only those samples contained within the respective domain models were allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. The capped, composited gold grades of the drill hole intersections were used to estimate the gold block grades.



Table 14-9: Summary of Search Strategies and Grade Interpolation Parameters

Item	Domain 101	Domain 102	Domain 103
Major Axis	Along Strike	Along Strike	Along Strike
Major Axis Direction	0° at 265°	0° at 280°	0° at 250°
Semi-Major Axis	Along Strike	Along Strike	Along Strike
Semi-Major Direction	-90° at 265°	-90° at 010°	-90° at 250°
Minor Axis	Across Strike	Across Strike	Across Strike
Minor Direction	0° at 355°	0° at 010°	0° at 340°
Major/Semi-Major Ratio	1.4	1.4	1.4
Major/Minor Ratio	2.0	2.0	2.0
Length of Major Axis, Pass #1 (Short Range, m)	30	60	30
Length of Major Axis, Pass #2 (Long Range, m)	125	125	125
Minimum Number of Samples	5	5	5
Maximum Number of Samples	20	20	20
Search Ellipse Type	Quadrant	Quadrant	Quadrant
Item	Domain 104	Domain 201	Domain 301
Major Axis	Down plunge (west)	Down plunge (west)	Along Strike
Major Axis Direction	-70° at 290°	-70° at 290°	0° at 290°
Semi-Major Axis	Along Strike	Along Strike	Along Strike
Semi-Major Direction	+20° at 290°	+20° at 290°	-90° at 290°
Minor Axis	Across Strike	Across Strike	Across Strike
Minor Direction	0° at 020°	0° at 020°	0° at 020°
Major/Semi-Major Ratio	1.01	1.01	1.4
Major/Minor Ratio	3.0	3.0	2.0
Length of Major Axis, Pass #1 (Short Range, m)	30	30	30
Length of Major Axis, Pass #2 (Long Range, m)	125	125	125
Minimum Number of Samples	5	5	5
Maximum Number of Samples	20	20	20
Search Ellipse Type	Quadrant	Quadrant	Quadrant



Item	Domain 302	Domain 303	Domain 401
Major Axis	Along Strike	Down plunge (west)	Along Strike
Major Axis Direction	0° at 290°	-30° at 290°	0° at 290°
Semi-Major Axis	Along Strike	Along Strike	Along Strike
Semi-Major Direction	-90° at 290°	+60° at 290°	-90° at 290°
Minor Axis	Across Strike	Across Strike	Across Strike
Minor Direction	0° at 020°	0° at 020°	0° at 020°
Major/Semi-Major Ratio	1.4	1.4	1.4
Major/Minor Ratio	2.0	2.0	2.0
Length of Major Axis, Pass #1 (Short Range, m)	30	60	30
Length of Major Axis, Pass #2 (Long Range, m)	125	120	125
Minimum Number of Samples	5	5	5
Maximum Number of Samples	20	20	20
Search Ellipse Type	Quadrant	Quadrant	Quadrant
Item	Domain 402		
Major Axis	Along Strike		
Major Axis Direction	0° at 260°		
Semi-Major Axis	Along Strike		
Semi-Major Direction	-90° at 260°		
Minor Axis	Across Strike		
Minor Direction	0° at 350°		
Major/Semi-Major Ratio	1.4		
Major/Minor Ratio	2.0		
Length of Major Axis, Pass #1 (Short Range, m)	30		
Length of Major Axis, Pass #2 (Long Range, m)	125		
Minimum Number of Samples	5		
Maximum Number of Samples	20		
Search Ellipse Type	Quadrant		



14.11 Block Model Validation

14.11.1 Visual Comparisons

A visual comparison was also made between the distribution of the metal values in the blocks and the contoured metal distributions for selected mineralized wireframes (Figure 14-10, Figure 14-11, and Figure 14-12). In general, good visuals fit were observed.



Figure 14-10: Comparison of Contoured Grades vs Block Model Estimates, Domain 201

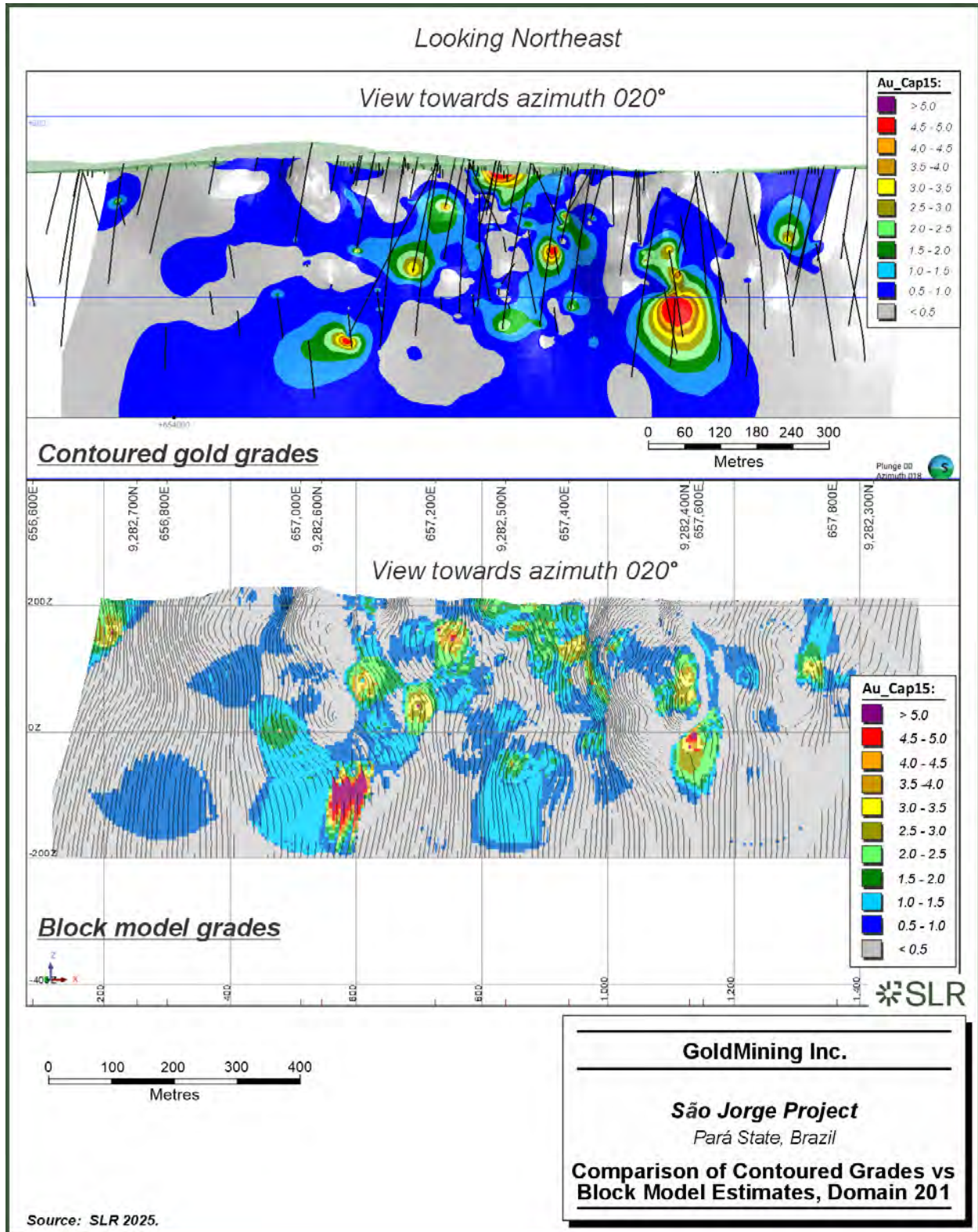


Figure 14-11: Comparison of Contoured Grades vs Block Model Estimates, Domain 201

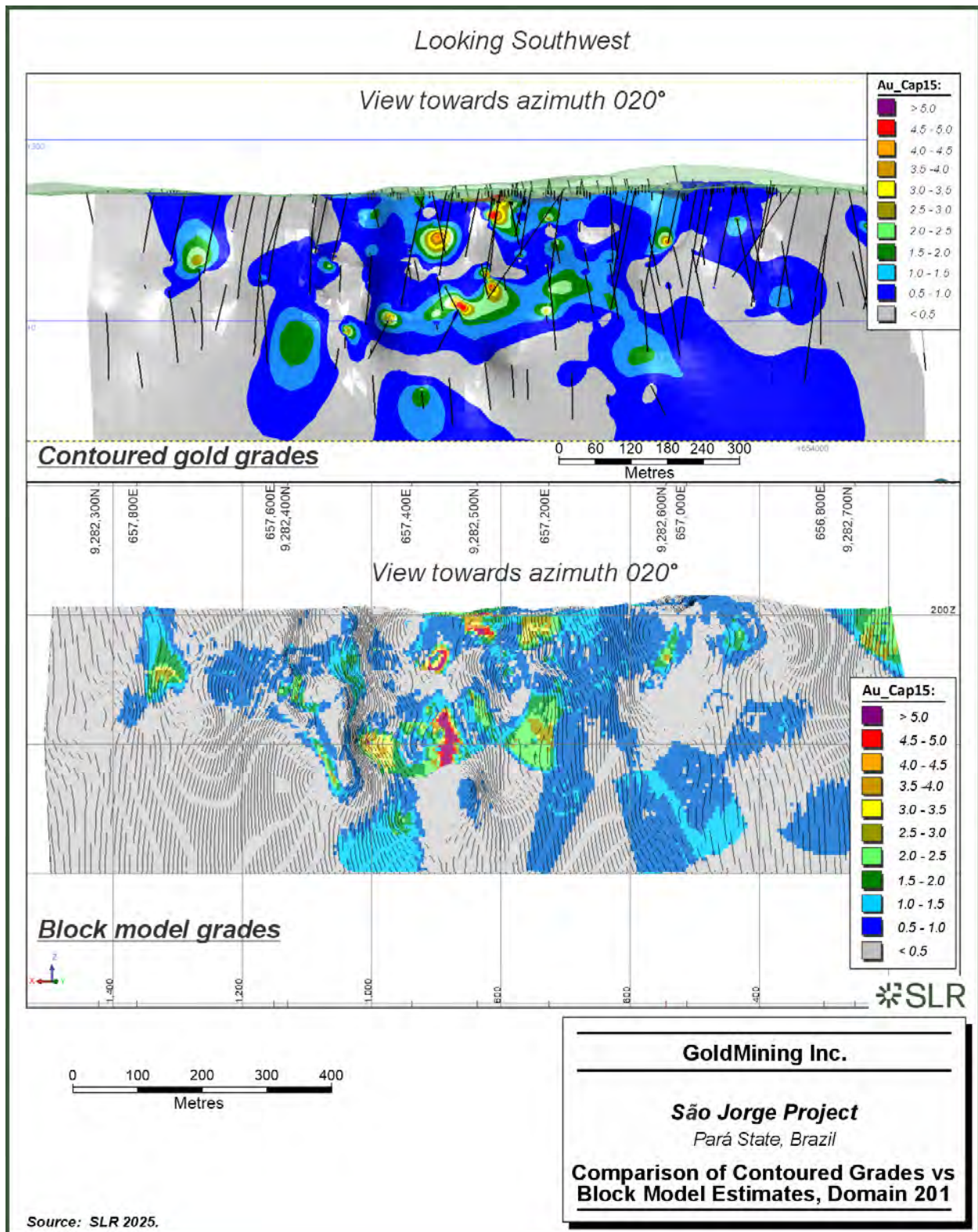
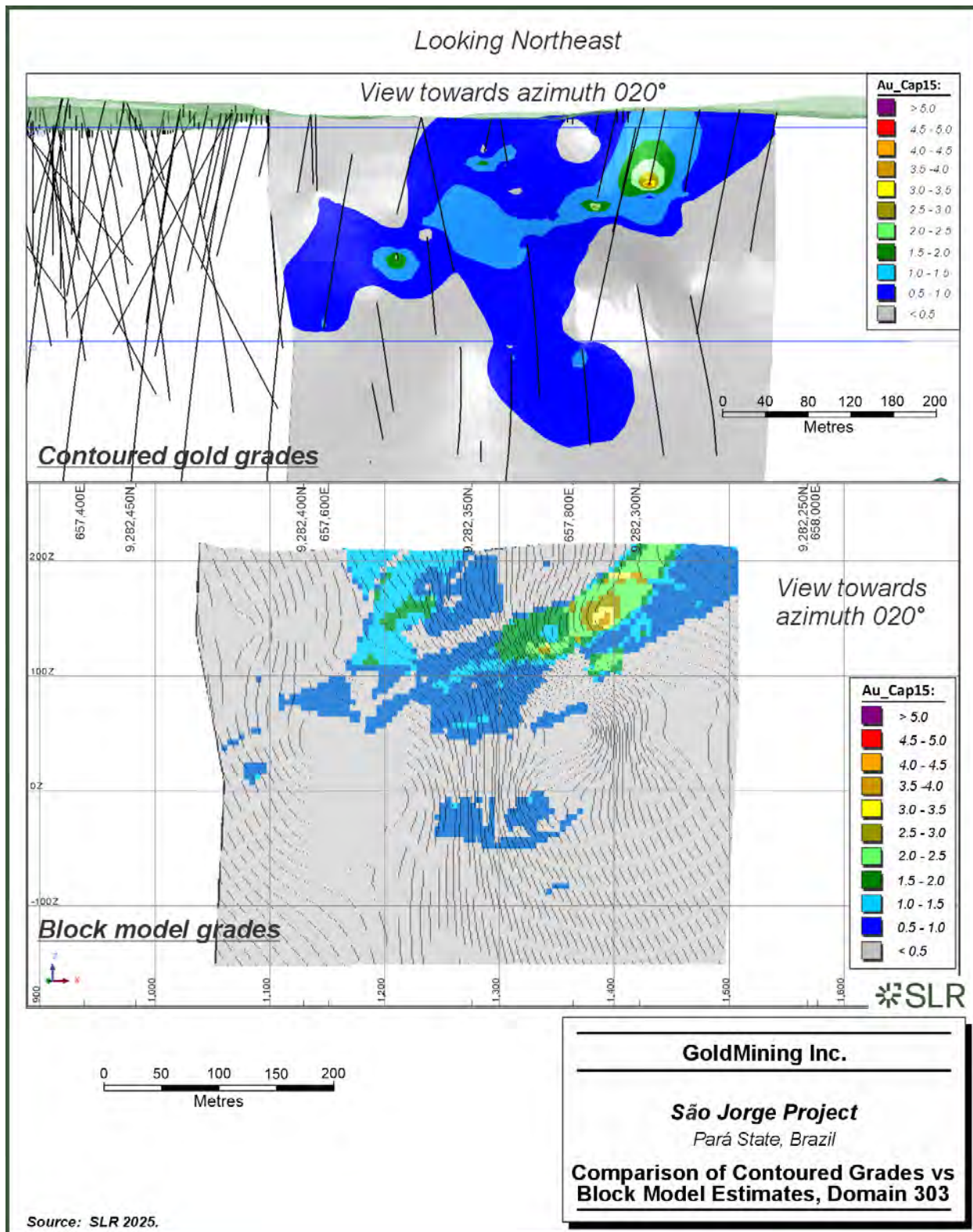


Figure 14-12: Comparison of Contoured Grades vs Block Model Estimates, Domain 303



14.11.2 Swath Plots

Swath plots were constructed for selected mineralized domains that compared the average grade of the informing capped, composite samples with the estimated block gold grades along a series of north-south vertical planes (Figure 14-13, Figure 14-14, and Figure 14-15). A good agreement was observed between the informing samples and the estimated grades.

Figure 14-13: Swath Plot by Easting, Domain 201

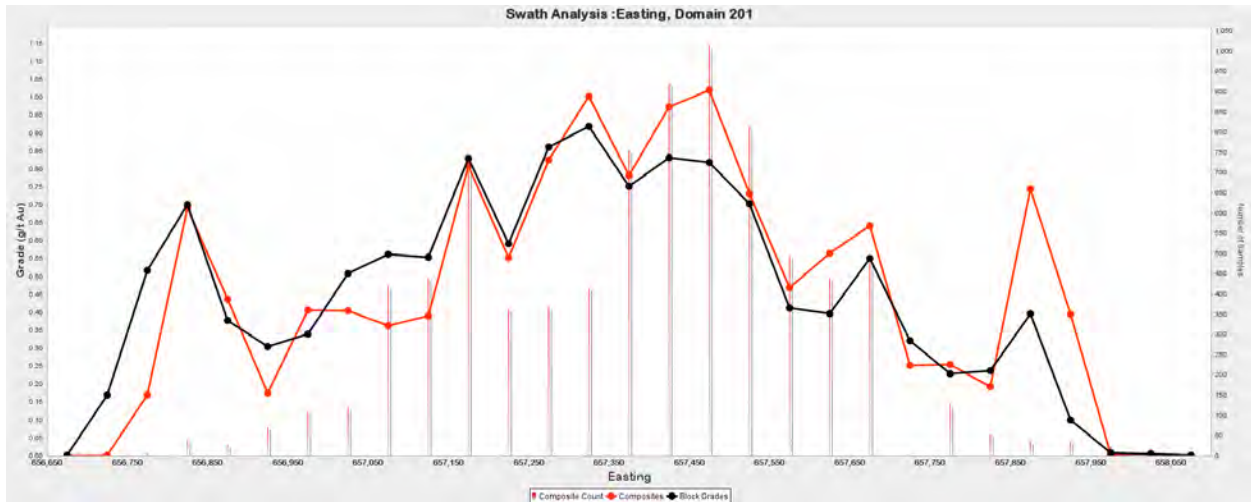


Figure 14-14: Swath Plot by Easting, Domain 303

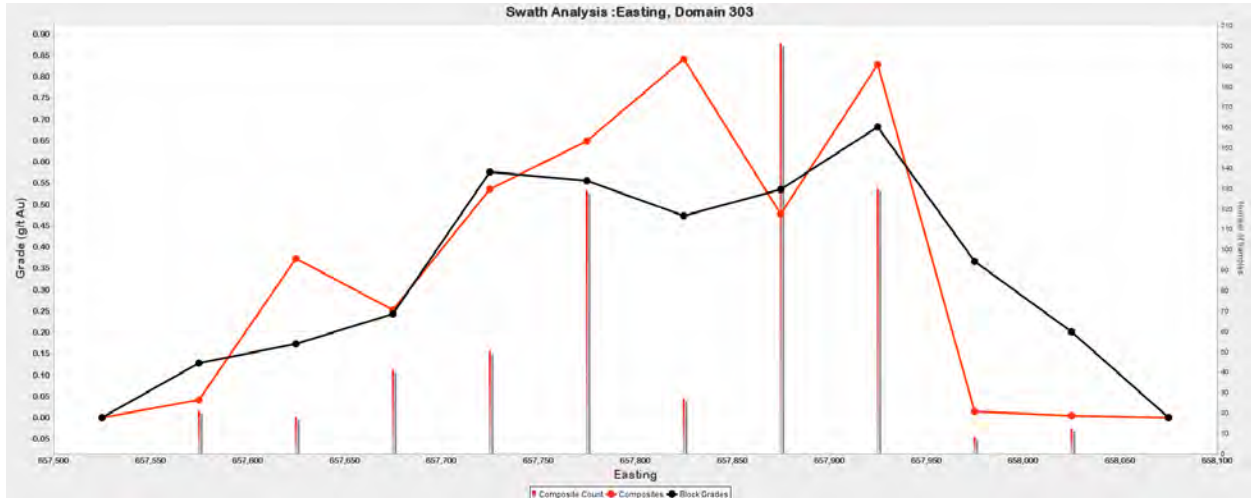
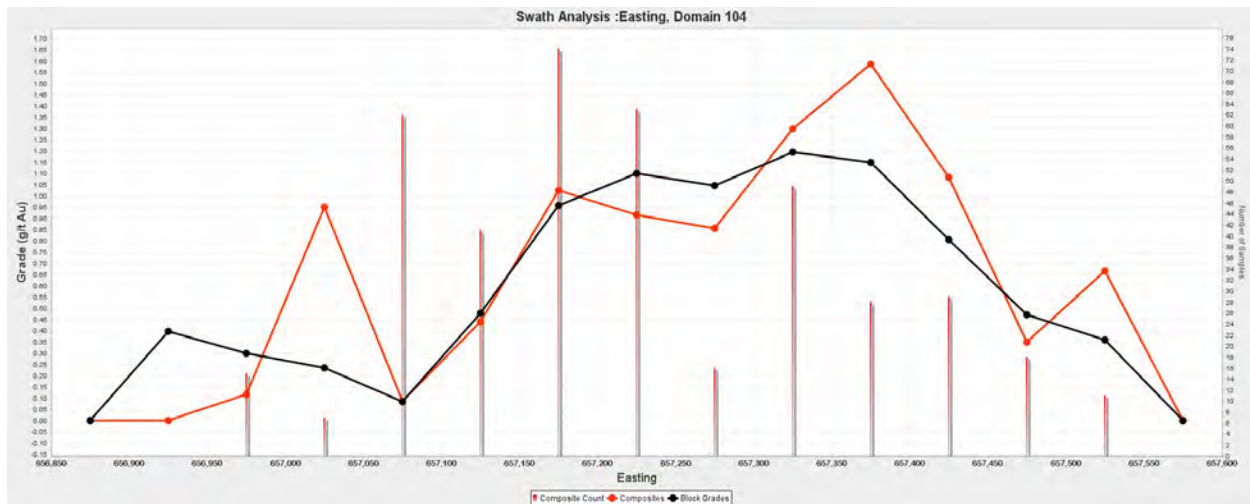


Figure 14-15: Swath Plot by Easting, Domain 104



14.11.3 3D Polygonal De-clustered Mean Grades

The de-clustered mean grades of the informing samples were determined for selected mineralized wireframes using a three-dimensional de-clustering workflow where the average grade of the mineralized interval for each drill hole is calculated in the block model using weights according to the tonnes contained within the drill holes volume of influence. These tonnes-weighted average grades are then compared with the full-length average grades of each drill hole in both tabular and graphic formats.

The average estimated block grades are in good agreement with the de-clustered mean grades of the informing capped, composited samples (Table 14-10). Comparisons of the mean grades of the full-length capped composited average grades with the estimated block grades weighted by drill hole are presented in Figure 14-16, Figure 14-17, and Figure 14-18.

Table 14-10: Comparison of Three Dimensional De-clustered Mean Grades with Estimated Block Model Grades

Domain	Polygonal Declustered Composite Mean (g/t Au)	Block Model Average Grade (g/t Au)
201	0.61	0.59
303	0.40	0.46
104	0.70	0.70



Figure 14-16: Polygonally De-clustered DDH Grades vs Block Model Estimated Grades, Domain 201

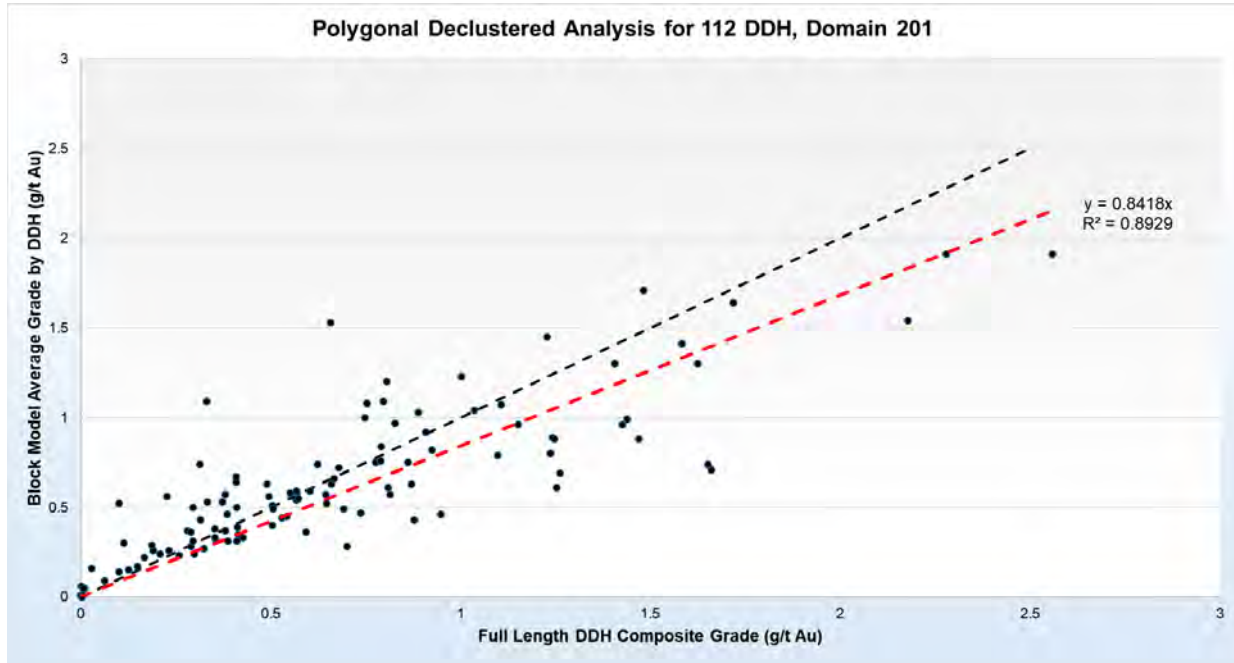


Figure 14-17: Polygonally De-clustered DDH Grades vs Block Model Estimated Grades, Domain 303

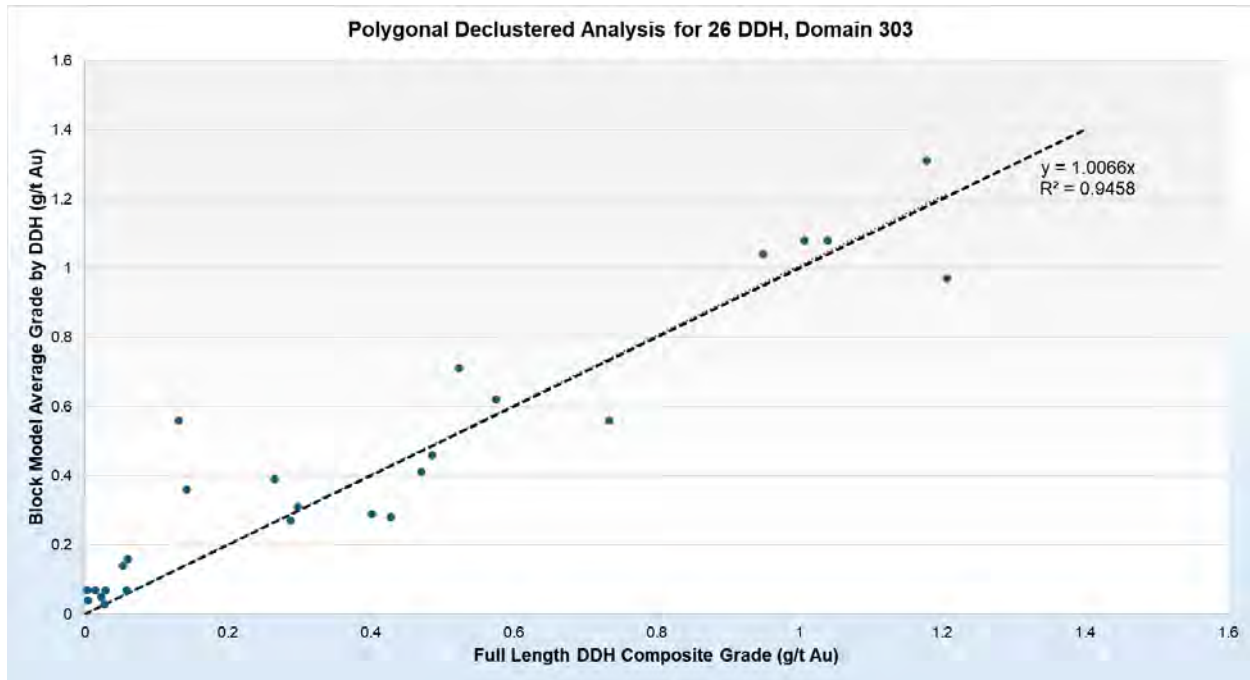
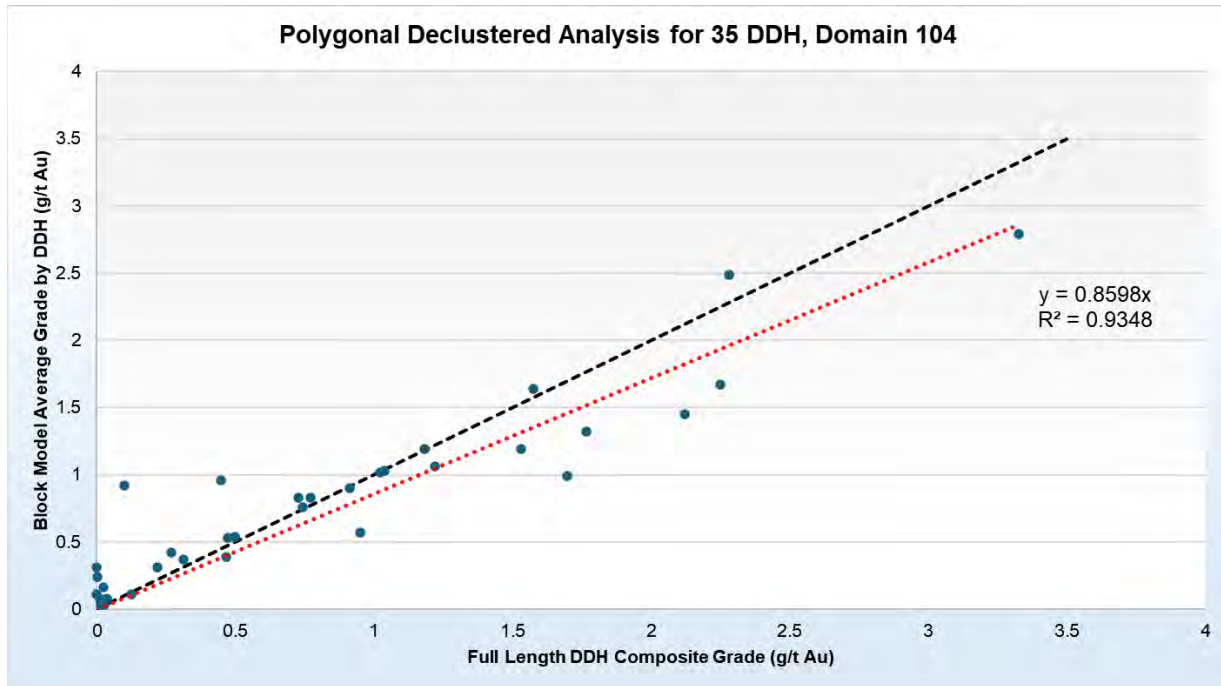


Figure 14-18: Polygonally De-clustered DDH Grades vs Block Model Estimated Grades, Domain 104



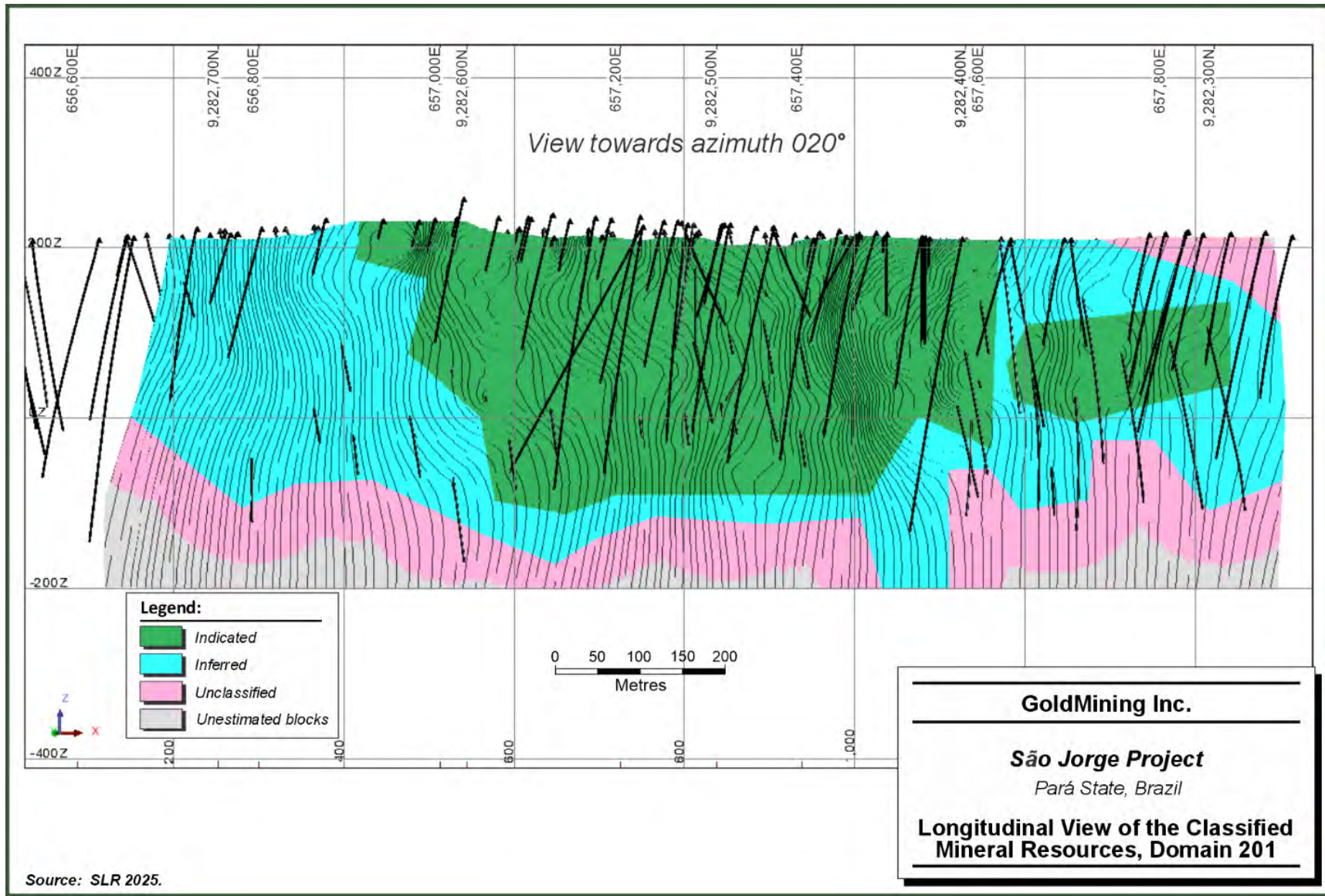
14.12 Classification

The mineralized material for each domain was classified into the Indicated or Inferred Mineral Resource category considering the ranges obtained from the variography study, the demonstrated continuity of the gold grades observed from the trend analysis study, the demonstrated spatial continuity of the mineralized wireframe domains, and the density of drill hole information. Clipping polygons were used to apply the final classification codes to the block model.

In general, those portions of the mineralized wireframes for domains 104, 201, and 303 were classified into the Indicated Mineral Resource category (Class = 2) where the drill hole information was at a drill hole spacing of 60 m or less. Those portions of the mineralized wireframes were classified into the Inferred Mineral Resource category (Class = 3) where the drill hole information was at a drill hole spacing of 100 m or less. The portions of the mineralized wireframes which received estimated grades that were not classified into either the Indicated or Inferred categories were assigned to the estimated, but unclassified category (Class = 4). All remaining blocks in the mineralized wireframes that were not assigned into one of these three categories retained the default classification (Figure 14-19).



Figure 14-19: Longitudinal View of the Classified Mineral Resources, Domain 201



14.13 Determination of Reasonable Prospects for Eventual Economic Extraction (RPEEE)

The current conceptual operating scenario envisions the mineralized material to be excavated by means of an open pit mine at an envisioned production rate of between 5,000 tpd and 15,000 tpd. The material would then be processed at an on-site facility where gold would be recovered using a cyanide leaching flowsheet. The SLR QP estimates operating costs of US\$2.50/t for mining, US\$10.00/t for milling, and US\$5.50/t for general and administrative costs.

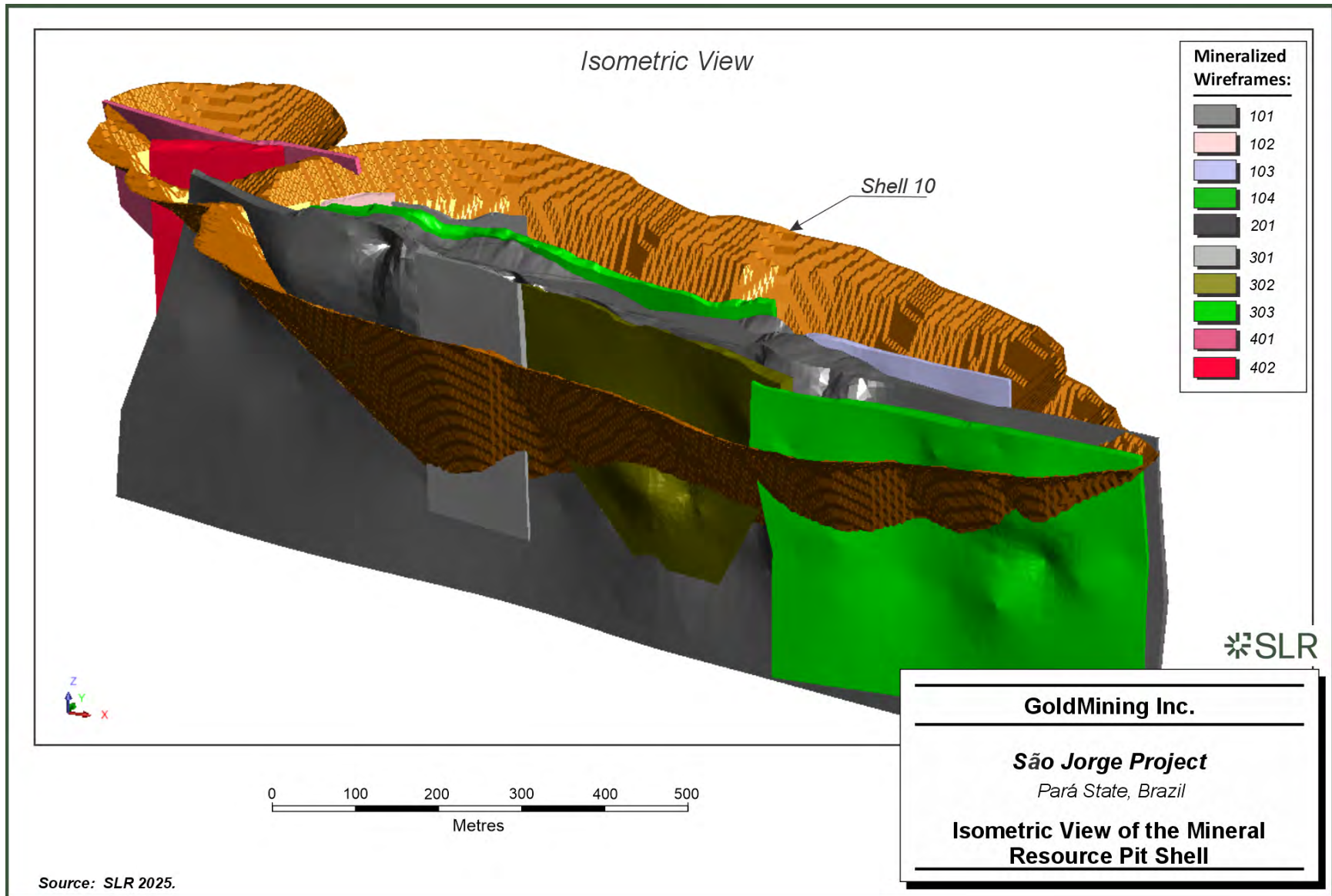
A long term gold price of US\$1,950/oz Au was used in the preparation of the cut-off grade estimate. Along with overall metallurgical recoveries of 90%, a selling cost of US\$6.00/oz Au, and a royalty rate of 3.5%, the SLR QP estimates the break-even cut-off grade to be 0.27 g/t Au and the pit discard cut-off grade to be 0.22 g/t Au.

A base case pit shell surface was created using the pseudoflow algorithm option of the Whittle software package. Overall wall slopes of 50° were used for fresh rock and wall slopes of 35° were used for the soil and saprolite layers (Figure 14-20).

The SLR QP recommends that geotechnical studies be carried out in support of the selection of overall wall slope angles for fresh rock and for the soil and saprolite layers.



Figure 14-20: Isometric View of the Mineral Resource Pit Shell



14.14 Mineral Resource Reporting

As a result of the concepts and processes described in this report, the Mineral Resource estimate for the São Jorge deposit is presented in Table 14-11.

Open pit Mineral Resources at a break-even cut-off grade of 0.27 g/t Au are estimated to total 19,418,000 t at an average grade of 1.00 g/t Au containing approximately 624 thousand ounces (koz) Au in the Indicated Resource category. An additional 5,557,000 t at an average grade of 0.72 g/t Au containing approximately 129 koz Au are estimated to be present in the Inferred Mineral Resource category.

Table 14-11: Mineral Resources as at January 28, 2025

Category	Domain ID	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated (Class = 2)	104	798	1.21	31
	201	17,195	0.99	547
	303	1,425	1.04	48
Sub-total, Indicated		19,418	1.00	624
Inferred (Class = 3)	101	133	0.65	3
	102	367	0.52	7
	103	153	0.70	3
	104	656	0.94	20
	201	2,438	0.75	59
	301	103	0.47	2
	302	734	0.59	14
	303	103	0.98	3
	401	275	0.61	5
	402	565	0.74	13
	Sub-total, Inferred		5,557	0.72

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a break-even cut-off grade of 0.27 g/t Au for classified blocks above a constraining pit shell.
3. Mineral Resources are estimated using a long-term gold price of US\$1,950 per ounce.
4. A minimum mining width of five metres was used.
5. There are no Mineral Reserves estimated at the São Jorge Project. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
6. Numbers may not add due to rounding.

A breakdown of the Mineral Resources by material type is presented in Table 14-12. Approximately 5% of the contained gold in the Indicated Mineral Resources category resides within the weathered layer. Approximately 16% of the contained gold in the Inferred Mineral Resources category resides within the weathered layer.



Table 14-12: Mineral Resources as at January 28, 2025 by Material Type

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)
Indicated (Class = 2)	saprolite	1,054	0.92	31
	monzonite	18,178	1.01	590
	syenite	186	0.88	5
Sub-total, Indicated		19,418	1.00	624
Inferred (Class = 3)	saprolite	827	0.76	20
	monzonite	4,641	0.72	107
	syenite	89	0.76	2
Sub-total, Inferred		5,557	0.72	129

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a break-even cut-off grade of 0.27 g/t Au for classified blocks above a constraining pit shell.
3. Mineral Resources are estimated using a long-term gold price of US\$1,950 per ounce.
4. A minimum mining width of five metres was used.
5. Numbers may not add due to rounding

14.15 Factors Affecting the Mineral Resource

Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. At the present time, the SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues that may have a material impact on the São Jorge deposit Mineral Resource estimate other than those discussed below.

Factors that may affect the São Jorge deposit Mineral Resource estimates include:

- Metal price and exchange rate assumptions,
- Changes to the assumptions used to generate grade thresholds used for construction of the mineralized wireframe domains,
- Changes to geological and mineralization shape and geological and grade continuity assumptions and interpretations,
- Due to the natural geological variability inherent with mineralized zones intrusive-related gold deposits, the presence, location, size, shape, and grade of the actual mineralization located between the existing sample points may differ from the current interpretation. The level of uncertainty in these items is lower for the Indicated Mineral Resource category and is higher for the Inferred Mineral Resource category,
- Changes to the understanding of the current geological and mineralization shapes and geological and grade continuity resulting from acquisition of additional geological and assay information from future drilling or sampling programs,
- Changes to the assumed metallurgical recoveries,
- Changes in the treatment of high grade gold values,
- Changes due to the assignment of density values,



- Changes to the input and design parameter assumptions that pertain to the assumptions for creation of open pit constraining surfaces,
- Portions of material currently classified into the Inferred Mineral Resource category may not be upgraded into higher categories with completion of further sampling activities, and
- Changes to the Mineral Resource reporting cut-off grade value.

14.16 Sensitivity Analysis

A sensitivity analysis was performed to examine the impact of varying gold prices on the size and shape of the resulting pit surfaces from the base case scenario. All parameters other than the gold price were kept constant, which were varied from a low of US\$195/oz to a high of US\$2,925/oz. A total of 15 pit shells were created. A summary of the results from selected pit shells is presented in Table 14-13. The tonnages and grades were derived by reporting all blocks classified into either the Indicated or Inferred categories containing estimated grades above the nominated break-even cut-off grade located above the appropriate pit shell.

An isometric view of the selected pit shells is presented in Figure 14-21, and a typical cross section is presented in Figure 14-22.

Table 14-13: Sensitivity Analysis for Selected Pit Shells

Cut-off Grade (Break Even)	Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Pit Shell #10 (Base Case, US\$1,950/oz)				
>= 0.27	Indicated	19,418	1.00	624
>= 0.27	Inferred	5,557	0.72	129
0.00 to 0.27	Waste	119,609		
Pit Shell #8 (US\$1,560/oz)				
>= 0.34	Indicated	15,371	1.1	544
>= 0.34	Inferred	3,103	0.77	77
0.00 to 0.34	Waste	72,207		
Pit Shell #5 (US\$975/oz)				
>= 0.54	Indicated	9,630	1.32	409
>= 0.54	Inferred	1,200	1.06	41
0.00 to 0.54	Waste	46,206		
Pit Shell #3 (US\$585/oz)				
>= 0.91	Indicated	2,107	1.89	128
>= 0.91	Inferred	195	1.51	9
0.00 to 0.91	Waste	8,727		



Figure 14-21: Isometric View of Selected Pit Shells from the Sensitivity Analysis

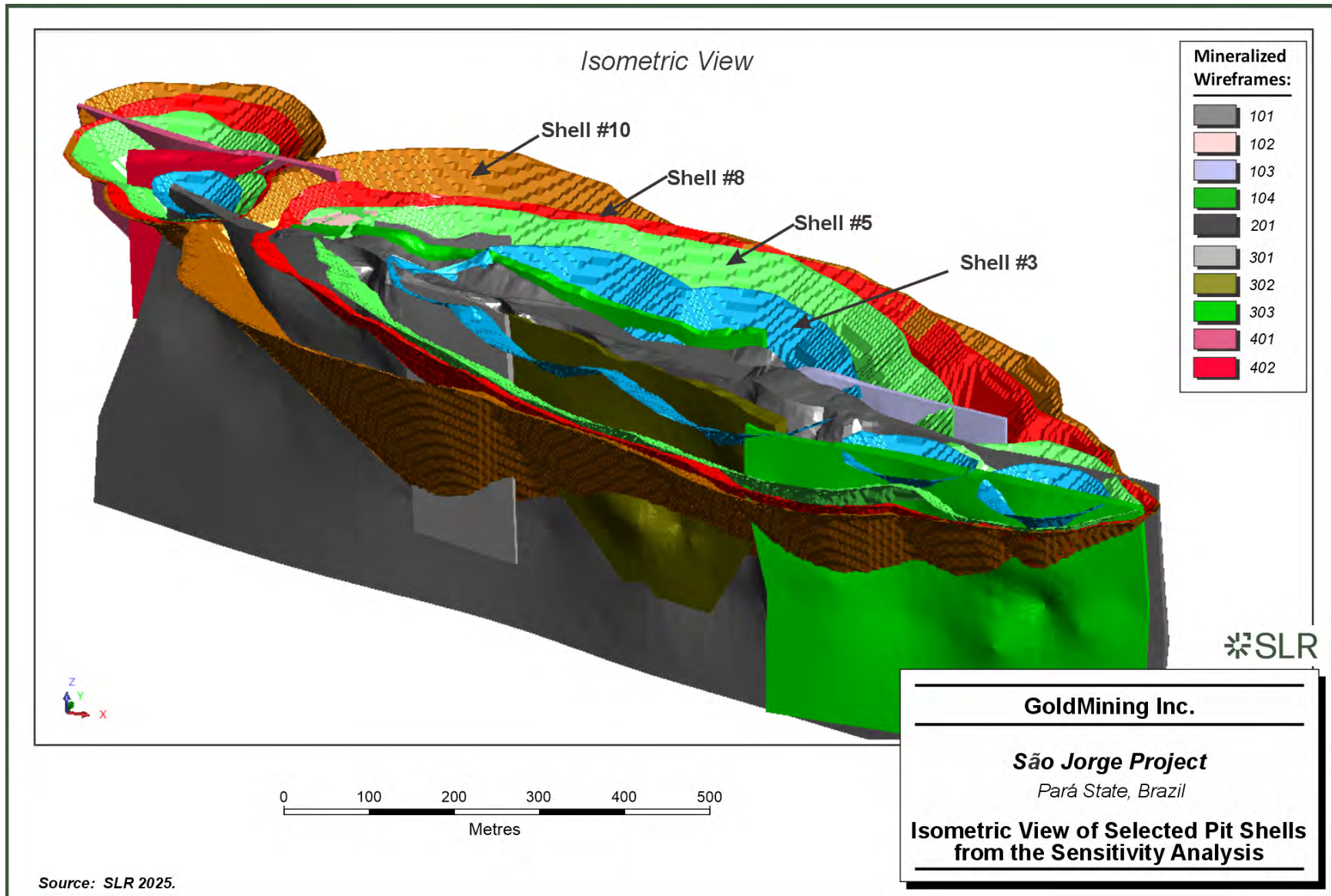
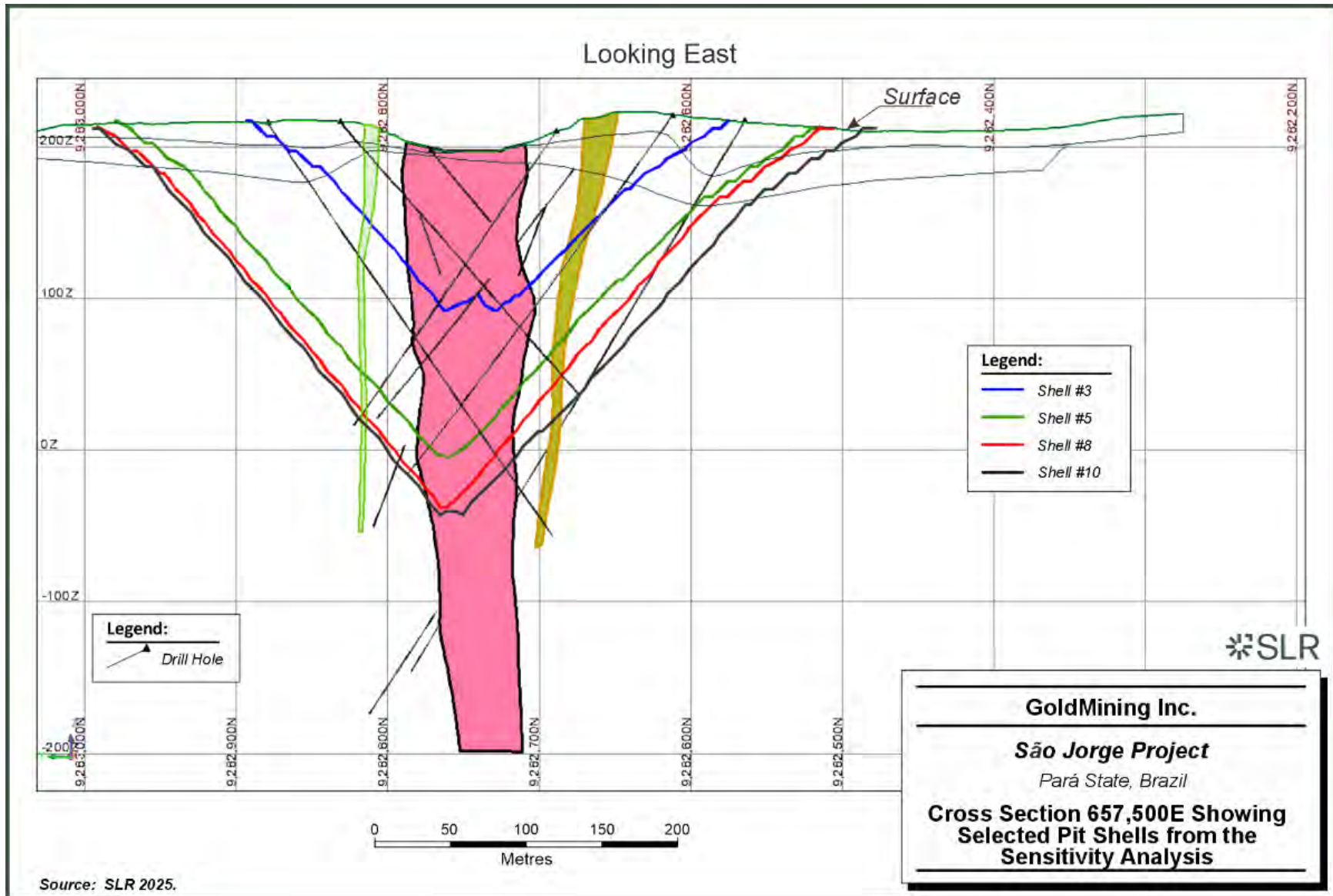


Figure 14-22: Cross Section 657,500E Showing Selected Pit Shells from the Sensitivity Analysis



15.0 Mineral Reserve Estimates

There are no current Mineral Reserve estimated for the São Jorge Property.



16.0 Mining Methods

This section is not applicable.



17.0 Recovery Methods

This section is not applicable.



18.0 Project Infrastructure

This section is not applicable.



19.0 Market Studies and Contracts

This section is not applicable.



20.0 Environmental Studies, Permitting, and Social or Community Impact

This section is not applicable.



21.0 Capital and Operating Costs

This section is not applicable.



22.0 Economic Analysis

This section is not applicable.



23.0 Adjacent Properties

Several mineral properties that bear similarities with the São Jorge deposit are present in the region. The SLR QP has not relied upon information from these adjacent properties in the writing of this report. The SLR QP has not been able to independently verify the information presented in the following subsections and this information is not necessarily indicative of the mineralization at the São Jorge Project.

23.1.1 Tocantinzinho Mine

The Tocantinzinho Mine is located approximately 90 km northwest of the São Jorge Project. It is a conventional truck-and-shovel open pit mine that is forecasted to process material at a rate of approximately 13,000 tpd for the first 7.5 years. The overall mine life is approximately 11 years, including two years of pre-production (GMining Ventures, 2022).

A description of the Mine is summarized from the information contained on the GMining Ventures Corp. (GMIN) website (GMining 2025) as follows:

Eldorado Gold Corp. (Eldorado) acquired the Tocantinzinho gold project from Canadian-listed Brazauro Resources Corporation for C\$120 million in an all-share offer in 2010. Between 2011 and 2019, Eldorado completed a prefeasibility study (2011), received the approval of Preliminary Environment License (2012), completed the feasibility study (2015), received the Installation License (2017) and Mining Concession (2018) and completed an optimized feasibility study for Tocantinzinho (2019), investing over \$90 million into the project.

GMIN acquired Tocantinzinho from Eldorado for \$115 million in 2021. Over the next 12 months, the company updated the feasibility study, secured \$481 million to finance the mine construction and announced its decision to begin construction at Tocantinzinho. In 2024, GMIN declared commercial production at Tocantinzinho, achieving this milestone on time and on budget and in less than two years from beginning construction.

Tocantinzinho is an intrusion-related gold deposit hosted in Paleoproterozoic granites of the south-central Amazon Craton. The deposit is located along a major regional NW trending fault zone which at the deposit scale controls the emplacement of multi-phase intrusions and gold mineralization. The Tocantinzinho deposit forms a sub-vertical, northwest-trending elongate body approximately 900 m long by 150 m to 200 m wide. It has been drilled to approximately 450 m depth and remains open at depth. The gold mineralization is bound by two structural zones which mark the contact with the surrounding barren granite and monzonite rocks. The structural corridor represents an outer geological constraint on the mineralization.

A wide range of fractionated granitic phases are recognised including quartz monzonite, syenite, alkali feldspar granite, granite and aplite. The deposit displays spectacular magmatic-hydrothermal transition textures such as unidirectional solidification textures, interconnected miarolitic texture (IMT), rapid grain size variations from pegmatite to aplite, and vein dykes.

The bulk of the ore is hosted in two main rock types. “Smokey” granite is pale pink-grey in colour and is mostly distributed in the core of the deposit. It varies from a coarse grained blebby texture (likely IMT) to equigranular granite. “Salami” granite has a strong pink-red colour and is an alkali feldspar granite with a blebby (IMT) texture and commonly transitions into aplite-pegmatite zones. Mineralization is characterized by fine, irregular vein networks of quartz, black chlorite, sulfide (pyrite, molybdenite, chalcopyrite) and calcite (Figure 23-1 and Figure 23-2). The veinlets commonly develop along grain contacts and their irregular wormy nature suggests that they formed during late crystallization of the host granite.



Figure 23-1: Drill Hole TOC 186: Smokey Granite from 158.83 m to 162.22 m and Salami Granite from 162.22 m to 164.50 m.



Source: GMining Ventures 2022.

Notes: Sample Intervals were assayed at more than 1 g Au/t.



Figure 23-2: Tocantinzinho Mineralization in Smoky Granite



Source: GMining Ventures 2022.

The Mineral Reserves are presented in Table 23-1 and the Mineral Resources are presented in Table 23-2. The SLR QP has not relied upon information from these adjacent properties in the writing of this report. The SLR QP has not been able to independently verify the information presented in the following sections and this information is not necessarily indicative of the mineralization at the São Jorge Project.

Table 23-1: Summary of the Tocantinzinho Mine Mineral Reserves as at December 10, 2021

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Proven	17,976	1.46	842
Probable	30,703	1.22	1,200
Total, Proven & Probable	48,676	1.31	2,042

Source: GMining 2025.

Notes:

1. CIM definitions were followed for Mineral Reserves.
2. Effective date of the estimate is December 10, 2021.
3. Mineral Reserves are estimated for a gold price of US\$1,400/oz.



4. Mineral Reserve cut-off grade is 0.36 g Au/t for all materials.
5. A dilution skin of 1m was considered resulting in an average mining dilution of 5.5%.
6. Bulk density of ore is variable with an average of 2.67 t/m³.
7. The average strip ratio is 3.36:1.
8. Numbers may not add due to rounding.

Table 23-2: Summary of the Tocantinzinho Mine Mineral Resources as at December 10, 2021

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Measured	17,609	1.49	841
Indicated	29,073	1.30	1,211
<i>Sub-total, Measured & Indicated</i>	<i>46,682</i>	<i>1.37</i>	<i>2,052</i>
Inferred	791	0.90	23

Source: GMining 2025.

Notes:

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
2. All figures are rounded to reflect the relative accuracy of the estimates.
3. Assays were capped where appropriate.
4. Open pit Mineral Resources are reported at a cut-off grade of 0.30 g/t gold.
5. The cut-off grades are based on a gold price of US\$1,600 per troy ounce and metallurgical recoveries of 78% and 90% for gold in saprolite and rock respectively.

23.1.2 Cuiú Cuiú Deposit

The Cuiú Cuiú deposit is located approximately 115 kilometres northwest of the São Jorge Project and approximately 25 km northwest of the Tocantinzinho mine. A description of the geology, mineralization, and Mineral Resource estimates is excerpted from Cabral Gold (2024a) as follows:

The property features a basement of granite-gneiss formations intruded by a sequence of younger granitic and volcanic suites. These geological units host the region's primary gold deposits, which are structurally controlled by large-scale deformation zones like the Tocantinzinho Trend Deformation Zone (TTDZ). Gold mineralization at Cuiú Cuiú occurs across fresh rock, saprolite, and weathered sediments, with extensive hydrothermal alteration facilitating mineral deposit in brecciated zones and fault systems.

The mineralization styles at Cuiú Cuiú include replacement zones, stockwork veining, and high-grade quartz veins, often associated with sulphides like pyrite. Key targets, such as the Central and MG deposits, are hosted within intense alteration and deformation zones and show substantial gold grades. The Central deposit comprises in-situ basement mineralization, weathered saprolite, and transported gold-bearing blankets. Alteration varies from broad hematite-dominated zones to high grade silicification and sulphidation near mineralized zones.

The gold mineralization is classified as mesozonal or hypozonal, indicative of formation at depths greater than six kilometres under greenschist facies conditions. Unlike Intrusive-Related Gold Systems, Cuiú Cuiú's gold deposits are associated with syn-deformational processes, evident in features like dilation structures, shear veins, and banded quartz breccias.



The Mineral Reserves are presented in Table 23-3, and the Mineral Resources are presented in Table 23-4. The SLR QP has not relied upon information from these adjacent properties in the writing of this report. The SLR QP has not been able to independently verify the information presented in the following sections and this information is not necessarily indicative of the mineralization at the São Jorge Project.

Table 23-3: Summary of the Cuiú Cuiú Mineral Reserves as at December 4, 2024

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Proven	0	0	0
Probable	3,226	0.81	83
Total, Proven & Probable	3,226	0.81	83

Source: Cabral Gold 2024a.

Table 23-4: Summary of the Cuiú Cuiú Mineral Resources as at December 4, 2024

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Indicated	23,400	0.83	622
Inferred	25,850	0.73	607

Source: Cabral Gold 2024b.

23.1.3 Palito and São Chico Mines

The Palito and São Chico mines are located approximately 45 km to the northwest of the São Jorge project. A description of the deposit's geology, mineralization and Mineral Resources is excerpted from Serabi Gold plc (Serabi) (2023).

The Palito Mine is owned by Serabi. Serabi is a United Kingdom registered and domiciled gold mining and development company based in London, England. Mining of the narrow, near-vertical gold veins at the Palito Complex is undertaken using the shrinkage stoping method. Since re-opening of the mine in 2014 through July 2023, Serabi mined a total of 1.5 Mt at an average grade of 7.03 g/t Au (approximately 450 t/d) from the Palito and São Chico mines.

The Palito Main Zone deposit is comprised of a series of northwest-southeast, steeply dipping, quartz-gold-copper veins. The gold mineralization of the Palito Main Zone is hosted within the upper levels of a large adamellite granite intrusive associated with felsic volcanics (rhyolite and dacite) and felsic breccias. Mineralization is contained within vertical to sub-vertical, mesothermal quartz-chalcopyrite-pyrite veins filling brittle extensional fault systems. Vein widths typically average over one metre in width with grades typically between 15 g/t Au and 30 g/t Au. Gold grades in excess of this are associated with semi-massive, chalcopyrite-pyrite 'blowouts' within the quartz veins.

The mineralogy and textures of the deposits at the Palito Mining Complex is consistent with a model for an intrusion-related mesothermal gold-copper mineralization. This relatively new classification of gold deposits is associated with granitic rocks and are best developed above and surrounding small, granitic intrusions. Mineralization styles can manifest as stockworks, breccia, skarns, and lode-style veins, and have a clear metal association zonation.



A number of exploration methods have been useful in the identification and discovery of additional gold targets on the Palito Mining Complex. Surficial geochemistry has proven to be successful in areas of shallow saprolite weathering or where laterite horizons are developed at shallow depths, whereas chemical depletion in deeply developed profiles can mask mineralization. Magnetics is limited at the Palito Mine due to poor contrast between local host rocks, however it can be used to define additional regional scale features. Electromagnetics are limited to detecting only massive sulphide mineralization but is useful in regional screening for initial exploration and targeting mineralized structures. Induced polarization methods are effective and have demonstrated the ability to map Palito-style mineralization with a high degree of definition, ideal for drill targeting.

The Mineral Reserves are presented in Table 23-5, and the Mineral Resources are presented in Table 23-6. The SLR QP has not relied upon information from these adjacent properties in the writing of this report. The SLR QP has not independently verified the information presented in the following sections and this information is not necessarily indicative of the mineralization at the São Jorge Project.

Table 23-5: Summary of the Palito and São Chico Mines Mineral Reserves as at July 31, 2023

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Palito			
Proven	567.8	8.08	147.5
Probable	196.8	6.83	43.2
Total, Palito	764.6	7.76	190.8
São Chico			
Proven	46.1	8.20	12.2
Probable	14.1	7.68	3.5
Total, São Chico	60.2	8.08	15.6
Palito Mining Complex			
Proven	614.0	8.09	159.7
Probable	210.8	6.89	46.7
Total, Palito Mining Complex	824.8	7.78	206.4

Source: Serabi 2023.

Notes:

1. Mineral Reserves have been rounded to reflect the relative accuracy of the estimates. Proven Mineral Reserves are reported within the Measured classification domain, and Probable Mineral Reserves are reported within the Indicated classification domain.
2. Proven and Probable Mineral Reserves are inclusive of external mining dilution and mining loss and are reported at a COG of 4.0 g/t Au assuming an underground shrinkage mining scenario, and metallurgical recoveries of 93.2% for Palito and 93.8% for São Chico.
3. Serabi is the operator and owns 100% of the Palito Mine such that gross and net attributable mineral reserves are the same.
4. The mineral reserve estimate was prepared by the NCL in accordance with the standard of CIM and NI 43-101, with an effective date of July 31, 2023, and audited and approved by Mr. Carlos Guzmán of NCL, who is a Qualified Person under NI 43-101.



Table 23-6: Summary of the Palito and São Chico Mines Mineral Resources as at July 31, 2023

Classification	Tonnage (000 t)	Grade (g/t Au)	Contained Gold (000 oz)
Palito			
Measured	772.3	11.03	273.8
Indicated	243.0	8.39	65.6
Measured & Indicated	1,015.3	10.40	339.3
Inferred	674.2	7.02	152.2
São Chico			
Measured	122.5	8.10	31.9
Indicated	28.5	7.07	6.5
Measured & Indicated	150.9	7.91	38.4
Inferred	8.2	6.53	1.7

Source: Serabi 2023.

Notes:

1. Mineral Resources are not Mineral Reserves and have not demonstrated economic viability.
2. Mineral Resources are reported inclusive of Mineral Reserves.
3. Figures are rounded to reflect the relative accuracy of the estimates.
4. Mineral Resources are reported within classification domains with no dilution applied at a COG of 3.32 g/t Au assuming an underground extraction scenario, a gold price of US\$1,950/oz, metallurgical recovery of 95%, and an exchange rate of R\$5.5/US\$.
5. 3D block model used for Resource estimates.



24.0 Other Relevant Data and Information

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.



25.0 Interpretation and Conclusions

The SLR QP offers the following conclusions by area:

25.1 Geology and Mineral Resources

- Observations made in drill core suggest that the gold mineralization is often associated with the presence of sulphide minerals where at least 99 percent of sulphides are pyrite. Statistical analyses of the relationship between sulphide abundance as logged in drill core and gold grades reveal a poor correlation. While the presence of sulphide minerals appears to be a prerequisite for elevated gold values, there is no clear and consistent correlation between sulphide abundance and gold grades. Many instances are noted in drill core where sulphide mineralization is present with little to no associated gold values.
- The SLR QP observes that a direct correlation is present between the location of the known extents of the São Jorge deposit and elevated chargeability values. The elevated chargeability values are attributed to the presence variable abundances of pyrite in the deposit occurring as disseminations and stockwork veinlets. The SLR QP notes that the elevated chargeability values continue along strike to the southeast from the known limits of the deposit into areas that are not extensively tested by diamond drilling.
- The SLR QP also observes that a bulge in the chargeability values is present to the south of the southeastern limits of the São Jorge deposit. Only a small number of diamond drill holes have been completed in this area.
- The 2024 auger drilling program was successful in discovering several instances of elevated gold values within the shallow levels of the saprolite zone at the William South area.
- The 2024 diamond drilling program was successful in confirming the interpreted location of the gold mineralization (DDH SJD-120-24), locating the northwestern strike extension of the mineralized zone (DDH SJD-122-24), intersecting the gold mineralization along a parallel mineralized zone located to the northwest of the main mineralized trend (DDH SJD-121-24), and intersecting previously untested mineralized zone (DDH SJD-123-24).
- The work completed by GMI has aided to advance the understanding of the controls on the distribution of the gold mineralization at the São Jorge deposit.
- While the gold mineralization is observed to be mostly correlated with increased concentrations of sulphide minerals, particularly pyrite, no clear fabric or indications of strain were observed in the drill core. Due to the lack of clear controls on the location of the gold values, a series of wireframe interpretations were prepared using a nominal assay threshold value of 0.25 g/t Au using the Leapfrog software package.
- A total of ten mineralization wireframes were prepared using a minimum width of approximately five metres. The mineralization wireframes together have a strike of approximately azimuth 110°, have a strike length of approximately 1.5 km, and dip sub-vertically from surface to a depth of approximately 430 m beneath the surface. The mineralization wireframes include gold assays found both within the weathered zone and the fresh host rocks.
- Neither the strike extensions nor the depth limits of the mineralized system have been well defined by drilling. Furthermore, drill hole SJD-121-24 was successful in demonstrating the presence of a parallel mineralized zone located to the northwest and



arranged in an en-echelon relationship with the main mineralized corridor. The strike limits of this new mineralized trend have also not been defined by drilling.

- A contour of the gold grades constructed for Domain 201 (the largest mineralized domain) reveals that they occur in higher grade pockets and shoots that plunge moderately to the west, steeply to the east, or can be horizontal. The contours for Domain 303 suggest that the gold grades occur along a zone plunging approximately 30° to the west.
- The conceptual operational scenario envisions that mineralized material would be extracted by means of an open pit mine at a potential mining rate on the order of 5,000 tpd to 15,000 tpd, with the gold recovered using a cyanide leach flowsheet.
- An upright, non-rotated, sub-blocked block model was created, using Dassault Systèmes Surpac version 2024 Refresh1 software package (Surpac), that comprised an array of parent blocks that measured 5 m x 5 m x 5 m (easting, northing, elevation). Two levels of sub-blocks were created to a minimum size of 1.25 m x 1.25 m x 1.25 m (easting, northing, elevation).
- Gold grades were interpolated into the individual blocks for the mineralized domains using the inverse distance cubed (ID³) interpolation method using a two-pass estimation approach. “Hard” domain boundaries and fixed search ellipse orientations were used to estimate the block grades. Only those samples contained within the respective domain models were allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. The capped, composited gold grades of the drill hole intersections were used to estimate the gold block grades.
- The mineralized material for each domain was classified into the Indicated or Inferred Mineral Resource category considering the ranges obtained from the variography study, the demonstrated continuity of the gold grades observed from the trend analysis study, the demonstrated spatial continuity of the mineralized wireframe domains, and the density of drill hole information. Clipping polygons were used to apply the final classification codes to the block model.
- In general, those portions of the mineralized wireframes for domains 104, 201, and 303 were classified into the Indicated Mineral Resource category (Class = 2) where the drill hole information was at a drill hole spacing of 60 m or less. Those portions of the mineralized wireframes were classified into the Inferred Mineral Resource category (Class = 3) where the drill hole information was at a drill hole spacing of 100 m or less.
- A base case pit shell surface was created using the pseudoflow algorithm option of the Whittle software package using estimated operating costs of US\$2.50/t for mining, US\$10.00/t for milling, and US\$5.50/t for general and administrative costs, and a long term gold price of US\$1,950/oz Au.
- Along with overall metallurgical recoveries of 90%, a selling cost of US\$6.00/oz Au, and a royalty rate of 3.5%, the SLR QP estimates the break-even cut-off grade to be 0.27 g/t Au and the pit discard cut-off grade to be 0.22 g/t Au.
- The estimated Mineral Resources for the São Jorge Deposit are presented in Table 25-1.



Table 25-1: Mineral Resource Summary as at January 28, 2025

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated	19,418	1.00	624
Inferred	5,557	0.72	129

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a break-even cut-off grade of 0.27 g/t Au for classified blocks above a constraining pit shell.
3. Mineral Resources are estimated using a long-term gold price of US\$1,950 per ounce.
4. A minimum mining width of five metres was used.
5. There are no Mineral Reserves estimated at the São Jorge Project. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
6. Numbers may not add due to rounding.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

25.2 Mineral Processing

- For met samples SJ-AL1-T1, which represents the sulphides, and SJ-AL2-T2, which represents the oxides, gold recovery for the finer ground samples (P₈₀ 75 microns) ranged from 91.1% to 95.8% for the sulphides and between 86.1% to 91.2% for the oxides.
- At an anticipated head grade of approximately 1.57 g/t Au, the overall recovery is expected to be in the range of 94.0% or slightly higher, if the process incorporates a carbon-in-leach (CIL) circuit with a feed size of P₈₀ equal to or less than 75 microns.
- The feed is categorized as medium to hard with a Ball Mill work index ranging from 13.7 kWh/t to 15.7 kWh/t.
- Leach kinetics curves indicate that maximum gold recovery can be achieved after 22 hours of leaching for the sulphide material. Leach kinetic curves were not generated for the oxide material.



26.0 Recommendations

The SLR QP offers the following recommendations by area:

26.1.1 Geology

- 1 Consider completing mineral chemistry studies on both the mineralized and barren pyrite present in the São Jorge deposit to determine whether a difference in the pyrite chemistry can be used as an exploration tool.
- 2 Carry out exploration drilling to search for bedrock sources of the gold mineralization discovered by GMI's auger drilling program in the William South area.
- 3 Carry out additional exploration activities to search for the possible strike extensions of the São Jorge mineralized corridor as well as defining the extent of the mineralization in the northwestern zone.
- 4 Determine the bulk density of the weathered material prior to the preparation of future Mineral Resource estimates.
- 5 Carry out geotechnical studies in support of the selection of overall wall slope angles for fresh rock and for the soil and saprolite layers.

26.1.2 Mineral Processing

The SLR QP recommends that metallurgical testing be carried out to support metallurgical recoveries and future mineral processing plant design.

- 1 Prepare samples for each lithology as well as a master composite sample for the deposit. Samples should be chosen to be representative of the material that will be mined in the first five years of the mine life and should be selected by the Project Geologist in collaboration with the Lead Process Engineer and Mining Engineer.
- 2 Conduct the following metallurgical test work:
 - a) Variability testing in order to fully understand and define the metallurgical response of the oxide and sulphide deposits. These variability samples would be used not only to develop the resource block model but would also be used in the grinding and leach test program. The results of this test work would be inputted back into the block model in order to allow for metal extractions to be predicted across the deposit.
 - b) Analyses on the samples for each lithology and the master composite sample:
 - i. Element analysis, specifically gold, silver, copper, sulphur, and iron.
 - ii. Mineralogical examination in order to obtain bulk modal analyses data and liberation data.
 - iii. QEMSCAN analysis on the final tails from the deposits in order to better understand the mineral composition within the deposit, thus indicating how metallurgical performance may be affected.
 - c) Comminution testing, including Modified Bond ball mill work index tests, several full Bond ball mill work index determinations, Bond rod mill work index, crushing work index, abrasion work index, Unconfined Compression tests (UCS), SAG Mill Comminution tests (SMC) and JKTech drop weight tests in order to properly size the comminution circuit.



- d) HPGR (high pressure grinding rolls) testing on the master composite to evaluate the options for semi-autogenous (SAG) milling. This would require a Static Pressure Test (SPT) to be performed.
 - e) A series of flotation tests on both sulphide and oxide material types in order to establish if flotation would be an appropriate flowsheet option in order to optimize gold recovery.
 - f) Further gravity tests on both material types at various grinds in order to confirm original findings. The gravity concentrate recoveries should be stated with the grade of the concentrate produced.
 - g) Leaching of the gravity concentrate in order to determine overall recovery rates and establish leach kinetic curves along with reagent consumptions. Leach kinetic curves need to be established on master composite samples for both the oxide and sulphide material. Reagent optimization for both material types needs to be established.
 - h) Once optimum conditions have been established with the master composites, bench tests on the variability samples using the same set of conditions.
 - i) Once optimum conditions have been established from bench tests, locked-cycle testing and potentially a pilot plant trial in order to confirm initial findings.
 - j) Settling tests on the tailings for both material types are required. This would involve appropriate flocculent selection (ionic, cationic, neutral, coagulant) settling test work (feed percent solids, dosage, pH), specific gravity determination, and viscosity measurements on tailings, with and without thickening.
- 3 Ensure that the next phase of test work includes both gravity and leach test work on a composite sample that represents the ratio of oxide (laterite and saprolite) to sulphide material in the deposit in order to determine what effect a blended feed has on recovery, if any, as this may be a possible process route.
 - a) Further testing needs to be carried out on the oxide material as it may be processed separately for the first 18 months of production. This would include the same test work that has been carried out on the sulphides.
 - 4 Conduct test work involving thickening of the leach tails for both oxide and sulphide material in order to establish maximum obtainable densities for the counter current decantation (CCD) circuit.
 - 5 Adequately define the feed rheology to manage any potential viscosity issues which may arise from the processing of the oxides alone.
 - 6 Develop a plan and carry out environmental test work, as it relates to the proposed processing plant and tailings storage facility.



27.0 References

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28.0 Date and Signature Date

This report titled “NI 43-101 Technical Report for the São Jorge Project, Pará State, Brazil” with an effective date of January 28, 2025 was prepared and signed by the following authors:

(Signed & Sealed) *Reno Pressacco*

Dated at Toronto, ON
February 26, 2025

Reno Pressacco, M.Sc.(A), P.Geo., FGC



29.0 Certificate of Qualified Person

I, Reno Pressacco, M.Sc.(A), P.Geo., FGC, as the author of this report entitled “NI 43-101 Technical Report for the São Jorge Project, Pará State, Brazil” with an effective date of January 28, 2025, prepared for GoldMining Inc., do hereby certify that:

1. I am an Associate Principal Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Cambrian College of Applied Arts and Technology, Sudbury, Ontario, in 1982 with a CET Diploma in Geological Technology; Lake Superior State College, Sault Ste. Marie, Michigan, USA in 1984 with a Bachelor of Science degree in Geology; and McGill University, Montreal, Québec in 1986 with a Master of Applied Science degree in Mineral Exploration.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #939). I have worked as a geologist for a total of 39 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements including preparation of Mineral Resource estimates and NI 43-101 Technical Reports.
 - Numerous assignments in North, Central, and South America, Europe, Russia, Armenia, and China for a variety of deposit types in different geological environments. Commodities include Au, Ag, Cu, Zn, Pb, Ni, Mo, U, PGM, REE, and industrial minerals.
 - Vice president positions with Canadian mining companies.
 - A senior position with an international consulting firm.
 - Performing as an exploration, development, and production stage geologist for several Canadian mining companies.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I most recently visited the São Jorge Project on May 3, 2024, and May 4, 2024.
6. I am responsible for all sections of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 26th day of February, 2025

(Signed) *Reno Pressacco*

Reno Pressacco, M.Sc.(A), P.Geo., FGC





Making Sustainability Happen