September 19, 2024

TECHNICAL REPORT ON THE PRELIMINARY ECONOMIC ASSESSMENT OF THE MINERA DON NICOLÁS GOLD PROJECT, SANTA CRUZ, ARGENTINA

NI 43-101 Report
CER_240227

GeoEstima

Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Project, Santa Cruz, Argentina

GeoEstima Project CER_240227

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Document Title	**Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Project, Santa Cruz, Argentina**
Issue Date	September 19th, 2024
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Status & Issue N°	Final Version

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1. SUMMARY

1.1. Executive Summary

GeoEstima SpA. (GeoEstima) was retained by Cerrado Gold Inc. (Cerrado Gold) to prepare an independent Technical Report on the Mineria Don Nicolás (MDN or the Property), located in Santa Cruz province, Argentina. This report aims to support the disclosure of a Mineral Resource estimate and a Preliminary Economic Assessment (PEA) of the Property.

Cerrado Gold is a Toronto-based gold production, development, and exploration company focused on gold projects in South America. The Company is the 100% owner of both the producing Minera Don Nicolás and Las Calandrias mine in Santa Cruz province, Argentina, and the Monte Do Carmo development project, located in Tocantins State, Brazil. In Canada, Cerrado Gold is also developing its 100% owned Mont Sorcier High-Grade Iron Ore project outside Chibougamou, Quebec.

In Argentina, Cerrado is maximising asset value at its Minera Don Nicolás operation through continued operational optimisation and growing production through its operations at the Las Calandrias Heap Leach project. An extensive exploration campaign is ongoing to further unlock potential resources in our highly prospective land package in the heart of the Deseado Masiff.

The Minera Don Nicolás operation is a gold mining operation in Santa Cruz, Argentina. MDN is located in the prolific Deseado Masiff, with exploration rights covering an area of approximately 335,000 ha. The operations commenced in 2019 as an open-pit CIL operation, with mineralised material produced from deposits in the Paloma and Martinetas regions, which are now mostly depleted of ready-to-mine resources. In 2023, MDN added a heap leach operation to process the mineralised material from the Calandrias Sur open pit.

This PEA is focused on the development and mining of the high-grade Calandrias Norte open pit to be processed through the existing 1,000 tpd CIL plant until late 2024 and the ongoing operations and expansion of the Calandrias Sur heap leach operations until at least 2028. In addition, the PEA has envisaged the development of an initial small-scale underground mining operation upon which future underground exploration is expected to extend the mine life and the processing of low-grade mined material in the Martinetas area from several stockpiles until 1Q 2029.

GeoEstima considers this report to meet the requirements of a Preliminary Economic Assessment as defined in Canadian NI 43-101 regulations. The economic analysis in this report is based on cost estimates ranging from -20% to +30% and is preliminary. Cerrado Gold has used Measured, Indicated and Inferred Resources in the Whittle and Stope optimisation, mine plan, and cash flow analysis. There is no certainty that economic forecasts on which this PEA is based will be realised.

CONCLUSIONS

GeoEstima has the following conclusions about the Property.

GEOLOGY AND MINERAL RESOURCES

The Minera Don Nicolás Gold Project is underlain predominantly by Jurassic-age volcanic complex sequence. Gold-silver mineralisation is associated with epithermal deposits. The Jurassic Bahia Laura Volcanic Complex (BLVC) is the primary host of the widespread epithermal Mineralisation that defined the Deseado Massif's metallogenic character. The Deseado Massif is a 60,000 km2 rigid crustal block bounded north by the Río Deseado, south by the Río Chico, east by the Atlantic coast, and west by the Andean Cordillera.

- As prepared by Cerrado and accepted by GeoEstima, the Mineria Don Nicolás Measured and Indicated Resources comprise 13.4 million tonnes at 1.13g/t Au and 15.26g/t Ag for 490 thousand ounces of Au and 6,592 thousand ounces of Ag. The Mineria Don Nicolás Inferred Mineral Resources comprise 3.5 million tonnes at 1.05g/t Au and 3.20g/t Ag for 121 thousand ounces of Au and 370 thousand ounces of Ag.
- In additional, low-grade Stockpiles at Martinetas comprise 952 thousand tonnes of Inferred Resources at 0.54 g/t Au and 2.05 g/t Ag for 17 koz of Au and 62 koz Ag.
- Drill core logging, sampling, sample preparation, and analytical procedures meet industry standards, and MDN quality assurance and control (QA/QC) program results suit the mineral resources estimate.
- The drill hole database has been maintained to a reasonable standard and is suitable to support Mineral Resources estimation.
- The Mineral Resources estimate has been completed following standard industry practices and is suitable to support the public disclosure of Mineral Resources.
- Exploration has identified potential upsides for Sulfuro Underground and Zorro targets. Further drilling activities will be required to confirm the occurrence.

MINING

The PEA mine plan is based on a subset of the Mineral Resources estimates and assumes open pit mining of the Calandrias Norte, Calandrias Sur, and Zorro. The Paloma Trend mine will be followed by sublevel longitudinal stoping, the stockpile rehandling of the existing Martinetas stockpiles, and the low-grade extraction from Zorro.

- The production schedule is based on mining a combined total of mineralised material to ensure a peak of 3.6 Mtpa in the Heap Leach process and a peak of 157 ktpa in the CIL process.
- The mineralised material for the open pit comprises 14.06 million tonnes at an average diluted grade of 1.00g/t Au and 13.6g/t Ag.
- In addition, several historical stockpiles were considered, comprising 0.95 million tonnes at an average grade of 0.54g/t Au and 2.05g/t Ag.

- The mineralised material for the underground comprises 0.28 million tonnes at an average diluted grade of 3.53g/t Au and 15.31 g/t Ag.
- The open pit mining method consists of conventional open pit mining with drilling, blasting, loading, and hauling activities. It reaches a maximum of 7.3 Mtpa in the first year and decreases throughout the mine life.
- The mine operation considers the rental of a front-end loader, support and ancillary equipment. Cerrado has its trucks and drill machines.
- Mine equipment selection requires separate loading equipment for ore and waste to achieve the planned production. Drilling will be done using diesel DTH production drills. Loading will be done using a 6.4 m^3 diesel-front end loader for waste and a 4.7 m^3 diesel-front end loader for mineralised material, both with 40 tonnes. This will help improve mining recovery and reduce external dilution.
- A mining contractor will rehandle the stockpile operation.
- The underground mining method that consists of sublevel longitudinal stoping is the most well-suited to this type and geometry of ore body.
- The underground mine design, including CAPEX and OPEX development, was estimated in a conceptual stage, considering the stope design and infrastructure requirements.
- The mine plan requires mineralised material development and production from multiple stopes available in the mine life to achieve the optimized mine-to-mill production target considered within this technical report.

MINERAL PROCESSING

For current ore processing in the HL processing facilities, several opportunities have been identified to upgrade gold production in this project by processing mineralised material resources not included in the current mining plan. These are described below.

For low-grade oxide resources (ore grades below 1 g/t Au), amenable to be processed by heap leaching, these are the opportunities identified to upgrade gold production in this project:

- Evaluate the potential for higher gold extraction in heap leaching by reducing ore particle size from P80 12.7 mm to P80 6.4 mm in laboratory tests. This type of operation should be linked with incorporating an agglomerating drum downstream of the crushing plant to allow the granulation of the finely crushed ore with cement.
- Evaluate potential satellite deposits whose ore may be processed by heap leaching near the site, pumping pregnant solution to either the existing heap leach plant or the CIL plant, depending on the distance deposit-processing plant.

ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

- GeoEstima is not aware of any environmental liabilities on the property.

- No known environmental issues were identified from the documentation available for GeoEstima's review. The Project complies with applicable Argentina permitting requirements. The approved permits and the licence renewals address the authority's requirements for mining extraction and operation activities.
- Minera Don Nicolas conducts various evaluations and technical studies to ensure mineral extraction.
- All properties in MDN follow the Argentine environmental and mining legislation that requires an Environmental Impact Assessment (EIA) detailing and describing many relevant factors before any mining activity stage (Prospecting, Exploration, and Exploitation).
- The project area of influence included the towns of Puerto Deseado, Puerto San Julian, Jaramillo, FitzRoy, and Tres Cerrros. Most of the workforce comes from these towns, which have a notable economic impact. Additionally, numerous provincial contractors (e.g., Drilling contractors) are used in current operations, contributing to the Santa Cruz economy and industrial development.
- The company, following Argentinian law, has developed a Closure Social Plan PAS to assess the current and post-closure socioeconomic scenario of the Province of Santa Cruz and the communities within the area of influence. Closure socioeconomic impacts include reduced royalties and taxes paid by Minera Don Nicolás S.A. (MDN) to the state and the cessation of contributions made by suppliers who operate directly with the mine.

COSTS AND ECONOMIC ANALYSIS

- The Project capital cost estimate is $56.445 million over the life of mine.
- No initial capital is required as all infrastructure and equipment is currently operating.
- Operating costs over the life of mine are estimated at $264.408 million and average $17.35 per tonne treated over the LOM.
- The general capital costs are a Class 3 based on AACE recommendations and have an accuracy of -20% to +30% at the 80% confidence level.
- The average annual gold equivalent production over the 5-year mine life is 55,683 oz, with a total gold equivalent production of 278,417 oz.
- The total cash cost is $ 866 per ounce sold, and the Mine-site all-in-sustaining cost is $ 1,148 per ounce sold at a Base Case price of US$2,100/oz of gold and US$ 25/oz of silver.
- At Spot prices of US$2,400/oz of gold and US$29/oz of silver, the project results in an after-tax NPV at a 5% discount rate of US$152 million, and average after-tax free cash flow is estimated at US$34 million per annum.

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RECOMMENDATIONS

GeoEstima recommends the following actions by area.

GEOLOGY AND MINERAL RESOURCES

- The relationships between mineralisation, structural, and grade distributions should be investigated for future deposits. Although block grades reflected drilled grades at the reasonable drill spacing, some risk may be associated with grades reporting locally to structures.
- Improve the modelling of sub-economic (low-grade shell) bodies to determine better the destination of extracted material (whether to low-grade or high-grade processing). This measure includes the Zorro, Calandrias Sur, and Paloma Trend targets.
- It is recommended an increasing sample insertion rate in the QA/QC protocols, to a faster and more accurate tracking of errors and contamination.
- Model transformed variograms to minimise possible noise caused by the nature of data distribution.
- Develop an investigation campaign to determine the density at the Zorro target.
- Invest in underground drilling to explore potential extensions of high-grade bodies in Calandrias Norte and Sulfuro. The bodies show possible continuities at depth and investigating them through underground or deep drill holes could identify potential upsides for the project.

MINING

A two-phase work program is recommended. The first phase consists of several drill and data collection programs. The second phase will use some of the information obtained in phase one to update engineering designs and supporting assumptions and culminate in sufficient data and data support to complete a pre-feasibility study (PFS) document for the underground project.

The Phase 1 work program comprises data collection and preliminary data evaluation. Phase 2 consists of developing detailed studies of geotechnical, hydrogeological, variability, and other factors sufficient to support a PFS-level study.

A technical budget was estimated, and no provision has been made in the estimates for items such as corporate overheads, land acquisition, legal and other consulting fees, additional work or program changes that may be required as a result of interactions with regulatory agencies, community and stakeholder consultations, permit applications and acquisition, management costs from Cerrado, or third-party consultants costs other than technical costs. The estimated budget for developed phases 1 and 2 is around $6,500,000.

MINERAL PROCESSING

The mineral processing for higher grade primary resources (grades above 1.0g/t Au), amenable to be processed in the Martinetas CIL Plant, these are the opportunities identified to upgrade gold production:

- Evaluate potential resources in internal laboratory tests that may have higher gold extraction in CIL processing by diminishing ore particle size from 75 µm to 53 or 45 µm.
- Evaluate the processing of deep sulphide ores in a circuit with flotation to obtain a concentrate that POX could process. Flotation tailings could be processed in the existing CIL plant.

COSTS AND ECONOMIC ANALYSIS

To advance the conversion of resources into mineral reserves, all the economic parameters used, and the assumptions made for this study should be reviewed with more detailed technical studies at the PFS level. It is recommended that resources classified as inferred and with economic potential be prioritised for sampling through drilling to reduce their level of uncertainty and thus be classified as Measured or Indicated Mineral Resources.

1.2. Economic Analysis

The economic analysis in this report is based partly on Inferred Mineral Resources and is preliminary. Inferred Resources are considered too geologically speculative to have mining and economic considerations applied to them and to be categorised as Mineral Reserves. There is no certainty that economic forecasts on which this Preliminary Economic Assessment is based will be realised.

GeoEstima has generated a Cash Flow Projection from the LOM production schedule for Calandria Norte, Calandria Sur, La Paloma Trend, Zorro, and Stockpiles, summarised in Table 1-1. A summary of the critical criteria is provided below.

ECONOMIC CRITERIA

Table 1-1: Cash Flow Summary.

PEA Base Case[1]	
Average Annual Gold Equivalent Production (oz)	55,683
Mine life (years) - Mine Plan start Date 1 April 2024	5.0
Total Gold Equivalent Production (ounces)	278,417
NPV @ 5% discount rate (million, after-tax)	**US$ 111**
NPV @ 8% discount rate (million, after-tax)	US$ 105
Gold Price (US$/oz)	2,100.0
Silver Price (US$/oz)	25.0
Average Annual EBITDA (million)	US$ 49
Average Annual FCF (million)	US$ 25
Capital Costs	
Total capital expenditure - life of mine	US$ 49 M
Total capital expenditure (per gold ounce sold) - life of mine	US$ 217.5
Initial capital expenditure (Initial Capex)	US$ 0.0 M
Sustaining capital expenditures	US$ 9.5 M
Reclamation cost	US$ 7.0 M
Salvage Value	US$ 3.3 M
Operating Costs	
Total cash cost (per ounce sold) [1]	866
Mine-site all-in-sustaining cost (per ounce sold) [2]	1,148
Mining cost Open Pit per tonne (Total Material)	3.59
Mining cost Underground per tonne (Total Material)	50.00
Mining cost per tonne (Material Mineralised)	7.55
Processing Cost per tonne (Material Mineralised)	8.55
Total Cost per tonne treated	17.35

Notes:
1. Sprott Streaming Agreement has been excluded from this analysis

Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- Metal price
- Operating costs
- Sustaining Capital Costs

IRR sensitivity over the base case has been calculated for various ranges depending on the variable. The sensitivities are shown in Figure 1.1 and Table 1-2.

Factors were applied to Au in the various categories because it provides the most revenue.

The project is most sensitive to changes in metal prices and least sensitive to sustaining costs.

Figure 1.1: Sensitivity Analysis.

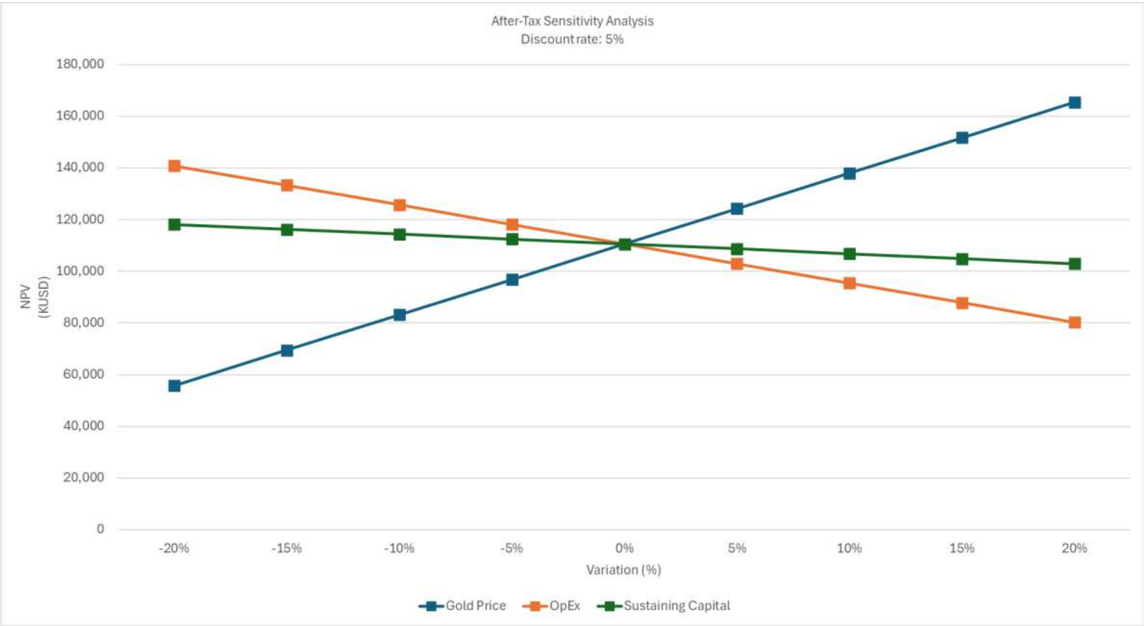


Table 1-2: After-tax Sensitivity Analysis.

Variance	After-Tax Results	
	NPV @ 0%	NPV @ 5%
Gold Price Sensitivities		
+20%	182,309	165,424
+15%	167,050	151,718
+10%	151,790	138,011
+5%	136,531	124,305
0%	121,272	110,599
-5%	106,013	96,893
-10%	90,753	83,187
-15%	75,494	69,480
-20%	60,235	55,774
Sustaining Capital Sensitivities		
+20%	112,692	103,008
+15%	114,837	104,906
+10%	116,982	106,804
+5%	119,127	108,701
0%	121,272	110,599
-5%	123,417	112,497

Variance	After-Tax Results	
	NPV @ 0%	NPV @ 5%
-10%	125,562	114,394
-15%	127,706	116,292
-20%	129,851	118,190
Operating Costs Sensitivities		
+20%	87,504	80,287
+15%	95,946	87,865
+10%	104,388	95,443
+5%	112,830	103,021
0%	121,272	110,599
-5%	129,714	118,177
-10%	138,156	125,755
-15%	146,598	133,333
-20%	155,040	140,911

1.3. Technical Summary

PROPERTY DESCRIPTION AND LOCATION

The Minera Don Nicolas (MDN) operations is a gold mining operation in southern Patagonia, Santa Cruz, Argentina province, approximately 2,000 km south-southwest of Buenos Aires, the country's capital.

LAND TENURE AND SURFACE RIGHTS

GeoEstima was provided with a legal opinion that supports that Project ownership is in the name of Cerrado Gold S.A.

The total Property contains 149 permits, covering an area of approximately 335,803.25 ha. Cerrado Gold owns 100% of the tenements and acts as the operator through Minera Don Nicolás.

HISTORY

Exploration at Calandrias began in 2008 with Mariana Resources Ltd. Since 2009, various companies have been holding and exploring the deposit. After Cerrado's acquisition in 2021, Calandrias' development was fast-tracked to production with extensive infill drilling and other technical/economic studies. The ramp-up in Calandrias Sur commenced in 2023. Cerrado disclosed the first gold from the new heap leach output in July 2023.

The first exploration activity at La Paloma and Martinetas property was in the early 1990s, following the discovery and subsequent development of the Cerro Vanguardia gold mine by AngloGold Ashanti Ltd. (AngloGold) and Formicruz (a Santa Cruz provincial mining holding entity).

Several companies, including Newcrest Mining Ltd. (Newcrest), Compañía de Minas Buenaventura S.A.A., Yamana Gold Inc., Rio Algom Ltd., Hochschild Mining, and Hidefield

Gold PLC (Hidefield), initially explored the claim areas (Cateos) within and around the MDN Project. Cerrado Gold Inc. acquired the Project from the Argentine investors' consortium in March 2020.

GEOLOGY AND MINERALISATION

The MDN property is located in southern Argentina, on the east-central portion of the Deseado Massif. The Deseado Massif is a 60,000 km2 rigid crustal block bounded north by the Río Deseado, south by the Río Chico, east by the Atlantic coast, and west by the Andean Cordillera.

The Jurassic Bahia Laura Volcanic Complex (BLVC) is the primary host of the widespread epithermal Mineralisation that defined the Deaseado Massif's metallogenic character and compromised a bimodal sequence. The volcanic succession includes successively intercalated rocks of the Bajo Pobre, Cerro León, Chon Aike, and La Matilde formations, which reveal their coeval nature.

Bi-modal volcanism, including the rhyolitic and andesitic flow and tuffaceous volcaniclastic lithologies of the Middle to Upper Jurassic age, is widely present on MDN property. Numerous fault and fracture zones (which served as conduits for hydrothermal activity during periods of Jurassic volcanism) created a network of widespread, shallow mineralised “epithermal” fissure veins, breccias, and stock-work systems, many of which carry economic Au and Ag mineralisation.

Mineralisation at Las Calandrias consists in silicified structures and vein breccias that contain high-grade gold and silver veins (greater than 3 g/t Au and 50 g/t Ag), veinlets, stringers, and breccias are closely related to subaerial rhyolite flow domes that were emplaced at the junctions of northwest- and northeast-trending fractures.

The Martinetas region contains multiple mineralised structures, occurring as large “vein swarms” with minor intervening stockwork and by more discrete localisation of continuous veins.

The Paloma trend's, mineralisation is generally associated with discrete banded quartz vein structures ranging in width from 0.3 m to over 6 m primary orientation is NNW to NW.

EXPLORATION AND DRILLING

The Minera Don Nicolás property is approximately 335,000 hectares, containing multiple mining properties and exploration projects, covering a sizable portion of the eastern sector of the Deseado Gold-Silver Massif. Four of these projects are in the advanced exploration stage, with several previously mined and operating deposits (Martinetas, La Paloma, Paula Andrea, Las Calandrias). Additionally, Cerrado has several projects in the middle stage and early stages, like Microondas, Michelle, Goleta, Chispas.

Cerrado Gold began drilling in 2020, initially focusing on infill drilling and ore control. Since 2021, exploratory drilling has targeted high-grade areas with potential resources identified through historical drilling at the Northern Targets, including Baritina, Chulengo, Antenna, and Esperanza, as well as the Martinetas area, with a particular focus on Mara and Choique.

In 2022, exploratory drilling shifted to the down-dip extension of Sulfuro, aiming to identify mineable resources for underground methods as the depletion of open-pit resources approached. Additional open-pit targets, such as Baritina, Esperanza, and Arco Iris, were also drilled. Some in-fill drilling was conducted at Calandrias Sur to improve resource confidence and test for extensions.

The 2023 drilling strategy remained similar to the previous year, focusing on the Paula Andrea target and continued in the Sulfuro area, testing parallel new structures and down-dip drilling at Sulfuro. Additionally, drilling efforts were directed towards Calandrias Norte, with in-fill drilling intended to prepare this target for production.

Since acquiring the Project in March 2020, Cerrado Gold has drilled 287 diamond drill holes (DDH) and 2,330 reverse circulations (RC) drill holes.

MINERAL RESOURCES

Mineral Resource estimates were completed by MDN staff for Calandrias Sur, Calandrias Norte, Zorro, and La Paloma Trend, effective April 1st, 2024. GeoEstima reviewed and accepted the estimate. MDN staff completed the satellites following the previous SRK workflow, and internal QP reviewed and approved them. The following sub-sections discuss the estimation procedures and resulting estimates.

The Mineral Resource was completed using Leapfrog Edge. Wireframes for mineralisation were constructed in Leapfrog Geo based on geology sections, assay results, lithological information, and structural data. Assays were composited based on the predominant distributions observed in the sampling support, varying from one to two meters in length, before capping. The grade was interpolated into different block model sizes, depending on the geometry and mineralisation shape. Blocks were interpolated with grade using Ordinary Kriging (OK) or Inverse Distance Squared (ID^2) and checked using the Nearest Neighbour (NN) method.

Block estimates were validated using industry-standard validation techniques. Blocks were classified based on distance-based criteria. Mineral Resources are based on a 0.3% Cu cut-off grade inside a pit shell and all resources inside underground stopes shapes.

A summary of the Mineral Resources is provided in Table 1-3.

Table 1-3: Mineral Resources Statment, April 1st, 2024.

Mine	Categorisation	Tonnage	*Grade Values*		*Metal Content*	
			Au	Ag	Au	Ag
		kt	g/t	g/t	thousand t. oz	thousand t. oz
Calandrias Sur [1] (Open pit)	Measured	5,192.24	0.91	17.07	151.32	2,849.04
	Indicated	7,642.16	1.02	14.16	249.40	3,479.94
	M+I	**12,834.40**	**0.97**	**15.34**	**400.72**	**6,328.98**
	Inferred	2,261.42	0.62	3.32	44.99	241.64
Calandrias Norte [1] (Open Pit)	Measured	8.12	18.66	25.98	4.87	6.78
	Indicated	70.67	14.52	22.79	32.98	51.79
	M+I	**78.79**	**14.94**	**23.12**	**37.85**	**58.57**
	Inferred	10.58	10.69	12.17	3.64	4.14
Zorro [1] (Open pit)	Measured	69.09	2.15	8.74	4.78	19.42
	Indicated	136.50	1.32	7.38	5.80	32.39
	M+I	**205.59**	**1.60**	**7.84**	**10.58**	**51.81**
	Inferred	120.88	0.81	6.38	3.16	24.79
Depleted Satellites[2,3] (Open Pit)	Measured	29.91	2.04	0.00	1.96	0.00
	Indicated	14.99	1.80	0.00	0.87	0.00
	M+I	**44.90**	**1.96**	**0.00**	**2.83**	**0.00**
	Inferred	1,117.03	1.62	1.72	58.14	61.62
Paloma Trend [1] (Underground)	Measured	128.86	4.73	18.98	19.58	78.62
	Indicated	145.96	4.00	15.97	18.78	74.94
	M+I	**274.82**	**4.34**	**17.38**	**38.36**	**153.56**
	Inferred	88.91	3.93	13.15	11.22	37.58
Total	**Measured**	**5,428.22**	**1.05**	**16.93**	**182.52**	**2,953.87**
	Indicated	**8,010.27**	**1.20**	**14.13**	**307.82**	**3,639.05**
	M+I	**13,438.50**	**1.13**	**15.26**	**490.34**	**6,592.92**
	Inferred	**3,598.83**	**1.05**	**3.20**	**121.15**	**369.77**

Stockpiles [4]	Measured	0.00	0.00	0.00	0.00	0.00
	Indicated	0.00	0.00	0.00	0.00	0.00
	M+I	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Inferred	951.74	0.54	2.05	16.57	62.58

[1] Included in economic evaluation

[2] Not included in economic evaluation

[3] Satellites include Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara, and Trofeu.

[4]Include the stocks from Armadillo, Cerro Oro, Coyote, Choique, and Mara.

Notes:

1. Mineral Resource estimates have been prepared by the May 10, 2014 edition of the Canadian Institute of Mining, Metallurgy and Petroleum (or CIM) Definition Standards for Mineral Resources and Mineral Reserves ("2014 CIM Definition Standards") and disclosed by National Instrument 43-101 – Standards of Disclosure for Minerals Project ("NI 43-101").
2. The Qualified Persons for the estimation of Mineral Resources are Calandrias Sur, Calandrias Norte, Zorro, Paloma Trend and Stockpiles - Orlando Rojas, P. Geo, Member AIG, a GeoEstima Spa employee and Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara and Trofeu - Sergio Gelcich, P.Geo, MAusIMM (CP) Geo, Exploration Vice President, a Cerrado Gold employee.
3. Mineral Resources have an effective date as of: (a) April 1st, 2024, for Calandrias Sur, Calandrias Norte, Zorro, Paloma Trend, Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, and Trofeu; (b) August 31st, 2020, for Mara satellite.

4. Mineral Resources are estimated using average long-term metal prices of US$2,100.0/oz of Au and US$25.0/oz of Ag. Mara satellite has an average long-term metal price of US$1,550.0/oz of Au. Assuming a mining cost of US$2.65/t, plant cost of US$32.0/t, and selling costs of US$127.0/t.
5. Recoveries depend on the type of host mineralisation and the extraction method utilised for the minerals. For the carbon-in-leach (CIL) process, Au recovery is based on historical metallurgical recovery, which is 90% for Au and 61% for silver. For the Heap Leach process (HL), Au recovery is based on metallurgical test works and depends on the zone and the process. Au recovery is 70% in the Oxide zone, 60% in the Transitional zone and 40% in the Primary zone. The silver recovery is 30% in all zones.
6. Mineral Resources in open pit are reported within pit shell constrain and above a cut-off grade: Calandrias Sur have a variable cut-off - 0.27 g/t Au for Oxided zone, 0.31 g/t Au for Transition zone and 0.46 g/t Au for Primary zone; Calandrias Norte - 1.46 g/t Au; Zorro, Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara and Trofeu - 0.3 g/t Au. In Paloma Trend, Mineral Resources are reported within a cut-off grade of 1.95 g/t for underground mining shapes. A minimum mining width of 1.5m was used for resource shapes.
7. The estimated costs are: Calandrias Sur - plant cost of US$11.08/t; Calandrias Norte – plant cost of US$78.33/t; Zorro – plant cost varying from US$ 13.35 for HL process and US$ 68.20 for CIL process; Depleted Satellite – plant cost of US$40.0/t. The selling costs of US$242.90/t and mining cost of US$3.50/t were assumed for all open-pit mining. For underground shapes, the mining costs are US$40.0/t, plant costs are US$65.0/t and selling costs are US$242.9/t. The exchange rate considered is ARG 917.25 / 1 USD.
8. Density was assigned and interpolated based on specific gravity values by domain.
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Numbers may not be added due to rounding.

GeoEstima 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.

MINERAL RESERVES

No Mineral Reserves have been estimated for the Project.

MINING METHOD

The Don Nicolas Gold project consists of four surface mining operations (the open pits: Calandrias Norte, Calandrias Sur, Zorro, and the stockpile rehandle) and an underground mining project (Paloma Trend). The mining methods are considered conventional, and conventional equipment is used for them.

The summarised material is mined from its source and transported to the process plants depending on the gold grade. The high grade is sent to the CIL plant, and the HL plant processes the other grades. The low grade from Zorro is sent to stockpiles blended with existing stockpiles for future reclamation and processing at the end of the mine.

Waste material is taken to waste rock storage facilities.

The mining rate is variable and dependent on the phase of the active operations. However, when in total production, it is expected to peak at approximately 15,560 tpd as material and 19,500 tpd as total extraction in the open pit operations and the underground operation with a ramp-up and a peak of 431 tpd for material and 573 tpd including the waste generated for the mine development.

The open pit operation is currently in operation, and the underground operation is planned to start in 2026. The end of operations is expected in Q1 2029.

MINERAL PROCESSING AND RECOVERY METHODS

The metallurgical test work supports the recovery of gold by CIL process for the Calandrias Norte deposit and via heap leaching for the Calandrias Sur deposit. Gold recovery rates for Calandrias Sur vary by mineralised material type (oxide, transition and primary) from 35-70%, with silver recovery of approximately 30%. Gold recovery of the higher-grade material from Calandrias Norte is targeted at 90%, with silver recoveries of 61%, which aligns with historical averages.

PROJECT INFRASTRUCTURE

The area is well-served by infrastructure, including power lines, a natural gas pipeline, paved roads, and unpaved local access roads. The Comodoro Rivadavia Airport, located about 280 km to the north, provides regular flights to Buenos Aires, which is the central hub used by employees for fly-in and fly-out operations. The mining operation incorporates several deposits exploited through open-pit methods. Two open-pit mines are currently producing at the Calandrias Sur and Calandrias Norte sites. These operations are integral to the mining strategy and contribute significantly to the mine's output. This site houses a comprehensive processing plant with a three-stage crushing circuit and a ball mill. The plant employs flotation and conventional leaching techniques to extract gold and silver.

The site's offices and accommodation are basic but relatively comfortable, prefabricated buildings. Dormitories are shared except for senior management, which has its own. A catering company manages food around the clock for the site.

MARKET STUDIES AND CONTRACTS

The assumptions under this PEA for the sale, refining, logistics and pricing of Minera Don Nicolas' products have been based on the prevailing market conditions and the current and ongoing contracts in place at the operation.

The base case pricing has been selected based on the consideration of spot pricing, historical pricing, and the longer-term consensus outlook for both Au and Ag, as provided by a third-party market forecaster. A gold price of $2,100/oz Au and a silver price of $25/oz Ag was used to estimate preliminary Mineral Resources and economic analysis.

CAPITAL AND OPERATING COST ESTIMATES

No additional upfront capital costs are anticipated, given that the construction of the heap leaching pad and extraction circuit was completed in 2023, and the pre-stripping of Calandrias Norte was completed in early 2024. Sustaining capital, consisting of exploration and infill drilling, plus plant capital equipment items, totals $9.5 million in 2024 and $5.3 million over the LOM. Most of the non-sustaining capital will be used to implement the HL mining operations, including mine equipment and plant and tailings storage configuration adjustments. This capital totals $7.4 million in 2024 and $34.0 million over the LOM.

2. INTRODUCTION

2.1. Introduction

GeoEstima SpA (Chile) was retained by Cerrado Gold Inc. (Cerrado) to prepare an independent Technical Report on the Minera Don Nicolás Gold operation in Santa Cruz, Argentina. This technical report supports the disclosure of the Mineral Resources estimate and a preliminary economic assessment of the Properties as of April 1st, 2024. It conforms to NI 43-101 Standards of Disclosure for Mineral Projects. GeoEstima visited the Property from May 1 to 3, 2024.

GeoEstima focused on four Cerrado properties, including the Calandrias Norte (CN), Calandrias Sur (CS), Zorro, and Paloma Trend (Paloma), collectively, the Properties. It also included a high-level review of nine satellite mines, including the Armadillo, Baritina, Baritina NE, Cerro Oro, Choique, Coyote, Mara, and Trofeu in Martinetas property (collectively, the Satellites), updated under the supervision of Cerrado's internal QPs.

Cerrado Gold is a Toronto-based gold production, development, and exploration company focused on gold projects in South America. The Company is the 100% owner of the Minera Don Nicolás and Las Calandrias mine in Santa Cruz province, Argentina, and the Monte Do Carmo development project in Tocantins State, Brazil. In Canada, Cerrado Gold is developing its 100% owned Mont Sorcier High-Grade Iron Ore project outside of Chibougamou, Quebec.

In Argentina, Cerrado is maximising asset value at its Minera Don Nicolás operation through continued operational optimisation and growing production through its operations at the Las Calandrias Heap Leach project. An extensive exploration campaign is ongoing to further unlock potential resources in our highly prospective land package in the heart of the Deseado Masiff.

GeoEstima considers this report to meet the requirements of a Preliminary Economic Assessment as defined in Canadian NI 43-101 regulations. The economic analysis contained in this report is based on preliminary cost estimates in the range of +30%/-30%. Mineria Don Nicolás has used Measured, Indicated Resources in the Whittle optimisation. While permissible under the guidelines for a Preliminary Economic Assessment, Inferred Resources are included in either the mine plan or cash flow analysis. There is no certainty that economic forecasts on which this PEA is based will be realised.

2.2. Site Visit and Sources of Information

Talita C. O. Ferreira and Javier Pizarro visited the property between May 1 and 3, 2024. During the site visit, Mrs Ferreira reviewed logging and sampling methods, inspected the core and surface outcrops, the internal laboratory, and reconciliation results, and discussed with Mineria Don Nicolás personnel. Mr. Pizarro reviewed the HL processing plant in Las Calandrias, the CIL processing plant facilities in Martinetas, and the internal laboratories and sample storage locations. He held discussions with the process team at Mineria Don Nicolas. Technical discussions were held with the following Cerrado's personnel:

- Sergio Gelcich — Vice President Exploration
- Chris McInnis — Director Geology and Resources
- Cid Bonfim — Senior Geologist
- Mariela Flores — Geological Modeller
- Carolina Prescott — Senior Geologist
- Paola Lopez — Exploration Manager
- Leonel Saavedra — Mine Geology Superintendent
- Marisa Corbett — Mine Geology Superintendent
- Gabriel Gaggiolo — Legal Counsel
- Carmem Mamani — CIL Plant Manager
- Pablo Molina — Senior Metallurgist
- Gabriel Romeu — Senior Mine Planner
- Mauricio Colleti — Senior Mining Engineer
- Lisandro Peralta — Environmental Manager

The primary sources of information used to support this Report were based on previous technical reports on the properties and documents listed in the Reference Section.

The responsibility for the preparation of this Technical Report includes:

Table 2-1: Report Section Responsibility.

Author	Company	Report Sections of Responsibility (or Shared Responsibility)
Orlando Rojas, P.Geo (MAIG)	GeoEstima SpA.	Chapter 1 Summary and Principal Reviewer of the following: Chapters 2, 3, 6, 7, 8, 9, 10, 11, 12, 14, 19, 23, 24, 25, 26
Talita C. de O. Ferreira, P.Geo (CBRR)	GeoEstima SpA.	Chapters 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 18, 19, 20, 23, 24, and portions of the summary, interpretation, conclusions, and recommendations pertaining to those chapters.
Cristian Quezada, (Chilean Mining Commission)	Independent Professional	Chapters 16, 21.1, 21.1.2, 21.1.5, 21.1.8, 21.2.1, 21.2.2, 21.2.5, 22, and those portions of the summary, interpretation and conclusions and recommendations that pertain to those chapters
Javier Pizarro, P.Eng (Chilean Mining Commission)	Mineralurgia Ltda.	Section 13, 17 and those portions of the summary, conclusions and recommendations that pertain to that section

2.3. Qualified Person

The following serve as the qualified persons (QPs) for this Technical Report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1:

Orlando Rojas, Principal Geologist, GeoEstima SpA, Competent Person of the Chilean Mining Commission (#285), Competent Person with the AusIMM (#301402) and Member AIG (#5543)

Javier Pizarro, Civil Engineer in Metallurgy, Independent Professional, and Competent Person of the Chilean Mining Commission (#403).

Cristian Quezada, Mining Engineer, Independent Professional, Competent Person of the Chilean Mining Commission (#205)

Sergio Gelcich, PGEO, Vice President, Exploration, Cerrado Gold Inc., Registered in Professional Geoscientist Ontario (#1852)

2.4. Effective Dates

There are some different effective dates, as follows:

- Date of the Mineral Resource estimates:
  - Las Calandrias: 01 April 2024
  - La Paloma Trend: 01 April 2024
  - Zorro: 01 April 2024
  - Low-Grade Stock Piles: 23 March 2024
- Date of supply of the last information on mineral tenure and permitting: September 16, 2024.

The overall effective date of the Report, which is taken to be the date of the financial analysis, is April 1st, 2024.

2.5. Previous Technical Reports

The principal technical documents related to GeoEstima's review are listed below:

- Technical Report for Las Calandrias Project made by AGP Mining Consultants Inc.
- Independent Technical Report for the Minera Don Nicolás Gold Project by SRK Consulting.

The information, conclusions, and recommendations contained herein are based on a field examination, including a study of relevant and available technical data and the numerous reports listed in the Reference section.

2.6. List of Abbreviations

The units of measurement used in this report conform to the metric system. Unless otherwise noted, all currency in this report is US dollars (US$).

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
g/cm^3	density	**psig**	pound per square inch gauge
Gpm	Imperial gallons per minute	**RL**	relative elevation
g/t	gram per tonne	**s**	second
gr/ft^3	grain per cubic foot	**st**	short ton
gr/m^3	grain per cubic metre	**stpa**	short ton per year
ha	hectare	**stpd**	short ton per day
hp	horsepower		
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. RELIANCE ON THE OTHER EXPERTS

GeoEstima has prepared this Technical Report for Cerrado Gold. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to GeoEstima at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as outlined in this technical report, and
- Data, reports, and other information supplied by Cerrado and other third-party sources.

For this report, GeoEstima relies on ownership information provided by Cerrado Gold regarding the title of Mineria Don Nicolás. The legal department of Cerrado Gold, represented by Gabriel A. Gaggiolo, provided a legal review and opinion dated September 16th, 2024 for tenements that include current Mineral Resources. This information was used in Sections 1 and 4 of this report. GeoEstima has not independently verified property title or mineral tenure information as summarised in this report. GeoEstima did not confirm the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties.

The independent QPs rely on Cerrado Gold for guidance on applicable taxes, royalties, project execution, cost evaluation, mine operation, sustaining, and capital costs. All information regarding the progress of the open-pit or underground mining projects has been validated and is consistent with regional benchmarks.

GeoEstima has followed standard professional procedures in preparing this report's content. Data used in this report has been verified where possible and is based upon information believed to be accurate at completion. GeoEstima has no reason to think the data was not collected professionally.

GeoEstima was informed by Cerrado Gold Inc. that no known litigations are potentially affecting the Mineria Don Nícolas.

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

To prepare this report, GeoEstima relied on ownership information provided by Cerrado Gold and information present in the "Independent Technical Report for the Minera Don Nicolás Gold Project, Santa Cruz, Argentina," prepared by SRK Consulting on August 31st, 2020, and the "Technical Report for Las Calandrias Project," prepared by AGP Mining Consultants on February 17th, 2021.

4. PROPERTY DESCRIPTION AND LOCATION

4.1. Location

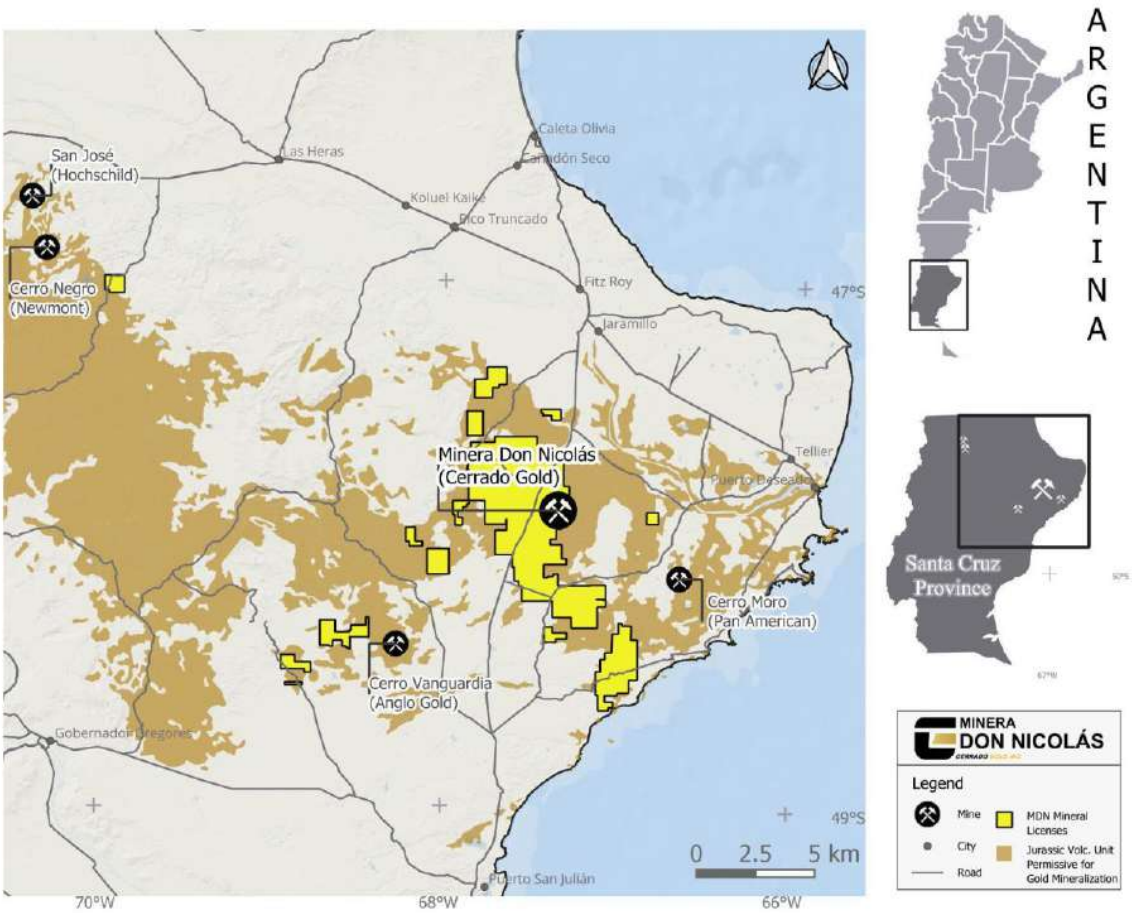
The Minera Don Nicolas (MDN) operations is a gold mining operation in southern Patagonia, Santa Cruz, Argentina province, approximately 2,000 km south-southwest of Buenos Aires, the country's capital.

The deposits and mines within the MDN cover a total area of approximately 5,300 km² or approximately 335,000 ha, and the centre of the central tenements are located as follows, considering the Campo Inchauspe / Argentina 2 (transverse Mercator) Coordinate System:

- The Martinetas: is centered at latitude 47°55'S and longitude 67°23'W, UTM co-ordinates of are 4692250mN, and 2619700mE, 160 metres above sea level (masl).
- La Paloma: is centered at latitude 47°42'S and longitude 67°45'W, co-ordinates of centre of the currently defined mineralisation are 4716150mN, and 2592600mE, 170 metres above sea level (masl).
- Las Calandrias: is centered at latitude 47°37'S and longitude 67°30'W, UTM co-ordinates of are 4725200mE, and 2613900mS, 160 metres above sea level (masl).

Figure 4.1 shows the irregular continuous block of concessions controlled by MDN as of April 2024.

Figure 4.1: Property Location Map (Cerrado Gold, 2024).



4.2. Property and Title in Argentina

Taken from Ristorcelli *et al.* (2018).

The Federal Government has broadly regulated mineral rights in Argentina since the enactment of the original Mining Code in 1822. Since then, the rules and regulations have been modified several times, particularly in 1993, with the Mining Investment Law introducing an updated legal and taxation framework for mineral exploration and mine production.

However, individual provinces hold domain over the mineral resources within their territories and administer the exploitation of mineral resources. The provinces, therefore, are the key to acquiring, owning, producing, and selling mineral products located within specified parcels of land known as Cateos, Manifestaciones de Descubrimiento, and Minas.

Prospecting (Cateo)

Before work may commence in an area, an exclusive exploration permit known as a 'Cateo' must be obtained. Once an application is granted, the applicant has the exclusive right to explore all minerals as applied. A Cateo is measured in 500 ha units and can range in size from a minimum of 1 unit (500 ha) to 20 units (10,000 ha). The approval of a Cateo specifies the area and the term of the Cateo. A one-time fee of $0.80/ha is due on application for the Cateo. The rights of the Cateo holder are subject to surface rights. During the term of a Cateo, which begins 30 days after approval, periodic relinquishment of ground is made such that after 300 days from the date of approval, 50% of the area of more than four units must be relinquished. After 700 days, 50% of the remaining area must be forfeited. A Cateo of 1 unit lasts 150 days; its duration is increased by 50 days for each additional unit.

Discovery Notice (Manifestación de Descubrimiento)

Upon discovering a mineral occurrence within a Cateo, the owner can apply for a Manifestación de Descubrimiento (MD) to protect the discovery. The application for an MD can be made any time during the Cateo term but must be made before its expiry. The maximum area of one MD is 3,000 ha. Upon verification and approval of the mineral discovery by the authorities, the MD will protect the mineral discovery until the official survey, “mensura” (or measurement), process begins, leading to the eventual granting of a Mina (mining exploitation concession).

However, individual provinces hold domain over the mineral resources within their territories and administer the exploitation of mineral resources. The provinces, therefore, are the key to acquiring, owning, producing, and selling mineral products located within specified parcels of land known as Cateos, Manifestaciones de Descubrimiento, and Minas.

Mine (Mina)

After the size and configuration of an MD are determined, part or all of it is officially surveyed, and the area applied for is a ‘Mina’, a mining exploitation concession. This is usually done after the exploration results indicate the potential mineralised zone. The Mina still requires that an EIA be submitted every two years or before any exploration activities. The Mina is in effect until the completion of any mining activities.

All mineral rights described below are considered forms of real property and can be sold, leased or assigned to third parties commercially. The mining code contains environmental and safety provisions administered by the provinces. Before conducting operations, operators must submit an environmental impact report to the provincial government, describing the proposed operation and the methods to prevent undue environmental damage.

4.3. Land Tenure

The property consists of a total of 335,803 ha of several blocks that comprise 149 tenements. Figure 4.2 shows an MDN map with details of its various properties.

Figure 4.2: Mining Properties Map.

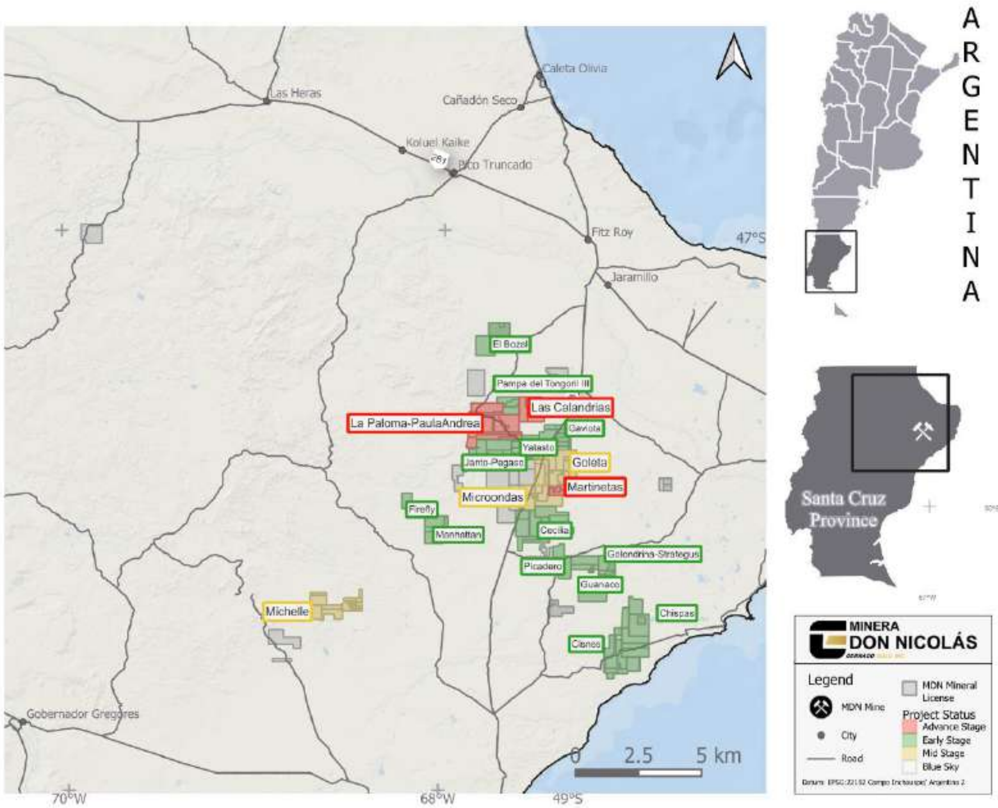


Table 4-1 shows the list of mining properties in MDN.

Table 4-1: Mining Properties.

Name	File_numbe	Grupo_Mine	Title	Area (ha)
Alberto I	413.204/MSA/06		MINA	2498.36
Alberto II	447.762/MDN/21		MINA	831.95
Alberto II A	414.172/MSA/07		MINA	2399.78
Alberto II B	414.173/MSA/07		MINA	1099.89
Alberto III	447.763/MDN/21		MINA	831.95
Alberto III A	401.814/MSA/07		MD	309.46
Armadillo	406.200/RY/02	GM MARTINETAS	MINA	2904.44
Armadillo I	427.476/IRL/13	GM MARTINETAS	MINA	677.77
Armadillo II	427.474/IRL/13	GM MARTINETAS	MINA	1073.98
Armadillo III	427.469/IRL/13	GM MARTINETAS	MINA	1691.39
Babieca I	420.271/EB/12		MINA	3780.36
Babieca II	426.429/IRL/13		MINA	1438.82
Babieca III	429.388/IRL/14		MINA	3445.03
Balio I	432.237/IRL/15		MINA	3986.75
Balio II	435.570/MDN/16		MINA	1997.42
Balio III	437.521/MDN/17		MINA	4015.63

Blanca I	400.210/HA/07	GM LA PALOMA	MINA	1478.08
Bucefalo I	422.242/EB/12		MINA	3985.19
Bucefalo II	427.652/IRL/13		MINA	1998.06
Bucefalo III	430.340/IRL/14		MINA	3988.56
Caballo Blanco III	432.407/MMA/15	MMA	MINA	840
Caballo Blanco IV	434.828/MMA/16	MMA	MD	5926.72
Calandrias I	420.323/MMA/12	GM CALANDRIAS	MINA	2499.22
Cañadon Porfiado III	426.646/MMA/13	MMA	MD	3482.6
Cañadon Porfiado V	432.405/MMA/15	MMA	MD	3727.8
CECILIA I	413.770/HA/06		MINA	4080.5
CECILIA II	408.198/HA/08		MINA	199.94
CECILIA III	420.101/HA/10		MINA	599.81
Centella	449.348/MDN/21		CATEO	9042.92
DORCON 3	409.022/P/98		MINA	399.98
DORCON 4	410.966/P/99		MINA	400
El Bozal IV	423.483/MMA/09	MMA	MD	6998.65
El Porvenir	449.948/MDN/22		CATEO	6214.12
El Rayo	449.239/MDN/21		CATEO	406.41
Escondido I	400.211/HA/07	GM CALANDRIAS	MINA	299.9
Escondido II	440.226/MDN/19	GM CALANDRIAS	MINA	3690.84
Esmeralda I	432.408/MMA/15	MMA	MINA	3999.64
Esmeralda II	439.370/MMA/18	MMA	MD	3812.57
Estrella I	412.999/P/00		MINA	299.99
Estrella II	413.000/P/00		MINA	199.99
Fiorentina	436.482/TCE/17	MMA	MINA	4491.66
Fiorentina Norte	436.876/TCE/17	MMA	MINA	2982.25
Gato I	432.235/IRL/15		MINA	3367.45
Gato II	435.568/MDN/16		MINA	2178.66
GAVIOTA I	405.699/RY/05		MINA	839.69
Gaviota II	415.447/HA/07		MINA	2012.32
Gaviota III	409.237/HA/08		MINA	839.71
GAVIOTA IV	425.587/HA/09		MINA	3145.37
Gaviota IX	431.837/IRL/15		MINA	839.62
Gaviota V	431.833/IRL/15		MINA	839.69
Gaviota VI	431.834/IRL/15		MINA	839.69
Gaviota VII	431.835/IRL/15		MINA	839.69
Gaviota VIII	431.836/IRL/15		MINA	839.69
Gaviota X	431.838/IRL/15		MINA	839.75
Genitor II	434.831/MDN/16		MINA	2108.91
Gol I	406.196/P/97	GM MARTINETAS	MINA	99.97
Gol II	406.197/P/97	GM MARTINETAS	MINA	99.96
Guanaco I	407.544/HA/08		MINA	839.31
Guanaco II	423.837/HA/09		MINA	3976.22
Guanaco III	428.891/IRL/14		MINA	839.34
Guanaco IV	428.892/IRL/14		MINA	309.47
Janto I	422.243/EB/12		MINA	4016.23
Janto II	427.653/IRL/13		MINA	2005.79

Janto III	430.339/IRL/14		MINA	3499.2
La Golondrina I	404.121/HA/07		MINA	199.91
La Golondrina II	424.366/HA/09		MINA	199.91
La Golondrina III	424.172/HA/10		MINA	3738.41
La Golondrina IV	439.013/MDN/18		MD	399.82
La Golondrina V	439.014/MDN/18		MD	1599.34
La Lechuza I	415.448/HA/07	GM LA PALOMA	MINA	1298.57
La Lechuza II	440.337/MDN/19	GM LA PALOMA	MINA	4598.11
LA PALOMA I	404.392/PS/02	GM LA PALOMA	MINA	2496.3
La Paloma II	413.218/HA/06	GM LA PALOMA	MINA	2499.51
La Paloma III	427.473/IRL/13	GM LA PALOMA	MINA	4500.15
La Paloma IV	427.475/IRL/13	GM LA PALOMA	MINA	3058.18
Lampos I	424.657/IRL/13		MINA	3599.54
Lampos II	428.728/IRL/14		MINA	1939.47
Lampos III	431.645/IRL/15		MINA	3853.98
Lampos III-A	422.914/MDN/23		MD	687.46
Lazlos I	429.101/IRL/14		MINA	3950.88
Lazlos II	432.238/IRL/15		MINA	1795.44
Lazlos III	435.185/MDN/16		MINA	3434.74
Lucia	429.654/MMA/14	MMA	MINA	5037.01
Lucia III	437.846/MMA/17	MMA	MD	6963.91
Lucia IV	441.850/MMA/19	MMA	MD	4709.49
Mancha I	420.269/EB/12		MINA	3996.98
Mancha II	424.747/EB/13		MINA	1990.53
Mancha III	428.935/IRL/14		MINA	3954.72
Mar III	415.232/P/96	GM MARTINETAS	MINA	599.79
Mar IV	410.767/P/99	GM MARTINETAS	MINA	639.76
Mara	405.498/RY/02		MINA	1999.35
Mara I	440.335/MDN/19		MINA	967.38
Mara II	440.333/MDN/19		MINA	3831.38
Micaela	413.048/HA/06		MINA	554.03
Michelle III	415.840/HA/07		MINA	199.99
MICHELLE III-A	423.527/MDN/23		MD	2684.01
Micro I	411.825/P/95	GM MARTINETAS	MINA	195.08
Micro II	411.826/P/95	GM MARTINETAS	MINA	199.94
Pampa Del Tongoril III	420.453/MMA/08	MMA	MINA	1299.66
Pampa Del Tongoril II-A	422.916/MMA/23	MMA	MD	3698.56
Pampa Del Tongoril IV	437.845/MMA/17	MMA	MD	2940.89
Paula Andrea	415.446/HA/07	GM LA PALOMA	MINA	2499.44
Paula Andrea I	440.332/MDN/19	GM LA PALOMA	MINA	1166.6
Pegaso I	432.236/IRL/15		MINA	3981.43
Pegaso II	435.569/MDN/16		MINA	1881.75
Picadero IV	434.829/MMA/16	MMA	MD	5972.8
Podarga I	422.238/EB/12		MINA	3904.51

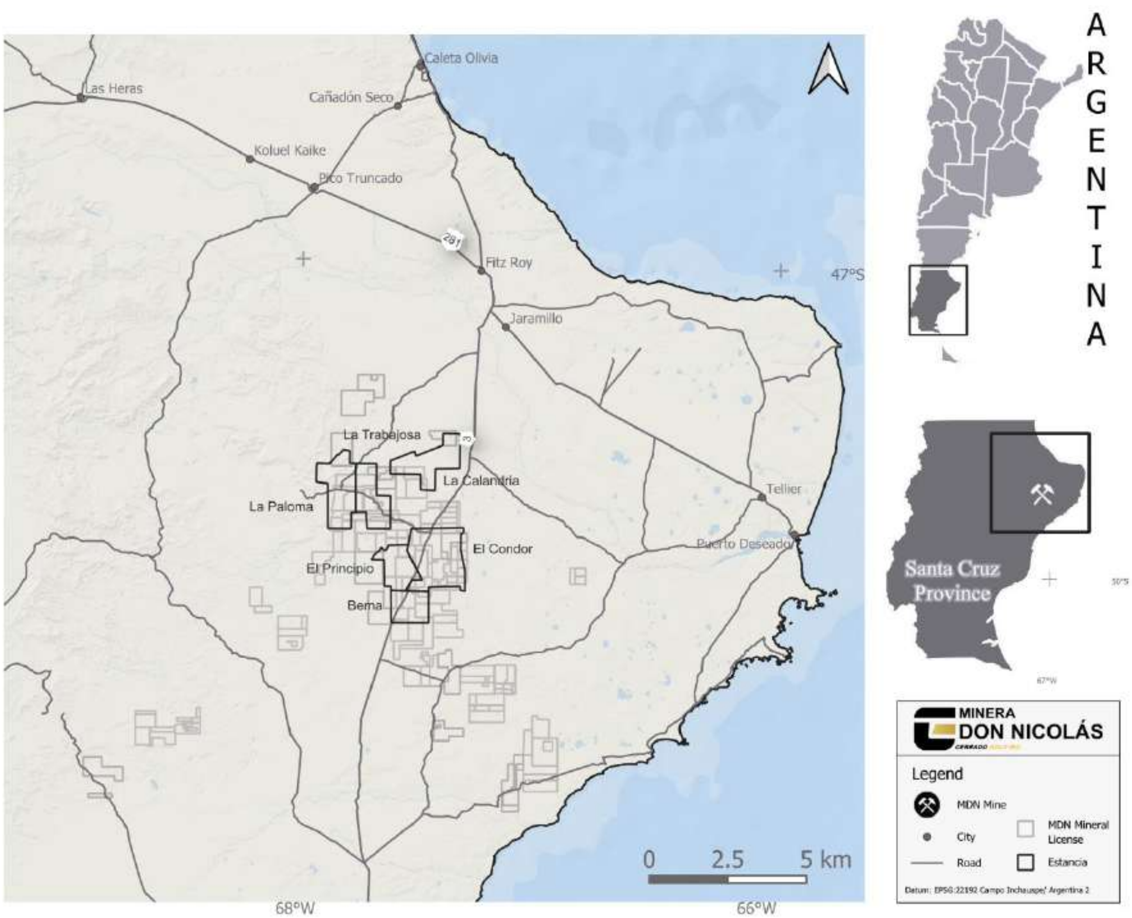
PODARGA II	428.123/IRL/14		MINA	1950.45
PODARGA III	430.342/IRL/14		MINA	3947.16
Recreo	432.406/MMA/15	MMA	MINA	6017.22
Rocinante I	422.244/EB/12		MINA	3981.15
Rocinante II	426.788/IRL/13		MINA	839.68
Rocinante III	429.870/IRL/14		MINA	593.88
Rocinante IV	430.781/IRL/15		MINA	839.09
ROCINANTE IX	436.776/MDN/17		MINA	274.49
Rocinante V	430.782/IRL/15		MINA	839.09
Rocinante VI	430.783/IRL/15		MINA	839.09
ROCINANTE VII	430.784/IRL/15		MINA	839.11
ROCINANTE VIII	436.775/MDN/17		MINA	839.68
Sombra Gris I	422.957/EB/12		MINA	2538.11
Sombra Gris I-A	422.910/MDN/23		MD	1182.17
Sombra Gris II	427.477/IRL/13		MINA	2592.33
Sombra Gris III	430.341/IRL/14		MINA	2599.95
Sombra Gris III-A	422.904/MDN/23		MD	716.09
SPARK	403.957/P/02		MINA	899.47
Spark I	440.334/MDN/19		MINA	6995.98
Strategus I	421.594/EB/12		MINA	3298.51
Strategus I-A	422.903/MDN/23		MD	742.79
Strategus II	427.651/IRL/13		MINA	419.8
Strategus II-A	422.913/MDN/23		MD	420.09
Strategus III	428.795/IRL/14		MINA	839.5
Strategus III-A	422.911/MDN/23		MD	97.63
Strategus IV	428.796/IRL/14		MINA	395.38
Strategus IV-A	422.912/MDN/23		MD	465.59
Strategus V	430.338/IRL/14		MINA	3896.73
Strategus V-A	422.915/MDN/23		MD	1597.83
Syrah	403.975/RY/05	GM LA PALOMA	MINA	3499.27
Syrah I	420.371/IRL/12	GM LA PALOMA	MINA	3211.54
Tormenta	445.609/MDN/21		MD	3912.94
Yatasto I	420.268/EB/12		MINA	3948.69
Yatasto II	426.430/IRL/13		MINA	2039.63
Yatasto III	429.814/IRL/14		MINA	839.7
Yatasto IV	430.785/IRL/15		MINA	840.12
Yatasto V	430.786/IRL/15		MINA	839.79
Yatasto VI	430.988/IRL/15		MINA	840.21
Yatasto VII	430.989/IRL/15		MINA	565.49
Zefiro I	428.597/IRL/14		MINA	4105.99
Zefiro II	431.832/IRL/15		MINA	1924.16
Zefiro III	438.818/MDN/16		MINA	3774.86

4.4. Surface Rights

MDN operations are located within the surface rights of Estancia La Calandria, Estancia El Condor, Estancia El Principio, and Estancia Bema, with an additional lease agreement for Estancia La Paloma. The surface rights for Estancia La Calandria (Calandrias Project) encompass approximately 19,010.29 ha and were acquired by Cerrado Gold in 2022. Estancia El Condor, where the camp, offices, and processing plant are situated, began in November 2006 and covers an area of 31,335.05 ha. Estancia El Principio and Estancia Bema were purchased in August 2022 and covered 13,502.55 ha and 12,011.62 ha, respectively. Additionally, MDN's mining properties are located either within these estancias or outside of them, on third-party estancias, where specific agreements with surface right holders are established to access and explore these properties.

Figure 4.3 shows the surface rights over Calandrias Sur and Calandrias Norte deposits, La Paloma, Martinetas deposits, and exploration targets within the MDN Property.

Figure 4.3: Surface Rights Map Las Calandrias and MDN Property.



4.5. Underlying Agreements

On March 17, 2020, Cerrado Gold entered into an agreement with Compañía Inversora En Minas S.A. and Compañía Inversora Argentina Para La Exportación SA (the Sellers) to acquire Minera Don Nicolás S.A. (MDN) and its namesake operating mine and surrounding properties in Santa Cruz Province, Argentina. Under the terms of the agreement, Cerrado paid the Sellers an initial payment of US$15 million at closing, with future payments of US$10 million in 24 months, US$10 million in 48 months and US$10 million in 60 months from closing. The Sellers are also entitled to a performance bonus based upon an increase in reserves in the future.

The MDN Project is subject to a 3% mine head sale provincial royalty defined as the price for the sale of the corresponding metal minus certain costs and expenses.

Applicable to certain areas owned by the company is a 2% royalty on the refined product, payable to Royal Gold Inc. based on a royalty agreement enacted and updated on August 16, 2013. The royalty does not apply to any production in the Calandrias region, but it does apply to all other areas currently in production, which may include Paloma underground if put into production in the future. The obligations under this royalty agreement are backed by a first mortgage granted to Royal Gold on a number of the Company's mineral properties owned in the province of Santa Cruz, named as follows: Syrah, La Paloma I, Micro I, Micro II, Mar III, Mar IV, Gol I, Gol II, Armadillo, Dorcón 3, Dorcón 4, Estrella I and Estrella II.

A US$3.00/oz gold royalty to a cap of US$2 million is payable to Sandstorm Gold Limited. This royalty applies to the current resource areas and, effectively, those essential licenses covered by the Royal Gold agreement and excludes the properties acquired from New Dimension in the Minera Mariana acquisition, including Las Calandrias.

A 2% royalty on the refined product derived from specific areas, payable to Sandstorm Gold Ltd., based on a royalty agreement dated February 19, 2018. This royalty applies to areas acquired from New Dimensions in the Minera Mariana acquisition, including the Calandrias region, Las Calandrias, Los Cisnes, and Sierra Blanca Properties. However, it does not include the areas of historical production or any areas over which Royal Gold holds a royalty.

Production at Minera Don Nicolás is subject to a precious metal streaming agreement executed between Cerrado Gold Inc. and Sprott Private Resource Streaming and Royalty (B) Corp ("Sprott"), dated March 16, 2020 (the "Agreement"), consisting of 6.25% payable gold and 6.25% payable silver for an initial term of forty (40) years which can be extended for successive ten (10) year periods. Following the delivery of 21,250 gold equivalent ounces to Sprott, the percentage of payable gold and payable silver will be amended by reducing each percentage from 6.25% to 2.5% (the "Step Down"). The Agreement also gives Cerrado the option at any time within the 12 months following the Step Down to further reduce the percentage of payable gold and silver from 2.5% to 1.25% by paying an amount equal to US$2,500,000 to Sprott. Upon execution of the Agreement, Cerrado received a deposit of US$15,000,000.

On March 2, 2023, Cerrado entered into an amended and restated metals purchase and sale agreement with Sprott (the "MDN Stream Agreement") to include the concessions acquired by Minera Don Nicolás in its acquisition of Minera Mariana Argentina S.A. in 2021, broadening the stream area including production from the Las Calandrias heap leach project where production commenced in 2023. The amended and restated agreement also provided Cerrado with an additional $10 million in funding. The amended and restated agreement includes a step-down provision whereby the stream percentage will be reduced from 6.25% down to 2.5% upon delivery of 29,500 gold equivalent ounces. All other terms of the initial Metals Streaming Agreement from March 2020 are materially unchanged.

4.6. Permitting

MDN conducts various evaluations and technical studies to ensure mineral extraction are carried out with minimal disruption to the previously mentioned factors. It is emphasized that Argentine environmental and mining legislation requires an Environmental Impact Assessment (EIA) detailing and describing the above and many other factors before any mining activity stage (Prospecting, Exploration, and Exploitation), can be approved.

A summary of the projects and their current respective statuses is provided below. For more information, referred to Chapter 20:

Table 4-2: Summary of projects.

Projects	Areas	Type
Exploitation Project Don Nicolas Exp. N° 421,090/IRL/12	La Paloma I Syrah La Lechuza I La Lechuza II La Paloma II Paula Andrea Paula Andrea I Blanca I Syrah I Gol I Gol II Mar III Mar IV Micro I Micro II Mara Mara I Mara II Armadillo	Exploitation
Project Zefiro Genitor Lazlos Cecilias. Exp. 424,068/HA/10	Zefiro I Zefiro II Zefiro III Genitor II Lazlos I Lazlos II Lazlos III Cecilia I Cecilia II Cecilia III	Exploration
Project Calandrias. Exp. 425983/MM/09	Calandrias I Escondido I	Exploitation
Project Michelle Exp. N° 426,055/HA/09	Dorcon 3 Dorcon 4 Estella I Estrella II Micaela Michelle III. Sombra Gris I, II y III. Sombra Gris I-A y Sombra Gris III-A. Michelle III-A	Exploration
Project Alberto I Exp. N° 424,917/HA/09	Alberto I Alberto II Alberto III	Exploration
Project Gato Mancha Spark Exp. N° 402,883/CMP/97	Gato I Gato II Mancha I Mancha II Mancha III Spark y Spark I	Exploration
Project Bucefalo Podarga Exp. N° 408,828/FWH/06	Bucéfalo I Bucéfalo II Bucéfalo III Podarga I Podarga II y Podarga III	Exploration
Project Pegaso Tormenta Exp. N° 413,771/FWH/06	Pegaso I Pegaso II Tormenta	Exploration
Project La Paloma Exp. N° 425,980/HA/09	Escondido II La Paloma III la Paloma IV	Exploration
Project Janto Yatasto Gaviota Babieca Rocinante Armadillo Balio Exp. N° 408,829/FWH/06	Janto I Janto II Janto III Yatasto I Yatasto II Yatasto III Yatasto IV Yatasto V Yatasto VI Yatasto VII Gaviota I Gaviota II Gaviota III Gaviota IV Gaviota V Gaviota VI Gaviota VII Gaviota VIII Gaviota IX Gaviota X Babieca I Babieca II Babieca III Rocinante I Rocinante II Rocinante III Rocinante IV Rocinante VRocinante VI	Exploration

Projects	Areas	Type
	Rocinante VII Armadillo I Armadillo II Armadillo IIIBalio I Balio II Balio III	
Project Guanaco Golondrina Strategus Exp. N° 413,772/FWH/06	Guanaco I Guanaco II Guanaco III Guanaco IV Guanaco la Golondrina I Golondrina II Golondrina III Stategus I Strategus II Strategus III Agregar Strategus IIA Strategus I A Strategus IV A Strategus III A Strategus V A	Exploration
Project Lampos Alberto Exp. N° 425,976/HA/09	Lampos I Lampos II Lampos III. Agregar Lampos III-A. Alberto IIA Alberto IIB Alberto IIIA	Exploration

4.7. Environmental Considerations

An EIA must be submitted every two years before continuing exploration and/or mining activities. All environmental permits are valid for two years and must be renewed before expiry dates to allow work to continue. As of the date of this report, MDN will require the submission of a new EIA for any future exploration activities.

GeoEstima is unaware of any environmental liabilities, other factors, and risks that may affect access, title, or ability that would prevent Cerrado Gold from conducting exploration activities on the Properties.

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

5.1. Accessibility

The MDN is located by road approximately 250 km south of Comodoro Rivadavia, Chubut Province. Comodoro Rivadavia is a regional centre with approximately 183,000 people, and it services the Argentine oil and gas industry.

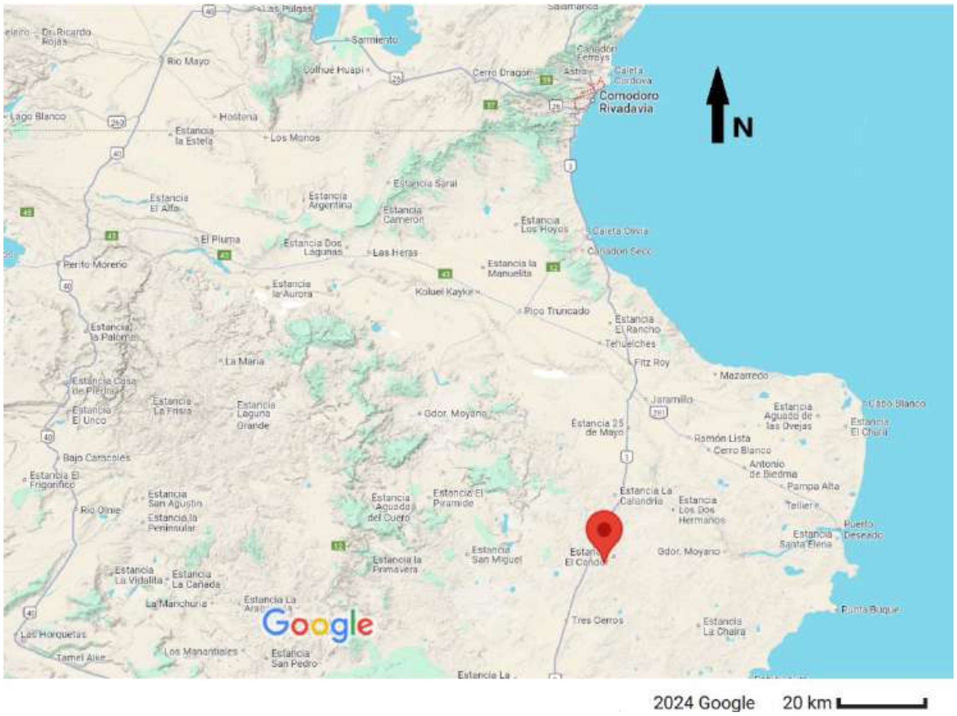
From Comodoro Rivadavia, the Property is easily accessible by driving south on a paved highway, Ruta Nacional 3 (RN 3), for approximately 280 km. This road is part of the main north-south road traversing the country's length and is in good condition (Figure 5.1).

The access to the Estancia La Calandria is at approximately highway kilometre marker 'km 2,050' on the west side of the RN 3. The drive is typically 3 to 3.5 hours from Comodoro Rivadavia. The main house on the Estancia is approximately 4 km from the highway turn-off on a well-maintained dirt road. Access to the project site is approximately 11 km, along the same dirt roads and within the Property. From the MDN property, La Paloma ranch is accessed by turning west onto the unpaved Route 49, and the El Cóndor and Bema ranches are accessed along private roads approximately 7 km and 25 km further south from the Route 49 turn-off, directly off RN 3. The average driving time between Comodoro Rivadavia and the property is about four hours.

Access to the various prospects within the property from the ranches is along formed and unformed gravel roads generally in excellent condition.

Regularly scheduled flights from Buenos Aires and other main centres in Argentina to Comodoro Rivadavia exist. Flights from Buenos Aires to Comodoro Rivadavia are typically 2.5 hours.

Figure 5.1: MDN Project Location Map and Access.



5.2. Climate

The Patagonian plains of Southern Argentina endure westerly solid winds that persist throughout most of the year, particularly during the summer months. Based on data acquired regionally, average monthly temperatures above 10 degrees Celsius (°C) generally occur between November and March. Average monthly temperatures below 5°C generally occur from June through August. Annual precipitation is from 180 to 300 millimetres (mm), with occasional heavy snowfalls in the winter. It is anticipated that exploration fieldwork can generally be completed year-round, except for a few weeks during the winter when heavy snow may hinder the continuation of field exploration programs.

The Property is characterised by a cold, arid to semi-arid steppe climate (Bsk; Köppen climate classification), with summers being hot and dry and winters moderately cool with some wetter weather.

Temperatures in January (summer) average 17 °C, and in July (winter) average 4 °C, respectively. Annual average precipitation is roughly 160 mm, with occasional light snow and frost in winter and very little precipitation during summer. Winds in this area are persistent, and monthly average wind speeds vary between 20 kilometres per hour (km/h) and 31 km/h (yr. no and weatherbase.com websites: Pico Truncado; most recently viewed 21 September 2018).

Exploration activities may take place all year round.

5.3. Local Resources and Infrastructure

The Project area is sparsely populated. Isolated sheep-grazing farms/ranches (estancias) have been largely abandoned since August 1991, when deposits of ash from the eruption of Vulcan Hudson in Chile severely disrupted the industry (Inbar *et al.*, 1995; Ristorcelli *et al.*, 2018).

The closest towns of any size to the Property are Caleta Olivia (population 56,612 (2010), roughly 150 km (by road) from the Project; Puerto Deseado (population 14,183 (2010), roughly 185 km east of the Project; and Puerto San Julián (population 7,894 (2010), a port town roughly 210 km from the Project (Government of the Province of Santa Cruz website; most recently viewed 21 September 2018).

The Las Calandrias Project property is located approximately 55 km by road from the Don Nicolás Mine, operated by Minera Don Nicolás SA and 100% owned by Cerrado Gold, and approximately 85 km by road from the Cerro Moro Mine, operated by Yamana Gold Inc. (Yamana).

The area and towns around Caleta Olivia are active in oil and gas fields in and on the margins of the Deseado Massif region. There is access to support services, including transport, trucking, and oil-field drill rigs. Heavy equipment contractors are available in Puerto San Julián, Caleta Olivia, and Puerto Deseado. Drill rigs for the Project are sourced from Puerto San Julián. Food supplies have been sourced from the nearby village of Fitz Roy. Unskilled labour may be sourced from the nearby towns and villages.

The nearest electrical power line to the project runs roughly north-south, about 10 km west of Las Calandrias resource. The nearest electrical substation is in Pico Truncado, roughly 141 km by road north of the Property and is serviced by a 500 kV Extra High-Tension line. (CFEE website most recently viewed 25 September 2018).

The San Martín Gas Pipeline is a transnational natural gas pipeline that runs north-south, 10 km east of the project site (roughly parallel to RN 3). The San Martín Gas Pipeline is a 4,679 km long, 30-inch diameter pipeline that begins in Tierra del Fuego at the southern tip of Argentina, crosses the Strait of Magellan, and ends near the city of La Plata near Buenos Aires—(TGS website; most recently viewed 25 September 2018).

Water is available on the Property for drill programs. Water is sourced from several small seeps and shallow lakes that intermittently contain water from seasonal runoff. Many of the basins on the Property are dry lakes with internal drainage. A hydrogeological study for Minera Mariana (Ristorcelli *et al.* (2018); Giaccardi & Aquilera, 2010) measured the water level at depths of 51.0 to 64.9 m in three of 16 drill holes in Calandrias Sur. The 13 holes not measured were caved above the water depth. The results of water analyses from the three drill holes exceeded levels of fluorine allowed for drinking water, and one of the holes had high chlorine values. The preliminary hydrogeological study by Giaccardi and Aquilera could not develop a hydrogeological model due to the limited data available.

Las Calandrias Project has sufficient land for mineral exploration and development purposes.

Notwithstanding its proximity to the National Route 3 highway, which transects the Project area, MDN is sparsely populated. There is little settlement other than scattered estancias (rural farms), which have largely been abandoned following the ashfalls from the 1991 eruption of Cerro Hudson.

The nearest settlements of significance are:

- Puerto Deseado 130 km east;
- Puerto San Julian 160 km south; and
- Rio Gallegos (Provincial Capital) 400 km southwest.

Essential services and supplies are readily available in Puerto San Julian.

A gas pipeline running parallel to National Route 3 transects the Project area. Communication is provided by satellite link, and accommodation and office facilities with domestic power and water services are available at the Martinetas site.

Water exploration in the area targeted at identifying sufficient water to support a mining operation has successfully located substantial quantities of groundwater.

5.4. Physiography

The Project is situated near the Atlantic coast in the gently rolling plains (steppes) of central Patagonia in southern Argentina. The area is characterised by low relief and hills between 130 and 200 masl. Numerous small dry lake basins hold water from rainfall runoff. Vegetation is sparse due to poor soil development and consists of small scrub and colonies of desert grass (e.g. coirón). Taller vegetation is thorny scrub and brush (e.g. uña de gato) and is mainly found in low-lying areas. There are no trees on the project site. Some wild foxes, rhea (locally named choice), and guanaco are observed in the area.

The property area is located on the eastern Patagonian plains and is generally characterised by flat to gently undulating landforms dissected occasionally by incised shallow valleys (Figure 5.2). Some prospect areas, such as La Paloma, exhibit hilly terrain, but this does not generally impede access to the entire Project area (Figure 5.3). Elevation ranges from 130 masl to 220 masl.

Vegetation is sparse and dominated by grasses and low shrubs. Some cattle and sheep grazing activities persist. However, these are limited in extent as the pastoral industry has not fully recovered from the effects of the ash blanket from the Cerro Hudson, located in Chile approximately 500 km to the northwest of the Project area. Before this eruption, cattle and sheep grazing predominated; however, the area is now largely uninhabited.

Figure 5.2: General Physiography of the Martinetas Area.

Source: Courtesy of Cerrado Gold.

Figure 5.3: General Physiography of Las Calandrias Area.

Source: Courtesy of Cerrado Gold.

6. HISTORY

6.1. Calandrias

Exploration at Calandrias began in 2008 with Mariana Resources Ltd. Since 2009, various companies have been holding and exploring the deposit. After Cerrado's acquisition in 2021, Calandrias' development was fast-tracked to production with extensive infill drilling and other technical/economic studies. The ramp-up in Calandrias Sur commenced in 2023. Cerrado disclosed the first gold from production from the new heap leach in July 2023.

6.1.1. Mariana, 2008 – 2017

There has been no known exploration at Las Calandrias Sur and Las Calandrias Norte areas before Mariana Resources Ltd. (Mariana) in 2008. Mariana acquired the property in 2008. Mariana's exploration activities included regional geological mapping, rock and soil sampling, geophysical surveys, trenching and diamond core drilling. Exploration was conducted at Calandrias Sur, Calandrias Norte (a.k.a. La Calandria Vein Zone), and the five El Nido exploration targets that make up the El Nido Complex: Nido Norte, Nido Este, Nido Centro, Nido Oeste, and Nido Sur.

In 2008, Mariana Resources Ltd. (Mariana) first discovered quartz-sulphide veins/breccias over two broad zones about 600 m apart through its subsidiary Minera Mariana. Based on this discovery, Mariana applied for a Cateo, Cateo 'Pampa del Tongoril II' over what is now the Mina Las Calandrias I.

High-grade gold mineralisation was first discovered at the Las Calandrias Norte Deposit, known as Calandria Norte Vein and La Calandria Vein Zone. Recognition of the mineralisation at Calandrias Norte was followed by discovery of gold and silver mineralisation at Lsa Calandrias Sur (Rodriguez *et al.*, 2010; Ristorcelli *et al.*, 2018).

Mariana conducted several exploration programs which are summarised in Table 6-1.

Table 6-1: Summary of Drilling Exploration Activities on the Property, Mariana 2009 – 2012.

Target	Year	DDH	
		Total	Metres
Calandria Norte	**2009-2011**	75	10,968
Calandria Sur	**2009-2012**	228	28,396
La Herradura	**2010**	2	168
El Clavo	**2011-2012**	18	2,448
Game Keeper	**2011**	1	132
Nido Este	**2010-2012**	6	884
Nido Norte	**2010-2011**	50	8,258
Nido Oeste	**2010-2011**	9	1,551
Nido Sur	**2011**	18	1,883
Boina	**2010-2011**	12	1,391

Early historical drilling in the Calandrias property focused on Calandria North and Calandria South deposits and the Nido Cluster target, consisting of:

- 419 Diamond Drill holes completed by Marianas between 2009-2012
- 51 Trenches completed by Marinas between 2008 and 2012
- Three IP geophysics covering a total area of 13.6 km^2 in 2010.
- CSMAT survey covering 36.75-line km in 2017.
- Detailed ground magnetic survey (Lines spaced at 50 m) covering 19 km2 in 2010.
- MDN drilled 2,461 RC holes and 297 core holes between 2015 and 2019.

6.1.2. Sandstorm, 2017 – 2018

In July 2017, Mariana was acquired by Sandstorm Gold Ltd., also known as Sandstorm Gold Royalties Ltd. (Sandstorm). Sandstorm did not conduct any exploration or drilling activities on the Property during its ownership period.

6.1.3. New Dimension, 2018 – 2020

In February 2018, New Dimension agreed with Sandstorm to acquire the Argentine holdings, including Las Calandrias, Los Cisnes, and Sierra Blanca Properties. In May 2018, New Dimension completed the acquisition, which included acquiring a 100% interest in Minera Mariana.

In 2018, New Dimension completed a drill campaign on the Calandrias Norte, Morena, and Refugio, which included 22 drill holes totalling 3,475 m.

6.1.4. Cerrado Gold, 2020 – Present

In October 2020, Cerrado Gold entered a binding Letter of Intent (LOI) to acquire Minera Mariana. On 25 January 2021, Cerrado Gold acquired Minera Mariana.

In late 2021 and early 2022, Cerrado completed an infill drill program to support its understanding of the resource and make a development decision. During this program, a further 3,582m were drilled (1,320m DDH and 2,262m RC). Calandria Sur's footprint extended after amalgamating the continuous Escondido claim, where Cerrado had already identified a deposit (formerly called the Brecia trend).

In 2022, Cerrado completed all metallurgical works, geotechnical testing of the site, and a detailed crushing circuit and heap leach pad design. Operational licenses and permits were granted in March 2023.

In 2022 and 2023, drilling and trenching continued in Calandrias Norte and other targets. Late in 2023, an open pit operation started in Calandrias, focusing on striping.

In 2023 and 2024, Cerrado completed geochemistry soil surveys in two new target areas: Sidra Pool and Escondido Oeste

6.1.5. Previous Mineral Resources

A prior Technical Report on the Calandria Project was completed by AGP in 2021 after Cerrado acquired the property (AGP, 2021). The effective date of the document is September 18th, 2018.

The 2018 Mineral resources for the Las Calandrias Sur Deposit, within a constraining shell, included Indicated Resources of 7.4 Mt @ 1.33 g/t Au and 24.65 g/t Ag and Inferred Resources of 1.7 Mt @ 0.73 g/t Au and 7.17 g/t Ag. The cut-off grade was variable and based on oxide zones.

The 2018 Mineral Resources for the Las Calandrias Norte Deposit, within an optimised constraining shell, at a 0.8 g/t Au cut-off grade, included Indicated Resources of 604,000 t @ 3.12 g/t Au and 8.20 g/t Ag and inferred Resources of 19,000 t @ 1.31 g/t Au and 0.69 g/t Ag.

The Mineral Resources for the Las Calandrias Norte Deposit, below the optimised constraining shell, at a 1.5 g/t Au cut-off grade were Indicated Resources of 131,000 t @ 2.82g/t Au and 6.30 g/t Ag and Inferred Resources of 2,000 t @ 1.71 g/t Au and 2.01 g/t Ag.

6.2. Paloma and Martinetas

The following historical summary is taken from Tetra Tech (2012) with minor modifications.

The Project area was first explored in the early 1990s following the discovery and subsequent development of the Cerro Vanguardia gold mine by AngloGold Ashanti Ltd. (AngloGold) and Formicruz (a Santa Cruz provincial mining holding entity).

Several companies, including Newcrest Mining Ltd. (Newcrest), Compañía de Minas Buenaventura S.A.A., Yamana Gold Inc., Rio Algom Ltd., Hochschild Mining, and Hidefield Gold PLC (Hidefield), initially explored the claim areas (Cateos) within and around the MDN Project. This exploration work included surface sampling, trenching, and limited core and percussion drilling.

Early historical drilling in the Martinetas area consisted of:

- 12 RC drill holes completed by Newcrest in 1994.
- 75 RC drill holes completed by Yamana in 1995–1996.
- Yamana completed 200 RC and 33 core holes between 1997 and 1999.
- 32 core holes drilled by RYSA (a Yamana Joint Venture) in 2004.
- 165 core holes drilled by Hidefield in 2004–2006.
- 279 RC holes and 383 core holes completed by Minera IRL between 2010 and 2014.
- MDN drilled 2,461 RC holes and 297 core holes between 2015 and 2019.

Between 2006 and 2009, Hidefield completed 165 core holes (HQ) at several vein showings in La Paloma (87 holes for 11,382 m) and Martinetas (60 holes for 7,220 m). An additional 18 holes for 1,738 m were drilled on regional exploration targets, and many trenches were completed in the Project area.

In 2009, Minera IRL acquired Hidefield and the MDN Project. Since the acquisition, Minera IRL has drilled over 48,300 m of in-fill and extensional diamond drill hole (DDH) core and 23,900 m of RC drilling in the La Paloma and Martinetas areas, as well as over 15,500m of extra trench sampling in the Martinetas area (Cerro Oro and Coyote deposits).

In 2012, Minera IRL engaged Tetra Tech to prepare a feasibility study for the Project (Tetra Tech, 2012). This included various field programs for drilling to upgrade mineral resources, geotechnical investigations to establish mining and construction parameters, environmental baseline studies, water resource investigations, and technical studies into mining and processing alternatives.

A consortium of Argentine investors acquired the project in 2016. It went into production in 2017, with gold production in 2018. Gold mining is conventional open-pit mining with a 1,000 tpd carbon in leach (CIL) plant.

Cerrado Gold Inc. acquired the Project from the Argentine investors' consortium in March 2020.

6.3. Historical Mineral Resource Estimates

The previous Technical Report on the Calandria Project was completed by AGP in 2021 after Cerrado acquired the property. The Mineral Resource Estimate, which included Calandrias Norte and South, the effective day is September 14th, 2018, and was initially reported by New Dimensions (Ristorcelli, 2018).0The 2018 Mineral resources for the Las Calandrias Sur Deposit, within a constraining shell, included:

- Indicated @ 7.4 Mt at 1.33 g/t Au and 24.65 g/t Ag;
- Inferred @ 1.7 Mt at 0.73 g/t Au and 7.17 g/t Ag.

The cut-off grade was variable and based on oxide zones.

The previous Technical Report on MDN's original property (before the acquisition and amalgamation of Calandrias) was completed by SRK (2020) after Cerrado acquired the property and has an effective date of August 31, 2020.

The 2020 Mineral resources for MDN's original property include CIL and HL amenable resources within open pit and underground constraints.

Total Resources included:

- Measured Resources of 249 Kt at 4.32 g/t Au and 5.50 g/t Ag;
- Indicated @ 877 Kt at 5.82 g/t Au and 9.48 g/t Ag;
- Inferred @ 1126 Kt at 2.33 g/t Au and 4.78 g/t Ag.

The cut-off grade was variable depending on the processing circuit (CIL or HL) and mining method (Open Pit or Underground)

6.4. Historical Production

Mining operations began at MDN in 2017, with the first gold production achieved in the third quarter of 2017. In April 2020, Cerrado Gold took over operations. The mine, so far, has produced 229 Koz of gold and 370 KOz of silver, as shown in Table 6-2. The CIL Mill operates at 1,000 tonnes per day (tpd). The heap leach operation is ramping up to achieve a crushing capacity of 10,000 tonnes/day.

Table 6-2: Past Production Records for MDN Project.

		MDN - Cerrado			
Production Records	**Unit**	**2021**	**2022**	**2023**	**Q1 2024**
Ore Mined, CIL	Ktonnes	412	375	287	85
Ore Mined HL				560	189
Waste Moved	Ktonnes	5,114	4,530	5,158	3,137
Total Mined	Ktonnes	5,738	4,905	6,005	3,411
Strip Ratio	waste: ore	12.42	12.08	13.33	17.03
Ore Milled	tonnes	414	395	367	90
Head Grade Au	g/t	3.51	4 56	4.61	3.65
Head Grade Ag	g/t	12.63	10.97	5.59	10.21
Recovery Au	%	88.70%	91.60%	91.00%	87.60%
Recovery Ag	%	58.70%	63.30%	64.00%	55.70%
Gold Production	Oz	42,267	52,504	51,715	10,982
Silver Production	Oz	94,092	95,803	42,748	19,687

7. GEOLOGICAL SETTING AND MINERALISATION

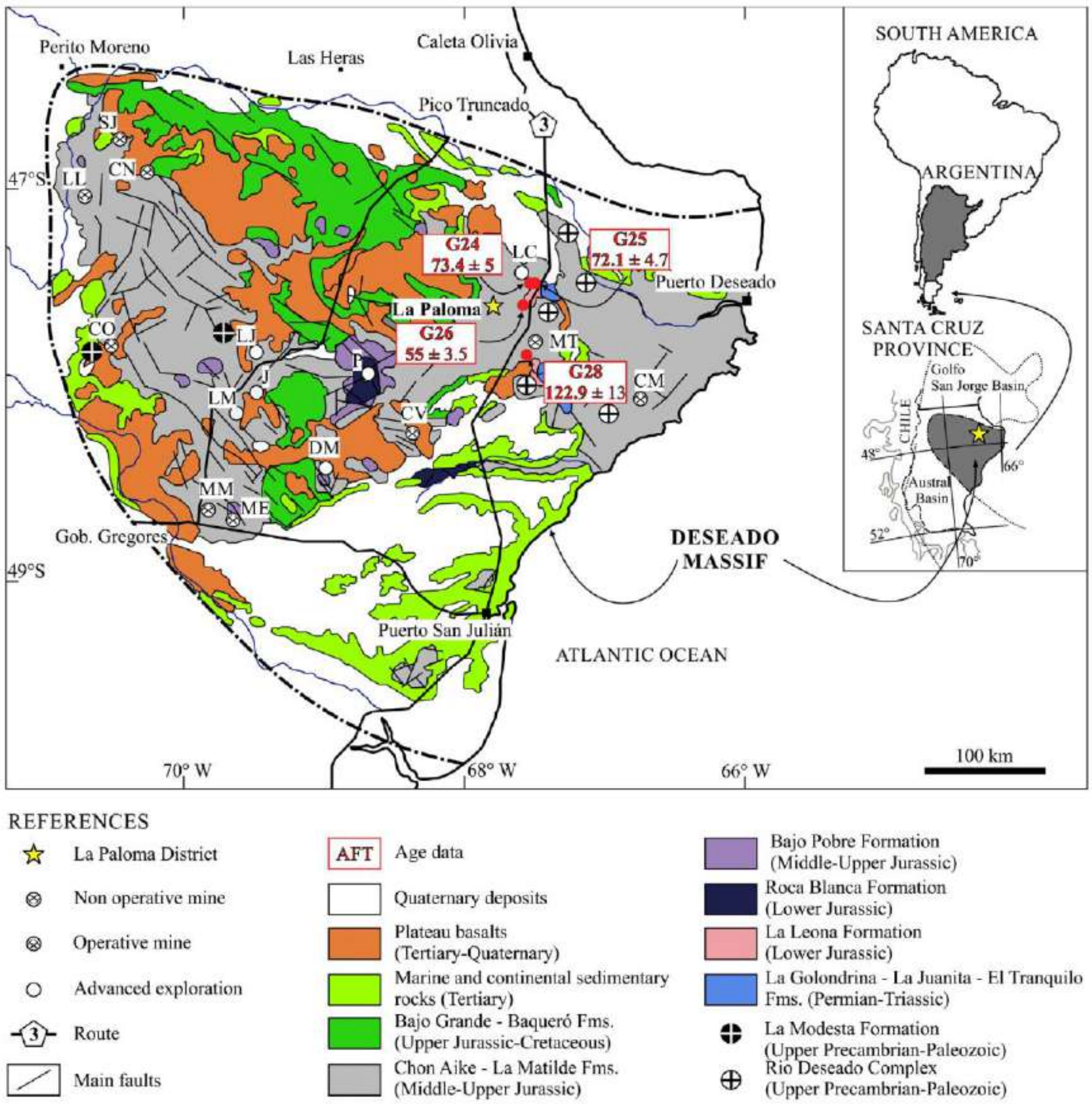
7.1. Introduction

The MDN properties all lie within the Deseado Massif, a region with a geological setting known to be amenable to gold and silver deposition, as outlined in detail throughout this document. A complete description of the local and regional geology can be found below. The descriptions and images are taken from Cerrado's geologists, and some of the descriptions have been adapted from Arseneau (2020), Ristorcelli *et al.* (2018), Fernandez (2010), and Rodriguez (2009).

7.2. Regional Geology

MDN proper is in southern Argentina, on the east-central portion of the Deseado Massif. The Deseado Massif is a 60,000 km^2 rigid crustal block bounded north by the Río Deseado, south by the Río Chico, east by the Atlantic coast, and west by the Andean Cordillera. The Deseado Massif is situated entirely in the Province of Santa Cruz (Figure 7.1 and Figure 7.2).

Figure 7.1: Regional Geology of the Deseado Massif (Fernandez et al, 2020).



Note: Abbreviations: CM: Cerro Moro, CN: Cerro Negro, CO: Cap Oeste, CV: Cerro Vanguardia, DM: Dorado-Monserrat, J: Joaquín, LC: Las Calandrias, LJ: La Josefina, LL: Lomada de Leiva, LM: La Manchuria, LP: La Paloma, ME: Manantial Espejo, MM: Mina Marta, MT: Martinetas, SJ: San José.

The Deseado Massif's basement rock consists of the Cambrian-aged metasedimentary rocks of the “La Modesta” Formation, intruded by granites and tonalites. The fluvial Permo-Triassic sequences of the “La Juanita” and “La Golondrina” formations unconformably overlie these basement rocks. They are deposited in an NNW-trending rift basin that formed along older reactivated basement structures. The Jurassic Bahia Laura Volcanic Complex (BLVC) is the main host of the widespread epithermal Mineralisation that defined the Deaseado Massif's metallogenic character. The BLVC compromises bimodal sequences. It represents widespread volcanism formed on an extensional tectonic regime related to intra-continental rifting (Fernandez, 2020).

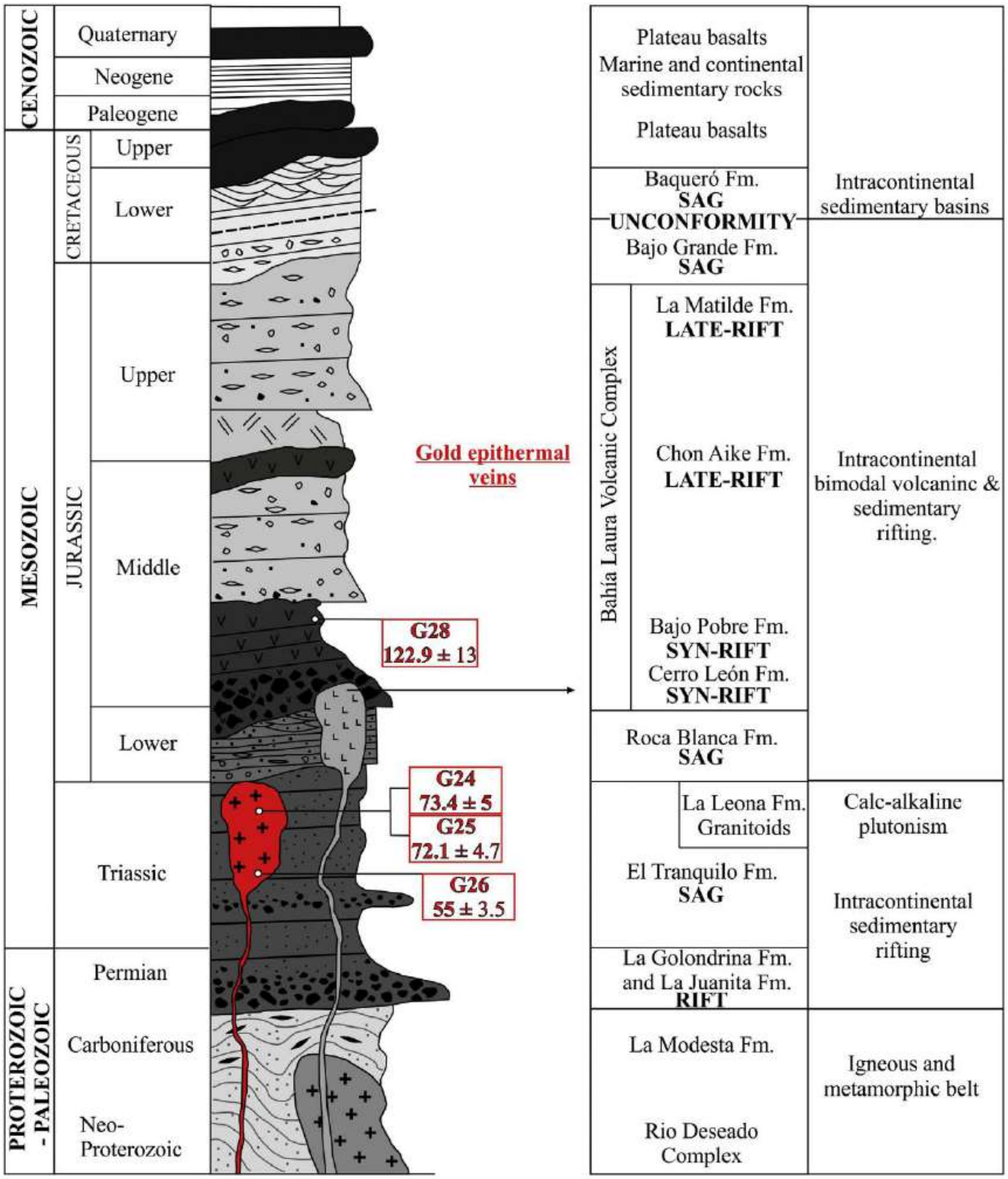
The volcanic succession includes successively intercalated rocks of the Bajo Pobre, Cerro León, Chon Aike, and La Matilde formations, which reveal their coeval nature.

The Bajo Pobre Formation and its intrusive equivalent, the Leon Formation, consist of calc-alkaline andesite and basaltic-andesite lavas flow, volcaniclastic deposits, and subvolcanic plugs (Fernandez, 2020).

The Chon Aike Formation is a felsic composition consisting of rhyolitic and dacitic ignimbrites with epiclastic deposits and ash-fall tuffs. The upper unit of the BLVC is the lacustrine tuffs and tuffaceous sediments of the La Matilde Formation (Fernandez *et al.*, 2020).

This Bi-modal volcanism, including the rhyolitic and andesitic flow and tuffaceous volcaniclastic lithologies of the Middle to Upper Jurassic age, is widely present on the MDN property. Numerous fault and fracture zones (which served as conduits for hydrothermal activity during periods of Jurassic volcanism) created a network of widespread, shallow mineralised “epithermal” fissure veins, breccias, and stock-work systems, many of which carry economic Au and Ag mineralisation.

Figure 7.2: Chronostratigraphic column for the Deseado Massif (From Fernandez et al, 2020).



The Deseado Massif hosts many of these numerous low-sulphidation, epithermal, precious-metal, quartz vein deposits, the formation of which appear to have closely followed episodes of Jurassic volcanism. The geologies currently being explored that fall upon the MDN properties of significance are discussed below.

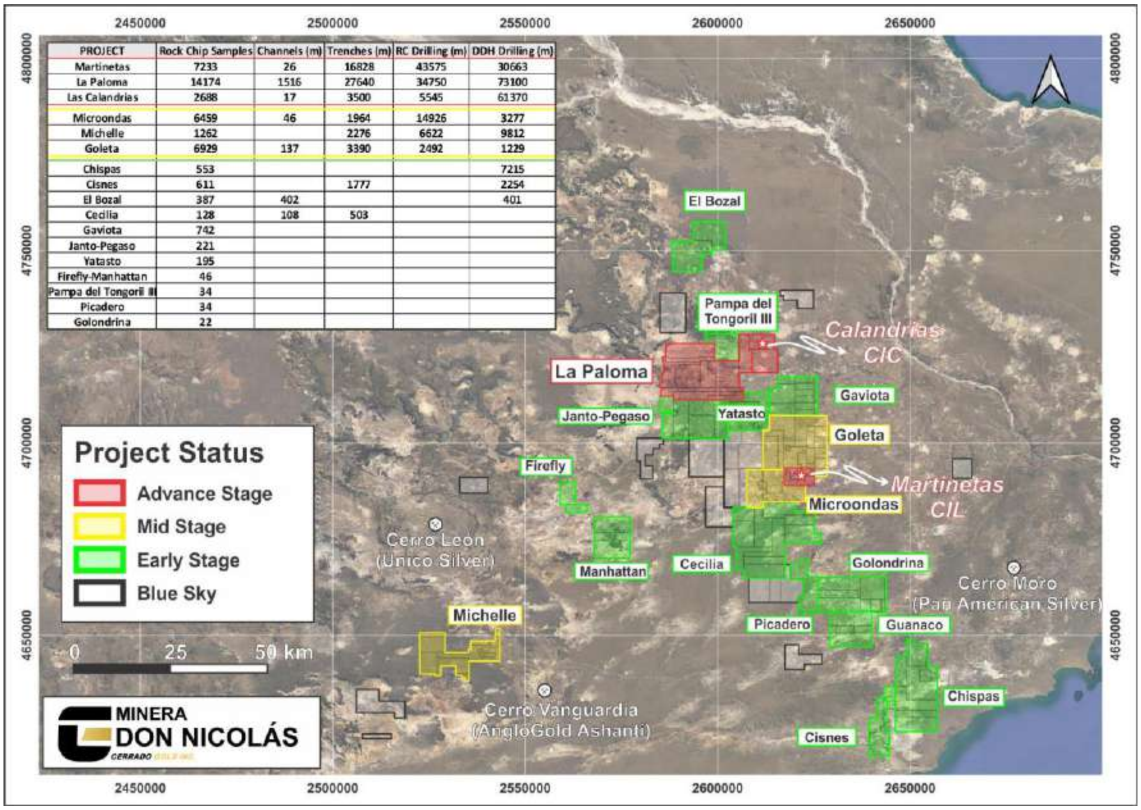
7.2 Local Project Geology

Minera Don Nicolás holds approximately 335,000 hectares of mining properties and projects (Figure 7.3), covering a sizable portion of the eastern sector of the Deseado Gold

Silver Massif (Figure 7.3). Various portions of the property are currently at different levels of exploration (see Chapter 9).

The following section outlines the geology of the main project areas that contribute to the Mineral Resources in this report, including the deposits that are part of the economic analysis: Calandrias, Martinetas, and Paloma. Chapter 9 provides detailed geological descriptions of other exploration targets, also included in these areas.

Figure 7.3: Project Areas on the MDN Land Package.



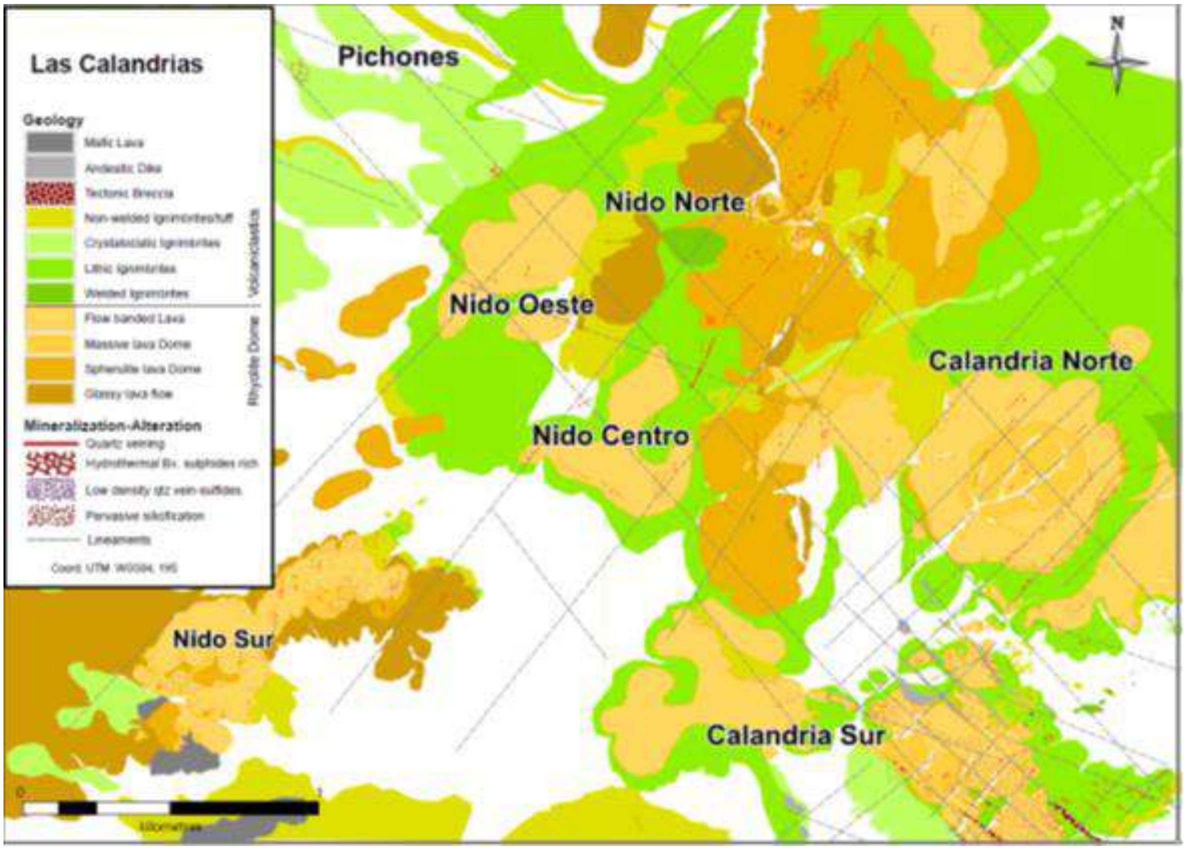
PROJECT	Rock Chip Samples	Channels (m)	Trenches (m)	RC Drilling (m)	DDH Drilling (m)
Martinetas	7233	26	16828	43575	30663
La Paloma	14174	1516	27640	34750	73100
Las Calandrias	2688	17	3500	5545	61370
Microondas	6459	46	1964	14926	3277
Michelle	1262		2276	6622	9812
Goleta	6929	137	3390	2492	1229
Chispas	553				7215
Cisnes	611		1777		2254
El Bozal	387	402			401
Cecilia	128	108	503		
Gaviota	742				
Janto-Pegaso	221				
Yatasto	195				
Firefly-Manhattan	46				
Pampa del Tongorii III	34				
Picadero	34				
Golondrina	22				

For a further explanation of prior exploration activities and results conducted pre-Cerrado (Original MDN), please refer to the previous technical reports (SRK, 2020 and AGP, 2021) and the exploration chapter contained herein.

7.2.1. Las Calandrias

Calandrias has been divided into three regions – Calandrias Sur, Calandrias Norte and El Nido (Figure 7.4). These deposits occur within the Jurassic-age rhyolite domes in the southeastern part of the Property (also referred to as "Dos Calandrias") and, to a lesser extent, at the El Nido dome complex situated in the centre and west of the Property. El Nido Complex includes the El Nido Sur, El Nido Norte, El Nido Este, and El Nido Centro prospects.

Figure 7.4: Geological Map Las Calandrias District.



Calandrias Sur and Calandrias Norte mineralised zones are part of a rhyolite dome complex within an approximate 3 x 3 km area that intrudes ignimbrite of the Jurassic Chon Aike Formation. Calandrias Sur and Calandrias Norte domes are centred on 1.5 x 1.3 km. An early polymictic breccia, interpreted to be a phreatic or phreatomagmatic vent fill (Sillitoe, 2009b), crops out on the lower ground around the dome margins. The rhyolite domes were emplaced into the breccia fill and exhibited flow banding and total devitrification. The Calandria Norte dome, cut by the Calandria Norte vein, is distinguished by delicate, highly contorted flow foliation. The Calandria Sur dome, containing the hydrothermal breccia-hosted mineralisation at Calandria Sur, largely comprises clast-supported breccia at the surface. Overburden cover consists of volcanic ash and alluvium.

Calandrias Sur and Norte are discussed in more detail below.

7.2.1.1 Calandrias Sur

The geology of Calandrias Sur (Figure 7.5) consists of a coalescing field of felsic domes that reached the surface and led to small lava flows. These were overlaid and infilled in areas with volcanic tuff and ash.

The Calandrias project area contains shallow-level epithermal gold-silver mineralisation of low-sulfidation type at Calandria Sur, which occurs in a rhyolite dome that underwent pervasive hydrothermal brecciation. The project is the first example of bulk-tonnage gold-silver mineralisation hosted in a dome-related hydrothermal breccia discovered in Patagonia's Jurassic epithermal precious-metal province. The highest gold-grade intercepts are hosted in strongly silicified breccias overprinted by a marcasite-pyrite stockwork.

The idealised, simplified geological model for Calandrias Sur can be seen in Figure 7.5. This deposit consists of:

A rhyolitic dome that exhibits different facies, including:

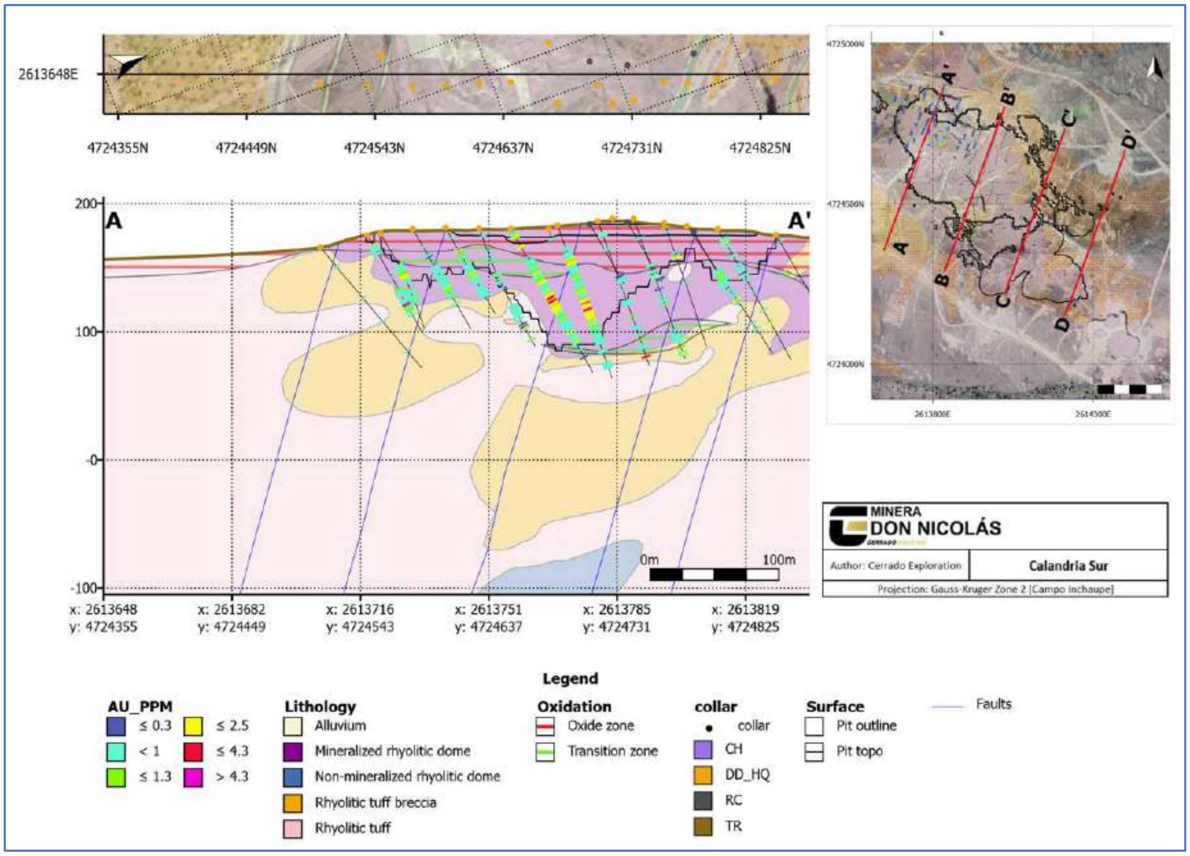
- Marginal spherulitic and partially brecciated clast-supported breccias, typically from the surface to 45 m deep.
- Central region of flow-banded rhyolite (in part, amygdaloidal)

The transition zone contains intercalated dome and volcaniclastic rocks.

- Volcaniclastic country rocks and quartz-poor, lithic-rich ignimbrites.

The other cross sections for Calandrias Sur showing further cross sections are listed in Appendix I.

Figure 7.5: Geological Model of Calandrias Sur.



7.2.1.1. Calandrias Norte

Calandrias Norte (Figure 7.6) is a single dome that intruded accretionary lapilli tuff, extending just into or overlain by ash-flow tuff. It is considered separate from Calandrias Sur primarily because of the intervening low ground, in which no outcrop exists.

The Calandrias Norte vein is placed in the margin zone of a rhyolite dome complex that cuts Jurassic-aged (Chon Aike Formation) ignimbrite. The complex comprises early polymictic breccia, interpreted to be a phreatic or phreatomagmatic vent fill, which outcrops on the lower ground around the dome margins. The rhyolite domes were emplaced into the breccia fill, displaying delicate flow banding and complete devitrification, showing felsitic and locally spherulitic textures.

The epithermal veins in Calandrias Norte are composed entirely of dense, texture-less chalcedony, partly hydrothermally brecciated. The veins appear irregularly developed but at least locally attain about 1 meter in width. Part of the brecciated and non-brecciated vein material contains abundant iron sulphides, both pyrite and marcasite, which are partly transformed to gossan at the immediate surface. The vein chalcedony is locally crustified. Vugs within the veins are filled with massive kaolinite.

The rocks at Calandrias Norte are white, spherulitic, flow-banded, devitrified, and clay-rich. Microcrystalline to crystalline quartz in the outcrop at Calandrias Norte is mainly confined to structures that appear to dip gently into the dome. This quartz also has a lower temperature variety than that observed at Calandrias Sur, indicating a more distal deposition area from the primary heat source.

Figure 7.6: Calandrias Norte Geological Cross Section.

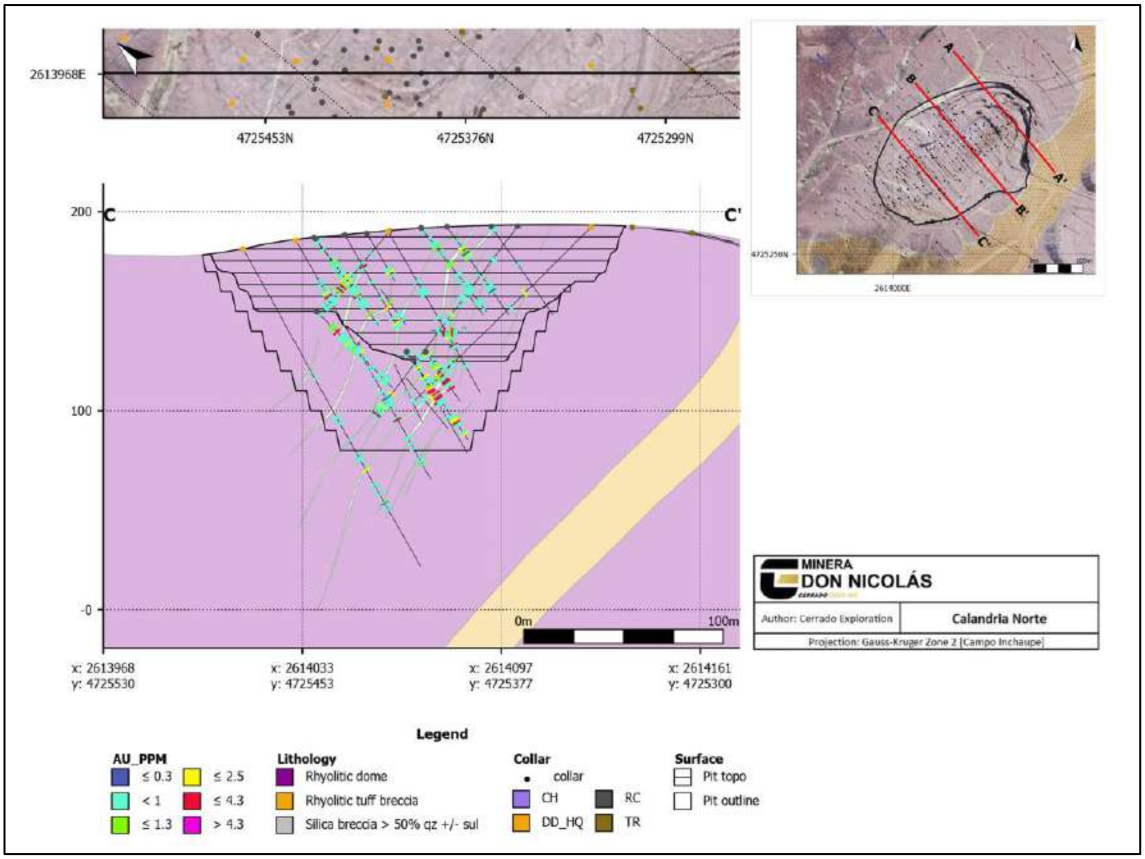
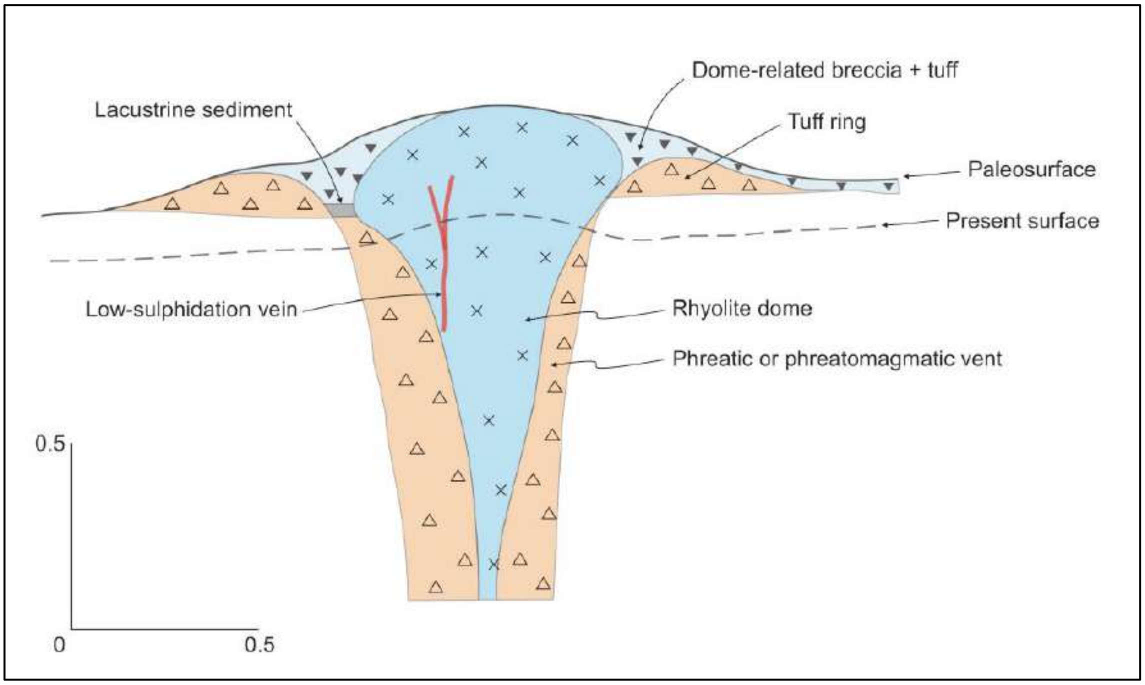


Figure 7.7: Idealized Geological Model of Calandrias Norte.



The geological model of Calandria Norte (Figure 7.6 and Figure 7.7) opens the opportunity to extend the main shoot in Calandrias Norte at depth along a SW plunge. The gold distribution shows an excellent lateral extension below the pit zone, driving an underground evaluation (see Chapter 9).

7.2.2. Martinetas

The Martinetas low-sulfidation epithermal deposits are hosted by the Jurassic Bahía Laura Volcanic Complex (BLVC; De Martino, 2021). The BLVC is locally represented by extensive pyroclastic (dilute and dense) and interbedded coherent silicic and meso-silicic volcanic units. This sequence is covered by massive ignimbrites and intruded by a swarm of rhyolitic dikes.

The main district host rock is Martinetas Ignimbrite, which is joint with related rhyolitic domes. Post-mineralisation, a phreatic brecciation stage, fractured and mixed much of the geology near the surface into the polymictic breccia unit. The project areas encompass the deposits of Armadillo, Cerro Oro, Chique, Coyote, Mara, and Zorro, ranging from early to advanced exploration stages.

The vertical development of significant veins with high gold grades in the various Martinetas regions, such as those occurring at Armadillo, Cerro Oro, Zorro, Coyote, and Choique, requires further investigation into their main controls at depth and the crosscutting relationship between the units described above.

Diamond drilling re-logs were conducted, sections were interpreted, and new detailed mappings were conducted, revealing the presence of post-mineral hydro-magmatic breccias that truncate the mineralisation. Understanding the genesis and geometry of these breccias at depth will be vital to unlocking the potential of this deposit.

Figure 7.8: Schematic Geological profiles, Martinetas district (Martino, 2021).

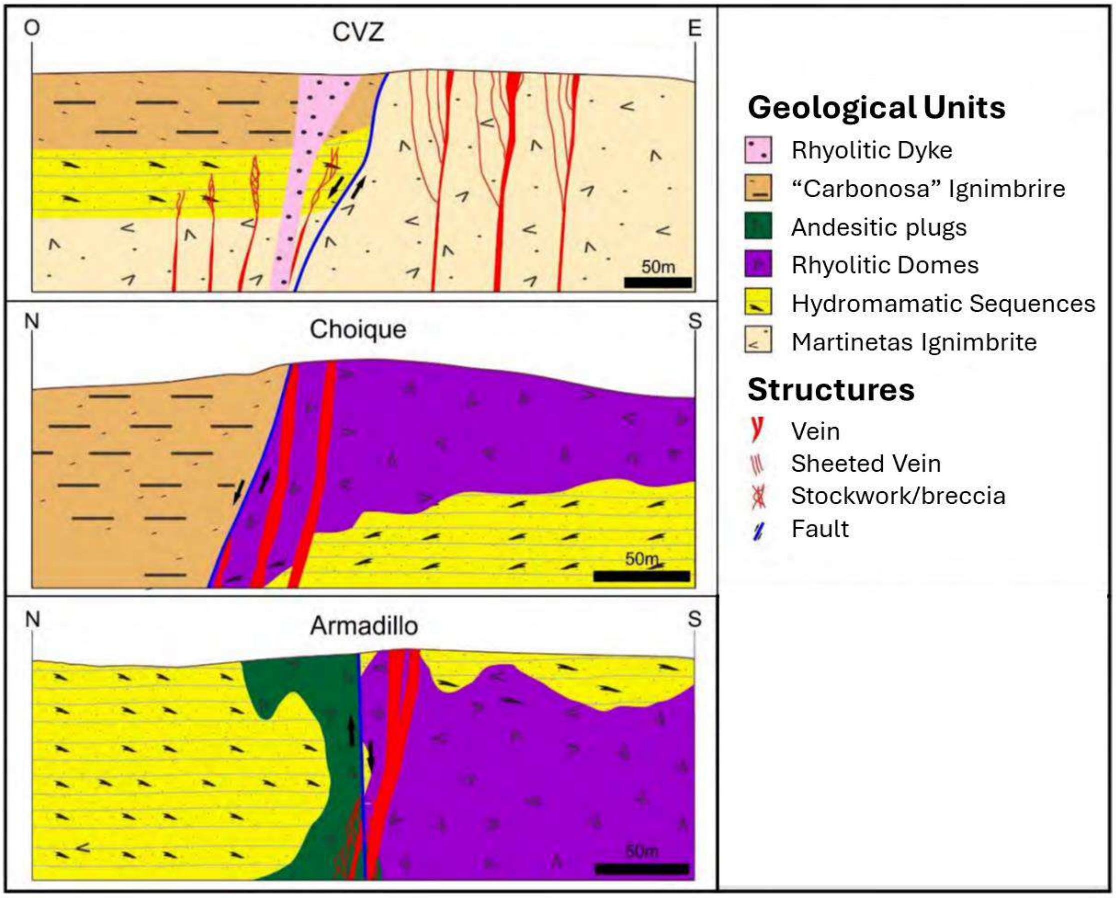
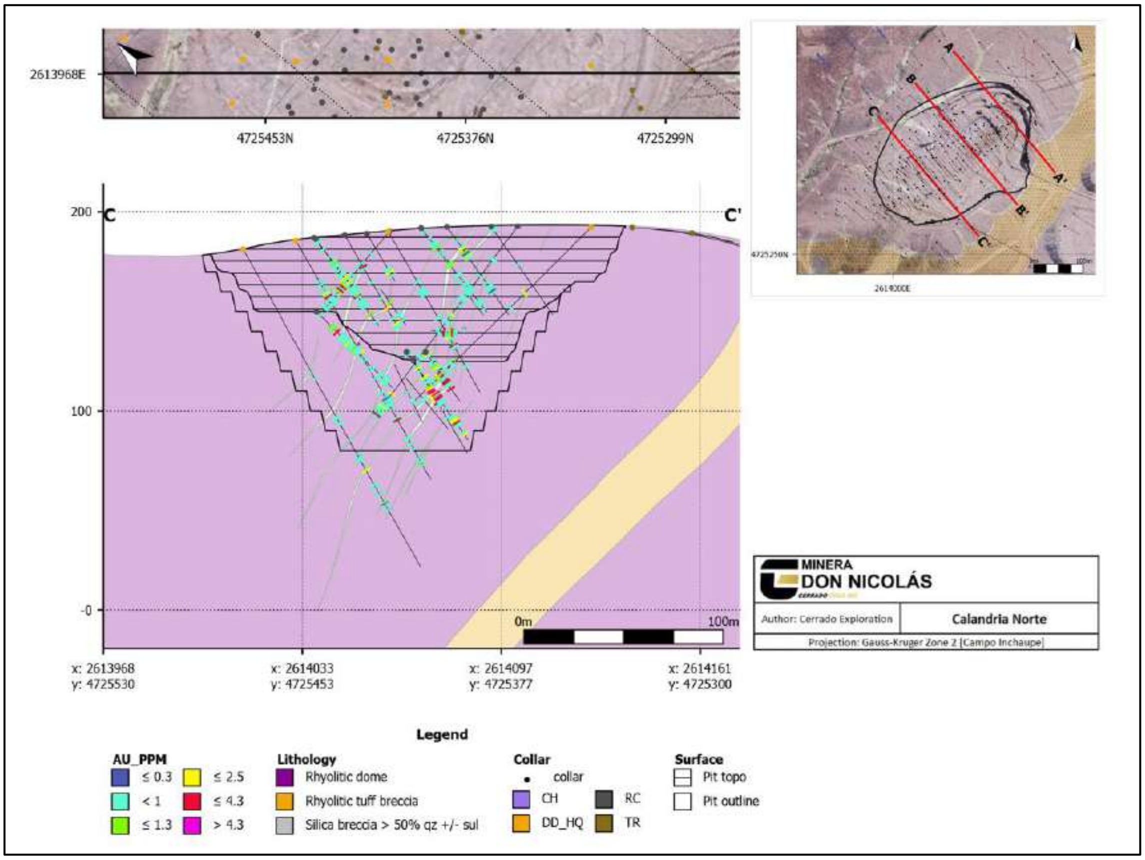


Figure 7.9: Zorro Geological Cross Section.



7.2.3. Paloma North and Central Block

The Paloma district is in the northeastern sector of the Deseado Massif, Santa Cruz province, Argentina, and is in a very advanced exploration stage. It belongs 100% to Minera Don Nicolas and is located 45 km from the CIL process plant at the Martinetas flagship project.

The North Block of Paloma contains an andesitic sequence of volcanic breccias (sectors with large lithics), stratified tuffs, and porphyry andesites (laccolith-type intrusives and dykes that intrude the pyroclastic units). The veins exhibit colloform to massive textures of chalcedonic silica with primary NE-SW and N-S orientations. The main areas of interest include the Verde (N-S), Hermanas V (NE-SW), Arco Iris (NE-SW), Clara (N-S), Luisa (NE-SW), Reyna-Princesa (N-S), and Duquesa-Zaina-Maria Eugenia (E-W to ENE-WSW).

The Central Paloma block is bound by NE-oriented faults, with the Molino fault in the north and the Atrevida fault to the south. The host rocks are andesitic lavas with pyroclastic sequences, containing pervasive silica replacements (silica cap rocks) near the surface, indicating a relatively high emplacement in the epithermal system. The main mineralised structures in this block trend NNW, with the largest being the Sulfuro vein, which concentrates the largest resources in the area.

This block contains Sulfuro, Rocío, Esperanza, Sulfuro Este, and Antena deposits. Figure 7.10 shows a cross-section of the geology of the Sulfuro deposit.

Figure 7.10: Idealized Geological Cross Section of Sulfuro and Sulfuro South Shoot.

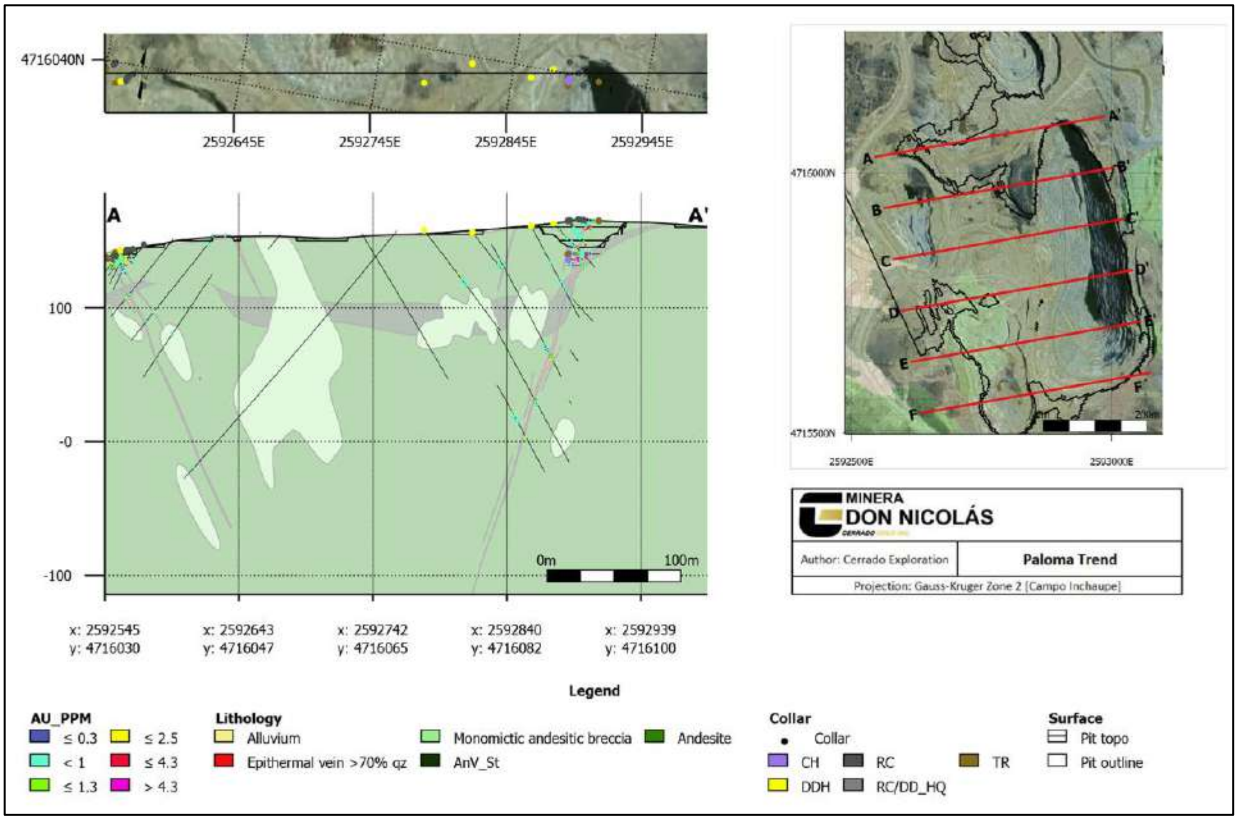


Figure 7.11: Sulfuro South Shoot grade distribution.

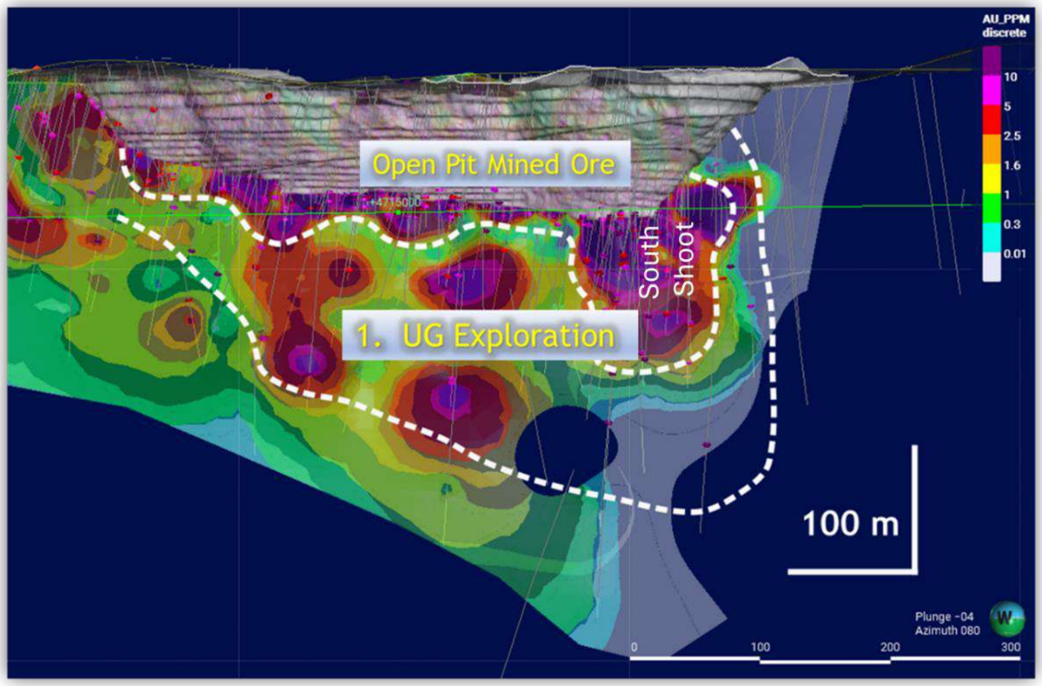
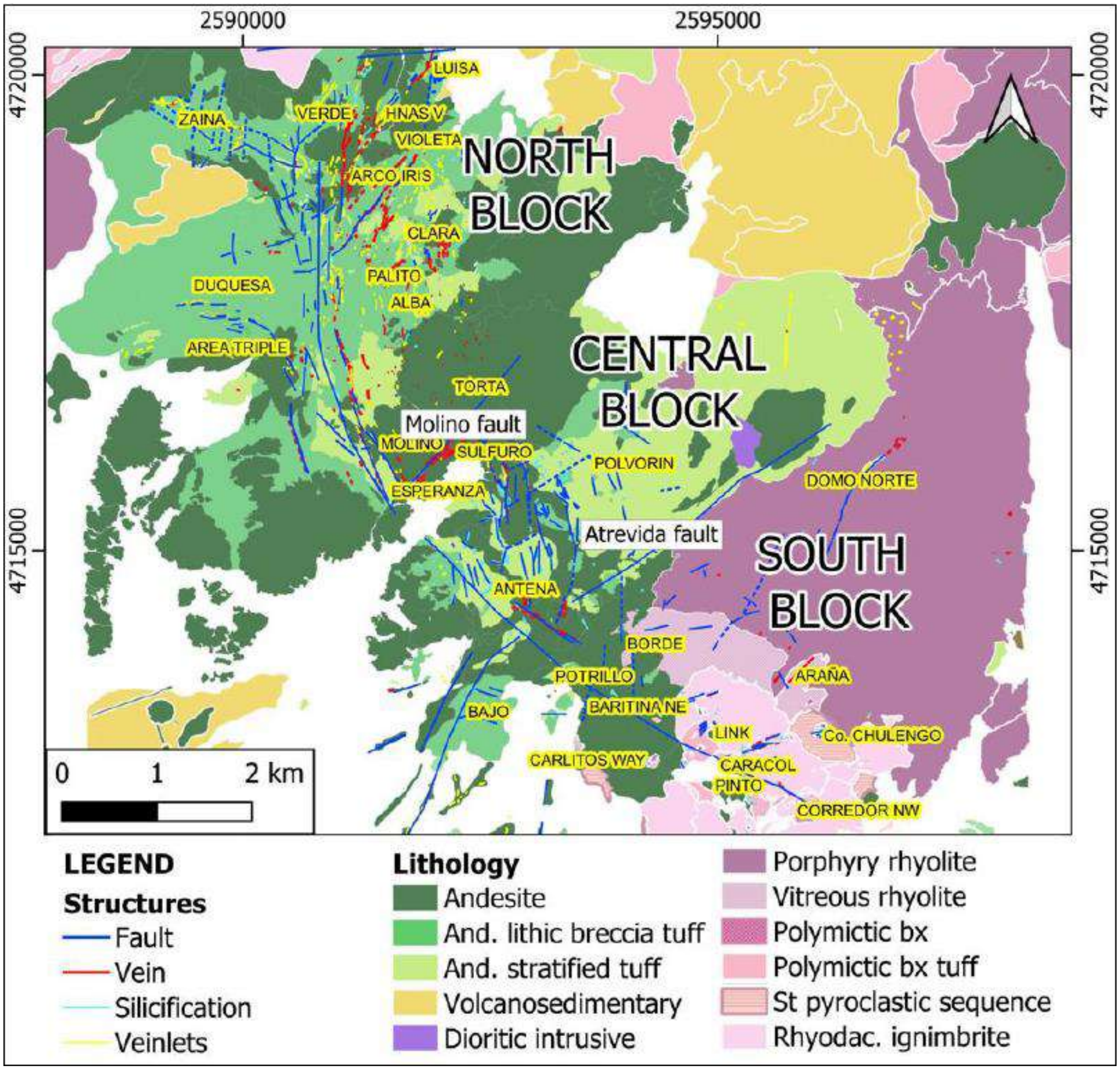


Figure 7.12: Paloma District Geological Map.



Sulfuro East (Figure 7.12) was discovered in 2023 under a silica cap expression near the surface, replicating the footprint of the Sulfuro, Rocio, and Esperanza veins in geophysical charts. Sulfuro East is being examined for integration into the district's underground projected operation.

The best-delineated targets within the Central block are ore shoots that remain open under the pit, beyond the underground resource reported for the Paloma trend in this report. These zones are being assessed to increase the resource and extend the LOM of the potential of the underground operation described in this report. Notable secondary controls of mineralisation along the main Sulfuro structure define stip dipping plunges with grade and thickness continuity; the south Shoot, for example, contributes notably to the UG Paloma Trend resource reported in Chapter 14.

7.3. Mineralisation

7.3.1. Calandrias

Silicified structures and vein breccias host gold mineralisation in Calandrias Sur and Calandrias Norte. High-grade gold and silver veins (greater than 3 g/t Au and 50 g/t Ag), veinlets, stringers, and breccias are closely related to subaerial rhyolite flow domes that were emplaced at the junctions of northwest- and northeast-trending fractures.

Although locally, they contain abundant sulphides (mainly pyrite and marcasite), the deposits formed in a low-sulphidation epithermal system (Sillitoe, 2009b). The highest gold concentrations occur in arsenic-rich pyrite and electrum that overgrow or associate with acicular marcasite embedded in a fine-grained quartz-illite matrix. This mineralising event was contemporaneous with the deposition of arsenopyrite and minor galena, sphalerite, tetrahedrite, argentite, and covellite (Barnett *et al.*, 2010). Alteration of rhyolite consists of pervasive silicification within a broad illite-smectite halo that grades outward into widespread propylitic alteration.

The veins are composed of dense brown chalcedony at the surface, partly hydrothermally brecciated. This chalcedony is locally crustiform, and cavities within the veins are filled with massive kaolinite. High levels of arsenic, antimony, and mercury are present, which - combined with the presence of chalcedony and late vug-filling kaolinite - suggests they are shallowly exposed, possibly near the tops of ore shoots (Sillitoe, 2009b). The veins are irregularly developed but locally are up to 1 m in width. Pyrite and marcasite are found in both brecciated and non-brecciated vein material.

At Calandrias Sur, the Ag:Au ratios are in the range of 10 to 130, averaging 25, while at the Calandria Norte vein, the ratios are in the range < 1 to 45, averaging 6. Both deposits have relatively low base-metal contents. Mineralisation in the two deposits is not restricted to quartz veins but also occurs as disseminations in wall rock and chalcedonic hydrothermal breccia filling.

Some mineralised zones in drill-hole intercepts from Calandrias Sur appear to correlate with roughly sub-horizontal zones rather than steeply dipping veins. In contrast, some gold in the Calandrias Norte dome occurs within a breccia that ranges from a few centimetres up to 1 m in width and strikes northeast, dipping steeply to the north.

7.3.1.1. Calandrias Sur

The bulk of the mineralisation is centred in the core of the Calandrias Sur rhyolite dome. It consists of thick zones (up to 90 m) of disseminated sulphides, stockworks, and subordinate breccias. The highest gold and silver grades correlate with increased silicification intensity and stockwork veinlets' density.

Figure 7.13: Typical outcrop of breccias composed of brown chalcedony and "veinlets" rich in sulfides.

Calandrias Sur is on a northwest-trending rhyolite dome that hosts gold and silver mineralisation cut by steeply dipping structures. The mineralisation was initially thought to be almost entirely within the dome's limits, but later mapping, sampling, and drilling confirmed it continues into the surrounding volcaniclastic rocks. In all cases, the mineralisation has poor expression at the surface.

This northwest-trending mineralised zone is 740 m long (artificially restricted by the southern property boundary), 350 m wide by 120 m thick. It is open laterally both to the northwest and east-southeast. The deposit is shaped like an elongated, shallow-bottomed saucer or bowl. The long axis of the deposit strikes at approximately N50°W. The mineralisation consists of quartz-sulphide stockwork veining with moderately continuous to discontinuous high-grade breccias, stockworks, and dissemination.

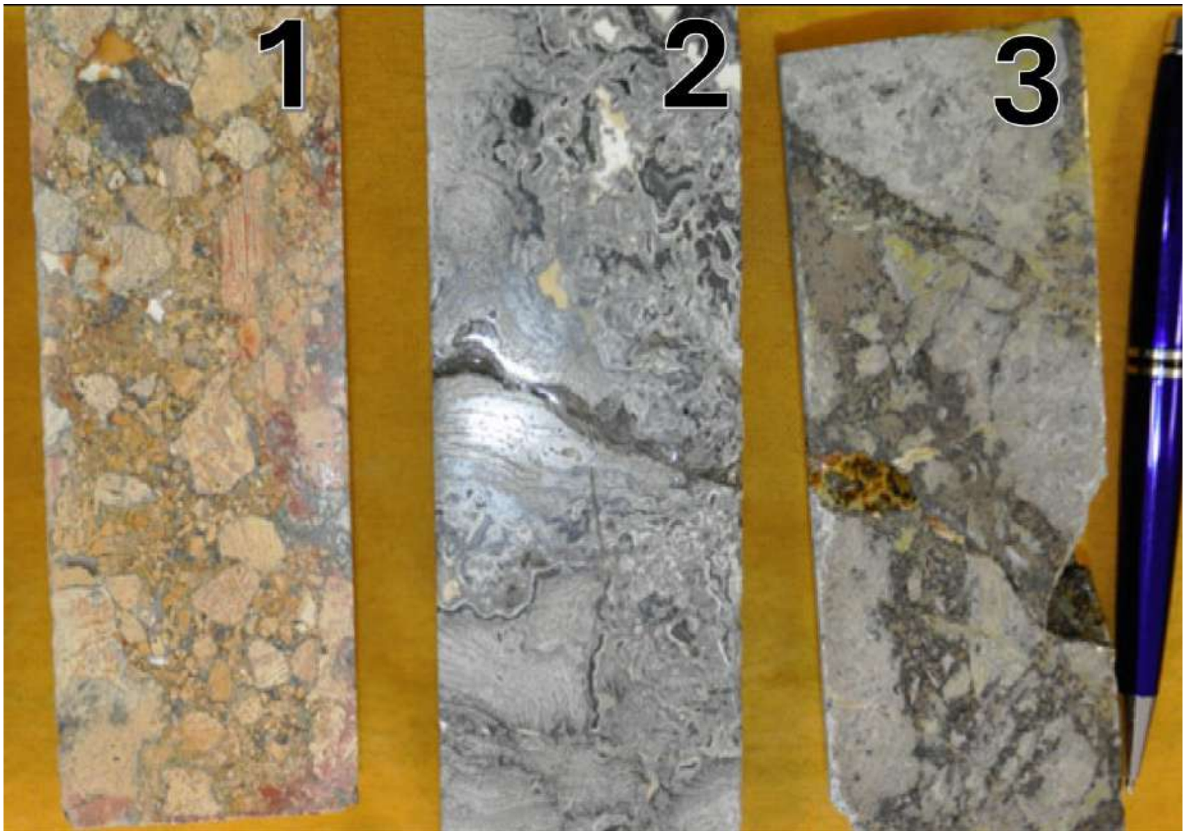
Mineralisation at Calandrias Sur has three main types of breccias:

- Monomictic breccia with fine-grained angular fragments and brown chalcedony cement without sulphides (grades are between 0.1 g/t Au and <10 g/t Ag).
- Monomictic breccia with sub-angular to rounded fragments. Microcrystalline quartz to chalcedony cement. Low in sulphides (<2%). (grades of the breccia are between 0.2 g/t Au and 0.6 g/t Au and 5 g/t Ag to 15 g/t Ag).

- Monomictic breccia with pervasively silicified monomictic clasts, sulphide-rich (<20% volume), (grades between 1g/t Au and 40 g/t Au and 30 g/t Ag to 400 g/t Ag).

Type 3 breccia is thought to have developed at or near main fluid conduits and to grade upward or laterally to Type 1 and Type 2 breccias.

Figure 7.14: Types of breccias.



7.3.1.2. Calandrias Norte

The Calandrias Norte rhyolite dome, located about 600 m north of Calandrias Sur, hosts northeast-trending veins and vein/breccia mineralisation entirely within the circular rhyolite dome. This vein and vein/breccia mineralisation lies within a broader area of weak stockwork to disseminated mineralisation. High-grade gold-silver mineralisation starts 50 to 60 m below the surface. At least three distinct vein systems are found within Calandrias Norte: the Calandria Norte vein, the Tongoril and the Morena in the northwest. At the discovery outcrop of the Calandria Norte Vein, where the mineralisation was initially identified by trenching, the vein-breccia is up to 0.7 m wide with multiple parallel veins; the vein breccia strikes northeast and dips steeply to the northwest. The vein-breccia is filled with brown chalcedony and microcrystalline quartz with black sulphides. This vein has been modelled along a 500 m strike with widths typically between 0.4 and 0.8 m. Assay values returned between 2.3 g/t Au and 20.2 g/t Au, and 8 g/t Ag and 55 g/t Ag at the surface (Rodriguez *et al.*, 2009).

A wide range of sulphide textures are present (massive, colloform-crustiform) but do not correlate with gold mineralisation. An exception is marcasite needles or skeletal marcasite, ubiquitous in La Calandria Vein Zone high-grade gold zones. There is usually a sharp change in the vein textures along a single structure in the section. Gold and silver can also be highly erratic within a single cross-section.

A clear difference is also seen in the gold-assay pattern in the holes that intercept the veinlet halo, the veinlets-breccia intersection, and the breccia (without associated veinlets or breccia-veinlets intersection). The hanging-wall veinlets carry low silver and copper but high arsenic. The mineralised breccia at the intersection of breccias and veinlets has silver in ratios to gold of 1 to 2, high copper, and high arsenic. The veinlets that form the halo of the breccia (up to 5m on both sides of the breccia) can carry high gold values (e.g. CND123, Figure 7.15) and usually form a high-grade halo around the bonanza breccia. The breccias without signs of mineralisation (no silica/sulphide introduction) do not carry gold, but arsenic can be high.

Additional prospecting in the northern part of Calandrias Norte dome identified a float of chalcedonic quartz that returned good gold grades. The nature of float is such that dimensions of mineralisation cannot be determined. Despite the lack of surface expression, a limited number of drill holes were collared in this area, with the best intersect being 19.5 m, assaying 3.3 g/t Au and 8 g/t Ag, including 0.6 m at 68.1 g/t Au and 107 g/t Ag. Lengths are intercepts and do not necessarily reflect true widths. Based on section interpretation, it is inferred that this area, named the La Morena vein zone, strikes northeast and dips steeply to the east-southeast.

Figure 7.15: Core mineralised intervals, CND123

7.3.2. Martinetas

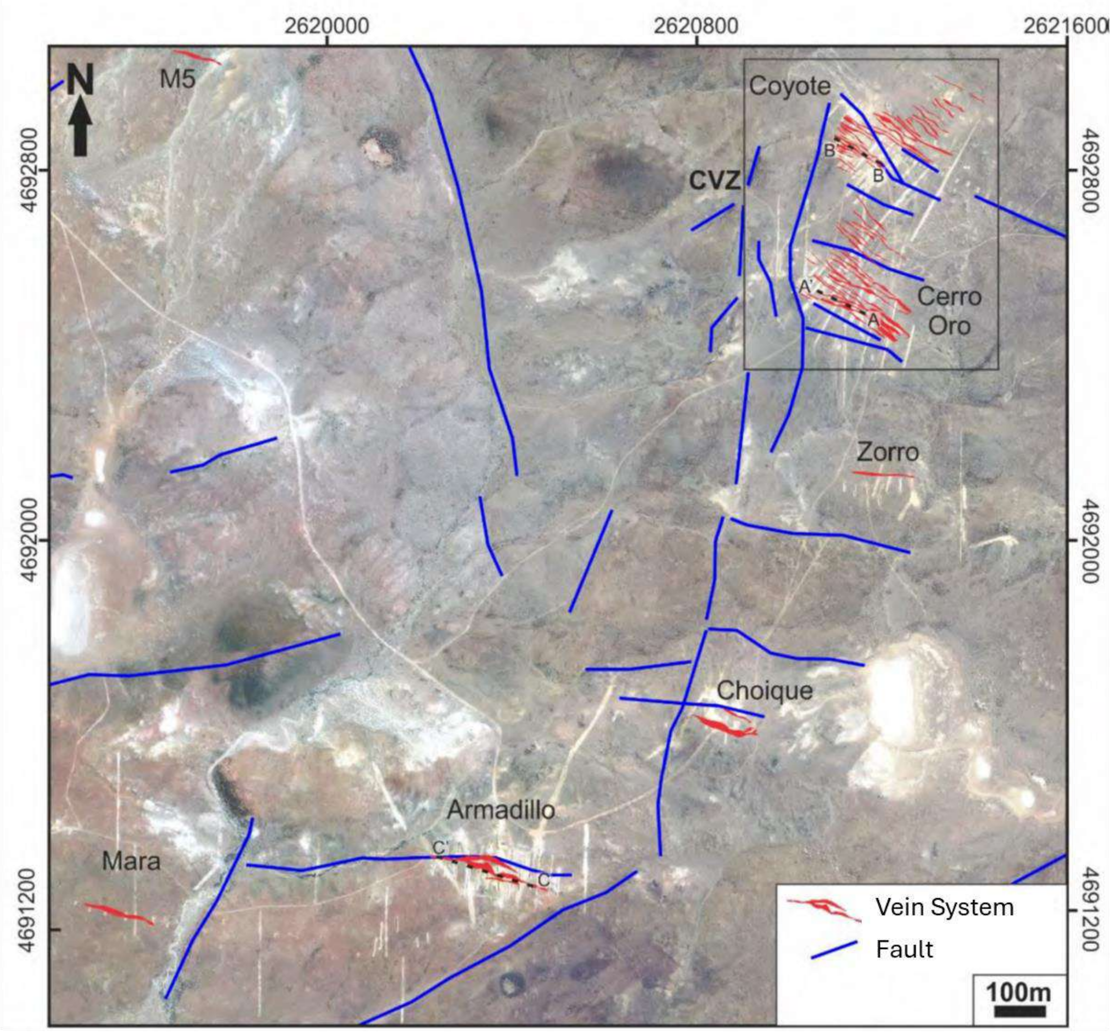
The Martinetas region contains multiple mineralised structures occurring as large "vein swarms" with minor intervening stockwork (Figure 7.16). and by more discrete localisation of continuous veins. The area has been extensively explored for more than 25 years, and for the most part, all known large deposits in the project area have been mined.

Mineralisation styles vary between sheeted and discrete quartz veins. The analysis of fractures, faults and host rocks of the vein systems shows that the main factors controlling the style and orientation of the mineralisation are the lithology, deformation style and fault kinematics (De Martino, 2021).

The Coyote and Cerro Oro deposits comprise a series of narrow, sub-parallel, anastomosing quartz veins varying in width from tens of centimetres to several metres, typically averaging 1 m or less in thickness. Au-Ag mineralisation is variable within the veins, with some minor stockwork mineralisation extending into the host volcanics.

Five resource areas have been delineated. The main resource is at the Coyote and Cerro Oro deposits, comprising a series of narrow, sub-parallel, anastomosing quartz veins varying in width from tens of centimetres to several metres, typically averaging 1 m or less in thickness. Au/Ag mineralisation is variable within the veins, with some minor stockwork mineralisation extending into the host volcanic lithology. Conceptually, near-surface oxidised stockwork precious metal mineralisation might provide a low-grade, conventional, heap-leachable resource.

Figure 7.16: Structural framework of veins systems in the Martinetas district (From Martino 2021).



7.3.3. Paloma Trend

The following description of the Sulfuro Vein within the Palom trend mineralisation has been taken from Fernadez *et al.* (2020).

The Paloma trend's primary orientation is NNW to NW and follows the architecture of preexisting faults cutting andesitic rocks (Figure 7.17).

The Sulfuro Vein corridor, located in the southern part of the La Paloma district, constitutes a 1000 m long and up to 600 m wide block occupied by several segments of mineralised lodes between 0.3 and 6 m thick (Figure 7.17). To the north, this trend turns to a WNW and an ENE orientation that confers an arcuate shape. In the Sulfuro vein, the mineralisation has been defined for 850 m along strike and to a depth of 250 m, with an average width of 3 m.

Vein filling includes several pulses. Fernandez *et al.* (2020) define the following sequence of hydrothermal events (Figure 7.18)

S1) Main stage - quartz including molybdenite-rich bands.

S2) Massive sulphide-bearing stage.

S3) Late stage dominated by fluorite, carbonates (calcite, dolomite with minor siderite), gypsum and cavities filled by clay minerals.

Figure 7.17: Structural framework of the Paloma Trend (Paloma Central Block) from Fernandez, 2022.

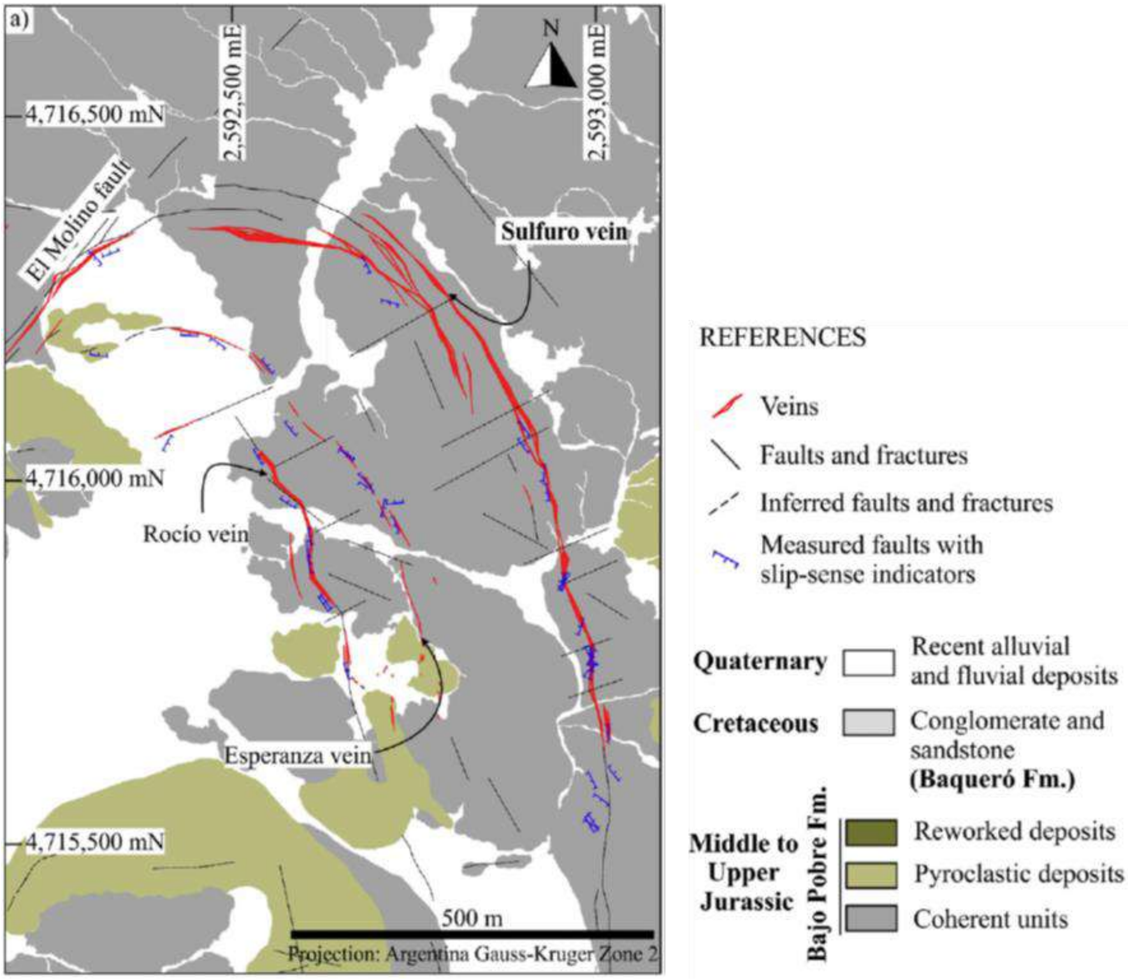
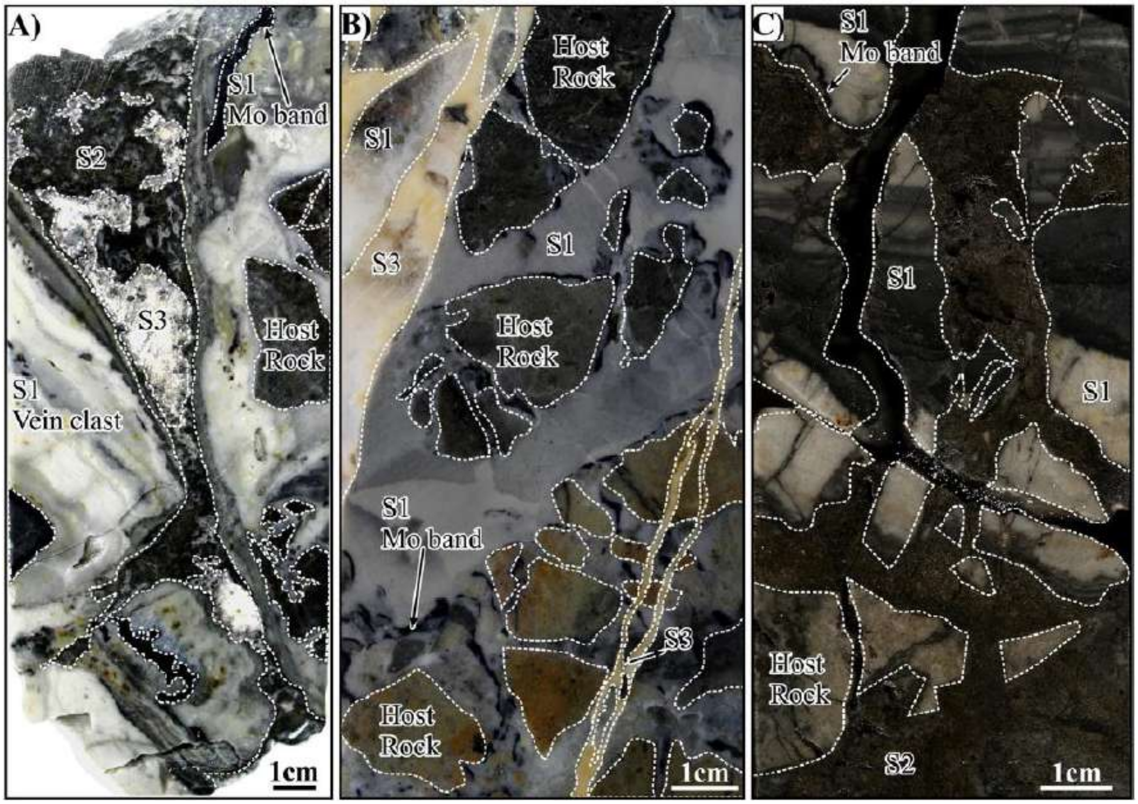


Figure 7.18: Multi pulse textures in Paloma Trend (refer to stages in text, after Fernandez et al. 2020).



8. DEPOSIT TYPES

8.1. Las Calandrias Area

The Deseado Massif hosts numerous low- to intermediate-sulphidation, epithermal, precious metal quartz vein and vein-breccia deposits, of which Las Calandrias Sur and Las Calandrias Norte deposits are examples. Hydrothermal activity and formation of these deposits closely followed episodes of the Jurassic magmatism and extension in the Deseado Massif (Ristorcelli *et al.*, 2018).

The Deseado Massif hosts many similar deposits and has become a significant gold-silver mining province since the discovery and development of the Cerro Vanguardia Mine in the early 1990s. The region hosts over thirty gold-silver mineralised areas and mines, including, but not limited to:

Mina Don Nicolás (Cerrado Gold)

- Mina Cap Oeste (Patagonia Gold PLC)
- Mina Cerro Moro (Yamana Gold Inc.)
- Mina Cerro Negro (Goldcorp Inc.)

Mina Cerro Vanguardia (AngloGold Ashanti Ltd. - Fomicruz S.E.)

- Mina Cose (Pan American Silver Corp.)
- Mina Manantial Espejo (Pan American Silver Corp.)
- Mina Martha (Hunt Mining Corp.)
- Mina San José (Joint Venture (JV) Hochschild Mining plc - McEwen Mining Inc.)

8.2. Martinetas and La Paloma Trend Area

The gold-silver deposits of the Deseado Massif are hosted in silicic volcanic and volcanic sedimentary Jurassic rocks related to arc or back-arc settings in Andean or extra-Andean settings. The ore geology, textures, mineralogy, restricted alteration, and geochemistry of these mineralised occurrences indicate they belong to the epithermal class of precious metal deposits. The deposits are mainly associated with quartz +/- calcite +/- adularia +/- illite alteration assemblages interpreted to represent low and intermediate sulphidation epithermal type deposits.

Known deposits represent diverse levels of erosion ranging from sinter formed at the paleo-surface to intermediate Au-Ag-rich quartz veins to base-metal-bearing Au-Ag veins that represent deeper levels of the epithermal systems. Based on metallic associations, the different deposits can be divided into:

- Au-Ag or Ag>Au;
- Polymetallic with Ag-Au or only Ag or;
- Complex polymetallic with Ag-Au.

Mineralisation is generally associated with discrete banded quartz vein structures ranging in width from 0.5 m to over 5 m. However, a disseminated form of weak stockwork quartz veining of less than 0.5 m width intermediate to the principal quartz structures occurs in some instances.

Extension fracturing developed in the Jurassic volcanic rocks, and the influx of meteoric waters into geothermal systems is considered the primary control of ore genesis.

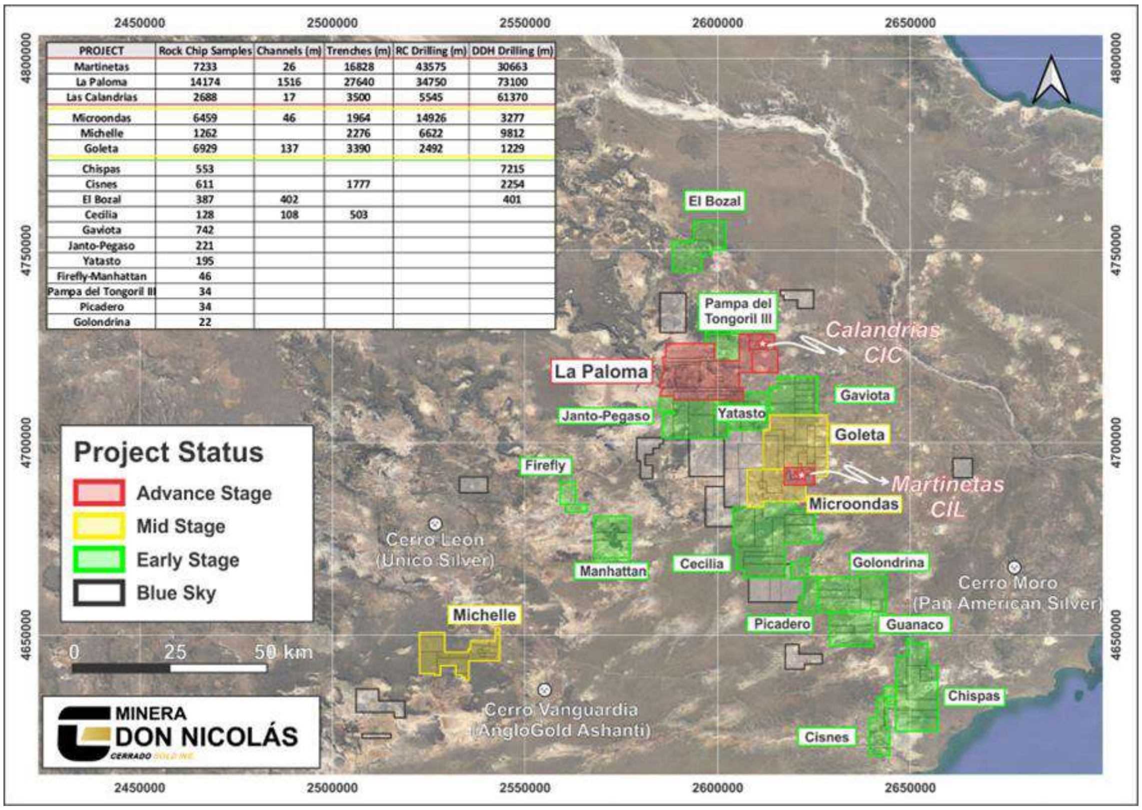
9. EXPLORATION

9.1. Introduction

The Minera Don Nicolás property is approximately 335,000 hectares, containing multiple mining properties and exploration projects, covering a sizable portion of the eastern sector of the Deseado Gold-Silver Massif (Figure 9.1). Four of these projects are in the advanced exploration stage, with several previously mined and operating deposits (Martinetas, La Paloma, Paula Andrea, Las Calandrias). Additionally, Cerrado has several projects in the middle and early stages, such as Microondas, Michelle, Goleta, and Chispas.

Please refer to the previous technical reports (SRK, 2020 and AGP, 2021) for exploration activities and results conducted before Cerrado acquired the Paloma/Martinetas property (Original MDN) and Calandrias.

Figure 9.1: MDN Property area and stages of exploration.



PROJECT	Rock Chip Samples	Channels (m)	Trenches (m)	RC Drilling (m)	DDH Drilling (m)
Martinetas	7233	26	16828	43575	30663
La Paloma	14174	1516	27640	34750	73100
Las Calandrias	2688	17	3500	5545	61370
Microondas	6459	46	1964	14926	3277
Michelle	1262		2276	6622	9812
Goleta	6929	137	3390	2492	1229
Chispas	553				7215
Cisnes	611		1777		2254
El Bozal	387	402			401
Cecilia	128	108	503		
Gaviota	742				
Janto-Pegaso	221				
Yatasto	195				
Firefly-Manhattan	46				
Pampa del Tongoril III	34				
Picadero	34				
Golondrina	22				

9.2. Cerrado Exploration 2020-2024

As district exploration has matured through the last decades, discovering new shallow targets has become more challenging. Consequently, exploration has primarily focused on discovering new, buried mineralisation on-site.

Cerrado's strategy has focused on reinterpreting the large amounts of data available and examining the application of new geological and geochemical concepts onsite, including producing new:

- lithological, structural, and alteration maps,
- surface sampling results (rock chip, soils, lag),
- re-logged drill hole data to capture features previously overlooked,
- reinterpreted geological sections,
- terrestrial magnetometry measurement and processing products,
- reinterpreted CSAMT and IP sections.

These efforts have laid the groundwork for drilling campaigns to discover new deposits beneath epithermal paleosurfaces, which will be described in the following sections. Additionally, campaigns have been conducted to extend and confirm resources (infill) in operating deposits at Martinetas, La Paloma, Paula Andrea, and Las Calandrias (Figure 9.2 and Figure 9.3).

Figure 9.2: Total Exploration drilling by year and data type.

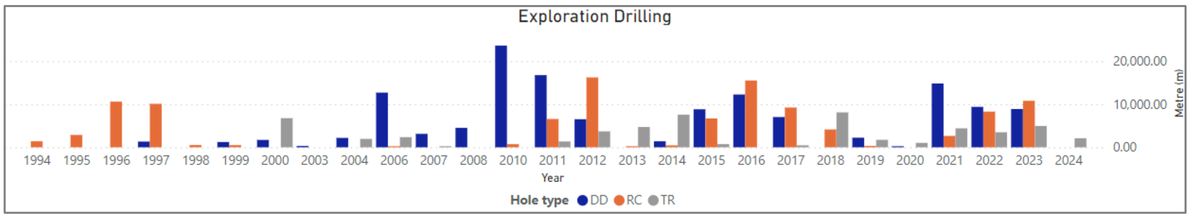
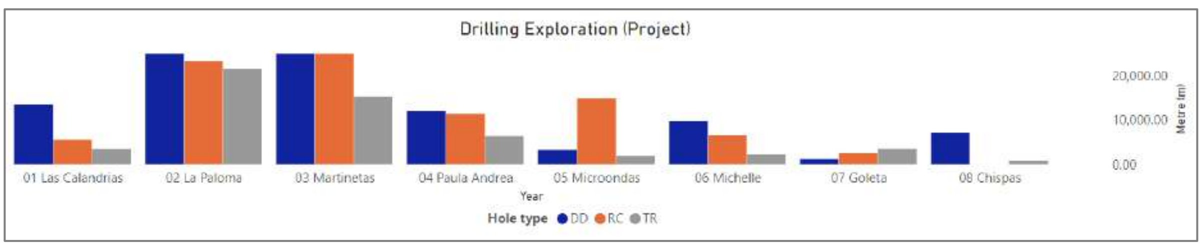


Figure 9.3: Drilling exploration by Project and data type.



9.2.1. Las Calandrias

The mineralisation at Calandrias is typified as a shallow, low-sulphidation epithermal gold-silver deposit.

Calandria Sur occurs in a rhyolite dome that underwent pervasive hydrothermal brecciation. The project is the first example of bulk-tonnage gold-silver mineralisation hosted in a dome-related hydrothermal breccia discovered in Patagonia's Jurassic epithermal precious-metal province. The highest gold-grade intercepts are hosted in strongly silicified breccias overprinted by a marcasite-pyrite stockwork.

The epithermal veins in Calandrias Norte are composed entirely of dense, texture-less chalcedony, partly hydrothermally brecciated (Figure 9.4). The veins appear irregularly developed but at least locally attain about 1 metre in width. Part of the brecciated and non-brecciated vein material contains abundant sulphides that are partly transformed to gossan at the immediate surface. The vein chalcedony is locally crustified, and the vugs within the veins are filled with massive kaolinite. Table 9-1 and Figure 9.5 outline the exploration undertaken on Calandrias since 2021.

Figure 9.4: Schematic reconstruction of Calandrias Norte.

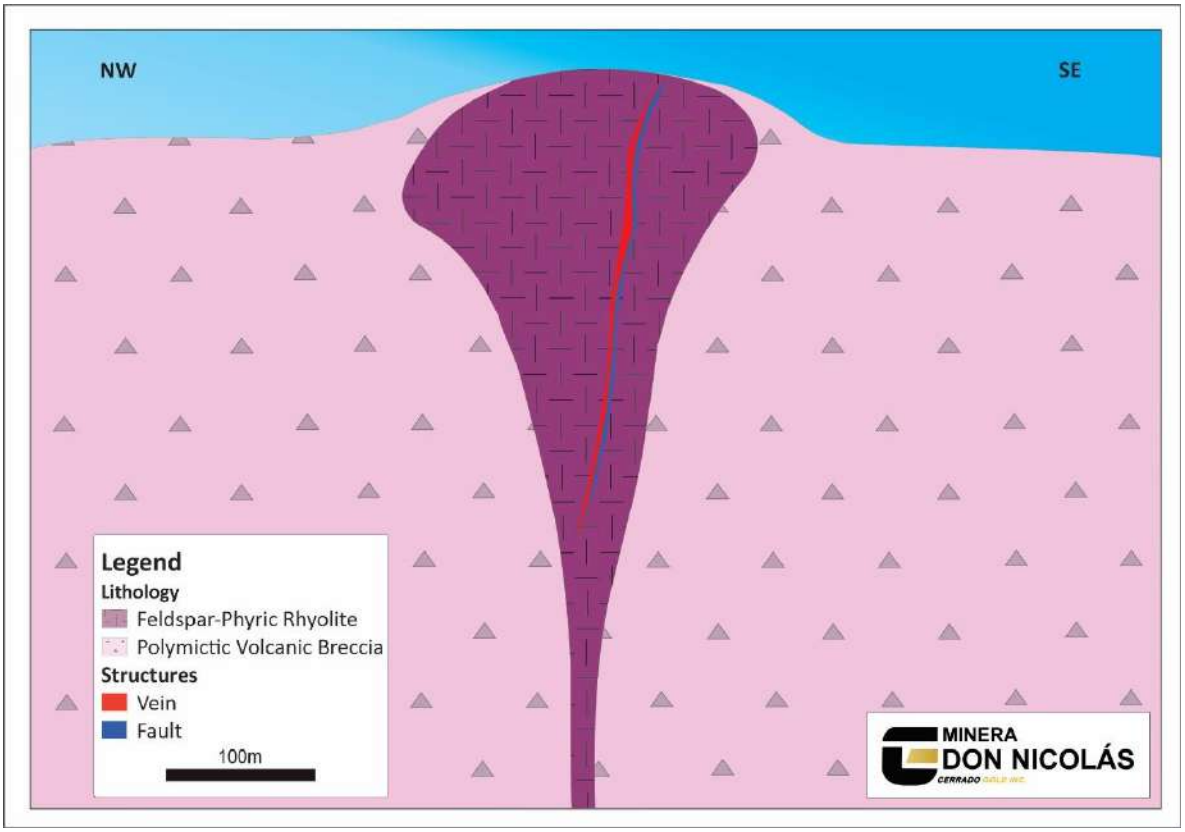


Table 9-1: Las Calandrias Drilling and Sampling by year and type since 2021.

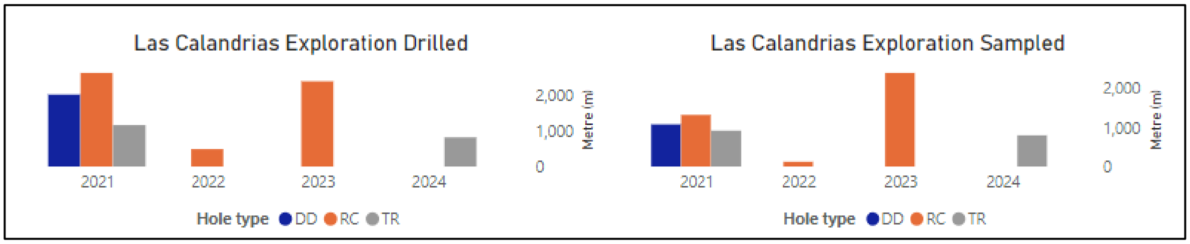
Las Calandrias Exploration Drilled

Date	DD	RC	TR	Total
2021	2,021	2,640	1,170	**5,831**
2022		500		**500**
2023		2,405		**2,405**
2024			828	**828**
Total	**2,021**	**5,545**	**1,998**	**9,564**

Las Calandrias Exploration Sampled

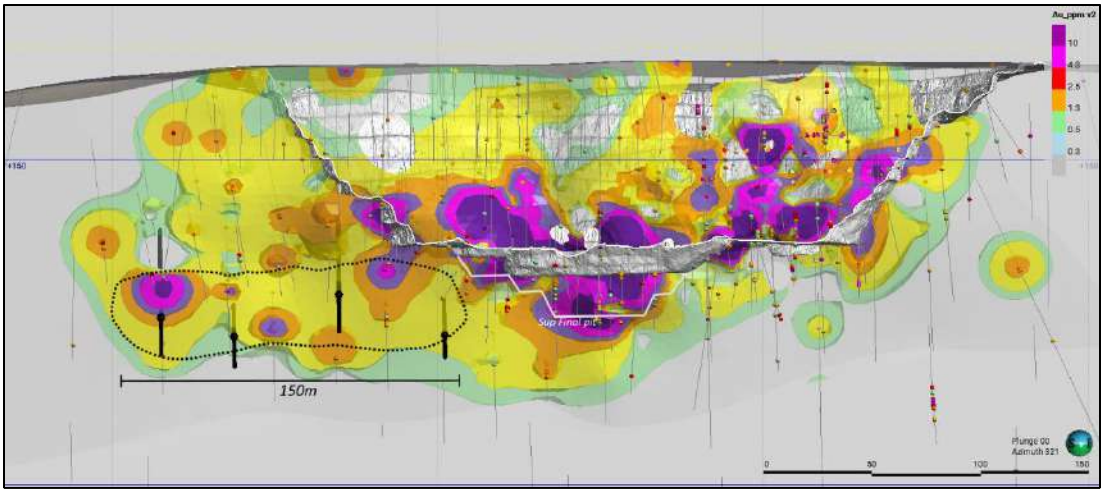
Date	DD	RC	TR	Total
2021	1079	1320	921	**3320**
2022		121		**121**
2023		2396		**2396**
2024			803	**803**
Total	**1079**	**3837**	**1724**	**6640**

Figure 9.5: Las Calandrias Drilling and Sampling by year and type since 2021.



The current geological model for Calandria Norte highlights an opportunity to extend the main shoot in Calandrias North at depth along a SW plunge. The gold distribution (Figure 9.6) shows a good lateral extension below the pit zone, which highlights the deposit's underground potential.

Figure 9.6: Grade distribution in and near pit, Calandrias Norte.

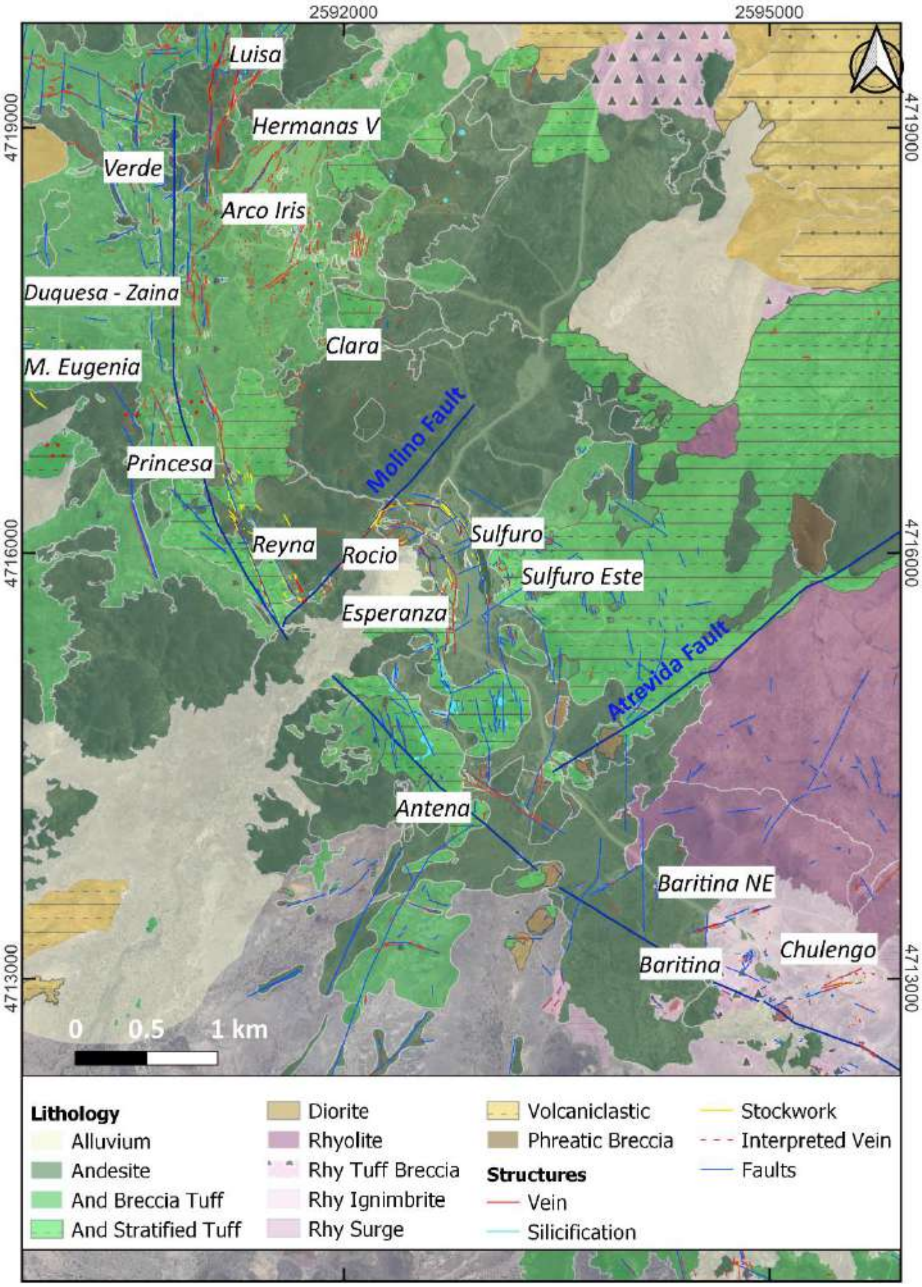


9.2.2. La Paloma (North & Central Block)

The Paloma district blocks are in the northeastern sector of the Deseado Massif, Santa Cruz province, Argentina. (Figure 9.7). It is located 45 km from the CIL process plant at the Martinetas flagship project.

The Paloma North block is represented by an andesitic sequence of volcanic breccias (sectors with large lithics), stratified tuffs and porphyry andesites. The veins exhibit colloform to massive textures of chalcedonian silica with a primary NE-SW and N-S orientation. The areas of interest identified thus far include Verde (N-S), Hermanas V (NE-SW), Arco Iris (NE-SW), Clara (N-S), Luisa (NE-SW), Reyna-Princesa (N-S), and Duquesa-Zaina-Maria Eugenia (E-W to ENE-WSW).

Figure 9.7: La Paloma North and Central Blocks.



NE faults bound the Paloma Central block to the north (Molino fault) and the south (Atrevida fault). The host rocks are andesitic lavas and pyroclastic sequences, with pervasive silica replacements coinciding with the highest topographical zones representing silica caps.

The main mineralised structures in this block trend NNW, with the largest being the Sulfuro vein, which concentrates the largest resources in the area. This block includes Sulfuro, Rocío, Esperanza, Sulfuro Este, and Antena. The occurrence of the mined deposits mentioned above demonstrates the potential for intermediate sulphidation veins and fault veins.

Sulfuro East was discovered in 2023 by Cerrado geologists exploring a near-surface silica cap 300 m west of the main Sulfuro vein. The reinterpretation of a historic CSAMT geophysics survey produced a remarkable similarity in the RES patterns identified under the silica cap at a depth greater than 100 m. This RES pattern (steep dipping zones of high and low resistivity) also occurs in Sulfuro, Rocio, and Esperanza veins.

Table 9-2: La Paloma Drilling and Sampling by year and type since 2020.

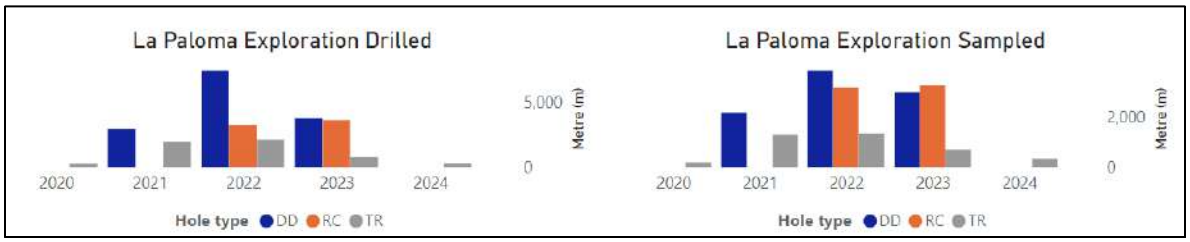
La Paloma Exploration Drilled

Date	DD	RC	TR	**Total**
2020			288	**288**
2021	2,970		1,981	**4,951**
2022	7,459	3,275	2,105	**12,839**
2023	3,774	3,639	771	**8,184**
2024			306	**306**
Total	**14,203**	**6,914**	**5,451**	**26,568**

La Paloma Exploration Sampled

Date	DD	RC	TR	**Total**
2020			188	**188**
2021	2169		1295	**3464**
2022	3850	3163	1350	**8363**
2023	2994	3267	702	**6963**
2024			344	**344**
Total	**9013**	**6430**	**3879**	**19322**

Figure 9.8: La Paloma Drilling and Sampling by year and type since 2020



Relevant drilling results are summarised in Table 9-3 and Table 9-4. The best intercept from the 2023 drilling program included 3.6 m @ 5.4 g/t Au and 3.8 g/t Ag from 116.4 m. The company believes that the early results warrant a follow-up delineation drilling program. Following the economic evaluation of the Sulfuro vein completed in this report, Sulfuro East will be examined for its potential integration into the district's underground project.

Table 9-3: Sulfuro East Drill relevant intercepts.

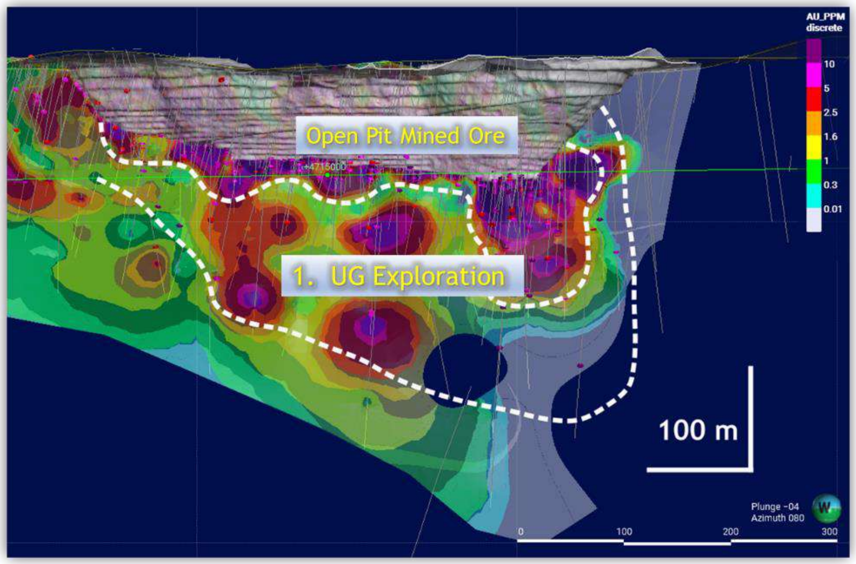
Hole id	From	To	Length	Au_ppm	Ag_ppm	Intercept	Target
S-D23-229	25	26	1	0.9	0.7	3 m @ 0.85 ppm Au - 0.4 ppm Ag Including 1m @ 1.36 ppm Au - LLD Ag	Sulfuro East
	26	27	1	0.2	0.25		
	27	28	1	1.4	0.25		
S-D23-230	155	155.7	0.7	1.5	1.2	4.4 m @ 7.1 ppm Au - 1.6ppm Ag	
	155.7	156.4	0.7	0.5	1.7		
	156.4	157.2	0.8	4.7	1.6		
	157.2	158	0.8	29.6	2		
	158	158.8	0.8	2.1	2.1		
	158.8	159.4	0.6	1.4	0.8		
	175.3	176	0.7	15.5	6.9	1.4 m @ 7.97 ppm Au - 4 ppm Ag	
	176	176.7	0.7	0.4	1.1		
	183.5	184.3	0.8	1.0	1.5	0.8 m @ 1 ppm Au - 1.5 ppm Ag	
	186.7	187.3	0.6	3.1	1.9	0.6 m @ 3.1 ppm Au - 1.9 ppm Ag	
	218.3	218.9	0.6	0.2	3.3	1.2 m @ 2.8 ppm Au - 102.5 ppm Ag = 1.2 m @ 4.03 ppm AuEq	
	218.9	219.5	0.6	5.4	201.7		
S-D23-231	28	29	1	0.7	0.25	1 m @ 0.7 ppm Au - LLD Ag	
S-D23-232	202	203	1	0.6	1.4	1 m @ 0.6 ppm Au - 1.4 Ag	
	211	212	1	0.6	0.9	1 m @ 0.6 ppm Au - 0.9 Ag	
S-D23-233	92.1	93	0.9	0.6	2	1.85 m @ 0.62 ppm Au - 1.25 ppm Ag	
	93	93.95	0.95	0.6	2.3		
	105.2	106	0.8	0.6	1.9	3.8 m @ 0.33 ppm Au - 0.7 ppm Ag	
	106	107	1	0.3	0.9		
	107	108	1	0.1	0.25		
	108	109	1	0.3	0.6		
	109	110	1	0.8	1.6	2 @ 1.95 ppm Au - 1.65 ppm Ag	
	110	111	1	3.1	1.7		
	111	112	1	0.3	1.4	6 m @ 0.4 ppm Au - 0.7 ppm Ag	
	112	113	1	0.2	0.7		
	113	114	1	0.8	0.8		
	114	115	1	0.2	1		
	150	151	1	0.3	0.25		
	151	152	1	0.5	0.25		
	157.9	158.8	0.9	0.2	0.25	3.1 m @ 0.6 ppm Au - 1.5 ppm Ag	
	158.8	160	1.2	0.7	2.1		
	160	161	1	0.8	1.9		
	182	183	1	0.4	2.3	2.6 m @ 0.5 ppm Au - 1.25 ppm Ag	
	188.3	189	0.7	0.7	0.6		
	194.1	195	0.9	0.4	0.6		
S-D23-235	76.45	76.95	0.5	0.4	4.6	1.55 m @ 1.25 ppm Au - 5.3 ppm Ag	
	76.95	77.45	0.5	2.0	4.5		
	77.45	78	0.55	1.5	6.7		
	80	81	1	0.3	2.7	1 m @ 0.3 ppm Au - 2.7 ppm Ag	
	86	87	1	0.6	0.9	1 m @ 0.6 ppm Au - 0.9 Ag	

Table 9-4: Sulfuro East Drill relevant intercepts part 2.

Hole Id	From	To	Length	Au_ppm	Ag_ppm	Intercept	Target
S-D23-236	136.25	136.8	0.55	8.3	11.7	1.3 m @ 5.5 ppm Au - 5.7 ppm Ag	Sulfuro East
	136.8	137.55	0.75	3.4	1.3		
	154.7	155.2	0.5	0.5	1	1.3 m @ 0.4 ppm Au - 1.25 ppm Ag	
	155.2	156	0.8	0.4	1.4		
S-D23-237	205.7	206.15	0.45	3.95	2	0.45 m @ 3.95 ppm Au - 2 ppm Ag	
	210	210.4	0.4	0.69	1.1	1 m @ 1.2 ppm Au - 1 ppm Ag	
	210.4	211	0.6	1.6	0.9		
	213	213.7	0.7	1.01	17.1	0.7 m @ 1.01 ppm Au - 17.1 ppm Ag	
	217.65	218.4	0.75	1.22	1.8	0.75 m @ 1.2 ppm Au - 1.8 ppm Ag	
	228.6	229.1	0.5	1.45	3	0.9 m @ 1.05 ppm Au - 2.3 ppm Ag	
	229.1	229.5	0.4	0.53	1.6		
	237	238	1	1.04	0.6	1 m @ 1 ppm Au - 0.6 ppm Ag	
	240.4	240.8	0.4	0.21	0.9	0.9 m @ 1.1 ppm Au - 10.5 ppm Ag	
	246.7	247.5	0.8	1.01	1.5	0.8 m @ 1 ppm Au - 1.5 ppm Ag	
	248	248.5	0.5	1.67	1.3	0.5 m @ 1.7 ppm Au - 1.3 ppm Ag	
	270	270.4	0.4	0.95	1.4	0.4 m @ 0.95 ppm Au - 1.4 ppm Ag	
S-D23-238	93.7	94.4	0.7	0.43	1.1	1.3 m @ 5.8 ppm Au - 6.7 ppm Ag	
	94.4	95	0.6	11.99	13.2		
	116.4	116.85	0.45	0.97	1.3	3.6 m @ 5.4 ppm Au - 3.8 ppm Ag	
	116.85	117.4	0.55	2.08	1.4		
	117.4	118.1	0.7	0.51	1.9		
	118.1	119	0.9	0.08	0.6		
	119	120	1	17.5	10.4		
	124	125	1	1.77	81.7	1 m @ 1.8 ppm Au - 81.7 ppm Ag	
	126.6	127	0.4	1.11	2.9	0.4 m @ 1.1 ppm Au - 2.9 ppm Ag	
	128.55	129	0.45	1.35	3.9	0.45 m @ 1.35 ppm Au - 3.9 ppm Ag	
	133.6	134	0.4	1.33	1.9	1.4 m @ 3.2 ppm Au - 1.8 ppm Ag	
	134	134.5	0.5	0.19	1.1		
	134.5	135	0.5	7.73	2.3		

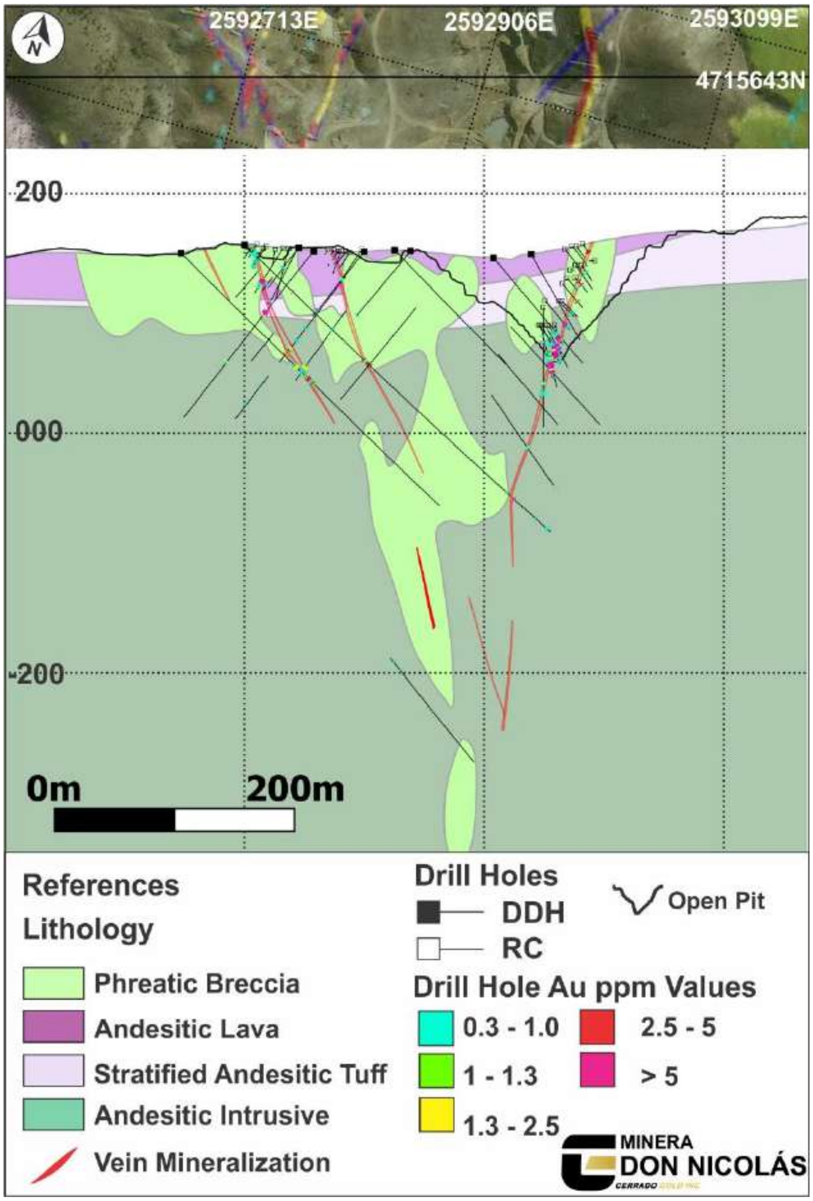
In addition to Sulfuro East, other areas of extensional potential occur in the main Sulfuro vein, where second-order mineralised plunges remain open at depth (Figure 9.9).

Figure 9.9: Sulfuro, showing the mined pit and the modeled underground grade distribution.



The targets with the most potential within the central block are shoots that remain open under the pit (Figure 9.10). These zones are being assessed to increase the resources and contribute to the underground operation plan described in this report.

Figure 9.10: Cross-section of the HG veins in the underground portion of Sulfuro.

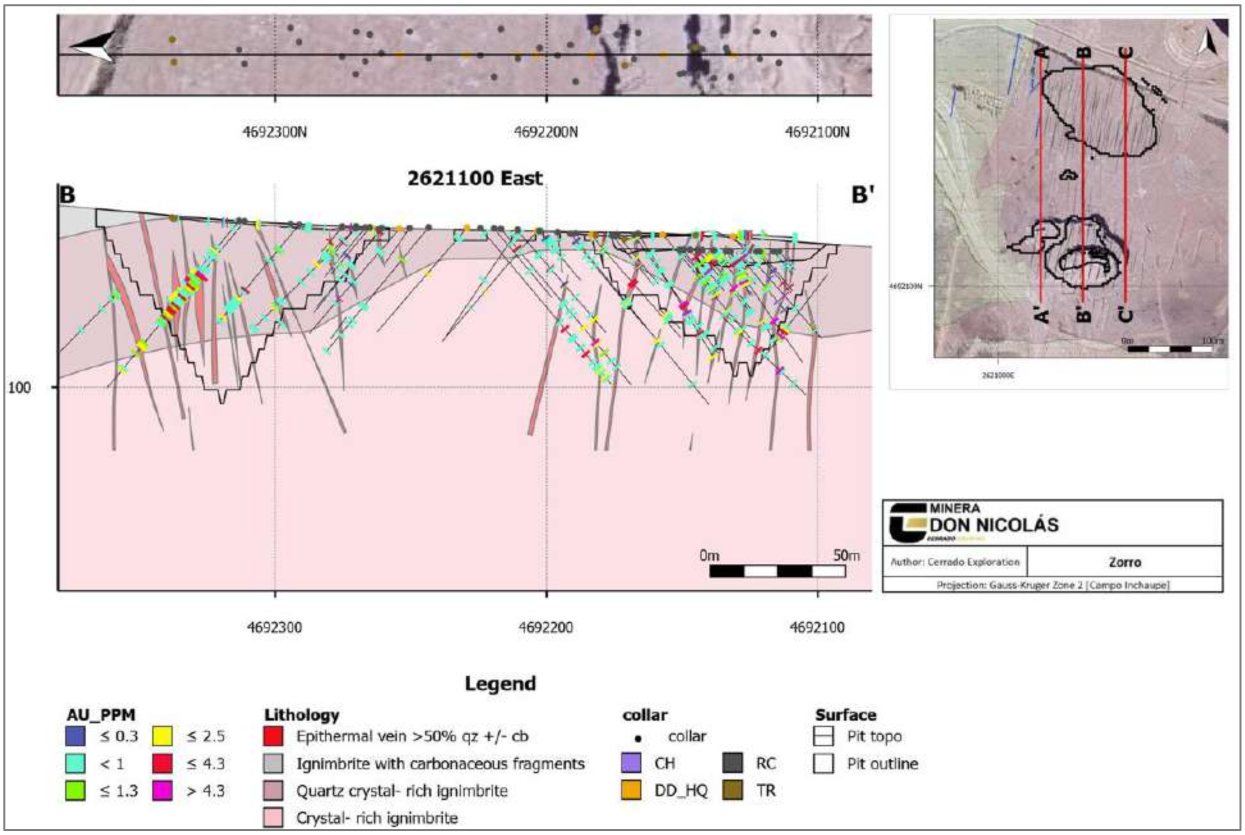


9.2.3. Martinetas

The Martinetas low-sulfidation epithermal deposit is hosted by the Jurassic Bahía Laura Volcanic Complex (BLVC; De Martino *et al.*, 2020a). Extensive pyroclastic and interbedded silicic and meso-silicic volcanic units locally represent the BLVC. This sequence is covered by massive ignimbrites and intruded by a swarm of rhyolitic dikes.

Deposits in this area are composed of discrete and sheeted low-sulphidation quartz veins. The main mineralised zone is in the Central Vein Zone, which includes both the Cerro Oro and Coyote targets, where the sheeted veins are aligned in an NW trend. The same veining type occurs at the Zorro target to the south (Figure 9.11).

Figure 9.11: Cross Section of the geology, drilling and veins at Zorro.



The other three deposits– Choque, Armadillo and Mara, are aligned in an E-W orientation. Choique is a structurally controlled, disseminated deposit in a riodacite dome. The other two to the west have a well-developed *en-eschelon* vein system, with Armadillo containing a phreatic breccia cutting the main vein. This phreatic breccia contains high-grade mineralised clasts placed during the pre-explosive event.

Exploration campaigns from 2020-2022 focused on extending known mineralisation. At Mara in 2023, the Mara Oeste vein was examined, which delineated a quartz structure about 200 metres in strike length, although no economic values in Au or Ag were recorded (Table 9-5, Figure 9.12).

Table 9-5: Martinetas Drilling and Sampling by year and type since 2020.

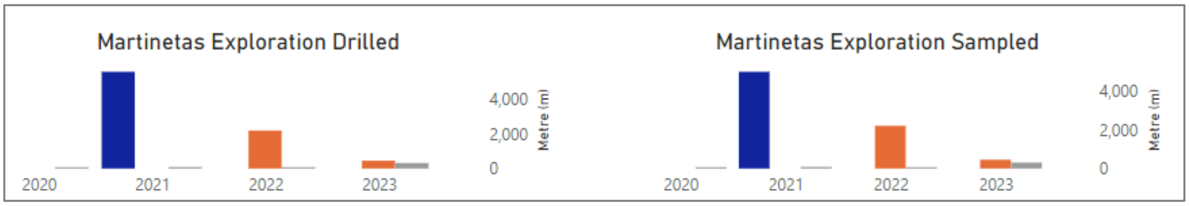
Martinetas Exploration Drilled

Date	DD	RC	TR	Total
2020			3	**3**
2021	5,628		87	**5,715**
2022		2,208	13	**2,221**
2023		454	319	**773**
Total	**5,628**	**2,662**	**422**	**8,712**

Martinetas Exploration Sampled

Date	DD	RC	TR	Total
2020			7	**7**
2021	5003		81	**5084**
2022		2208	22	**2230**
2023		454	306	**760**
Total	**5003**	**2662**	**416**	**8081**

Figure 9.12: Martinetas Drilling and Sampling by year and type since 2020.



Exploration of further significant-value veins, such as those in Armadillo (Figure 9.13 and Figure 9.14), Cerro Oro, Coyote, and Choique, requires understanding their main controls at depth. Diamond core was re-logged, sections were reinterpreted, and new detailed maps were produced, revealing the presence of a post-mineral phreatic breccia that cuts the mineralisation. Examining the origin and geometry of these breccias at depth indicates these deposits have the potential to grow as Cerrado's understanding of the local geology does.

Figure 9.13: Plan view of Armadillo Pit. The 2D section line is shown in green.

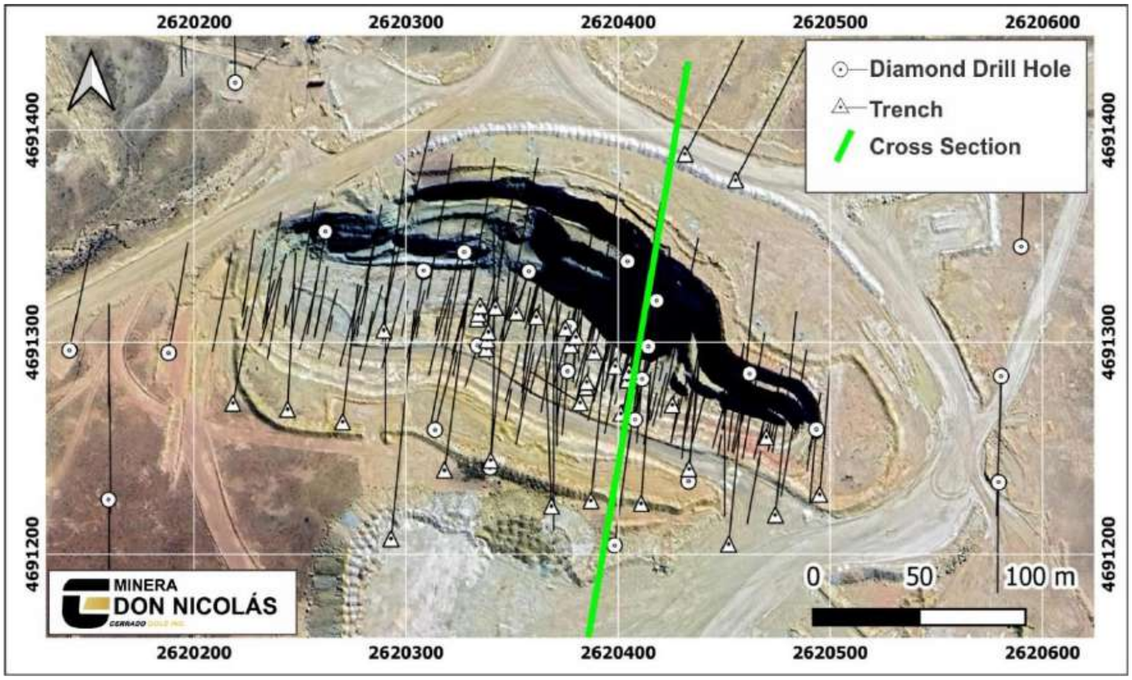


Figure 9.14: Idealised Geological Section through Armadillo.

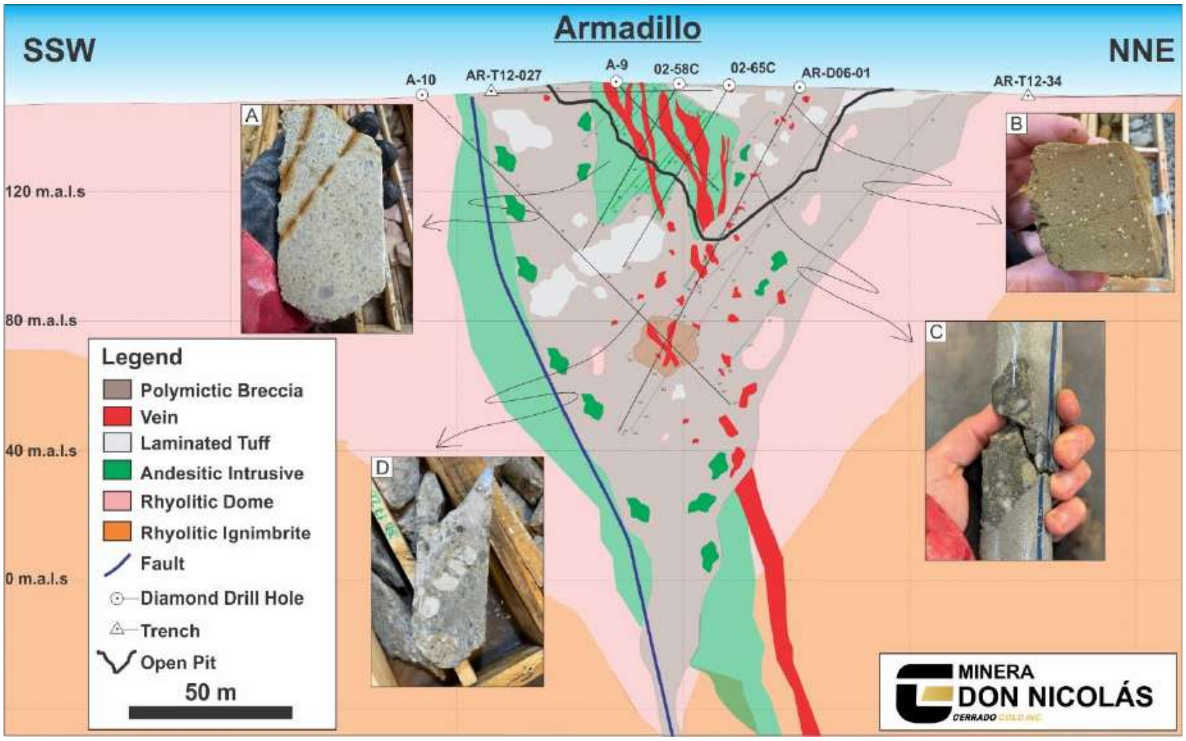


Figure 9.14 shows a section through the Armadillo deposit, with a conceptual deep upside. Within the figure, the labelled images show the typical rock types for the deposit, including:

A) **Porphyritic andesite** with strong argilization. Vesicles are filled with hydrothermal silica in the vein zone.

B) **Tuff with accretionary lapilli** from the upper zone of the breccia. As depth increases the lapilli become smaller until only a homogenous matrix exists in the breccia.

C) **A Hydrothermal breccia clast** encased in the hydro-magmatic breccia matrix. These clasts can be highly mineralised and contain significant grades.

D) **A sample of polymictic breccia** with rounded vein clasts contained within. These can be highly mineralised as well. Paula Andrea (Paloma South block).

9.2.4. Paula Andrea (Paloma South block)

Paula Andrea is located on the southern block of the La Paloma project. It consists of a pyroclastic sequence of rhyolitic composition (tuffs, brecciated tuffs, stratified brecciated tuffs, polymictic brecciated tuffs and welded ignimbrites), an andesitic intrusive unit and a rhyolitic dome (in the NE sector of the block). Unlike the northern and central blocks, the mineralisation is disseminated and associated with phreatic breccias, which shows strong lithological control. It includes the targets Baritina, Chulengo, Cerro Caracol, Carlitos Way, Corredor NW and Araña. Targets range from intermediate to high sulphidation epithermal, and their relative locations and surficial geology can be seen in Figure 9.15.

Figure 9.15: Paula Andrea Project Area.

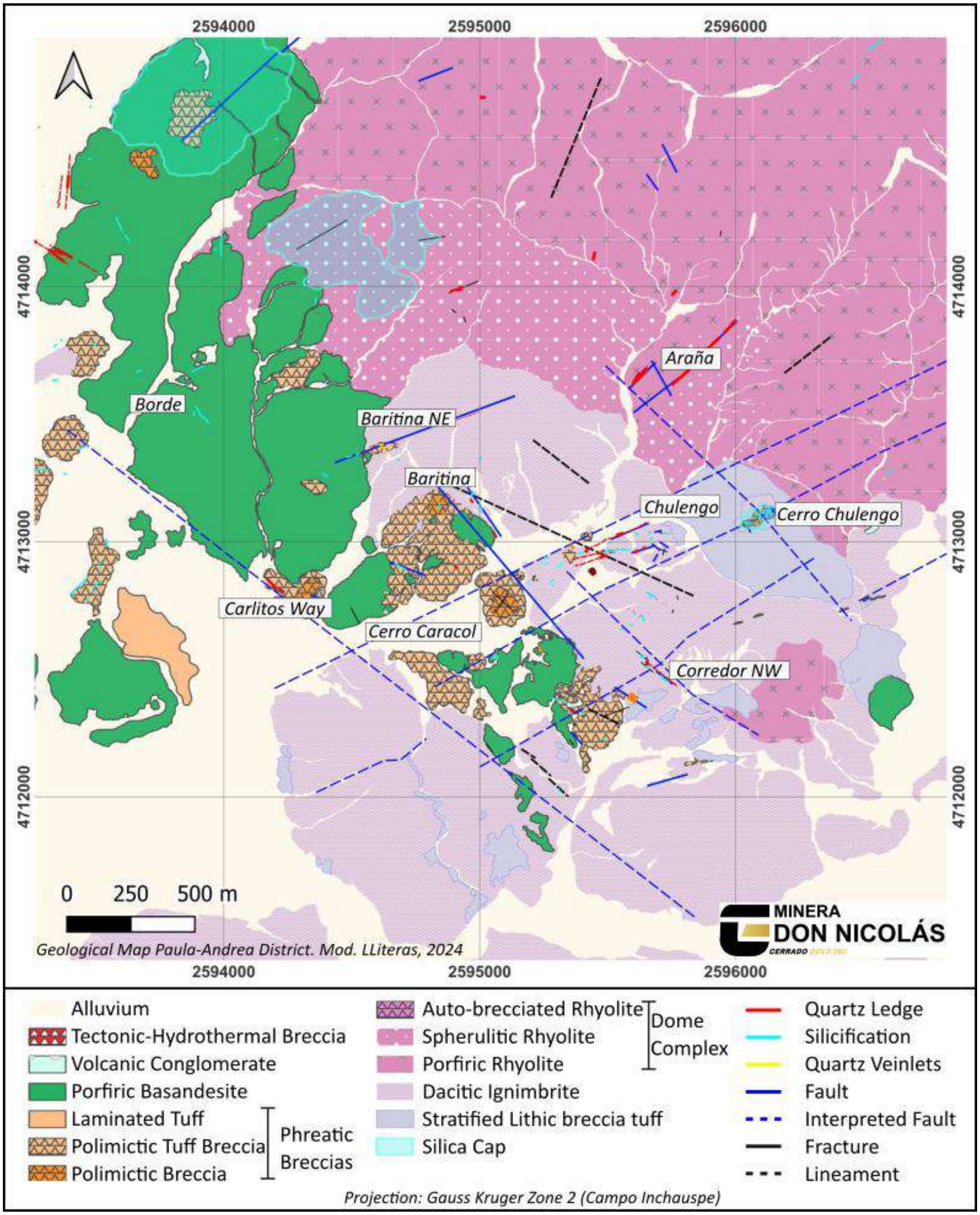
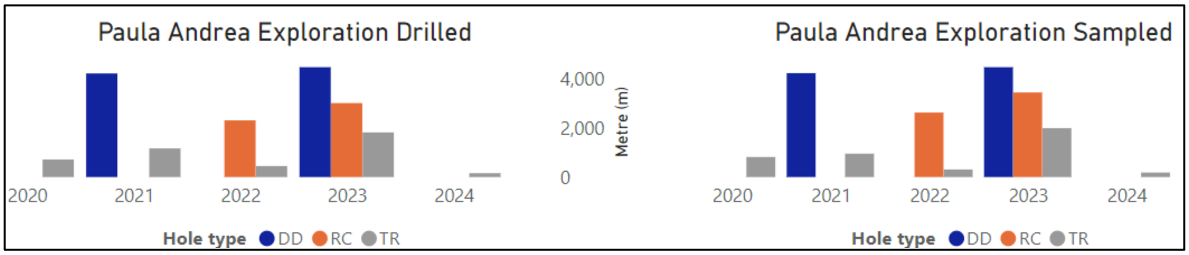


Table 9-6: Paula Andrea Drilling and Sampling by year and type since 2020.

Date	DD	RC	TR	Total
2020			712	**712**
2021	4,210		1,163	**5,374**
2022		2,304	447	**2,751**
2023	4,465	3,006	1,814	**9,285**
2024			158	**158**

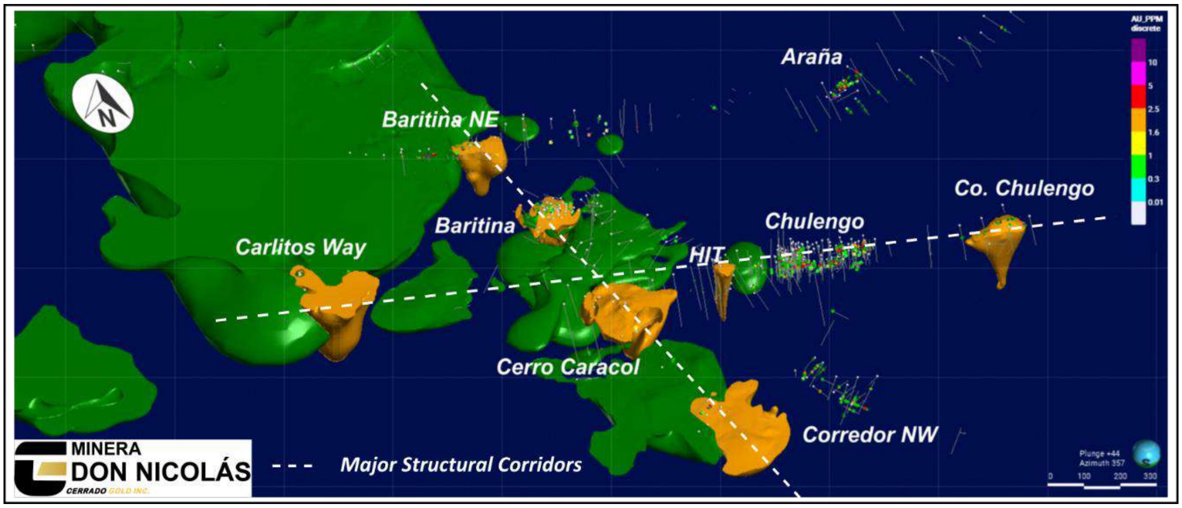
Date	DD	RC	TR	Total
2020			696	**696**
2021	3609		812	**4421**
2022		2240	263	**2503**
2023	3816	2938	1697	**8451**
2024			157	**157**

Figure 9.16: Paula Andrea Drilling and Sampling by year and type since 2020.



The Breccia geometries and mineralisation follow an ENE and NW trend, crossing structural trends. In the case of the ENE trend, a mineralisation plunge of approximately 15° towards the WSW was modelled due to the dip of ignimbrite units (Figure 9.17).

Figure 9.17: La Paloma area deposits and structures.



Relevant Intercepts in Paloma South Block can be seen at Table 9-7.

Table 9-7: La Paloma relevant intercepts.

Hole_ID	From	To	LENGTH	AU_PPM	AG_PPM	Intercept	Target
PA-D23-110	79	79.6	0.6	51.71	27.4	**0.6m @ 51.7 ppm Au**	**Carlitos Way**
PA-RC23-129	24	25	1	4.17	0.25	**2 m @ 4.36 g/t Au**	**Corredor NW**
	25	26	1	4.55	0.25		
PA-RC23-104	32	33	1	2.59	1	**2 m @ 3.1 ppm Au**	**Chulengo**
	33	34	1	3.61	0.25		
PA-D23-116	53	54	1	18.5	0.25	**1 m @ 18.5 ppm Au**	**Cerro Caracol**

9.2.5. Microondas

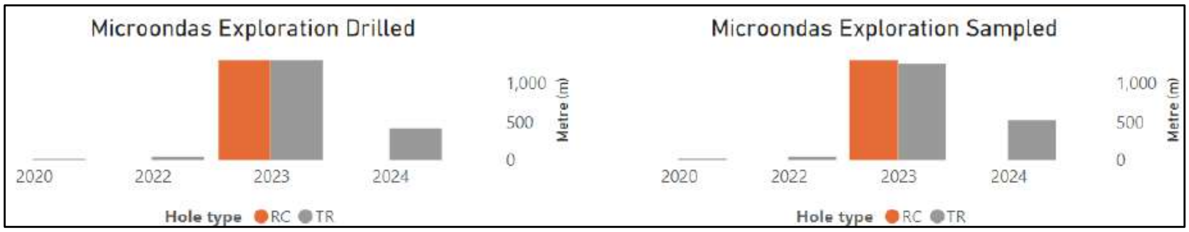
The Microondas Project area is located immediately southwest of Martinetas and shares a similar lithological framework with coherent and fragmentary rhyolitic units intruded by semi-spherical, bubble-like bodies and andesitic dikes. In 2023, a 1,300-metre reverse air drilling campaign was carried out on La Macarena and Quizas targets discovered in 2023, which returned spotty economic Au values with low continuity. Table 9-8 and Figure 9.18 show the total sampling done in exploration from 2023 to now.

Table 9-8: Microondas Drilling and Sampling by year and type since 2020.

Date	RC	TR	Total
2020		17	**17**
2022		47	**47**
2023	1,300	1,300	**2,600**
2024		411	**411**

Date	RC	TR	Total
2020		23	**23**
2022		47	**47**
2023	1294	1244	**2538**
2024		517	**517**

Figure 9.18: Microondas Drilling and Sampling by year and type since 2020.

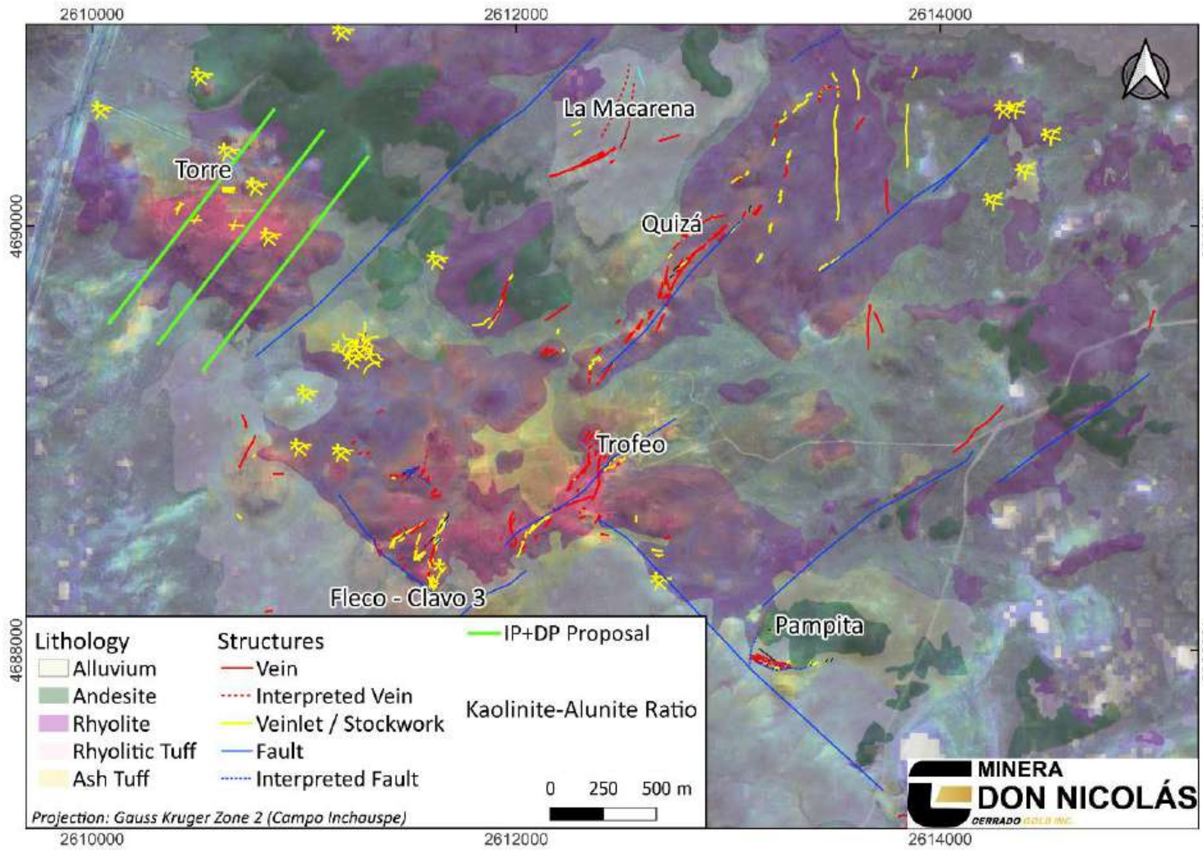


Microondas is a prime candidate for deep exploration. At the surface, there are areas with strong high-temperature alteration and, in Cerro Torre, a silica cap, indicating the area was high in the epithermal system when it was formed. The outcropping structures, mainly NE-trending shear zones, are thin and discontinuous, suggesting they are only the very superficial expressions of a fertile system, evidenced by the erratic high Au grades presented by targets such as La Macarena, Quizá, Trofeo (included in the MRE in this report), Pampita, and Fleco.

Strong geomorphological features and the distribution of alteration, as determined by ASTER processing (GoldSpot, 2022), may indicate the presence of a NW structure in addition to the known NE structure. This is significant as, in the eastern sector of the Deseado Massif, the main mineralisation is in NW trends (Cerro Vanguardia, Cerro Moro, Cerro León).

The following steps for this project will involve testing these areas with IP/RES geophysics to understand their at-depth potential (Figure 9.19).

Figure 9.19: Lithological map of Microondas with IP and DP lines shown in green. A heatmap of Kaolinite-Alunite ratios (hot = high values, cold = low values) is overlaid.



9.2.6. Michelle

The Michelle project area is a greenfield early-stage exploration prospect adjacent to AngloGold Ashanti's multi-million-ounce Cerro Vanguardia gold-silver mine. Several veins (Jackpot, Paris, Luxor, etc.) exhibiting low sulphidation epithermal emplacement into the host rock can be traced at the surface from Cerro Vanguardia into Michelle's property.

Historically, the area was known as “Condor-Estrella.” In the second half of the 1990s, Yamana Resources conducted the region's first reconnaissance mapping and target generation. They identified the main surface veins and conducted the first drilling campaign in 1997.

Structure is critical to understanding the geology of the project area. The volcanic host rock is intruded in areas by exposed clusters of NW to WNW trending low-sulphidation epithermal vein systems. On the same general trend, post-mineralisation faults (Paris, Gran Sierra and Estrella) have created a hemi-graben terrain, which allowed the northern block to thrust up relative to the southern region and led to the current definition of three exploration sectors:

1) A deep sector exposed to the NE of the property (Paris);
2) A shallow sector in the central block of the property (Casino Royale – Circus – Grand Sierra); and, Spot
3) A shallow sector to the SW of the property (Michelle – Jackpot).

The geological formations cut by the faulting include the Roca, Bajo and Chon Aike (These are described in Chapter 5). The Monte León Formation (Oligocene) partially covers the mineralised blocks.

Exploration on the property to date includes approximately 15,000m of historical drilling (Yamana 2006 and IRL, 2011 programs) concentrated on targets in the NE and Central part of the property. Cerrado has not validated the historic drilling, and data from its collection is only used as a general reference (See Table 9-9).

Table 9-9: Historical Michelle Drilling.

Company	Year	DDH	
		Total	Metres
Yamana	**1997**	42	6,622
IRL	**2011-2012**	66	9,282
Total		108	15,904

Additionally, the property has been covered by several geophysical surveys, including airborne Mag (894 l Km) and CSMAT (95-line km). These were chosen because they are helpful tools for mapping structures and defining contact zones based on conductivity or magnetic contrasts.

For Michelle, GoldSpot (Section 9.3) developed lineament and geological fabric products from different regional data sets (e.g. Magnetics, DTM and Multispectral). This analysis defines highly prospective zones, particularly in the Jackpot area and under basaltic cover where traditional mapping and geochemical methods are not applicable.

In 2022, Cerrado completed property mapping and sampled mineralised floats centred in the southwest of the property on the Michelle-Jackpot structural block. This area was identified as having a good potential for mineral endowment. An 872 m trenching program tested this, returning reasonable results to support drilling.

Drilling included 14 diamond drill holes with 1,934 samples, which, combined with the trenching program, totalled 2,806 m (Figure 9.21 and Table 9-10). The drilling intercepted significant, although erratic, Au and Ag values in the Jackpot-V corridor, with composites grading to 2.6m @ 26.1 g/t Au - 97.2 g/t Ag. This sector corresponds to the SE continuity of the Mia vein from the Conserrat project, which is currently under Unico Metals ownership.

Of interest, some areas tested showed low gold but unusually high silver for the property. Ag values of up to 432.9 g/t Ag (equivalent to ~7 g/t Au) were measured in assays with nominal gold. These results warrant further exploration of the property, particularly the areas under the late basaltic cover, which prevent significant geochemical signals on the surface from being expressed.

Figure 9.20: Exposed veins in the Michelle property.

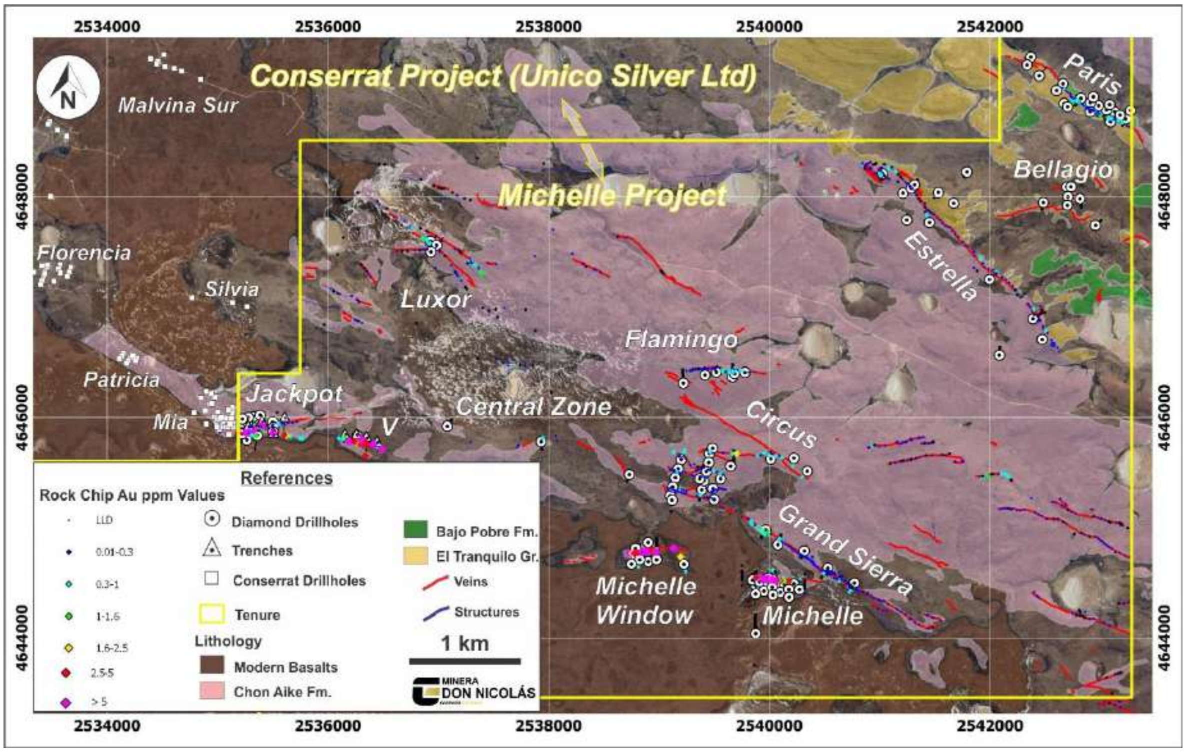


Table 9-10: Michelle Drilling and Sampling by year and type since 2022.

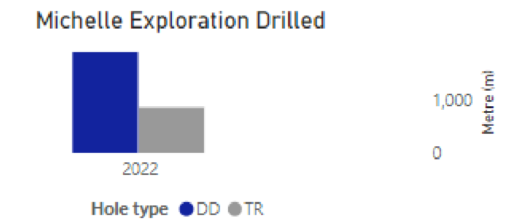
Michelle Exploration Drilled

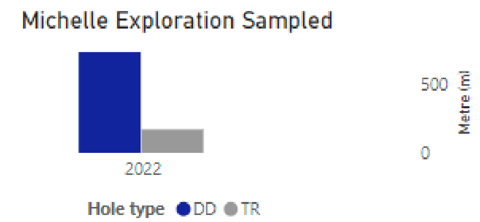
Date	DD	TR	Total
2022	1,934	872	**2,806**
Total	**1,934**	**872**	**2,806**

Michelle Exploration Sampled

Date	DD	TR	Total
2022	733	170	**903**
Total	**733**	**170**	**903**

Figure 9.21: Michelle Drilling and Sampling by year and type since 2022.





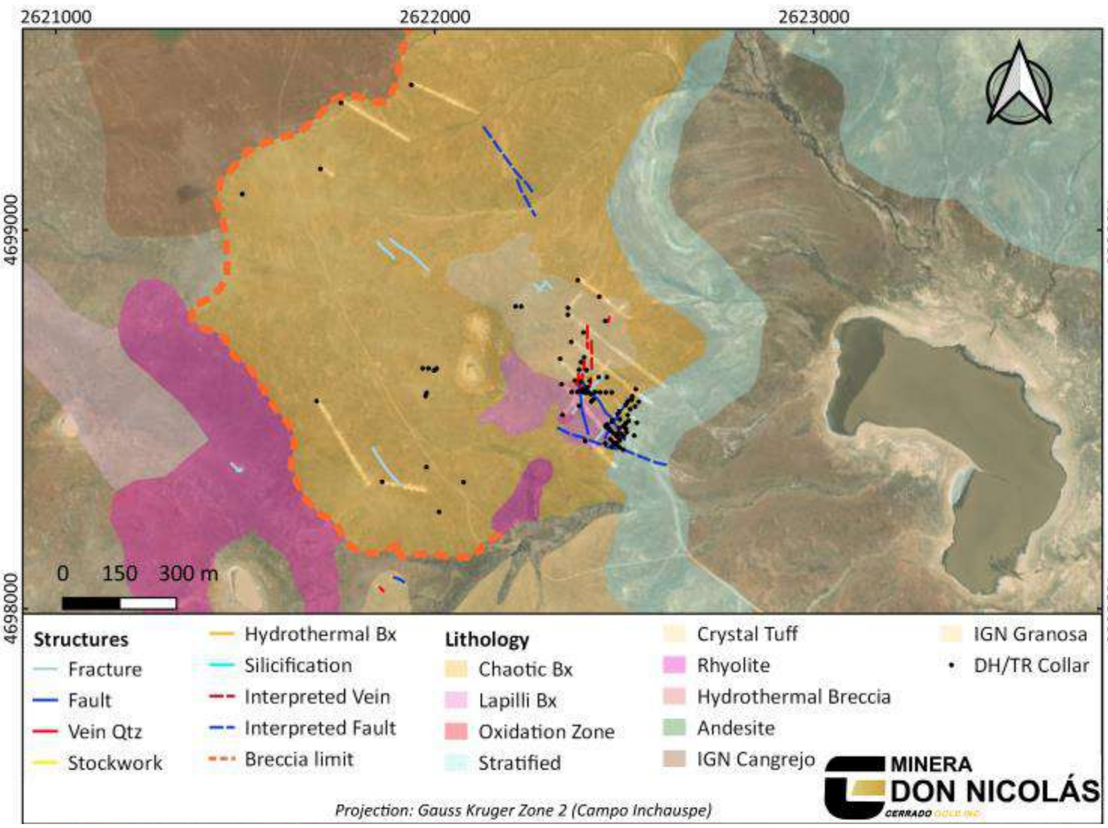
9.2.7. Goleta

Goleta is a high-grade target located approximately 7 km northwest of the Martinetas mine and CIL plant (Figure 9.22). Surface exploration has shown that the mineralisation at Goleta consists of mineralised fragments of banded quartz veins within a polymictic breccia believed to be of phreatomagmatic origin. Phreatic brecciation is a late process occurring post-mineralisation.

Exploration in Goleta prior to 2023 consisted of several shallow drilling campaigns (maximum 131 m) and trenches completed by Yamana (1997-1998), MIRLP (2013) and CIMINAS (2015- 2018). This amounted to 580 m of DDH drilling, 2,492 m of RC and 3,170 m of trenches.

In 2013, MIRLP conducted a lag sampling campaign in Cangrejo and Galapago. Although the campaigns defined a very high-grade superficial mineralised zone at Cangrejo and Galapago, the geological interpretation restricted the project's potential at depth.

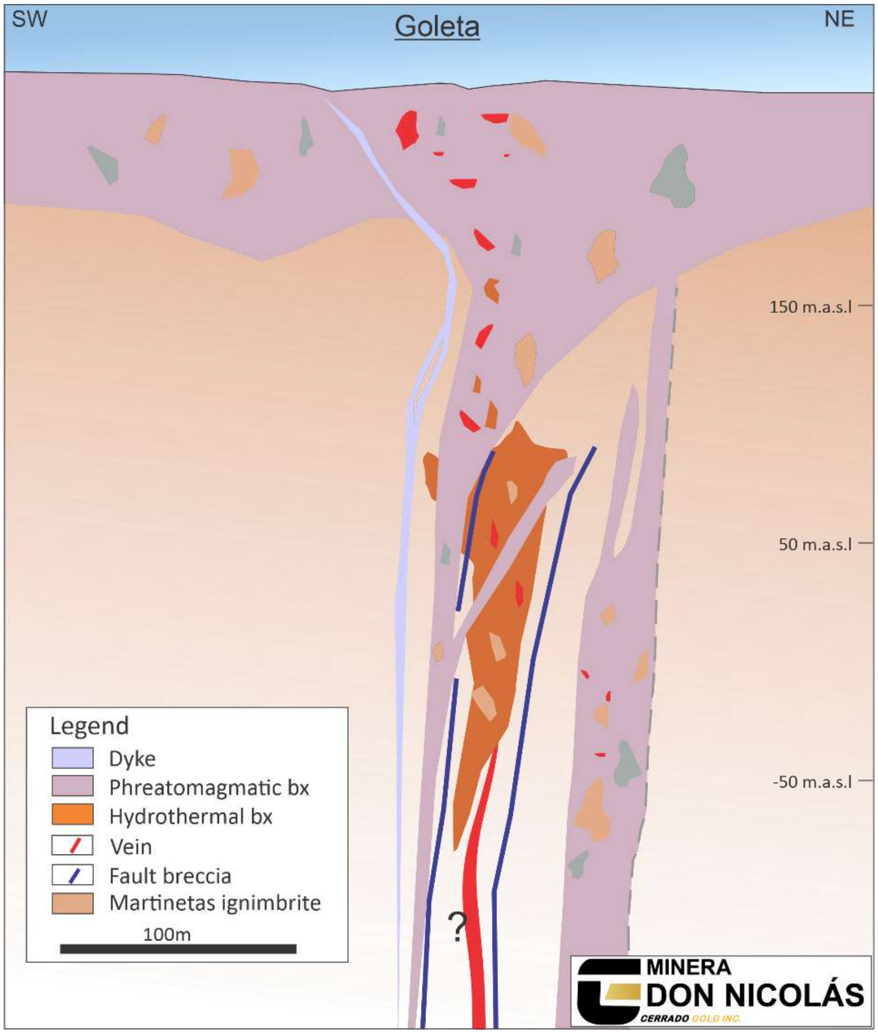
Figure 9.22: Goleta area lithology and exploration holes/trenches.



In 2023, Cerrado conducted new mapping in Cangrejo and began trenching and a diamond re-logging program in Q3. A new geological model was produced, showing evidence of post-mineral fragmentary units like those described in one of the largest gold deposits in the Deseado Massif, Marianas (described herein), where the late phreatomagmatic breccias cut and cover high-grade in-situ vein systems, thus increasing potential and depth.

In 2023, a DDH extension and infill drilling campaign (650 m) was conducted (Figure 9.24, Table 9-11), which, together with the trenches, improved the confidence in the geological model (Figure 9.23).

Figure 9.23: Conceptual geological model, Goleta deposit.



A ground magnetometry survey was conducted in Q1 of 2024 to determine structures at depth. Well-defined NW and ENE lineaments were observed. The NW orientation correlates perfectly with a post-mineral fault zone mapped in the pit area. Large clasts in the breccia are from a high-grade quartz vein system fractured during an explosive event, even within the underlying Martinetas ignimbrite.

Cerrado plans to locate the buried primary vein system with a higher density of large, mineralised clasts. Given the general high grade and size of clasts near the surface (2 m thick at 90 g/t Au), there is an opportunity for a sizable discovery on the property.

Table 9-11: Goleta Drilling and Sampling by year and type since 2023.

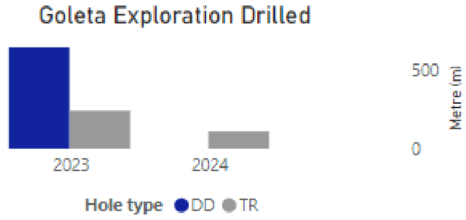
Goleta Exploration Drilled

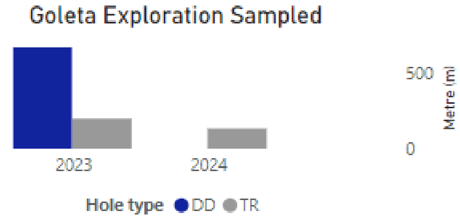
Date	DD	TR	Total
2023	650	245	**894**
2024		112	**112**
Total	**650**	**357**	**1,007**

Goleta Exploration Sampled

Date	DD	TR	Total
2023	672	200	**872**
2024		133	**133**
Total	**672**	**333**	**1005**

Figure 9.24: Goleta Drilling and Sampling by year and type since 2023.

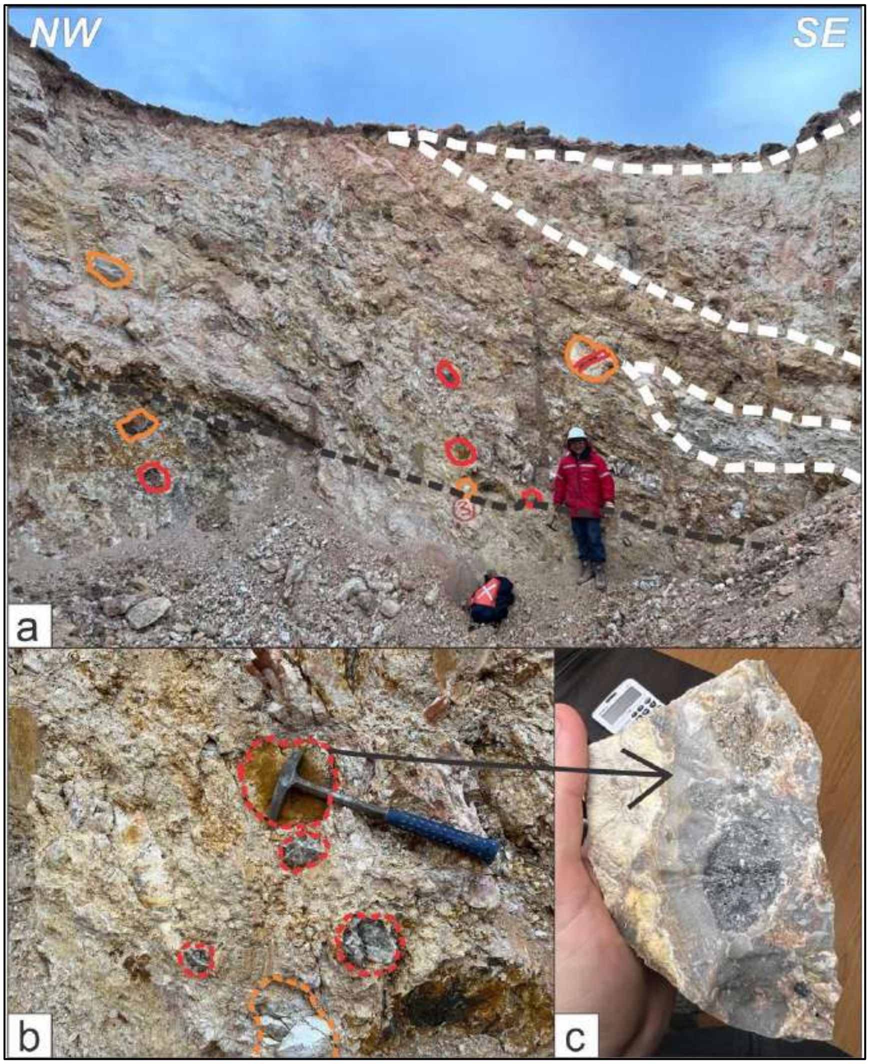




Images of the project bedding and lithology within an exploration trench can be seen in (Figure 9.25).

- Section A – this is an image of the edge facies of the maar-diatreme system in the Goleta pit wall. Bedded tuffs overlie and interdigitate the surrounding poorly sorted bedded polymictic breccia. This breccia contains clasts with rounded to angular fragments of veins, silicified rhyolitic ignimbrites and sparse andesites in a flour rock matrix. Most ignimbrite blocks present PJB (prismatically jointed block) type fracturing due to the high energy explosive event that generated the breccia.
- Section B shows the lithic arrangement of silicified ignimbrites and veins within the phreatic matrix and their relative size.
- Section C shows some of the vein mineralisation and characteristics related to silicification.

Figure 9.25: Images from Goleta Pit showing bedding planes, scale and mineralisation.



9.2.8. Chispas

Chispas is an early-stage exploration property that has the potential to contain high-grade mineralisation along an NE structural trend parallel to the main control of a recent discovery by Panamerican Silver/Yamana (Naty). Drilling in Chispas has focused on two targets (Pan de Azucar and Lanca) located 5 km away, examining the continuity of a major NE structure with multiple relevant high-grade intercepts.

In 2022, Cerrado commissioned DG Exploraciones to create a district-scale (1:20,000) geological map of the Chispas area. The results refined the stratigraphy in the Pan de Azucar and Lanca area, highlighting the stratigraphy of Jurassic ore-bearing volcanic rocks and Tertiary to Quaternary units.

The Bahía Laura Volcanic Complex in the Chispa, which comprises the basement rocks sequence, can be summarised into three main volcanic cycles:

1) **First pyroclastic cycle**: A hydrovolcanic and volcaniclastic event composed of proximal lithic breccias and ignimbrites and a medium to distal set of ignimbrites, surges and ash-fall deposits.

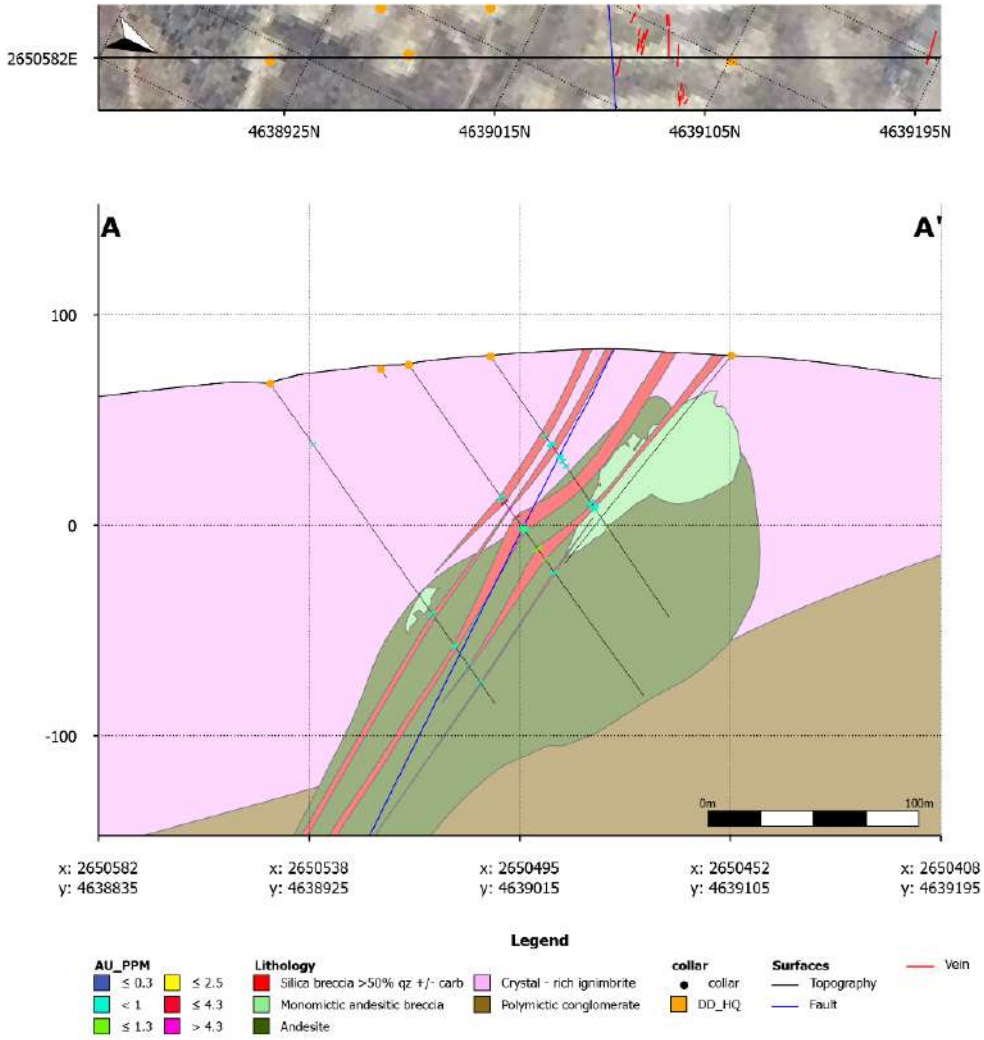
2) **Second pyroclastic cycle**: Moderately welded quartz-rich ignimbrites that represent the "classic" style of ignimbrites for the Deseado Massif.

3) **Third volcanic cycle**: An intrusion of subvolcanic igneous bodies of meso-silicic and silicic composition.

According to DG Exploraciones, the hydrothermal system responsible for the mineralisation event developed during the third cycle, creating a well-preserved, shallow epithermal system. The andesites deeper in the crust were the hydrothermal system's heat and metal pulse source.

Figure 9.26 shows a cross-section through the Pan de Azucar deposit. In this view, the NNE veins represent 1st-order structures used by hydrothermal fluids for their ascent, with low potential for metal deposition. In contrast, the NE to ENE hydrothermal breccias and veinlets would represent the 2nd and 3rd-order structures, where hydrothermal fluids could channel and concentrate metals. DG Exploraciones carried out spectral work that helped characterise the alteration halos around the mineralised veins, providing an excellent exploration tool that can extend the footprint of untested permissive veins in the district.

Figure 9.26: 2D type section through Pan de Azúcar.



Further study on the Chispas project area geology is warranted, with particular emphasis being applied to (Figure 9.27):

- The northern sector of Spark (integrating the Pan de Azucar and Lanca targets, Figure 9.27 showing the untested 5 km trend between both targets)
- The Mancha I and II sectors;
- The southern portion of Spark (including Veta sur, Cerro la Cruz and the Mancha Project).

Figure 9.27: Map of the Chispas area and deposits. The main target areas shows are Lanca (a), Pan de Azúcar (b), Veta Sur (c), Cerro la Cruz (d) and Mancha (e).

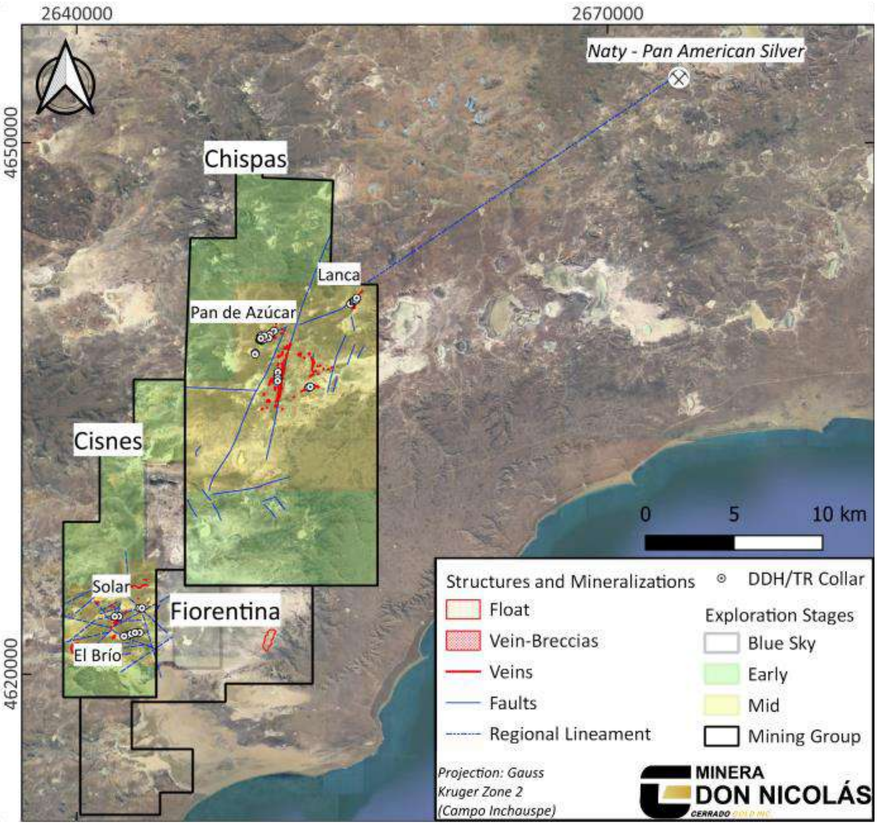


Table 9-12 and Figure 9.28 show the drilling and sampling in the early stages of the project.

Table 9-12: Chispas Drilling and Sampling by year and type since 2023.

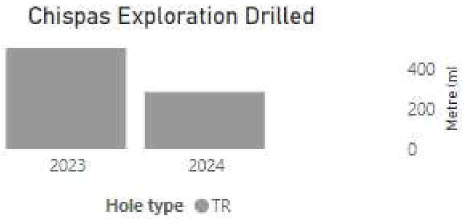
Chispas Exploration Drilled

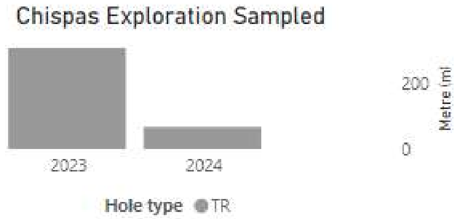
Date	TR	Total
2023	503	**503**
2024	285	**285**
Total	**787**	**787**

Chispas Exploration Sampled

Date	TR	Total
2023	308	**308**
2024	67	**67**
Total	**375**	**375**

Figure 9.28: Chispas Drilling and Sampling by year and type since 2023.





9.3. District Scale Exploration – the GoldSpot Machine Learning Targeting Project

Cerrado Gold engaged GoldSpot Discoveries in October 2020 to complete an ML-assisted evaluation, interpretation, and targeting work plan. Cerrado provided GoldSpot with regional, district, and deposit-scale datasets, including geophysics, geochemistry, and limited spectral data.

Following the yearlong exercise, GoldSpot delivered the final products, which included:

- New property-scale data compilations and interpretations;
- New regional-scale data compilation and interpretations;
- Ranked targets for exploration.

9.3.1. Geophysics Targeting

For each project area, GoldSpot completed data cleaning and generated data cubes and other products needed for interpretation and machine learning insights. Detailed analysis of new data products allowed GoldSpot to define structural and lineament interpretations of all available geophysical data sets. Data types include airborne magnetic and radiometric, CSAMT, and IP, though not all data types were available in all areas.

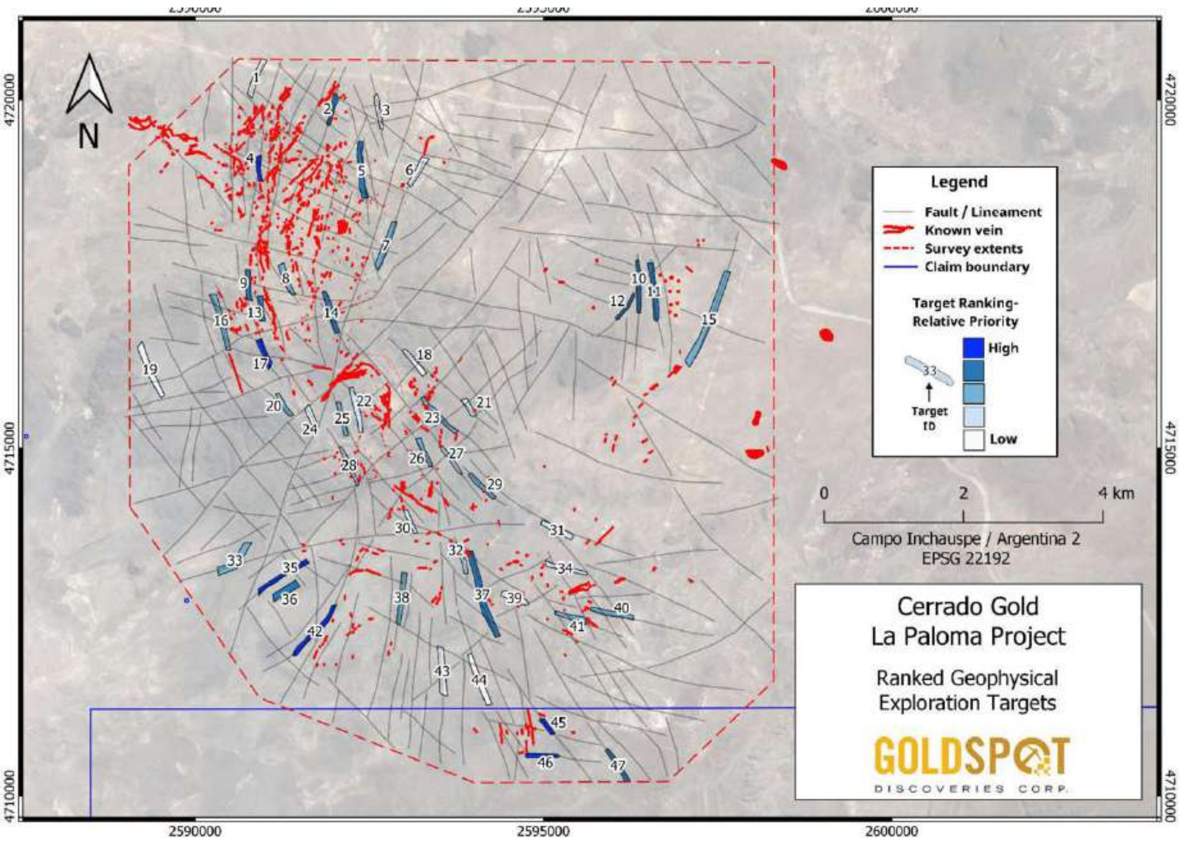
GoldSpot generated the final interpretation maps and exported all interpretation layers, identifying roughly 40 to 50 exploration targets for each area from the geophysics. These targets were ranked based on geophysical properties and relationships with other data (Figure 9.29).

The final scores for each target were normalised by dividing by the maximum possible score to give a ranking percentage. When a data type is not available at the location of a target, the scoring calculation uses a maximum possible score to not penalise a target for lacking a data input. For example, if a target does not lie in an area covered by IP, then its score would be based only on the magnetics, radiometric, CSAMT and known mineralisation. The max score would also include 0 for the IP score as shown below.

The following maps display targets for each of the project areas. Scoring and ranking spreadsheets are included in the data archives. Notably, these targets are derived from the geophysical data only and are not part of the Machine Learning Prospectivity analysis.

If additional data is acquired in the future, then any positive correlation with the targets can be used to boost the ranking.

Figure 9.29: GoldSpot Geophysical targeting, Paloma.

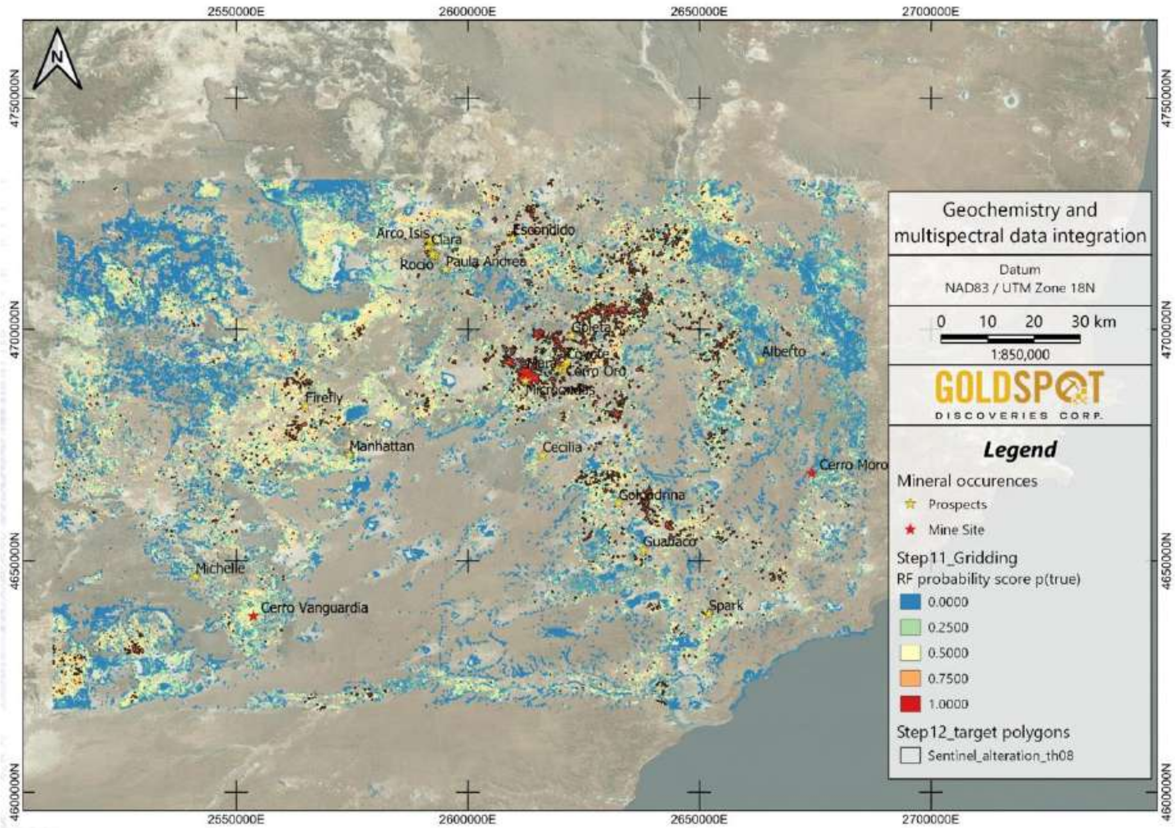


9.3.2. Geochemistry and multispectral data integration

Historical lag sample data from Calandrias was imported, cleaned, validated and normalized by GoldSpot. The data shows a clear alteration halo around Calandria South (low/moderate grade disseminated gold). GoldSpot's analysis defined the correlation of alteration with a specific spectral signature from the Sentinel regional tile.

Applying this correlation, GoldSpot carried out predictive analysis identifying a new Calandrias-like spectral signature in the regional data. This map can be see in Figure 9.30.

Figure 9.30: Results of GoldSpot Geochemistry and Sentinel data integration predictive exercise.



9.3.3. Regional Machine Learning

The final predictive analysis by GoldSpot generated regional targets, integrating superficial datasets (e.g., remote sensing) related to possible near-surface expression. Targets based on ML-recognized patterns in geophysics (magnetics) potentially highlight prospective areas below cover compared to other superficially gold occurrences.

The ranking of the produced targets followed these values:

- 90th percentile ASTER alunite/kaolinite/pyrophyllite score (value=1)
- Contained within BLC rocks (value=2)
- Partially overlaps BLC rocks (value=1)

The results included approximately 150 targets ranked as high, moderate, or low according to the scores:

- **High (3)** –targets in prospective BLC rocks and high likelihood of alunite/kaolinite/ pyrophyllite multispectral signature
- **Moderate (2)** –targets partially occurring in BLC rocks and coincident with ASTER alunite/ kaolinite/ pyrophyllite multispectral signature
- **Low (1/0)** targets occurring in cover rocks/sediments with no ASTER signature

Since 2023, Cerrado has been systematically ground-truthing these targets. Following this exercise, new relevant prospective areas have been developed in the Paloma (e.g., Antenna West) and Calandrias districts (e.g., Bozal).

10. DRILLING

10.1. Summary

Since acquiring the Project in March 2020, Cerrado Gold has drilled 287 diamond drill holes (DDH) and 2,330 reverse circulations (RC) drill holes.

Drilling at the MDN Project began in 1994 when Newcrest Mining Ltd. drilled 12 exploratory RC holes in the La Paloma region, in the Arco Iris and Clara targets. Yamana Gold Inc. initiated drilling in the Microondas region in 1995 and the Martinetas region in 1996, continuing with diamond drill holes (DDH) and RC drilling in the Martinetas region between 1997 and 1999.

In 2000, further diamond drilling was conducted by Recursos Yamana S.A. (RYSA), a joint venture between Yamana and Compañía de Minas Buenaventura (Buenaventura). From 2006 to 2009, Hidefield Gold PLC continued diamond drilling in La Paloma and Martinetas regions. Minera IRL Patagonia acquired the property in 2009 and conducted in-fill drilling (DDH and RC) within the known deposits of the MDN Property area. In 2014, Minera Don Nicolás, owned by Argentine investors, continued in-fill drilling and eventually commenced development and construction. The MDN database contains 5,041 drill holes, mostly RC holes. Diamond drill holes account for approximately one-third of all holes drilled.

Cerrado Gold began drilling in 2020, initially focusing on infill drilling and ore control. Since 2021, exploratory drilling has targeted high-grade areas with potential resources identified through historical drilling at the Northern Targets, including Baritina, Chulengo, Antenna, and Esperanza, as well as the Martinetas area, with a particular focus on Mara and Choique.

In 2022, exploratory drilling shifted to the down-dip extension of Sulfuro, aiming to identify mineable resources for underground methods as the depletion of open-pit resources approached. Additional open-pit targets, such as Baritina, Esperanza, and Arco Iris, were also drilled. Some in-fill drilling was conducted at Calandrias Sur to improve resource confidence and test for extensions.

The 2023 drilling strategy remained similar to the previous year, focusing on the Paula Andrea target and continued in the Sulfuro area, testing parallel new structures and down-dip drilling at Sulfuro. Additionally, drilling efforts were directed towards Calandrias Norte, with in-fill drilling intended to prepare this target for production.

Over the years, the drilling strategy has also included the exploration of greenfield projects such as Michelle, Microondas, and Goleta. Minor targets around the existing open pits were tested with limited drilling, but there is still potential for discoveries. These targets are near Martinetas, La Paloma, and Las Calandrias mining areas. A summary of the historical drilling programs is provided in Table 10-1.

Table 10-1: Summary Characteristics of Drilling up to April 1st, 2024.

Drilling	Historical[1]				Cerrado Gold[2]				DDH + RC	
	DDH		RC		DDH		RC			
	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)
Las Calandrias	438	59,349			29	2,021	290	18,777	**757**	**80,146**
La Paloma	373	46,751	903	30,694	75	14,203	758	37,960	**2,109**	**29,608**
Martinetas	269	25,035	2,553	78,354	0	5,628	517	24,389	**3,399**	**133,405**
Paula Andrea	41	3,485	74	6,166	96	8,675	206	11,192	**417**	**29,518**
Microondas	32	3,277	104	13,626			62	3,370	**198**	**20,273**
Michelle	50	7,878	42	6,622	14	1,934			**106**	**16,434**
Goleta	11	580	74	2,492	13	650			**98**	**3,721**
Chispas	43	7,215							**43**	**7,215**
Total	1,257	153,570	3,253	119,114	287	33,111	2,330	114,526	**7,127**	**420,321**

[1]Historical drilling includes all drilling before 2020.
[2]Drill holes S-M10-64, S-M10-72, S-M10-90, AR-D15-010, AR-D15-011 and PA-RC17-037 have DD and RC methods.

10.2. Las Calandrias

The drilling programs at the Las Calandrias are divided into two stages: the historical drilling phase, conducted by the previous operators between 2009 and 2018, and the recent phase, drilling developed by Cerrado since the property acquisition in 2020 (Table 10-2).

The historical phase was developed by two different operators, Mariana (2009-2012) and New Dimension (2018). Details about drilling location, procedures, and other exploration targets during this period are described in the AGP Technical Report (2021).

Table 10-2: Summary Characteristics of Las Calandrias Drilling up to April 1st, 2024

Las Calandrias Targets	Historical				Cerrado Gold				DDH +RC	
	DDH		RC		DDH		RC			
	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)
Boina	12	1,391					4	400	**16**	**1,791**
Breccia Trend	80	10,159							**80**	**10,159**
Calandria Norte	86	13,083					209	14,287	**295**	**27,370**
Calandria Sur	148	18,237			2	160	52	2,694	**202**	**21,091**
El Clavo	18	2,448							**18**	**2,448**
Game Keeper	1	132							**1**	**132**
La Herradura	2	168			5	501	7	378	**14**	**1,047**
La Picaza					6	360			**6**	**360**
Loma Verde					10	640	3	162	**13**	**802**
Morena	8	1,155							**8**	**1,155**
Nido Este	6	884							**6**	**884**
Nido Norte	50	8,258							**50**	**8,258**
Nido Oeste	9	1,551					1	100	**10**	**1,651**
Nido Sur	18	1,883							**18**	**1,883**

Las Calandrias Targets	Historical				Cerrado Gold				DDH +RC	
	DDH		RC		DDH		RC			
	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)
Northern Breccia Trend					6	360	14	756	**20**	**1,116**
Total	438	59,349	-	-	29	2,021	290	18,777	**757**	**80,146**

Drilling by Cerrado Gold was initiated in late 2021 with a focus on support the delineation of mineral resources in Calandrias Sur and development decision. In 2022 and 2023 the drilling program continued in Calandrias Norte and other targets in Las Calandrias Properties and the summary of the drilling campaigns completed ate the Las Calandrias property is provided in Table 10-3.

Table 10-3: Summary of Cerrado Gold Drilling Campaign on Las Calandrias

Year	Las Calandrias Targets	DDH		RC		DDH +RC	
		№	Metre (m)	№	Metre (m)	№	Metre (m)
2021	**Calandria Sur**	2	160	25	1,344	**27**	**1,504**
	La Herradura	5	501	7	378	**12**	**879**
	La Picaza	6	360			**6**	**360**
	Loma Verde	10	640	3	162	**13**	**802**
	Northern Breccia Trend	6	360	14	756	**20**	**1,116**
2022	**Boina**			4	400	**4**	**400**
	Calandria Norte			36	3,210	**36**	**3,210**
	Calandria Sur			27	1,350	**27**	**1,350**
	Nido Oeste			1	100	**1**	**100**
2023	**Calandria Norte**			116	8,481	**116**	**8,481**
2024	**Calandria Norte**			57	2,596	**57**	**2,596**
Total		29	2,021	290	18,777	**319**	**20,797**

10.3. La Paloma

The drilling programs at La Paloma are divided into two stages: the historical drilling phase, conducted by the previous operators and commencing in 1994 with Newcrest, and the recent phase, with drilling developed by Cerrado since the property acquisition in 2020 (Table 10-4).

The historical phase was developed by five different operators: Newcrest (1994), Recursos Yamana S.A. (RYSA) (2004), Hidefield Gold PLC (2006-2008), Minera IRL Patagonia (2010-2014), and Minera Don Nicolás (2014-2020). The AGP Technical Report (2021) describes details about the drilling location, procedures, and other exploration targets during this period.

Drilling by Cerrado Gold began with the acquisition of the project in March 2020. Since then, Cerrado has completed 954 drill holes totalling 57,273 metres, focusing on upgrading resource categories and delineating new exploration targets. Table 10-5 provides Cerrado Gold's drilling by year and target.

Table 10-4: Summary of Drilling Campaigns, La Paloma. April 1st, 2024.

La Paloma	Historical				Cerrado Gold				DDH +RC	
	DDH		RC		DDH		RC			
	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)
Alba			6	527					6	527
Antena	3	546	22	1,477	17	2,692	8	914	50	5,629
Arco Iris	43	3,925	115	3,820			197	9,442	355	17,187
Area Triple			6	481					6	481
Chulengo							59	2,155	59	2,155
Clara	13	1,763	16	1,138	3	183	74	4,662	106	7,746
Duquesa			3	266					3	266
Encaje			2	190					2	190
Esperanza	47	5,640	121	2,530	24	3,821	76	3,988	268	15,979
Hermanas V	5	798	22	1,893			4	255	31	2,946
Luz			2	174					2	174
Molino			10	829			17	1,398	27	2,227
Palito			15	1,109			81	3,765	96	4,874
Polvorin			5	443					5	443
Princesa	7	1,003					9	243	16	1,246
Reyna	6	597	6	246			12	623	24	1,466
Rocio	36	3,429	71	1,457	4	211	25	718	136	5,815
Sulfuro	208	28,299	344	7,967	27	7,296	286	14,069	865	57,631
Torta			7	557					7	557
Violeta	5	750	9	480			31	838	45	2,068
Total	**373**	**46,751**	**782**	**25,584**	**75**	**14,203**	**879**	**43,070**	**2,109**	**129,608**

Table 10-5: Summary of Cerrado Gold Drilling Campaign on La Paloma.

Year	La Paloma	Cerrado Gold				DDH +RC	
		DDH		RC			
		№	Metre (m)	№	Metre (m)	№	Metre (m)
2020	**Arco Iris**			39	1,372	39	1,372
	Sulfuro			67	2,423	67	2,423
2021	**Antena**	9	1,776			9	1,776
	Arco Iris			42	2039	42	2,039
	Chulengo			59	2,155	59	2,155
	Esperanza	12	983	32	1,111	44	2,094
	Palito			38	1,627	38	1,627
	Rocio	4	211	20	494	24	705
	Sulfuro			75	3656	75	3,656
	Violeta			21	543	21	543
2022	**Antena**			1	120	1	120
	Arco Iris			55	3614	55	3,614
	Esperanza	12	2,839	22	1,464	34	4,303
	Hermanas V			4	255	4	255
	Molino			4	280	4	280
	Palito			43	2138	43	2,138
	Princesa			9	243	9	243
	Reyna			10	423	10	423
	Rocio			4	164	4	164
	Sulfuro	15	4620.5	105	5762	120	10,383
	Violeta			10	295	10	295

Year	La Paloma	Cerrado Gold				DDH +RC	
		DDH		RC			
		№	Metre (m)	№	Metre (m)	№	Metre (m)
2022	Antena	8	916	7	794	15	1,710
	Arco Iris			61	2417	61	2,417
	Clara	3	183	74	4,662	77	4,845
	Esperanza			22	1413	22	1,413
	Molino			13	1118	13	1,118
	Reyna			2	200	2	200
	Rocio			1	60	1	60
	Sulfuro	12	2675	39	2228	51	4,903
	Total	**75**	**14,203**	**879**	**43,070**	**954**	**57,273**

10.4. Martinetas

The drilling programs at Martinetas are divided into two stages: the historical drilling phase, conducted by the previous operators and beginning in 1996 with Yamana Gold Inc., and the recent phase, with drilling developed by Cerrado since the property acquisition in 2020 (Table 10-7).

The historical phase was developed by five different operators: Yamana Gold Inc. (1996-1999), Recursos Yamana S.A. (RYSA) (2000 -2003), Hidefield Gold PLC (2006-2008), Minera IRL Patagonia (2010-2014), and Minera Don Nicolás (2014-2020). The AGP Technical Report (2021) describes details about drilling location, procedures, and other exploration targets during this period.

Drilling by Cerrado Gold started with the project acquisition in March 2020. Since then, Cerrado has carried out 953 drill holes totalling 43,745 metres in length, which focused on upgrading categories and delineating new exploration targets. Table 10-7 provides Cerrado Gold's drilling by year and target.

Table 10-6: Summary of Drilling Campaigns, Martinetas. April 1st, 2024.

Martinetas targets	Historical				Cerrado Gold				DDH +RC	
	DDH		RC		DDH		RC			
	№	Metre (m)	№	Metre (m)	№	Metres	№	Metre (m)	№	Metre (m)
Armadillo	24	2,106	130	6,639	3	225	13	1,425	170	10,395
Calafate	17	1,642	20	717					37	2,359
Cerro Oro	52	6,182	1,225	34,202			245	8,017	1,522	48,401
Choique	48	3,437	114	2,737	18	1,293	106	6,748	286	14,215
Coyote	65	7,066	791	23,426			32	954	888	31,446
Gecko					13	1,100			13	1,100
Lucia			11	370					11	370
M3	2	338							2	338
M5	3	570	1	150					4	720
M11	2	220			5	637			7	857
Mara	40	2,436	107	3,716	21	2,373	22	1,149	190	9,674
Martinetas CVZ	8	583	27	2,756			4	209	39	3,548
Zorro	8	455	127	3,641			95	5,887	230	9,983
Total	**269**	**25,035**	**2,553**	**78,354**	**60**	**5,628**	**517**	**24,389**	**3,399**	**133,405**

Table 10-7: Summary of Cerrado Gold Drilling Campaign on Martinetas.

Year	Martinetas	Cerrado Gold				DDH +RC	
		DDH		RC			
		№	Metre (m)	№	Metre (m)	№	Metre (m)
2020	**Cerro Oro**			183	5491	183	5,491
	Coyote			125	3603.6	125	3,604
2021	**Armadillo**	3	225			3	225
	Cerro Oro			213	8562.5	213	8,563
	Choique	18	1293			18	1,293
	Coyote			51	2481	51	2,481
	Gecko	13	1,100			13	1,100
	M11 (Martinetas)	5	637			5	637
	Mara	21	2,373	11	655	32	3,028
	Zorro			25	1,246	25	1,246
2022	**Armadillo**			13	1,425	13	1,425
	Cerro Oro			59	1760	59	1,760
	Choique			106	6748	106	6,748
	Coyote			2	38	2	38
	Mara			10	465	10	465
	Martinetas CVZ			4	209	4	209
	Zorro			70	4641	70	4,641
2023	**Cerro Oro**			15	338	15	338
	Mara			6	454	6	454
Total		**60**	**5,628**	**893**	**38,117**	**953**	**43,745**

10.5. Paula Andrea

The drilling programs at Paula Andrea are divided into two stages: the historical drilling phase, conducted by the previous operators and beginning in 2016 with Minera Don Nicolás, and the recent phase, with drilling developed by Cerrado since the property acquisition in 2020 (Table 10-8).

Historical drilling at the Paula Andrea property commenced in 2016. Initially, it focused on Baritina, Chulengo, Araña, Atrevida, Bajo, Borde, CNW-Corredor NW, Domo Norte, and Pinto. The drilling involved 41 diamond drill holes totalling 3,485 metres and 74 reverse circulation (RC) drill holes totalling 6,166 metres, thereby accounting for a total of 115 drill holes and 9,651 metres.

The recent phase began with the acquisition of Cerrado Gold in March 2020, which intensified drilling at Baritina and Chulengo. Cerrado subsequently conducted 96 diamond drill holes, totalling 8,675 metres, and 206 RC drill holes, amounting to 11,192 metres, culminating in 302 drill holes and 19,867 metres. Table 10-9 provides Cerrado Gold's drilling by year and target.

Table 10-8: Summary of Drilling Campaigns, Paula Andrea Property. April 1st, 2024.

Paula Andrea targets	Historical				Cerrado Gold				DDH +RC	
	DDH		RC		DDH		RC			
	№	Metres (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)	№	Metre (m)
Araña	1	125	7	670	5	380	2	240	**15**	**1,415**
Atrevida			1	100					**1**	**100**
Bajo			2	100					**2**	**100**
Baritina	12	1,079	14	2,233	24	2,293	74	4,307	**124**	**8,911**
Baritina NE							33	1,591	**33**	**1,591**
Borde			7	631					**7**	**631**
Caracol					8	1,376	1	100	**9**	**1,476**
Chulengo	28	2,282	28	2,067	48	3,473	90	4,589	**194**	**12,411**
CNW – Corredor NW			8	716	8	944	4	235	**20**	**1,895**
Domo Norte			5	469					**5**	**469**
Link					3	209	2	130	**5**	**339**
Pinto			2	180					**2**	**180**
Total	41	3,486	74	6,166	96	8,675	206	11,192	**417**	**29,518**

Table 10-9: Summary of Cerrado Gold Drilling Campaign on Paula Andrea.

Year	Paula Andrea	Cerrado Gold				DDH +RC	
		DDH		RC			
		№	Metre (m)	№	Metre (m)	№	Metre (m)
2020	**Baritina**			**10**	**458**	**10**	**458**
2021	**Araña**	4	260			**4**	**260**
	Baritina	19	1,751	5	261	**24**	**2,012**
	Chulengo	31	1,686			**31**	**1,686**
	CNW - Corredor NW	3	513			**3**	**513**
2022	**Baritina**			47	2,828	**47**	**2,828**
	Baritina NE			33	1,591	**33**	**1,591**
	Chulengo			18	536	**18**	**536**
2023	**Araña**	1	120	2	240	**3**	**360**
	Baritina	5	542	12	760	**17**	**1,302**
	Caracol	8	1,376	1	100	**9**	**1,476**
	Chulengo	17	1,787	72	4,053	**89**	**5,840**
	CNW - Corredor NW	5	431	4	235	**9**	**666**
	Link	3	209	2	130	**5**	**339**
Total		96	8,675	206	11,192	**302**	**19,867**

10.6. Middle and early stages

The drilling programs at Middle and Early are divided into two stages: the historical drilling phase, conducted by the previous operators and the beginning. in 2015 with Yamana Gold Inc., and the recent phase with drilling developed by Cerrado since the property acquisition in 2020 (Table 10-10).

Table 10-10: Summary of Cerrado Gold Drilling Campaign on middle and early stage exploration targets.

	Target	Historical				Cerrado Gold				DDH +RC	
		DDH		RC		DDH		RC			
		Nº	Metre (m)	Nº	Metre (m)	Nº	Metre (m)	Nº	Metre (m)	Nº	Metre (m)
Microondas	**Fleco - Clavo 3**	6	330	9	1,116					**15**	**1,446**
	Frente - Clavo 4			11	916					**11**	**916**
	La Macarena							19	1,047	**19**	**1,047**
	Martinetas CVZ							5	241	**5**	**241**
	Medio			1	100					**1**	**100**
	Pampita	4	305	4	381					**8**	**686**
	Quizas			18	1,980			20	1,256	**38**	**3,236**
	Torre			4	800					**4**	**800**
	Trofeo	7	891	50	8,173			18	826	**75**	**9,890**
	Trofeo - Clavo 1	15	1,751	7	160					**22**	**1,911**
Michelle	**Bellagio**			4	552					**4**	**552**
	Caesars Palace	4	654							**4**	**654**
	Central Zone			2	239					**2**	**239**
	Circus Circus	1	156	3	417					**4**	**573**
	Estrella			13	2,357					**13**	**2,357**
	Flamingo	2	280							**2**	**280**
	Grand Sierra	3	400	3	556					**6**	**956**
	Jackpot	4	734			8	1,037			**12**	**1,771**
	Luxor					2	280			**2**	**280**
	MIA					1	209			**1**	**209**
	Michelle Vein	23	3,965	5	728					**28**	**4,693**
	Monte Carlo	2	309	1	125					**3**	**434**
	Mouling Rouge			3	447					**3**	**447**
	Paris	9	1,081	5	769					**14**	**1,850**
	V					3	408			**3**	**408**
	Venetian	2	300	1	113					**3**	**413**
	Window			2	319					**2**	**319**
Goleta	**Cangrejo VZ**	10	539	29	859	9	431			**48**	**1,829**
	Galápago	1	40	11	424	2	142			**14**	**606**
	Goleta W			34	1,209	2	77			**36**	**1,286**
Chispas	**Cerro La Cruz**	2	240							**2**	**240**
	Lanca	7	1,000							**7**	**1,000**
	Pan de Azucar	27	3,975							**27**	**3,975**
	Veta Sur	5	1,739							**5**	**1,739**
	Wildcat	2	261							**2**	**261**
Total		**136**	**18,950**	**220**	**22,740**	**27**	**2,584**	**62**	**3,370**	**445**	**47,643**

Most drill holes are oriented to intersect the known mineralised intervals at a right angle; however, some deeper drill holes intersect the mineralised zones obliquely, with the actual width being approximately 60% to 70% of the drill intercepts.

Before MDN's involvement, most holes were surveyed using differential GPS and were located on the Gauss-Kruger Zone 2 Datum grid. MDN has since installed an RTK Trimble® system, which includes two bases (one at the Martinetas Mining lease and one at La Paloma) and three rovers. The MDN survey team conducts all surveys, encompassing pit surveys, stockpiles, drill holes, and channel and trench samples.

In general, core holes drilled before 2010 were surveyed downhole at intervals of 50 m to 60 m using the Sperry-Sun single-shot surveying tool or Reflex EZ-shot. From 2010 to 2020, core holes were drilled downhole at 3 m intervals, while since 2020, MDN has surveyed core holes at 6 m intervals. RC holes were surveyed at the collar and the end of each hole, except in 2011 and 2012, when RC holes were surveyed every 3 m using Reflex Maxibor.

Since 2017, a trained geologist has been conducting core logging using a computer or tablet with DhLogger® software, managed by Datamine. The database is accessed via individual usernames and passwords and is physically stored at MDN. It is subdivided into sections, including header, survey, lithology, veining, alteration, structural, and assay, with some preconfigured cells. The core shack contains rock samples to aid in standardisation, and previous data logs have been imported into the database.

Regarding the RC (Reverse Circulation) machine, the following items are considered before drilling begins: - Diameter and length of the drill rod (to control sample recovery and the length of the hole). Before starting the Drilling Plan, test the sample splitters to be used.

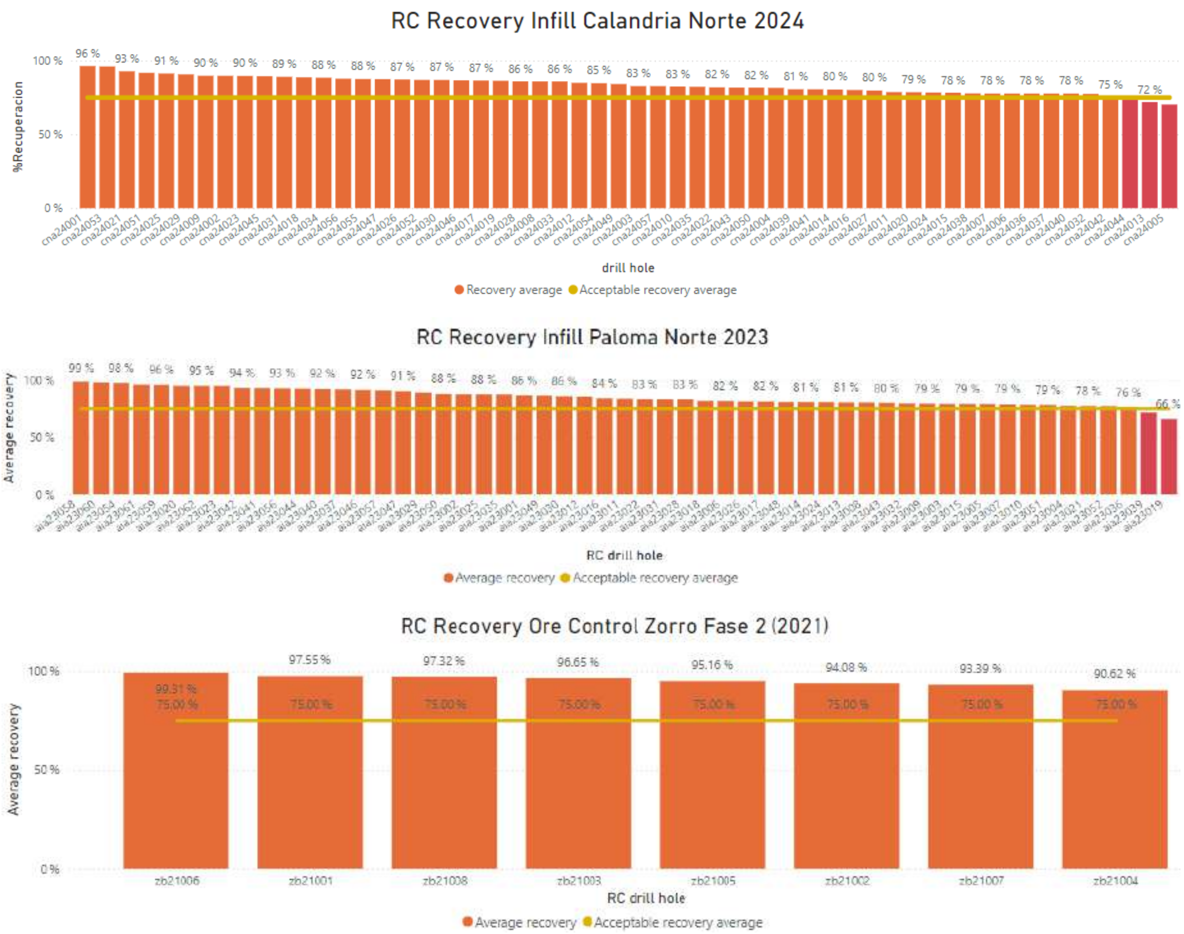
During RC drilling, the following should be kept in mind: Cleaning the sample splitters after each sample, Cleaning the circuit between holes and brushing the sample splitters, controlling fine loss due to wind, and ensuring that the sample splitters and cyclone are levelled.

Figure 10.1: Types of spliters used in MDN Cyclone Spliter, Jones Spliter, Jones Spliter integrated to the rig.

Once the sample is labelled and sealed, it will be weighed using a manual scale, and the data will be recorded on the field sheet. Suppose the weight difference between samples in the drilling plan exceeds 40%. In that case, the contractor will be instructed to review their recovery system and check the circuit for recovery issues, lack of cleaning, or improper levelling of the splitter.

The RC drill hole recovery data is tabulated and logged into the Fusion Database, then exported to Microsoft Power BI for evaluation by the ore control team for each drilling campaign. The average recoveries are above 75%. Below are some examples of the control charts used to monitor the quality of the RC samples (Figure 10.2).

Figure 10.2: Recovery summary for drill hole at Calandrias Norte, Paloma Norte and Zorro mine.



11. SAMPLE PREPARATION, ANALYSES AND SECURITY

Several samples used in the Mineral Resources Update were derived from multiple companies and laboratories.

The following information in *Sections 11.4 and 11.5* is predominantly extracted and/or summarised from the Technical Report for the Las Calandrias Project by AGP and the Independent Technical Report for the Minera Don Nicolás Gold Project, Santa Cruz, Argentina, by SRK Consulting. Further details as documented therein remain correct and valid.

11.1. Sampling Methods

MDN staff collect samples according to internal corporate standards (Protocolo de Control de Calidad – Inserción de muestras de control (QA/QC)).

11.1.1. Core Samples

Core samples have a preferred length of 1.0 m but may vary from a minimum of 0.1 to a maximum of 2.00 m, depending on the geological boundaries, mineralisation, or natural boundaries contact. The geologist defines the limit for core sampling, which varies from 10-15 meters above and below the mineralised intervals. After defining the sample intervals, technicians cut the core into two halves with a saw; one half of the core is returned to the core box for later reference, while the other half is submitted for sample preparation and analysis.

11.1.2. RC Samples

RC drill holes will be sampled in their entirety, in total, two samples of 10 kg in size. One sample is stored at the drill site and remains in case questions arise, with the sample shipped to the exploration office on-site (Condor Camp). Once the geochemical results are available, the samples that were decided not to be sent to the laboratory can be discarded. All RC samples are dried and split with a Jones-type splitter at the on-site exploration office.

11.1.3. Trench Samples

Trench samples are collected by the field geologist and packed in clear plastic bags with unique sample tags. Before 2017, samples were brought to the exploration camp daily and stored there until shipping in a locked compartment. Trench samples are delivered daily to the Alex Stewart International (ASI) laboratory. The geologist will decide which areas will be sampled, and in the case of a trench, it is also recommended to sample around the mineralised zone.

11.2. Density determinations

For the MDN targets, the bulk density measurements were made using a water displacement method considering two possible methodologies: the water displacement without max (WDNotC) and the water displacement wax coated (WDPC) as set out in MDN´s density protocols (*Protocolo de Control de Calidad – Toma de datos de Densidad – Gravedad Especifica v. Abril 2024*).

Predominantly, the most used method is the WDNotC, and about 20% of the samples from each target are also measured using the WDPC method to compare the results obtained.

A summary of density measured is presented on Table 11-1.

Table 11-1: Bulk Density Measurement Summary.

Density	Historical*		Cerrado Gold		Total
	Water Immersion	Wax Coating	Water Immersion	Wax Coating	
Baritina	260	3	54		**317**
Breccia Trend	23		110		**133**
Calandria Norte	17		77		**94**
Calandria Sur	360		75	28	**463**
Cerro Oro	904	458			**1,362**
Chulengo	144		189		**333**
Coyote	18				**18**
Esperanza	1,107	8	156		**1,271**
Rocio	697				**697**
Sulfuro	1,178	515	513	48	**2,254**
Trofeo			14		**14**
Trofeo - Clavo 1	3		80		**83**
Zorro			41		**41**
Total	4,711	984	1,309	76	**7,080**

11.2.1. Water displacement without max

Density determinations were completed using around 10 cm fillets selected from the available core. The methodology included sun drying, weighing the core in air, and weighing while suspended in water. The density was then determined as a ratio of weight in air divided by weight in water. Weights were obtained using a high-quality electronic scale.

The density was determined with the formula:

$$Density = weight\ in\ air/(weight\ in\ air - weight\ in\ water)$$

11.2.2. Water displacement wax-coated

As of April 1, 2024, a total of 1,060 density determinations were recorded in the database using 10 cm billets collected as 20 cm intervals. Not all holes were sampled. Density was determined by:

- Cleaning and weighing the sample as received
- Drying the sample for around 6 hours at a constant temperature of 60 degrees;
- Weighing the sample after drying;
- Coating the sample with paraffin;

- Weighing the sample;
- Weighing the sample suspended in water. Density is calculated using the formula:

$$Density = \frac{\text{Mass of dry sample}}{(\text{mass of waxed sample} - \text{submerged mass of waxed sample}) - (\text{waxed volume})}$$

11.2.3. Minera Mariana Methodology

Historical density data from Las Calandrias area were determined by water displaced methods based on a variation of the Lipton (2001) methodology. The formula used is:

$$\rho = \frac{M_S}{M_W + + (M_{Sat} - M_S)}$$

Where:

- M_s = mass of dry weight
- M_w = displaced volume weight (dry weight – wet weight)
- M_{sat} = wet weight

This procedure for density determination was:

- Cleaning and weighing the sample as received;

Drying the sample into the over for 2 hours at 100°C;

- Weighing the sample after drying;
- Suspended the sample in distilled water for 3 minutes;
- Weighing the sample submerged in water;

Weighing the saturated sample out of water (M_{sat})

The density values are multiplied by a temperature correction factor (k) standardised to 25°C and follow the values based on the water temperature:

Table 11-2: Factor k for density correction.

Water Temperature (°C)	Correction Factor (k)
10	1.0027
11	1.0026
12	1.0025
13	1.0023
14	1.0022
15	1.0021
16	1.0019
17	1.0017
18	1.0016

Water Temperature (°C)	Correction Factor (k)
19	1.0014
20	1.0012
21	1.001
22	1.0007
23	1.0005
24	1.0003
25	1.000
26	0.9997
27	0.9995
28	0.9992
29	0.9989
30	0.9986

$$Density = \frac{M_S}{M_W \; + \; + (M_{Sat} - M_S)} * k$$

11.3. Sample Security

MDN personnel transport core boxes to the core shed daily, and technicians transport analytical samples using corporately owned vehicles. Core boxes and samples are stored in safe, controlled areas.

Chain-of-custody procedures are followed whenever samples are moved between locations, to and from the laboratory, by filling out sample submittal forms.

The QP believes that MDN's sample preparation, analysis, and security procedures are adequate for estimating Mineral Resources.

11.4. Sample Preparation and Analysis

Various laboratories carried out the sample preparation throughout the different phases of the project's development. A summary of the leading laboratories that performed this type of preparation and analysis is listed below:

- SGS Laboratories (Santiago, Chile) operated the on-site Bema Polimet Laboratory (from 1995 to 1997 and 1999), used by Newcrest and Yamana.
- ACME Analytical Laboratories S.A. (Chile) (1997 and 1999), used by Yamana.
- ALS Chemex Laboratories Argentina S.A. (from 2003 to 2017) was used by RYSA, Hidefield, MIRLP, and MDN in Martinetas and Mariana (2009-2012) in the Las Calandrias project.
- Alex Stewart International Argentina S.A. (ASI), based in Mendoza, Argentina (2018-present), is used by New Dimension and MDN for samples derived from the Las Calandrias project and for all other projects in the MDN property.
- Alex Stewart International Argentina S.A. (2018-2020) on-site laboratory at the El Cóndor Ranch exploration camp.

- Internal Lab run by MDN following the Alex Stuart International procedure (2020-Present)

11.4.1. SGS Laboratory Assay Procedures

At SGS Laboratories, samples were dried in individual sample drying pans for drying with the original drill sample bag carrying the sample number. After drying, the samples were crushed to 90%, passing 10 mesh (2,000 micrometres [μm]). Samples were then split with a Jones splitter to a 300 to 500 g size. The remaining portion of the kept sample was stored at the lab as a coarse reject. The 300 g to 500 g sample was then pulverised to 90% passing – 50 mesh (90 μm), and 2.5 g and 30 g portions were selected for assay.

The 2.5 g pulp was digested with aqua regia and diluted to 50 ml for atomic adsorption (AA) analysis for Ag, As and Sb analyses.

The 30 g split was analysed for gold by fire assay. If the Au value was less than 20 parts per million (ppm), the sample was digested with aqua regia, and AA analysed the Au value. A gravimetric assay for Au was applied if the Au value was greater than 20 ppm.

The Bema Polimet on-site laboratory was an independent laboratory operated by SGS Laboratory Group with ISO 9001:2000 accreditation.

11.4.2. ACME Laboratory Assay Procedures

Bema Polimet Laboratory prepared samples shipped to ACME Analytical Laboratories S.A. (Chile) (ACME) using the procedures described in Section 11.4.1.

After pulverising, a 0.5 g split was collected for 4-acid digestion and dilution to 10 ml with aqua regia. It was then analysed with an Induced Coupled Plasma (ICP) analyser, and a final analysis was performed using Auger Electron Spectroscopy (AES) for 34 elements.

A 30 g split was collected and analysed for Au by fire assay.

ACME Analytical Laboratories S.A. (Chile) was an independent laboratory. In 1996, ACME became the first commercial geochemical analysis and assaying lab in North America to be accredited under ISO 9001. AAL in Santiago, Chile, received ISO 9001:2000 accreditation in 2005.

11.4.3. ALS Assay Procedures

Sample preparation was carried out at the ALS facility in Mendoza. Upon arrival at the laboratory, the samples were dried in a gas oven at 105°C. They were then crushed to 70%, passing a 2 mm screen. The sample was then split so that a 1,000 g portion was generated. The 1,000 g portion was pulverised to 85%, less than 75 µm.

Prepared pulp samples are flown to the ALS at La Serena in Chile for analysis, where the analytical procedure is as follows:

- A 50 g charge was prepared for gold and silver fire assay with an AA Finish (Au/Ag-AA24). All gold values greater than 10 ppm were re-analysed using a gravimetric method (Au-GRA22).

- Samples returning silver values of 100 ppm were re-analysed using a gravimetric method (Ag-GRA22). Trace mercury was analysed by aqua-regia digestion, cold vapour, and AAS finish.
- A further 27 elements were analysed by 4-acid digest with ICP-AES finish (ME-ICP61) or with AAS finish if greater than the upper detection limit for Mo, Pb and Zn.

ALS Chemex Laboratories is accredited to ISO 9001 by QMI, and the laboratory is accredited ISO 17025 by the Standards Council of Canada for a number of specific test procedures, including the method used to assay samples submitted from the MDN Project. ALS also participates in a number of international proficiency tests, such as those managed by CANMET and Geostats.

11.4.4. Alex Stewart International Argentina Procedures

The external ASI laboratory is based in Mendoza, Argentina. All Alex Stewart International laboratories are accredited to ISO 9001, 14001 and 17025 standards and participate in inter-laboratory tests and international round robins.

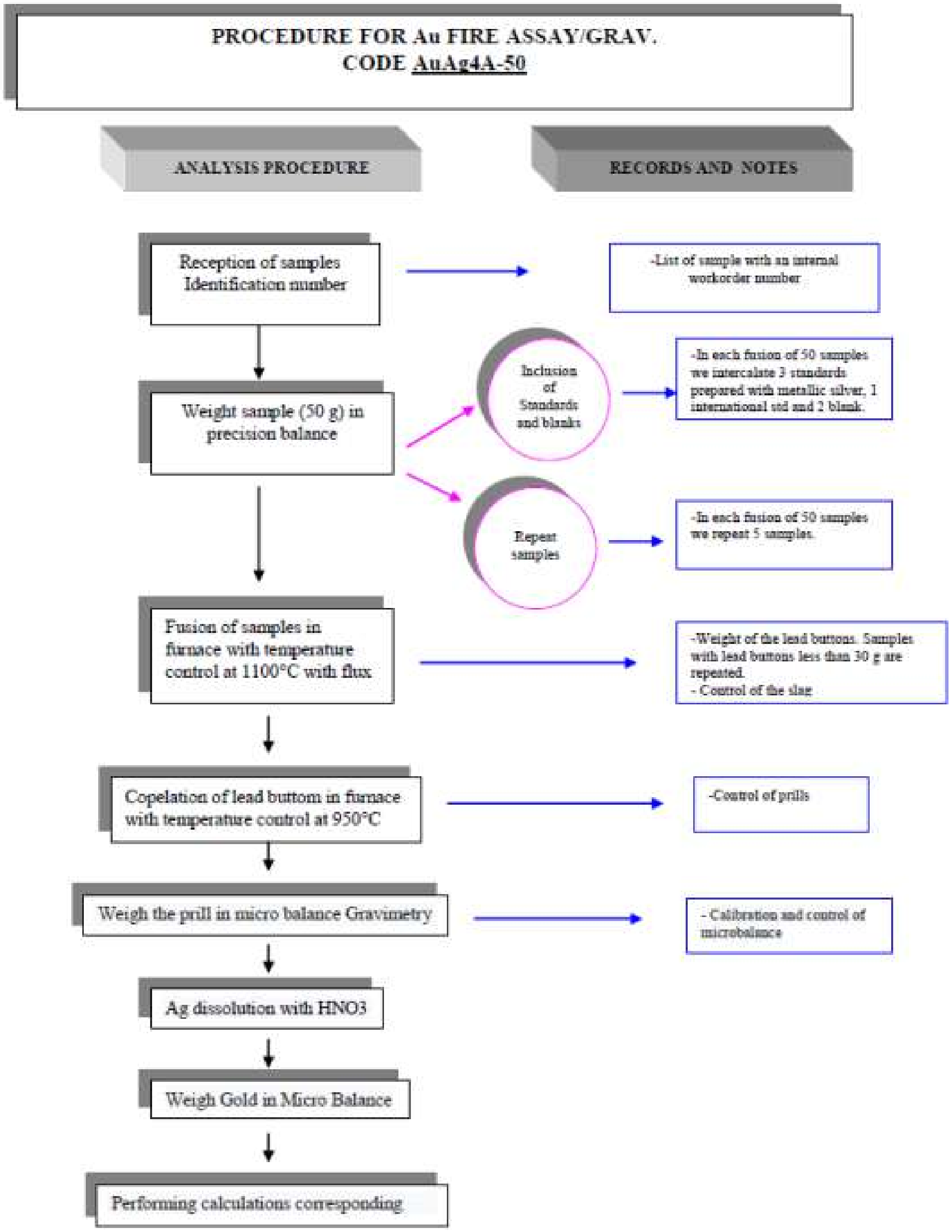
Drill core samples were picked up by ASI transport and brought to their sample preparation lab in Puerto San Julián. The samples were weighed and dried in an oven at 110°C. They were then crushed to 80% (85%), passing a 10-mesh (2,000 µm) screen. The sample was then split into 250 g (100g), and the split sample was pulverised to greater than 95%, being less than 140 mesh (105 μm).

The internal and external gold analysis was performed by fire assay of a 50 g sample, with a final volume of 20 ml and an AA finish (ASI code: AuAg4A-50).

A multi-element analysis, including silver, was also carried out using an Agua Regia digest of the sample, an ICP-OES finish (ASI code: ICP-AR 39), and the external analysis performed by ASI.

Since 2020, all MDN samples have been analysed in the on-site laboratory operated by MDN based on the ASI protocols. The sampling preparation and chemical analysis protocols are developed according to the flowchart presented in Figure 11.1.

Figure 11.1: Alex Stewart International Gold and Silver Analytical Procedures (2020).



11.5. Quality Assurance and Quality Control

Quality control sampling and assaying at the MDN Project follows a clearly defined procedure which has been documented by the internal staff and approved by the exploration manager (MDN Protocolo de Control de Calidad. Inserción de muestras de control (QA/QC). Protocolo QA/QC v. Jun 2019). The program includes the inclusion of blanks, duplicates, and standard reference material (SRM) into the sample stream sent to the laboratory for analysis.

The frequency of inserting QA/QC control samples will depend on the stage of the project being studied and the type of deposit. Similarly, the insertion of quality controls is not systematic and will depend on the geological logging of the drill hole.

Two protocols of insertion are defined:

1. Generative programs, surface mapping and sampling of semi-regional and local exploration in an initial stage. Approximately 8% of control material is included.
2. Sampling programs for all drilling and resource programs. Approximately 10% of control material is included, reaching up to 15% in areas of economic interest.

The sample batch will be named according to whether they correspond to drill/trench samples or surface samples as DONX- or S-DONX, respectively (Don Nicolás Exploration). Additionally, an alphanumeric suffix indicating the area from which the samples originated (LP, PA, GOL, MIC, or DN REG) and a sequential number were added (see MDN_Protocolo_Envío de muestras_2019v2).

In main MDN laboratory (Alex Stewart Argentina or ASA), every 50 samples, 3 to 6 standards and 3 to 4 duplicates are incorporated (Procedimiento de Análisis ASI - Criterios de Control de Calidad.pdf). Thus, the analytical procedures consist of 40 original samples and 8-10 internal quality controls from the laboratory.

The sampling plan is divided into two parts:

a. Zones without expected mineralisation, where 3 to 4 control samples will be placed in positions 12, 24, and 36 (11 original samples, 1 control sample, 11 original samples, 1 control sample, 11 original samples, and 1 control sample). In this way, these zones will contain 7.5% to 10% sample controls.
b. Zones with expected mineralisation, where, in addition to the previous scheme, 5 control samples will be placed: 4 positions before the vein, a STD; after the vein, a field duplicate (DUP), a coarse DUP, a fine DUP, and a coarse BLK. Thus, these zones will contain 17% to 20% sample controls.

The type of control in zones without expected mineralisation will be a standard (low-grade STD) and a blank. In zones with expected mineralisation, standards of the expected grade range in the vein will be placed, always avoiding repeating the same standard type in consecutive controls.

Cerrado Gold tracks the results of its blank, duplicate and CRM assays on industry-standard control charts. The CRM control charts showed the accepted value of the standard and warning lines at the 2 and 3 standard deviations (SD) levels, as determined by the round-robin assaying protocol, which certified the materials. Any sample result falling outside of the 3 SD warning line, or two (2) samples in a row outside of the 2 SD line, are usually failures, requiring follow-up with the laboratory with possible re-assays required.

11.5.1. Historical Validation

AGP Mining Consultants Inc. independently reviewed the QA/QC program from Las Calandrias samples in 2021 and agreed that it followed standard industry practice and CIM

Exploration Best Practice Guidelines. For AGP, all data from previous Cerrado Gold procedures were representative and suitable for mineral resources estimation.

In the SRK Technical Report (2021), all of the historical QA/QC from the Martinetas and Las Palomas area were reviewed, and they considered data suitable for mineral report purposes. All data collected by Yamana, RYSA, Hidefield and MIRLP also seem of sufficient quality to be utilised in resource estimation. Only limited QA/QC information was available for the Newcrest to drill holes, but given the low density of data (12 drill holes), SRK does not recommend being excluded from the database.

In addition, SRK reviewed all of the QA/QC reports prepared by MIRLP and MDN between 2012 and 2019. The reports show that MIRLP increased its use of control samples in 2013, so 7% to 8% of all samples submitted were QA/QC samples.

11.5.2. Standard Reference Material

Standard samples are analysed to monitor the analytical process's accuracy (bias) and laboratory control, essentially a precision exercise. Acceptable accuracy is a bias of <±5%. Standards were inserted in the overall sample stream of drill holes at a rate of one standard in 25 samples.

The available standards used in MDN samples are from CDN Resource Laboratories Ltd:

- GS-P5D (Au 0.643 g/t FA, Ag 66.0 g/t 4-acid)
- GS-P6A (Au 0.738 g/t FA, Ag 81.0 g/t 4-acid)
- GS2Q (Au 2.37 g/t FA, Ag 73.2 g/t 4-acid)
- GS5Q (Au 5.59 g/t FA, Ag 60.3 g/t 4-acid)
- GS-8E (Au 8.53 g/t FA)
- GS14A (Au 14.9 g/t FA)

Evaluations of the performance for standards indicated Table 11-3 and Table 11-4):

Calandrias Norte

- Gold analysis is predominantly within the ± 5% bias limit (Figure 11.2).
- Some negative bias in the low-grade gold standard (GS-P6A, MA-S1, STD-GS-4H) was identified, but due to the low number of samples, this is not expected to significantly impact the result.
- Using standard expected grades and standard deviations, the silver STDs performed well, with no failures detected, showing bias results always within the limit of ±5% bias.

Calandrias Sur

- Gold analysis is predominantly within the ± 5% bias limit (Figure 11.3).
- Some negative bias in the high-grade gold standard (GS-5X) was identified which is not expected to significantly impact the final result.

- Silver analysis shows bias results always within the limit of ±5% bias.

Zorro

- Gold analysis is predominantly within the ± 5% bias limit (Figure 11.4).
- Some negative bias in the high-grade gold standard (GS-P6A, GS-8E) was identified, which is not expected to have a significant impact, considering the excluded outliers.
- MA-S1 gold standard demonstrates a high calibration drift corrected to the expected value once analytical results drift near the expected value -3SD.
- Using standard expected grades and standard deviations, the silver STDs performed well, with only one negative bias identified (GS-P6A) that had no significant impact.

Sulfuro Trend

- Gold analysis is predominantly within the ± 5% bias limit (Figure 11.5).
- Some negative bias in the high-grade gold standard (GS-5X) was identified, which is not expected to impact the final result significantly.
- The silver standard samples predominantly show results within the ± 5% bias. A few standards presented outlier values with a negative deviation of around 10%. After processing the anomalous samples, the deviations were reduced and are within acceptable limits.

GeoEstima believes the performance of the internal and external analytical standards is acceptable.

Table 11-3: Summary of Standard Biases for Au Analysis (2018-2024).

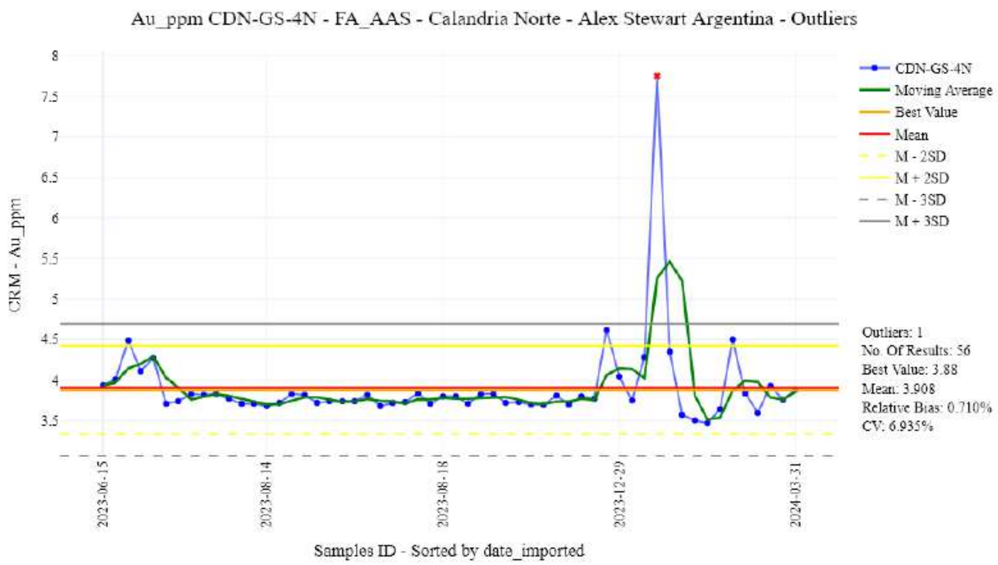
Target	Standard	Mean	Best Value	Samples	Outliers	Outliers (%)	Bias (%)
CALANDRIAS NORTE	CDN-GS-4N	3.90	3.88	128	4	3.13%	0.64%
	CDN-GS-4N	3.91	3.88	56	1	1.79%	0.71%
	GS-1P5T	1.72	1.75	161	7	4.35%	-1.88%
	GS-1P5T	1.78	1.75	124	2	1.61%	1.50%
	GS-5X	5.02	5.04	39	0	0.00%	-0.35%
	GS-5X	5.10	5.04	24	0	0.00%	1.19%
	GS-8E	8.58	8.53	22	0	0.00%	0.54%
	GS-P5H	0.52	0.50	49	0	0.00%	5.16%
	GS-P6A	0.68	0.77	2	0	0.00%	-11.46%
	GS-P8G	0.79	0.82	5	0	0.00%	-3.67%
	MA-S1	0.39	0.43	2	0	0.00%	-10.47%
	MA-S2	1.58	1.65	3	0	0.00%	-4.04%
	STD-GS-4H	4.05	5.01	1	1	100.00%	-19.12%
CALANDRIAS SUR	MA-S2	1.58	1.65	1	0	0.00%	-4.24%
	MA-S1	0.40	0.43	13	0	0.00%	-7.33%
	GS-P6A	0.79	0.77	1	0	0.00%	2.86%
	GS-P6D	0.70	0.77	1	0	0.00%	-8.97%
	GS-5X	5.03	5.04	9	0	0.00%	-0.21%
	GS-5X	4.76	5.04	19	1	5.26%	-5.48%
	GS-3U	3.42	3.29	1	0	0.00%	3.95%
	GS-1P5T	1.70	1.75	24	0	0.00%	-2.95%
	GS-1P5T	1.64	1.75	7	0	0.00%	-6.15%
	GS-P8G	0.83	0.82	15	0	0.00%	1.30%
ZORRO	GS-P6A	0.72	0.77	50	3	6.00%	-5.89%
	GS-8E	7.63	8.53	42	2	4.76%	-10.60%
	GS-8E	8.70	8.53	1	0	0.00%	1.99%
	GS-5X	5.07	5.04	39	0	0.00%	0.58%
	GS-5X	4.71	5.04	82	10	12.20%	-6.58%
	GS-5X	4.97	5.04	72	0	0.00%	-1.36%
	MA-S2	1.51	1.65	20	4	20.00%	-8.21%
	GS-P8G	0.99	0.82	2	1	50.00%	20.52%
	MA-S1	0.51	0.43	19	16	84.21%	19.50%
	GS-1P5T	1.91	1.75	86	6	6.98%	8.96%
	GS-1P5T	1.77	1.75	80	0	0.00%	1.19%
	GS-1P5T	1.84	1.75	26	2	7.69%	5.19%
	GS-P6D	0.74	0.77	18	0	0.00%	-3.78%
	GS-P6D	0.69	0.77	1	0	0.00%	-10.53%
	GS-2W	2.07	2.10	1	0	0.00%	-1.43%

Target	Standard	Mean	Best Value	Samples	Outliers	Outliers (%)	Bias (%)
SULFURO TREND	CDN-GS-4N	3.99	3.88	40	0	0.00%	2.83%
	CDN-GS-4N	4.01	3.88	29	0	0.00%	3.34%
	GS-14A	14.78	15.90	3	0	0.00%	-7.06%
	GS-14A	14.93	15.90	3	0	0.00%	-6.08%
	GS-14A	10.00	15.90	1	1	100.00%	-37.11%
	GS-14A	13.44	15.90	7	1	14.29%	-15.46%
	GS-1P5T	1.77	1.75	57	0	0.00%	0.94%
	GS-1P5T	1.91	1.75	157	10	6.37%	9.20%
	GS-2Q	2.43	2.37	9	0	0.00%	2.63%
	GS-2Q	2.43	2.37	2	0	0.00%	2.53%
	GS-2W	2.07	2.10	65	0	0.00%	-1.45%
	GS-2W	2.05	2.10	1	0	0.00%	-2.38%
	GS-3U	3.24	3.29	20	0	0.00%	-1.38%
	GS-3U	3.30	3.29	9	0	0.00%	0.44%
	GS-5Q	5.71	5.59	13	0	0.00%	2.12%
	GS-5Q	5.77	5.59	2	0	0.00%	3.13%
	GS-5X	5.02	5.04	53	0	0.00%	-0.43%
	GS-5X	4.79	5.04	132	5	3.79%	-4.99%
	GS-5X	5.13	5.04	3	0	0.00%	1.85%
	GS-8E	8.62	8.53	70	1	1.43%	1.08%
	GS-8E	7.94	8.53	40	1	2.50%	-6.88%
	GS-8E	11.00	8.62	1	1	100.00%	27.61%
	GS-8E	8.40	8.62	1	0	0.00%	-2.55%
	GS-P5H	0.52	0.50	31	0	0.00%	5.41%
	GS-P6A	0.74	0.77	34	1	2.94%	-3.57%
	GS-P6A	0.89	0.77	16	2	12.50%	16.05%
	GS-P6D	0.76	0.77	90	0	0.00%	-1.79%
	GS-P6D	0.66	0.77	1	0	0.00%	-13.91%
	GS-P8G	0.80	0.82	8	0	0.00%	-2.35%
	GS-P8G	0.79	0.82	18	0	0.00%	-3.29%
	MA-S1	0.41	0.43	20	0	0.00%	-3.60%
	MA-S1	0.48	0.43	42	2	4.76%	10.91%
	MA-S2	1.54	1.65	8	0	0.00%	-6.52%
	MA-S2	1.47	1.65	47	4	8.51%	-11.12%
	MA-S7	5.61	4.94	4	4	100.00%	13.56%
	OxH163	1.32	1.31	8	0	0.00%	0.25%
	SJ111	2.88	2.81	11	0	0.00%	2.26%
	STD-GS-3T	2.83	3.05	83	2	2.41%	-7.15%
	STD-GS-3T	2.93	3.05	29	0	0.00%	-4.08%
	STD-GS-3T	2.64	3.05	3	2	66.67%	-13.57%
	STD-GS-4H	4.89	5.01	26	0	0.00%	-2.45%
	STD-GS-4H	4.89	5.01	42	4	9.52%	-2.30%
	STD-GS-4H	4.58	5.01	1	0	0.00%	-8.50%

Table 11-4: Summary of Standard Biases for Ag Analysis (2018-2024).

Target	Standard	Mean	Best Value	Samples	Outliers	Outliers (%)	Bias (%)
CALANDRIAS NORTE	GS-P6A	81.61	81	2	0	0.00%	0.75%
	GS-P6A	78.10	81	2	0	0.00%	-3.58%
	GS-1P5T	90.10	92	161	7	4.35%	-2.07%
	GS-1P5T	91.38	92	75	3	4.00%	-0.68%
	GS-1P5T	93.52	92	50	0	0.00%	1.66%
	CDN-GS-4N	156.56	153	57	2	3.51%	2.33%
	CDN-GS-4N	153.11	153	130	2	1.54%	0.07%
CALANDRIAS SUR	GS-P6A	78.60	81	1	0	0.00%	-2.96%
	GS-1P5T	95.30	92	24	0	0.00%	3.59%
	GS-1P5T	94.99	92	7	0	0.00%	3.25%
ZORRO	GS-P6A	76.43	81	50	2	4.00%	-5.64%
	GS-1P5T	87.78	92	86	7	8.14%	-4.58%
	GS-1P5T	87.86	92	26	2	7.69%	-4.50%
	GS-2W	74.50	77	1	0	0.00%	-3.25%
SULFURO TREND	GS-2Q	73.81	73.2	10	0	0.00%	0.83%
	GS-5Q	55.18	60.3	15	0	0.00%	-8.49%
	GS-2W	73.36	77	63	0	0.00%	-4.73%
	GS-2W	80.90	77	1	0	0.00%	5.06%
	GS-2W	73.10	77	2	0	0.00%	-5.06%
	GS-P6A	71.50	81	19	1	5.26%	-11.73%
	GS-P6A	71.29	81	16	3	18.75%	-11.99%
	GS-P6A	81.45	81	15	0	0.00%	0.55%
	GS-1P5T	94.13	92	23	0	0.00%	2.32%
	GS-1P5T	90.57	92	157	9	5.73%	-1.56%
	GS-1P5T	93.08	92	30	0	0.00%	1.17%
	GS-1P5T	96.05	92	4	0	0.00%	4.40%
	CDN-GS-4N	148.48	153	41	1	2.44%	-2.96%
	CDN-GS-4N	155.65	153	24	0	0.00%	1.73%
	CDN-GS-4N	153.74	153	5	0	0.00%	0.48%

Figure 11.2: Control chart for Gold, Calandria Norte.



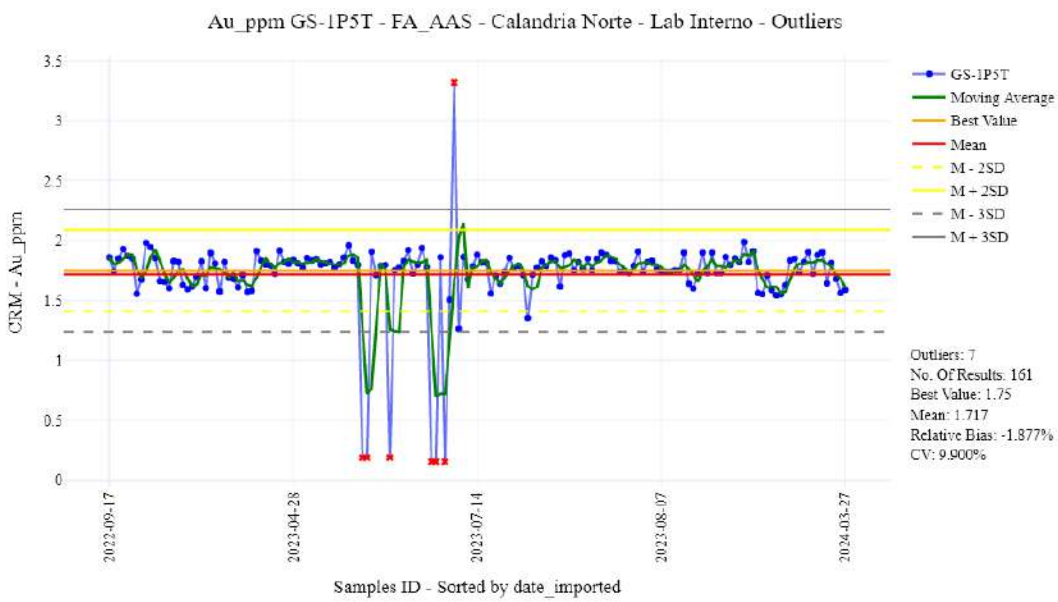
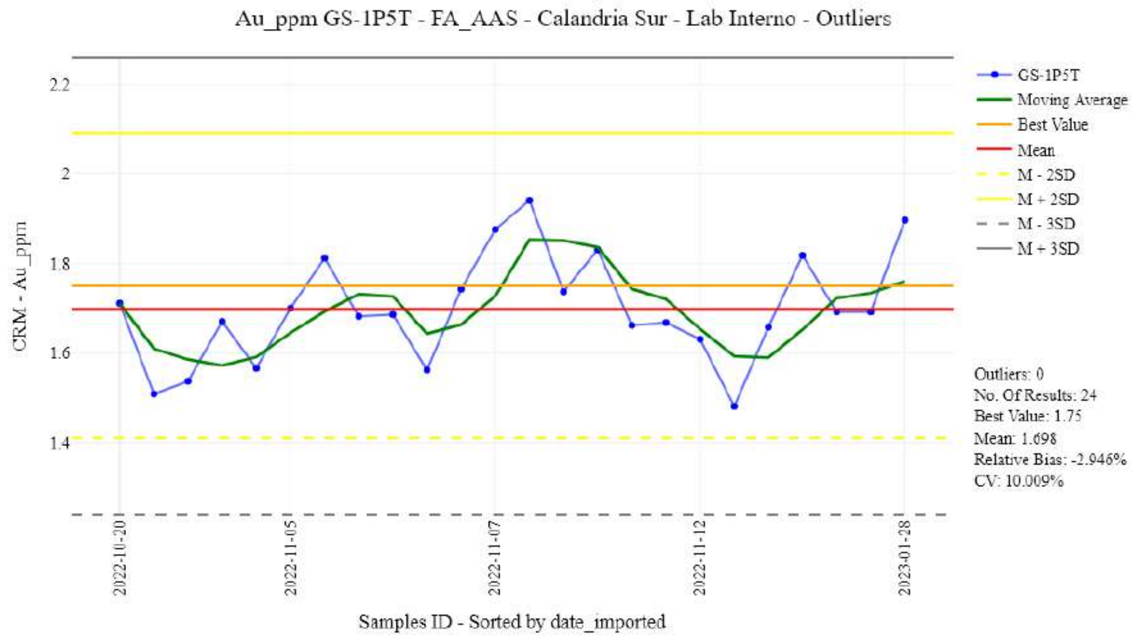


Figure 11.3: Control chart for Gold, Calandria Sur.



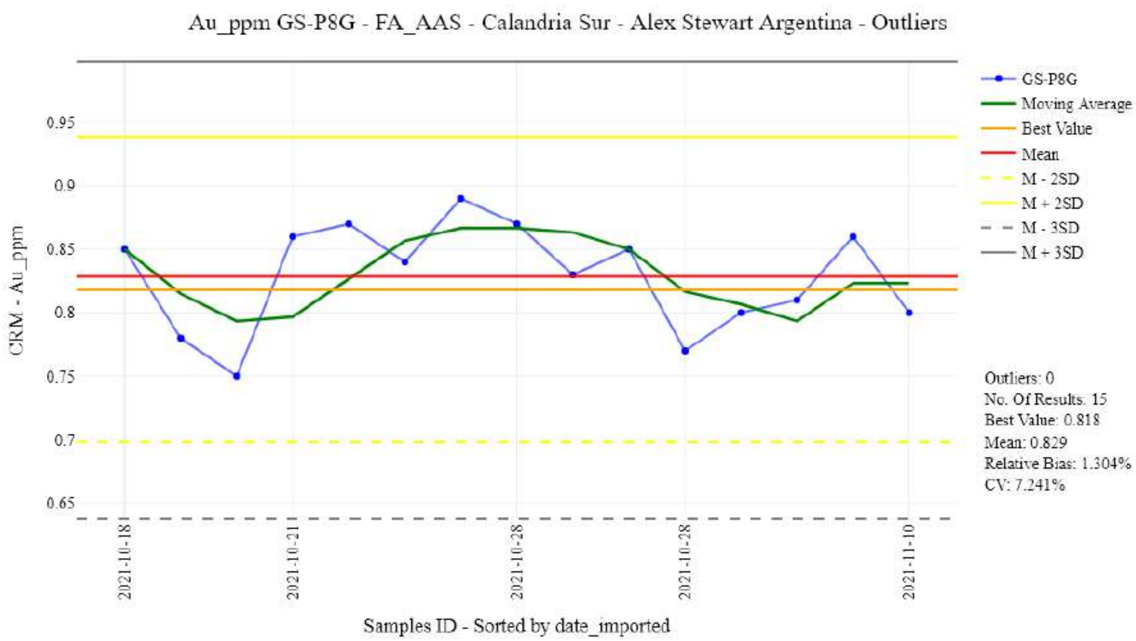
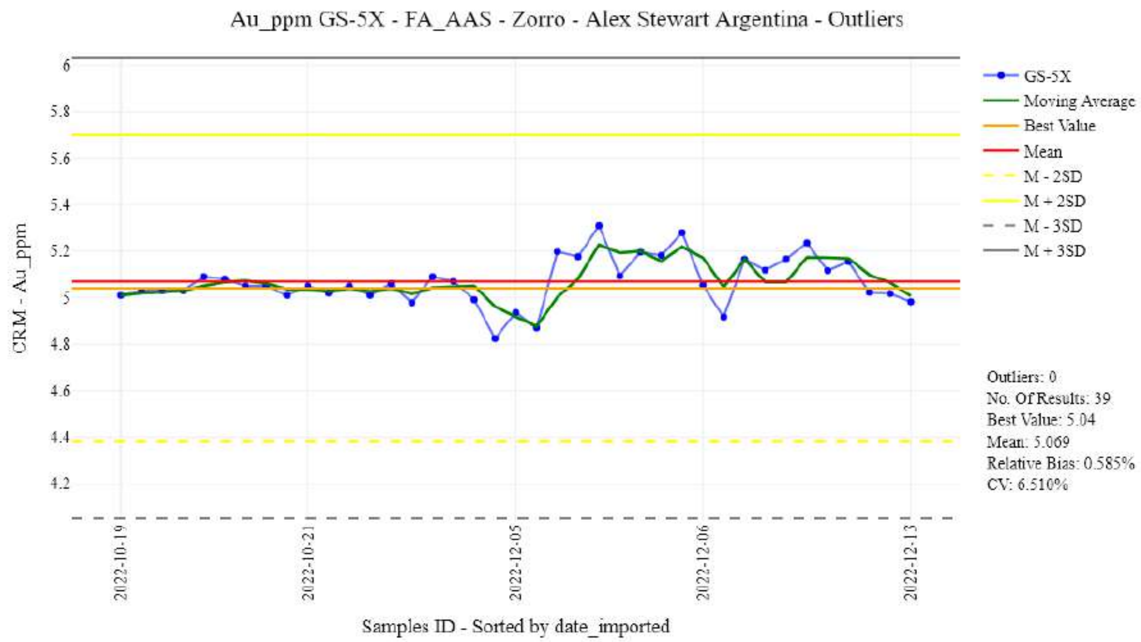


Figure 11.4: Control chart for Gold, Zorro.



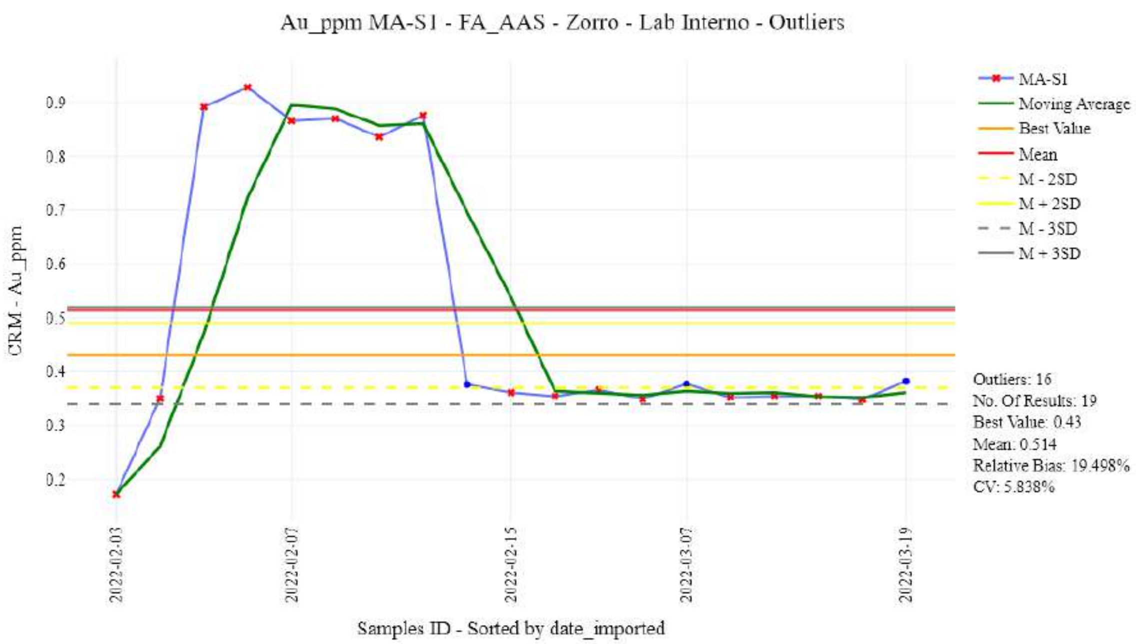
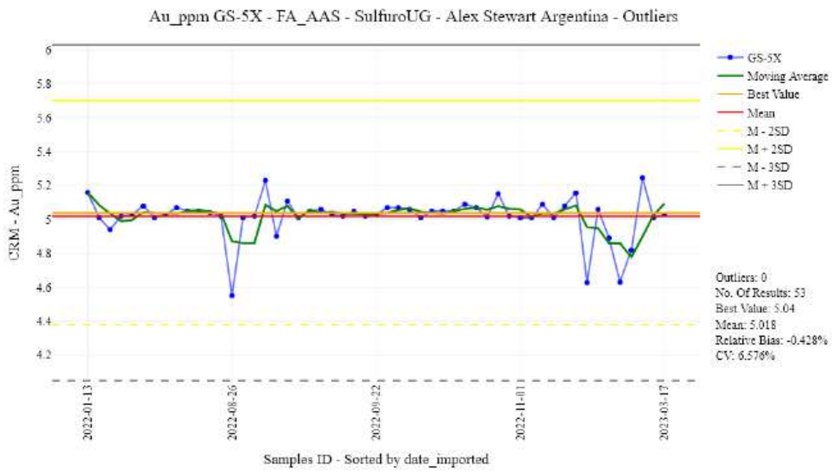
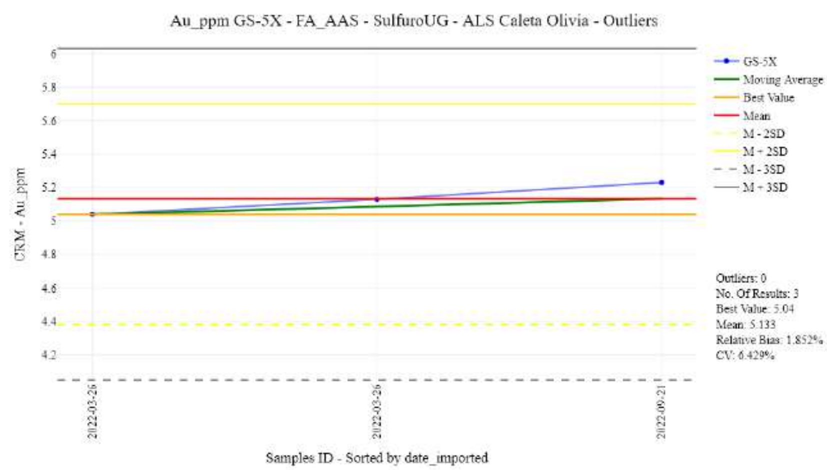
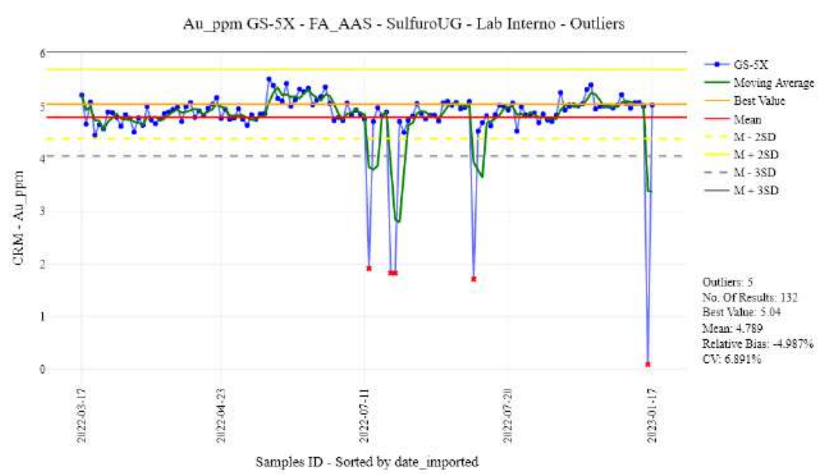


Figure 11.5: Control chart for Gold, Sulfuro Trend.







11.5.3. Blanks

Contamination was assessed using blank charts, where the blank values were plotted against the previous sample values. Usually, the samples contain deficient grades close to the detection limit of the elements of interest. During the campaigns from 2019 to 2024, several methods were used, and several detection limits were considered. The analysis of contamination performed by GeoEstima was considered the highest limit of detection standardised for the construction of graphs and interpretation of results. Overall, no systematic contamination is indicated by the data.

11.5.4. Field, Coarse Reject and Pulp Duplicates

MDN inserted coarse, pulp, and field duplicates into the sample stream to evaluate the laboratory's accuracy or reproducibility of the results. The limit of mineralisation and the type of drill hole defines the order of insertion. In RC, the number of insertions in mineralised zones is one field sample (DUP) for each of the 11 samples. For DDH and Trenches, inserting 3 samples (field, coarse, and pulp duplicates) is common.

Silver results for replicates and coarse rejects are between 0.8% and 10%, which is acceptable. Pulp duplicates present results higher than 15%, which should be investigated (Table 11-5).

The errors found in the duplicate samples for gold range between 0.0% and 27%, with more significant variability in the Sulfuro Trend target. The large error may be correlated with the difference between 1/4 core to chip samples, which adds a very large uncertainty to the analysis. Pulp and coarse rejects present a high variability that should be investigated even though most of these samples outside of specification appear at, or near, the detection limit of analysis for gold and are not considered failures. Interlaboratory analysis is < 10%, which is acceptable (Table 11-6).

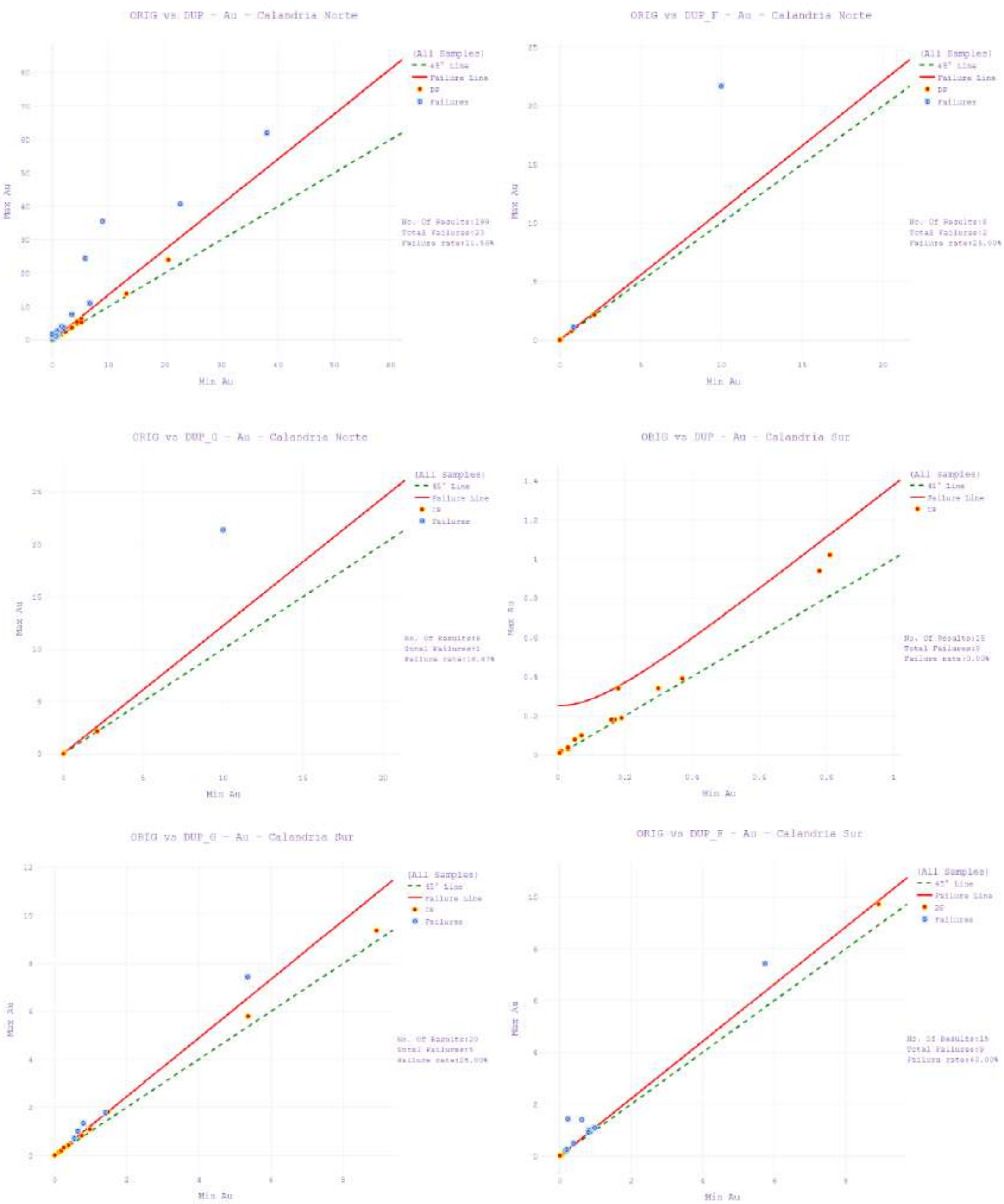
Table 11-5: Summary of Error Rates, Silver.

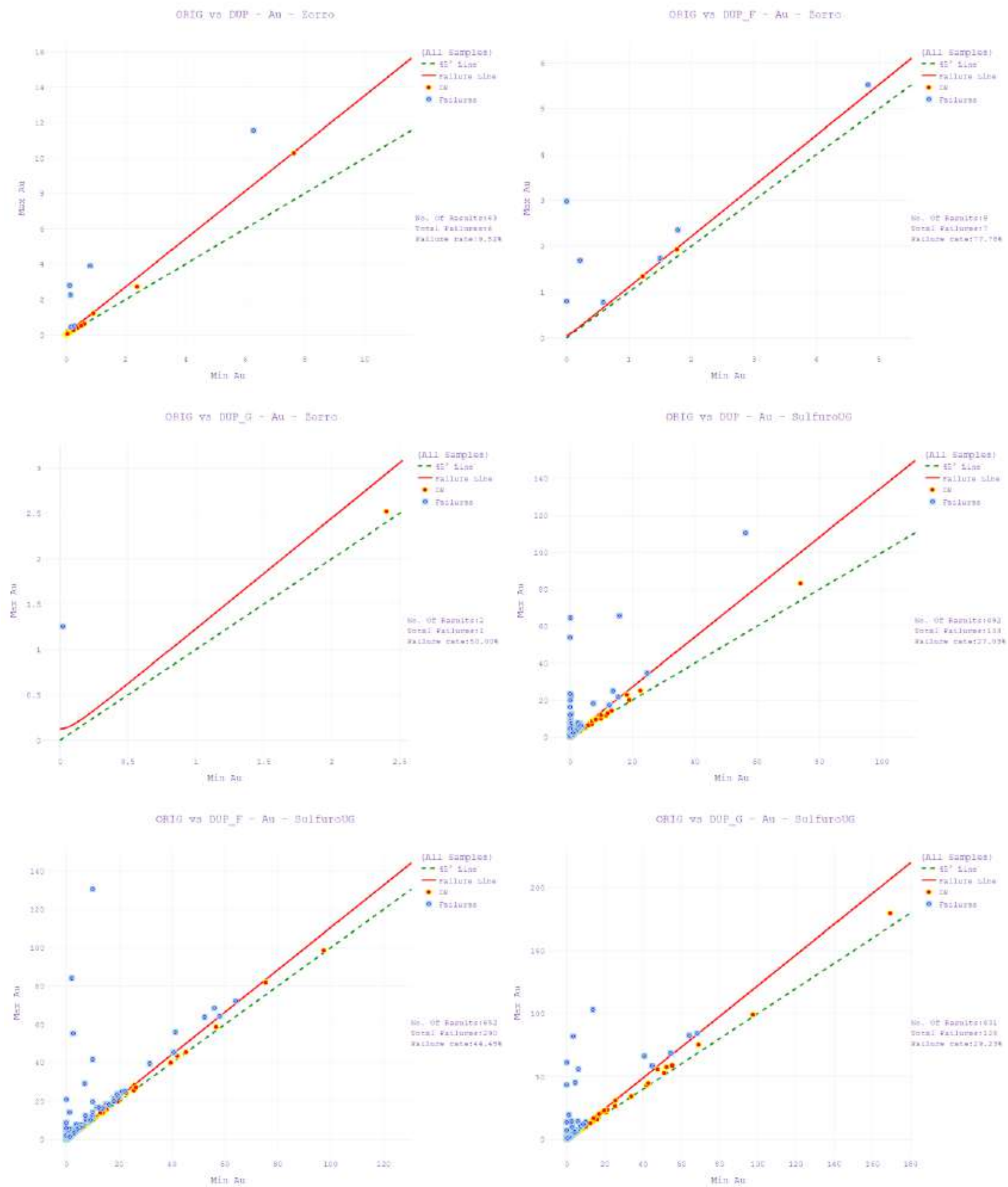
Target	Type Duplicated	Title	No. Of Results	No. Of errors	Error Rate
Calandrias Norte	Field duplicates	ORIG vs DUP	24	0	0.0%
	Pulp duplicates	ORIG vs DUP_F	6	1	16.7%
	Coarse rejects	ORIG vs DUP_G	6	0	0.0%
Calandrias Sur	Field duplicates	ORIG vs DUP	15	1	6.7%
	Pulp duplicates	ORIG vs DUP_F	19	4	21.1%
	Coarse rejects	ORIG vs DUP_G	20	2	10.0%
Zorro	Field duplicates	ORIG vs DUP	18	0	0.0%
Sulfuro Trend	Field duplicates	ORIG vs DUP	120	1	0.8%
	Pulp duplicates	ORIG vs DUP_F	141	13	9.2%
	Coarse rejects	ORIG vs DUP_G	98	1	1.0%
	Replicates Interlab	ORIG vs DC_IL	97	1	1.0%
	Replicates Interlab	ORIG vs DP_IL	91	1	1.1%

Table 11-6: Summary of Error Rates, Gold.

Target	Type Duplicated	Title	N° Results	N° Errors	Error Rate
Calandrias Norte	Field duplicates	ORIG vs DUP	199	23	11.6%
	Pulp duplicates	ORIG vs DUP_F	8	2	25.0%
	Coarse rejects	ORIG vs DUP_G	6	1	16.7%
Calandrias Sur	Field duplicates	ORIG vs DUP	15	0	0.0%
	Pulp duplicates	ORIG vs DUP_F	15	9	60.0%
	Coarse rejects	ORIG vs DUP_G	20	5	25.0%
Zorro	Field duplicates	ORIG vs DUP	63	6	9.5%
	Pulp duplicates	ORIG vs DUP_F	9	7	77.8%
	Coarse rejects	ORIG vs DUP_G	2	1	50.0%
Sulfuro Trend	Field duplicates	ORIG vs DUP	492	133	27.0%
	Pulp duplicates	ORIG vs DUP_F	652	290	44.5%
	Coarse rejects	ORIG vs DUP_G	431	126	29.2%
	Replicates Interlab	ORIG vs DC_IL - Au_FA_AAS	118	9	7.6%
	Replicates Interlab	ORIG vs DC_IL - Au_GRAV	10	0	0.0%
	Replicates Interlab	ORIG vs DP_IL - Au_FA_AAS	101	9	8.9%
	Replicates Interlab	ORIG vs DP_IL - Au_FA_GRAV	8	0	0.0%

Figure 11.6: Lab duplicated for gold (Au ppm).




ORIG vs DUP - Au - Zorro
ORIG vs DUP_F - Au - Zorro
ORIG vs DUP_G - Au - Zorro
ORIG vs DUP - Au - SulfuroUG
ORIG vs DUP_F - Au - SulfuroUG
ORIG vs DUP_G - Au - SulfuroUG
(All Samples)
Failure Line
Failures
Max Au
Min Au

12. DATA VERIFICATION

12.1. External Data Verification

12.1.1. SRK

In mid-2020, SRK Consulting completed an Independent Technical Report on MDN properties that included a site visit and high-level reviews of the databases and procedures. This included reviewing the digitalisation of the exploration database, reviewing exploration procedures, examining the drill core, reviewing grade control procedures, reviewing sampling procedures, and QA/QC procedures.

The data that pre-date 2006 didn't have original assay certificates. However, SRK verified 15% of the assay data and found no significant errors. All pre-2006 data were reviewed by Coffey in 2012, and no errors were mentioned.

12.1.2. AGP

As part of the acquisition process, AGP Mining Consultants Inc. performed an independent review of all available data in the Las Calandrias area until mid-July 2018. AGP received all historical databases and the New Dimension's database to compare available assay data against assay certificates provided by the laboratories (ALS and ASI, Mendoza).

AGP validated drill hole collar locations and logging procedures and performed an independent sample analysis to ensure the presence of mineralisation on the property. The results did not present any significant difference, and AGP considered the database adequate and representative to support the resource estimation for the Las Calandrias area.

12.2. Internal Data Verification

The updated database includes all historic data (drill holes and trenches) and drill holes completed up to April 1, 2024. Before using this database for Mineral Resource estimation, the data was reviewed for geologic consistency and checked against the original information. The administrator regularly maintains the MDN resource database using Fusion™ validation routines and periodically checks the drill hole data location on QGis (visual validation), Leapfrog and Power BI.

MDN utilised Leapfrog Geo's validation features to identify issues, including:

- Sample length issues;
- Maximum and minimum;
- Negative values;
- Detection limit / Zero values;
- Borehole deviations;
- Gaps;
- Overlaps;
- Drill hole collar *versus* topography;
- Datum.

12.3. GeoEstima Verification

12.3.1. Site Visit

Talita C de O Ferreira, Principal Consultant Geologist with GeoEstima and an independent QP, visited MDN's property on May 1, 2024. During the site visit, Ms. Ferreira examined exposures of mineralisation, reviewed plans and sections, visited the core shack, and reviewed core logging and sampling procedures. As part of the data verification process, she checked the databases against copies of the assay certificates, checked a selection of drill hole collars and drill hole core photos, and reviewed QA/QC data collected by MDN.

12.3.2. Database checked

The QP performed high-level reviews of the collars, downhole surveys, density and lithology tables and an extensive audit of the assay data. The audit compared data in the Fusion database to data compiled from original assay certificates and original geological logs to the extent possible. High-level reviews included:

- Collar locations were compared to topography. No discrepancies were noted.
- Downhole surveys were plotted as depth *versus* azimuth and inclination to investigate anomalous survey points. A few anomalous points were discovered, but none that would significantly impact the Mineral Resource estimation. No significant discrepancies were found.
- Density data were recalculated from the original data. No discrepancies were noted. Density measurement procedures were reviewed on-site and found to be acceptable. Histograms were prepared to investigate possible outlier values.
- Lithology data were spot-checked by comparing core to lithological logs. The QP concluded that the geological logs adequately supported the Mineral Resource estimation.

The QP audited the assay data by compiling a new database from the original assay certificates before April 2024. A total of 59,986 assay intervals were compiled. The data included trench l data and some check assay data. No significant issues were identified.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

13.1. Background

Mariana Resources Ltd. commenced metallurgical investigations on Las Calandrias deposits in July 2010. This was followed by a preliminary metallurgical test work program that started in September 2010 and concluded in January 2012. Metcon Laboratories Pty. Ltd (now ALS Global) completed all this test work in Sydney, Australia.

In 2011, Mariana Resources completed preliminary test work on Las Calandrias Sur Deposit samples. The composite samples from Las Calandrias Sur represented the deposit's oxide, transition, and primary zones. Based on the results of this test work, heap leaching and carbon-in-leach (CIL) were considered processing options for the combined oxide and upper transition zones of this deposit. Heap leaching was favoured because of its lower capital and operating costs for low gold-grade ores.

In 2011, a preliminary LeachWell® test program suggested that all mineralisation in Las Calandrias Norte Vein, regardless of its degree of oxidation, may be amenable to processing by CIL.

In 2019, New Dimension retained Blue Coast Research Ltd. to complete metallurgical test work on two composite samples from Las Calandrias Norte and Morena drill core. This program evaluated heap leach amenability and standard tank leach cyanidation under two conditions.

Recently, Cerrado Gold has conducted its metallurgical test work program since it acquired the property. This program included bottle roll tests and column leach tests by Instituto de Investigaciones Mineras of the Universidad Nacional de San Juan, Argentina.

13.2. Metallurgical Test Programs-Pre 2019 Tests

13.2.1. Leachwell Tests

In 2011, a preliminary LeachWell® test program was completed on 175 drill intercept samples from Calandrias Sur deposit. These drill holes were located at this deposit's centre of the rhyolite dome.

LeachWell® tests are a simple and rapid method of estimating the amount of extractable gold by direct cyanidation. One LeachWell® test involves mixing 70 g of pulverised solids with 250 ml of water and agitating the slurry for 2 hours with a known volume of Leachwell solution (5% sodium cyanide, 0.7% sodium hydroxide, and 2% Leachwell 60X catalyst reagent). After the leach time is completed, the resultant slurry is filtered, and this filtered solution is assayed for gold.

The main objective of this test program was to determine the effect of variations in the degree of oxidation across the deposit in the amount of extractable gold by direct cyanidation. Each sample tested represented only one of the logged oxidation codes shown in Table 13-1.

Table 13-1: Oxidation Codes.

Code	Degree of Oxidation
4	Complete
3	Strong
2	Moderate
1	Weak
0	None

The Leachwell test results show an overall trend with the amount of extractable gold reducing as the oxidation degree decreases. This fact allows for metallurgical purposes, and the mineralisation of this deposit could be divided into three ore zones: oxide, transition, and primary. The following table shows each designated ore zone's weighted average gold extractions.

Table 13-2: Averaged Leachwell® results for each ore zone.

Ore Zone	Degree of Oxidation	Code	Samples	Total metres	Average grade, g/t Au	Avg. Extract. %	Extract. Range
Oxide	Complete to moderate	4, 3, 2	24	57.5	2.08	94.8	85.0-96.0
Transition	Weak	1	16	38.0	1.66	74.6	18.5-96.0 [1]
Primary	None	0	135	263.0	2.55	40.4	3.5-96.0[2]

The main conclusion obtained from this test work program is that the gold ore samples tested in Calandrias Sur deposit were highly amenable to cyanidation, with a general trend that the amount of extractable gold is reducing as the oxidation degree of the ore decreases.

13.2.1.1. Calandria Norte Leachwell Tests

A preliminary LeachWell® test program was completed on 221 Calandrias Norte deposit drill intercept samples. The results of these tests are shown in the Table 13-3.

Table 13-3: Leachwell Results for Calandria Norte samples

Ore Zone	Degree of Oxidation	Code	Samples	Total metres	Average grade, g/t Au	Avg. Extract. %	Extract. Range
Oxide	Complete to moderate	4, 3, 2	26	66.2	2.01	94.0	30.5-96.0
Transition	Weak	1	17	31.6	2.01	86.3	25.6-96.0
Primary	None	0	178	244.4	6.45	54.5	1.0-96.0

[1] Gold extractions within transition zone were variable, but there are differences in gold extraction associated to depth. In the upper zone (8 samples from 18-48 m) extraction varies between 77.6% and 96.0%, whereas in the lower zone (8 samples from 100-110 m) extraction varies between 18.5% and 88.9%.

[2] Gold extractions within primary zone were variable, but only 7 out of 135 samples had extractions above 70%

The main conclusion was that all the ore zones in Calandrias Norte deposit were highly amenable to cyanidation, with a general trend that the amount of extractable gold is reducing as the oxidation degree of the ore decreases in the same manner that this happens in Calandrias Sur deposit. No further test work was developed on Calandrias Norte samples during the initial tests carried out by Mariana Resources.

13.2.2. Metallurgical Composites

Based on the results of the Leachwell tests for the Calandrias Sur deposit described above, three composites were made to represent the designated zones of the deposit's oxidation degree: oxide, transition, and primary. The characteristics of these three composites are given in Table 13-4.

Table 13-4: Characterization of Metallurgical Composites.

Composite	Holes	Intercepts	Total meters	Weight kg	Average grade g/t Au	Avg. Extract. %
Oxide	4	22	56.5	73.9	1.60	94.5
Transition	5	16	38.0	51.8	1.67	74.0
Primary	8	51	133.5	133.5	1.67	27.6

13.2.3. Comminution Tests

These comminution tests were carried out to determine the roll and ball mill work indexes and abrasion index for each of the three composites described above. The results are shown in Table 13-5.

Table 13-5: Comminution Test Results.

Composite	Roll Mill Work Index		Ball Mill Work Index		Abrasion Index g
	Product P80 (µm)	kWh/t	Product P80 (µm)	kWh/t	
Oxide	837	18.8	79 56	16.8 17.3	0.205
Transition	883	20.6	80 55	17.7 17.9	0.272
Primary	875	18.7	79 55	16.7 16.9	0.298

13.2.3.1. Grinding Tests

Grinding tests were developed to determine grinding times needed to achieve grind sizes required for CIL or flotation processing of each of the three composites described above. These tests were made in a laboratory stainless steel rod mill (200 mm diameter by 300 mm long) operating at 65 rpm with 55% solids w/w slurry. This rod mill gives a product size distribution similar to that expected from a plant close-circuit ball mill grinding. The grinding times corresponding to the nominated grind sizes are shown in Table 13-6.

Table 13-6: Grinding times, in minutes, for nominated grind sizes.

Composite	P80 75 µm	P80 53 µm	P80 45 µm
Oxide	18.75		
Transition	21.5		
Primary	19.25	28.0	32.25

The results of these comminution tests indicated that all composites are reasonably hard and somewhat abrasive.

13.2.4. CIL Tests

A series of carbon-in-leach tests were completed for each one of the composites described above. The CIL test conditions were grind size of P80 75 µm, 24 hours leaching with 1,000 mg/L cyanide concentration, with and without a preceding gravity concentration stage. The results of those tests for the three composites are shown in Table 13-7.

Table 13-7: CIL Test Results, Calandria Sur Composites.

Parameter	Unit	Oxide		Transition		Primary	
Gravity Separation		No	Yes	No	Yes	No	Yes
Au Assay Head	g/t	1.33	1.33	1.28	1.28	1.47	1.47
Au Residue Assay	g/t	0.08	0.11	0.49	0.46	1.15	1.20
Au Gravity Extraction	%	n/a	1.7	n/a	6.2	n/a	0.0
Au CIL extraction	%	94.6	94.7	77.9	60.1	27.1	26.3
Au Total Test Extraction	%	94.6	92.4	77.9	66.4	27.1	26.3
Au Leachwell Test Ext.	%	94.5	94.5	74.0	74.0	27.6	27.6
Ag Assay Head	g/t	16	16	21	21	34	34
Ag Residue Assay	g/t	1.5	1.6	4.5	5.1	20.2	21.0
Ag CIL extraction	%	89.6	90.2	79.8	77.0	41.7	39.5
Reagent Consumptions							
NaCN	kg/t	0.24	0.24	0.33	0.24	0.41	0.60
Lime	kg/t	0.51	0.47	0.65	0.59	0.69	0.61

Note: n/a means not applicable.

The main conclusion obtained from this test work program is that the samples of the oxide and transition oxidation zones of Calandrias Sur deposit are highly amenable to CIL cyanidation, with a general trend that the amount of extractable gold is reducing as the oxidation degree of the ore decreases. Another fact that this test work showed is that the extractions predicted with Leachwell tests are close to those obtained in these CIL tests.

13.2.5. Column Leach Tests

A column leach test was completed for the oxide composite. The column leach test conditions were crushed size minus 6.3 mm, 38 days leaching with 200 mg/L cyanide concentration. Before the development of this column leach test, two other tests were performed with the oxide composite sample: a bottle roll test with ore crushed at the minimum particle size accepted for heap leaching processing to see the amenability of this composite to large-scale column leach test and a series of agglomerations trials to select cement addition rate for a sample of crushed ore at minus 6.3 mm. The cement addition of 5 kg/t was preferred for the column leach tests.

The results of the exploratory column leach test for the oxide composite are shown in Table 13-8.

Table 13-8: Column Leach Test Results for Oxide Composite.

Parameter or Item	Results
Crush size P100, mm	6.3
Cement addition, kg/t	5.0
Time of leaching, days	38
NaCN concentration, mg/L	200
Au Head Assay, g/t	1.33
Ag Head Assay, g/t	16.0
Au Extraction, %	79.5
Ag Extraction, %	54.5
NaCN consumption, kg/t	0.21
Lime consumption, kg/t	Not calculated

The main conclusion of this exploratory column leach test was that gold extraction was above average for gold heap leaching, opening the door to further investigations about heap leaching of mineral resources of the Calandria Sur deposit. Bottle roll gold extraction of 78.1% closely matched the gold extraction of 79.5% obtained in the column leach test.

13.2.6. Flotation Tests

Given the low gold extraction obtained by direct cyanidation in the primary zone ore at Calandrias Sur deposit, it was decided to investigate alternative processing options for this type of ore involving concentration by flotation and its potential combination with cyanidation of the concentrate or tailings.

13.2.6.1. Gold Deportment Trials

Before the flotation test work, a gold deportment study was conducted on each composite from the ore zones of this deposit to determine the location of the gold that was not recovered through direct cyanidation. The results of the gold deportment studies are presented in the Table 13-9.

Table 13-9: Gold deportment.

Composite	% CN soluble	% locked in sulfide	% locked in silicate
Oxide	94.6	4.3	1.1
Transition	77.9	21.9	0.2
Primary	27.1	71.7	1.2

These results showed that little gold is locked in silicate minerals in each composite, so a sulphide flotation process should be a suitable method for recovering gold. It was noted that 98% of gold unrecovered by cyanidation for the primary ore composite was locked in sulphide minerals, mainly pyrite.

13.2.6.2. Bulk Sulphide Flotation

Bulk sulphide flotation of the primary composite was characterised by an inability to achieve more than 90% rougher recovery of sulphides and gold, while silver recovery was less than 80%. These recoveries were obtained even with samples ground to minus 45 µm, a finely ground primary grind size. Cleaner flotation of rougher concentrates resulted in higher grade concentrate but lower recoveries (loss in the cleaner circuit was 2%-3% recovery, depending on conditions).

Upon mineralogical examination of the rougher flotation tailings, it became apparent that much of the non-recovered sulphur (and likely gold) was ultra-fine pyrite encapsulated within silicate minerals.

Selective flotation of the primary composite was also attempted to produce a high-grade concentrate for sale to smelters. However, given the close and fine-grained relationship between gold and pyrite, improving the bulk sulphide flotation test results wasn't easy. In summary, the work produced a concentrate of 3.3% weight assaying 40.7 g/t Au, 884 g/t Ag, and 40.2% S at gold and silver recoveries of 82.1 and 82.9%, respectively.

13.2.7. Other Metallurgical Tests

Given the improving gold recovery from Calandrias Sur primary composite, another type of test was developed. These tests involved pre-treatment of the flotation concentrate before its direct cyanidation and were the following:

- Ultrafine grinding. This treatment can unlock excellent gold from its host, rendering it amenable to recovery by cyanidation.
- Roasting. This treatment can convert sulphide minerals to oxide, rendering the contained gold more amenable to cyanidation.
- Pressure oxidation (POX). This treatment can convert sulphide minerals to oxide, rendering the contained gold more amenable to cyanidation.

For Calandrias Sur's primary composite, the cyanidation post-UFG resulted in only 31% and 50% gold and silver extractions from the concentrate, respectively.

The cyanidation post-roasting resulted in maximum gold and silver extractions from the concentrate of 77% and 55%, respectively. The reasons for the relatively poor extraction rates are believed to be arsenic compounds formed during the roast that may have interfered with the cyanidation process.

Cyanidation post-POX gave much better results, with up to 97.3% of gold and 92.2% of silver extracted from the flotation concentrate. However, since the POX process would be conducted on a flotation concentrate, the overall recovery results in the product of flotation recovery and cyanidation recovery. Overall, gold and silver recoveries from the concentrate were 83.3% and 74.8%, respectively.

13.2.8. Conclusions and Potential Processing Options

Preliminary test work was developed before 2019 on ore samples from Calandrias Sur deposit. The main conclusions obtained from the test results were as follows:

- Ore samples tested in Calandrias Sur deposit were highly amenable to cyanidation, with a general trend that the amount of extractable gold reduces as the ore's oxidation degree decreases.
- Gold extractions predicted with Leachwell tests were quite close to the obtained in the CIL tests.
- Comminution tests indicated that all ore composites were reasonably hard and somewhat abrasive.
- Gold recovery by gravity concentration was minimal in all ore zones.
- The oxide and transition oxidation zones of Calandrias Sur deposit were highly amenable to CIL cyanidation.
- Gold extraction in the column leach test was above average for gold heap leaching, opening the door to further investigations about heap leaching of mineral resources of the Calandria Sur deposit. Bottle roll gold extraction closely matched the gold extraction obtained in the column leach test.
- Bulk sulphide flotation of the primary ore composite was characterised by an inability to achieve more than 90% rougher recovery of sulphides and gold, while the silver recovery was less than 80%. These recoveries were obtained even with samples ground to minus 45 µm.
- Only POX oxidation pre-treatment before cyanidation of primary ore concentrate gave overall gold and silver recoveries from the concentrate higher than 80% and 74%, respectively.

Based on the test work developed there were defined the following potential ore processing options for Calandrias Sur deposit:

- For the oxide zone: heap leaching or carbon-in-leach, depending on gold grade.
- For transition zone: carbon-in-leach or heap leaching, depending on gold grade.
- For the primary zone: heap leaching only, higher Au grades in the primary zone can partially offset lower recoveries.

Leachwell tests developed on ore samples obtained at Calandrias Norte deposit showed that all the ore zones at this deposit were highly amenable to cyanidation. There is a general trend that the amount of extractable gold is reducing as the oxidation degree of the ore decreases, as in Calandrias Sur deposit.

13.3. New Dimension Metallurgical Test Program- 2019

In 2019, New Dimension Resources developed a metallurgical investigation on two composite samples obtained from selected drill holes of the Calandrias Norte (15.0 g/t Au) and Morena (15.2 g/t Au) deposits. This network program investigated heap leach amenability with bottle roll tests and tank leach cyanidation.

Heap leach amenability tests were conducted using two coarse particle size bottle roll tests with particles at 100% minus 1.7 mm. Tank leach cyanidation tests were carried out with fine particle sizes, specifically, 80% passing 100 µm and 80% passing 75 µm, for the two composites.

A summary of the conditions and results of these tests described above is shown in Table 13-10.

Table 13-10: Summary of test work results in the Calandria Norte & Morena deposits.

Test ID	Feed	Purpose	Au recovery, %	Residue Au grade, g/t	Residue P80, µm	Leach time, hours
CN-1	Las Calandrias Norte	Heap Leach amenabillty	66.1	5.56	846	96.0
CN-2	Morena	Heap Leach amenabillty	62.2	6.09	934	96.0
CN-3	Las Calandrias Norte	100 µm baseline	92.2	1.35	93	48.0
CN-4	Morena	100 µm baseline	92.7	1.14	98	48.0
CN-5	Las Calandrias Norte	75 µm, high CN	93.2	0.96	79	72.0
CN-6	Morena	75 µm, high CN	93.5	0.93	80	72.0

The main conclusions of this test work program were that the two composites were amenable to heap leaching but with relatively low gold recovery (66.1% & 62.2% for Las Calandrias Norte and Morena composites respectively) in comparison with the recoveries obtainable in tank leach cyanidation (more than 30 percentual points). However, when the standard tank leach cyanidation conditions tests are compared to tests developed with finer particle size in this type of cyanidation, there is no relevant improvement in gold recovery, so standard cyanidation conditions seemed appropriate to achieve a reasonable gold recovery in both composites.

13.4. Metallurgical Tests Program- 2021 to Present

Cerrado Gold has developed 2021 a series of metallurgical tests to define the answer to the heap leaching process of selected samples of the different oxidation zones of Calandrias Sur deposit and satellite deposits (low gold grades). These tests included bottle roll tests and column leach tests, as described below.

13.4.1. Bottle Roll Tests

The bottle roll test conditions were grind size of P100 75 µm to 12.7 mm, 72 hours leaching with 250 to 1,000 mg/L cyanide concentration. The results of the tests for the individual samples of different oxidation zones are shown in Table 13-11.

Table 13-11: Summary of results of bottle roll tests for individual samples.

Description	Sample ID	Head Assays		Top size	NaCN conc.	% Extraction		Reagents Consumption	
		Au, g/t	Ag, g/t	P_{100}, mm	mg/L	Au	Ag	NaCN, kg/t	CaO, kg/t
Oxide	MET-1212	0.19	13	1.65	500	85.20	19.55	1.07	2.77
Oxide	MET-1212	0.19	13	6.3	500	77.55	15.88	1.00	2.78
Oxide	MET-1212	0.19	13	12.7	500	71.53	14.11	0.96	2.77
Oxide	MET-1212	0.19	13	1.65	1000	88.27	19.12	1.67	2.80
Oxide	MET-1212	0.19	13	6.3	1000	81.93	18.88	1.59	2.77
Oxide	MET-1212	0.19	13	12.7	1000	70.74	14.74	1.59	2.77
Mixed	MET-1213	0.55	13.9	1.65	500	67.90	26.32	1.07	2.28
Mixed	MET-1213	0.55	13.9	6.3	500	67.78	19.50	0.97	2.29
Mixed	MET-1213	0.55	13.9	12.7	500	60.66	16.88	0.97	2.30
Mixed	MET-1213	0.55	13.9	1.65	1000	70.19	26.56	1.67	2.30
Mixed	MET-1213	0.55	13.9	6.3	1000	68.36	22.39	1.58	2.28
Mixed	MET-1213	0.55	13.9	12.7	1000	65.17	21.06	1.56	2.28
Baritina	MET-1218	15.33	10.50	0.105	250	87.20	5.90	0.55	0.74
Baritina	MET-1219	0.67	10.00	0.105	250	81.80	4.30	0.41	0.71
Chulengo	MET-1220	2.55	10.30	0.105	250	78.30	8.30	0.97	0.59
Chulengo	MET-1221	0.80	8.47	0.105	250	73.20	3.00	0.59	0.52
Mixed	MET-1222	8.29	69.88	0.105	250	82,60	35.80	1.32	0.92
Primary	MET-1223	2.06	12.86	0.105	250	76,60	13.90	1.16	1.44
Primary	MET-1226	1.27	14.80	0.074	250	52.60	29.50	0.30	0.51
Primary	MET-1227	0.63	11.13	0.074	250	39.20	13.10	0.34	0.26
Primary	MET-1228	1.83	38.17	0.074	250	50.10	34.40	0.41	0.76
Primary	MET-1229	1.46	45.94	0.074	250	41.20	40.00	1.00	7.05
Primary	MET-1230	1.16	45.67	0.074	250	39.10	42.50	0.35	0.51

The results of the tests with composite samples are shown in Table 13-12.

Table 13-12: Summary of results of bottle roll tests for composite samples.

Description	Sample ID	Head Assays		Top size	NaCN conc.	% Extraction		Reagents Consumption	
		Au, g/t	Ag, g/t	P_{100}, mm	mg/L	Au	Ag	NaCN, kg/t	CaO, kg/t
Oxide	Comp. Oxide 1	1.30	25.95	6.3	500	75.05	22.59	0.76	2.70
Oxide	Comp. Oxide 1	1.30	25.95	6.3	1000	76.95	23.03	1.34	2.70
Oxide	Comp. Oxide 1	1.28	24.45	12.7	500	65.94	18.46	0.70	2.70
Oxide	Comp. Oxide 1	1.28	24.45	12.7	1000	69.23	21.67	1.25	2.70
Oxide	Comp. Oxide 2	0.66	15.10	6.3	500	71.63	7.47	0.57	2.50
Oxide	Comp. Oxide 2	0.66	15.10	6.3	1000	75.11	7.90	1.20	2.50
Oxide	Comp. Oxide 2	0.60	15.27	12.7	500	70.57	7.11	0.57	2.50
Oxide	Comp. Oxide 2	0.60	15.27	12.7	1000	72.89	8.09	0.99	2.50
Mixed	Comp. Mixed 1	0.71	19.24	6.3	500	57.99	28.73	0.93	3.00
Mixed	Comp. Mixed 1	0.71	19.24	6.3	1000	59.97	27.11	1.37	3.00
Mixed	Comp. Mixed 1	0.70	19.66	12.7	500	42.47	21.81	0.90	3.00
Mixed	Comp. Mixed 1	0.70	19.66	12.7	1000	55.50	22.52	1.26	3.00
Mixed	Comp. Mixed 2	0.85	31.62	6.3	500	63.21	30.43	0.83	2.50
Mixed	Comp. Mixed 2	0.85	31.62	6.3	1000	64.12	35.29	0.86	2.50
Mixed	Comp. Mixed 2	0.81	32.11	12.7	500	60.81	27.68	0.75	2.50
Mixed	Comp. Mixed 2	0.81	32.11	12.7	1000	63.89	35.41	0.86	2.50
Oxide	Comp. Oxide	1.02	20.30	6.3	500	73.00	22.30	0.64	2.51
Oxide	Comp. Oxide	1.02	20.30	12.7	500	71.90	20.10	0.60	2.51
Oxide	Comp. Oxide	1.02	20.30	6.3	1000	76.00	24.00	1.25	2.50
Oxide	Comp. Oxide	1.02	20.30	12.7	1000	73.70	24.20	1.15	2.51
Mixed	Comp. Mixed	0.96	27.50	6.3	500	61.00	31.60	0.83	2.50
Mixed	Comp. Mixed	0.96	27.50	12.7	500	54.20	26.00	0.78	2.50
Mixed	Comp. Mixed	0.96	27.50	6.3	1000	63.20	33.40	1.07	2.51
Mixed	Comp. Mixed	0.96	27.50	12.7	1000	57.90	30.60	1.05	2.51

13.4.2. Column Leach Tests

The column leach test conditions were crush size of P100 6.3 mm and 12.7 mm, 45 days leaching with 250 and 500 mg/L cyanide concentration. The results of the tests for the samples of different oxidation zones are shown in Table 13-13.

Table 13-13: Summary of results of column leach tests.

		Head Assays		Top size	Irrig. Rate	Leach time	Leach Ratio	NaCN conc.	% Extraction		Reagents Consumption	
Description	Sample ID	Au, g/t	Ag, g/t	P_{100}, mm	l/h/m^2	days	m^3/t	mg/L	Au	Ag	NaCN, kg/t	CaO, kg/t
Oxide	MET-1214	0.63	14.36	12.7	11.3	45	4.36	500	71.31	7.38	0.15	0.96
Mixed	MET-1215	1.03	19.19	12.7	11.4	45	4.40	500	68.41	24.84	0.16	0.95
Primary	MET-1226	1.27	14.80	12.7	12.0	45	4.63	500	41.90	21.10	0.46	0.65
Primary	MET-1227	0.63	11.13	12.7	12.0	45	4.63	500	38.30	9.80	0.34	0.46
Primary	MET-1228	1.83	38.17	12.7	12.0	45	4.63	500	33.20	23.10	0.55	0.87
Primary	MET-1229	1.46	45.94	12.7	12.0	45	4.63	500	38.10	34.70	0.92	6.09
Primary	MET-1230	1.16	45.67	12.7	12.0	45	4.63	500	32.30	28.30	0.44	0.63
Primary	MET-1231	1.25	29.33	6.3	12.0	45	4.63	250	28.70	26.20	0.40	0.69
Primary	MET-1232	1.58	22.43	6.3	12.0	45	4.63	250	39.60	27.10	0.44	0.68
LG Armadillo	MET-1233	0.80	9.11	12.7	12.0	45	4.63	250	59.00	9.80	0.34	0.09
LG Choique	MET-1234	0.59	19.11	12.7	12.0	45	4.63	250	68,20	10.00	0.29	0.03
LG Coyote	MET-1235	0.52	9.87	12.7	12.0	45	4.63	250	40.20	6.40	0.29	0.03
LG Cerro Oro	MET-1236	0.97	9.77	12.7	12.0	45	4.63	250	75.60	7.10	0.26	0.02

13.5. Gold Leach Recovery Predictions

13.5.1. Heap Leach

For heap leach processing of the Las Calandrias Sur deposit, the metallurgical data obtained in metallurgical campaigns developed since 2011 and described above suggest that the gold recovery would be very sensitive to the oxidation degree of the ore.

Using a database of bottle roll tests developed on more than 8,000 drill hole samples developed by Cerrado Gold, it is possible to predict gold recovery for the different oxidation zones in Calandrias Sur deposit. The bottle roll tests were carried out for each sample in two conditions: fine particle and coarse particle size. Based on these results, the predictions for average gold recoveries in the different oxidation zones are as follows:

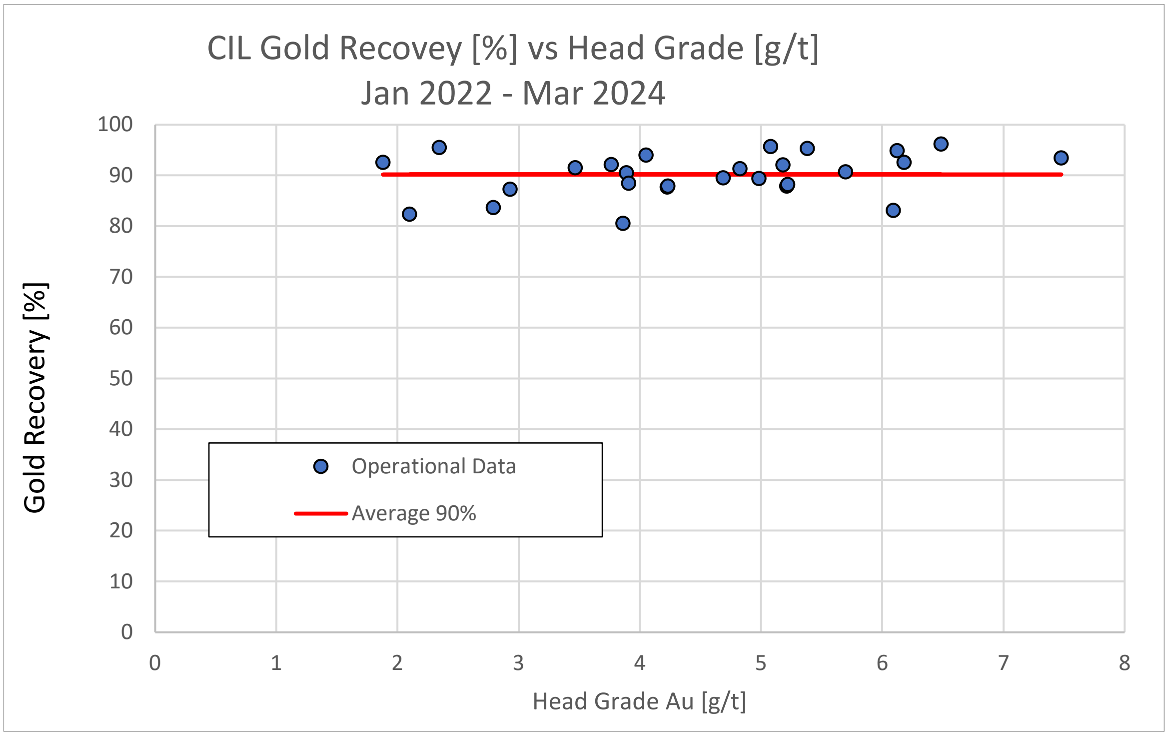
- Oxide: 70%, range 65% to 80%
- Transition: 50%, range 45% to 65%
- Primary: 35%, range 25% to 45%

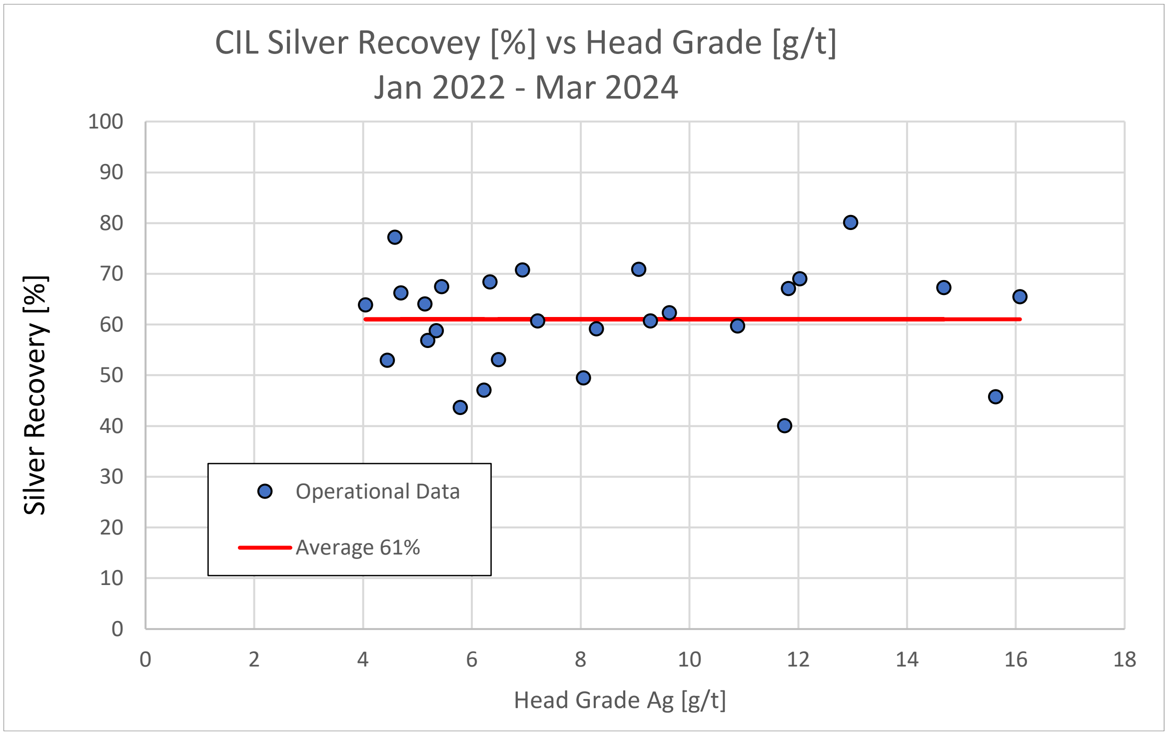
13.5.2. Carbon-in-Leach

For carbon-in-leach processing of the Calandrias Sur deposit, the metallurgical data obtained in metallurgical campaigns developed since 2011 and described above suggest that the expected gold recovery would be above 90% when processing oxide ore and around 85% when processing transition ore.

On the other side, the metallurgical data obtained in metallurgical campaigns developed for Calandrias Norte deposit, already described, suggest that the expected gold recovery in CIL processing would be around 90% when processing oxide and transition ores. This aligns with the operational data obtained by Cerrado Gold in the operation of Martineta CIL plant with Calandrias Norte ores in the period 2022-2024. Figure 13.1 shows the gold and silver recovery obtained in the plant from January 2022 to March 2024, with an average recovery of 90% for gold and 61% for silver.

Figure 13.1: Gold and Silver Recoveries in CIL processing plant. 27 months in the period 2022-2024.





Source: Minera Don Nicolas, operational data base.

14. MINERAL RESOURCE ESTIMATE

Mineral Resource estimates were completed by MDN staff for Calandrias Sur, Calandrias Norte, Zorro, and La Paloma Trend, effective April 1st, 2024. GeoEstima reviewed and accepted the estimate. MDN staff completed the satellites following the previous SRK workflow, and internal QP reviewed and approved them. The following sub-sections discuss the estimation procedures and resulting estimates.

The Mineral Resource was completed using Leapfrog Edge. Wireframes for mineralisation were constructed in Leapfrog Geo based on geology sections, assay results, lithological information, and structural data. Assays were composited based on the predominant distributions observed in the sampling support, varying from one to two meters in length, before capping. The grade was interpolated into different block model sizes, depending on the geometry and mineralisation shape. Blocks were interpolated with grade using Ordinary Kriging (OK) or Inverse Distance Squared (ID2) and checked using the Nearest Neighbour (NN) method.

Block estimates were validated using industry-standard validation techniques. Blocks were classified based on distance-based criteria. Mineral Resources are based on a 0.3% Cu cut-off grade inside a pit shell, and all resources inside underground stopes shapes.

The Mineral Resource estimates are prepared by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions).

A summary of the Mineral Resources for MDN properties is provided in Table 14-1.

Table 14-1: Summary of Mineral Resources, April 1st, 2024. Minera Don Nicolás.

Mine	Categorisation	Tonnage kt	Grade Values		Metal Content	
			Au g/t	Ag g/t	Au thousand t. oz	Ag thousand t. oz
Calandrias Sur [1] (Open pit)	Measured	5,192.24	0.91	17.07	151.32	2,849.04
	Indicated	7,642.16	1.02	14.16	249.40	3,479.94
	M+I	**12,834.40**	**0.97**	**15.34**	**400.72**	**6,328.98**
	Inferred	2,261.42	0.62	3.32	44.99	241.64
Calandrias Norte [1] (Open Pit)	Measured	8.12	18.66	25.98	4.87	6.78
	Indicated	70.67	14.52	22.79	32.98	51.79
	M+I	**78.79**	**14.94**	**23.12**	**37.85**	**58.57**
	Inferred	10.58	10.69	12.17	3.64	4.14
Zorro [1] (Open pit)	Measured	69.09	2.15	8.74	4.78	19.42
	Indicated	136.50	1.32	7.38	5.80	32.39
	M+I	**205.59**	**1.60**	**7.84**	**10.58**	**51.81**
	Inferred	120.88	0.81	6.38	3.16	24.79
Depleted Satellites[2] [3] (Open Pit)	Measured	29.91	2.04	0.00	1.96	0.00
	Indicated	14.99	1.80	0.00	0.87	0.00
	M+I	**44.90**	**1.96**	**0.00**	**2.83**	**0.00**
	Inferred	1,117.03	1.62	1.72	58.14	61.62
Paloma Trend [1] (Underground)	Measured	128.86	4.73	18.98	19.58	78.62
	Indicated	145.96	4.00	15.97	18.78	74.94
	M+I	**274.82**	**4.34**	**17.38**	**38.36**	**153.56**
	Inferred	88.91	3.93	13.15	11.22	37.58
Total	**Measured**	**5,428.22**	**1.05**	**16.93**	**182.52**	**2,953.87**
	Indicated	**8,010.27**	**1.20**	**14.13**	**307.82**	**3,639.05**
	M+I	**13,438.50**	**1.13**	**15.26**	**490.34**	**6,592.92**
	Inferred	**3,598.83**	**1.05**	**3.20**	**121.15**	**369.77**
Stockpiles [4]	Measured	0.00	0.00	0.00	0.00	0.00
	Indicated	0.00	0.00	0.00	0.00	0.00
	M+I	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Inferred	951.74	0.54	2.05	16.57	62.58

[1] Included in economic evaluation

[2] Not included in economic evaluation

[3] Satellites include Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara, and Trofeu.

[4]Include the stocks from Armadillo, Cerro Oro, Coyote, Choique, and Mara.

Notes:

1. Mineral Resource estimates have been prepared by the May 10, 2014 edition of the Canadian Institute of Mining, Metallurgy and Petroleum (or CIM) Definition Standards for Mineral Resources and Mineral Reserves ("2014 CIM Definition Standards") and disclosed by National Instrument 43-101 – Standards of Disclosure for Minerals Project ("NI 43-101").
2. The Qualified Persons for the estimation of Mineral Resources are Calandrias Sur, Calandrias Norte, Zorro, Paloma Trend and Stockpiles - Orlando Rojas, P.Geo, Member AIG, a GeoEstima Spa employee and Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara and Trofeu - Sergio Gelcich, P.Geo, MAusIMM (CP) Geo, Exploration Vice President, a Cerrado Gold employee.
3. Mineral Resources have an effective date as of: (a) April 1st, 2024, for Calandrias Sur, Calandrias Norte, Zorro, Paloma Trend, Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, and Trofeu; (b) August 31st, 2020, for Mara satellite.
4. Mineral Resources are estimated using an average long-term metal price of US$2,100.0/oz of Au and US$25.0/oz of Ag. Mara satellite has an average long-term metal price of US$1,550.0/oz of Au. Assuming a mining cost of US$2.65/t, plant cost of US$32.0/t, and selling costs of US$127.0/t.

5. Recoveries depend on the type of host mineralisation and the extraction method being utilized for the minerals. For the Carbon-in-Leach (CIL) process, Au recovery is based on historical metallurgical recovery and is 90% for Au and 61% for silver. For Heap Leach process (HL) Au recovery is based on metallurgical testworks and depends on the zone and the process. Au recovery is 70% in Oxide zone, 60% in Trasitional zone and 40% in Primary zone. The silver recovery is 30% in all zones.
6. Mineral Resources in open pit are reported within pit shell constrain and above a cut-off grade: Calandrias Sur have a variable cut-off - 0.27 g/t Au for Oxided zone, 0.31 g/t Au for Transition zone and 0.46 g/t Au for Primary zone; Calandrias Norte - 1.46 g/t Au; Zorro, Armadillo, Baritina, Baritina NE, Cerro Oro, Coyote, Choique, Mara and Trofeu - 0.3 g/t Au. In Paloma Trend Mineral Resources are reported within a cut-off grade of 1.95 g/t for an underground mining shapes. A minimum mining width of 1.5m was used for resource shapes.
7. The estimate costs are: Calandrias Sur - plant cost of US$11.08/t; Calandrias Norte – plant cost of US$78.33/t; Zorro – plant cost varying from US$ 13.35 for HL process and US$ 68.20 for CIL process; Depleted Satellite – plant cost of US$40.0/t. The selling costs of US$242.90/t and mining cost of US$3.50/t was assumed for all open pit mining. For underground shapes, the mining costs are US$40.0/t, plant cost of US$65.0/t and selling costs of US$242.9/t. The exchange rate considered is ARG 917.25 / 1 USD.
8. Density was assigned and interpolated based specific gravity values by domain.
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Numbers may not add due to rounding.

The QP reviewed the Mineral Resource assumptions, input parameters, geological interpretation, and block modelling and reporting procedures and is of the opinion that the Mineral Resource estimate is appropriate for the style of mineralisation and that the block model is reasonable and acceptable to support the April 1, 2024, Mineral Resource estimate.

The QP is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.1. Calandrias Norte

14.1.1. Resource database

Cerrado Gold maintains the entire database in Studio RM-Fusion. The resource database contains drilling information and analytical results until April 1st, 2024. Information received after these dates was not included in the Mineral Resource estimate. The database comprises 81 diamond drill holes totalling 11,237.51 m, 193 reverse circulation drilling totalling 12,488.00m, and 39 trenches totalling 1,943.90 m.

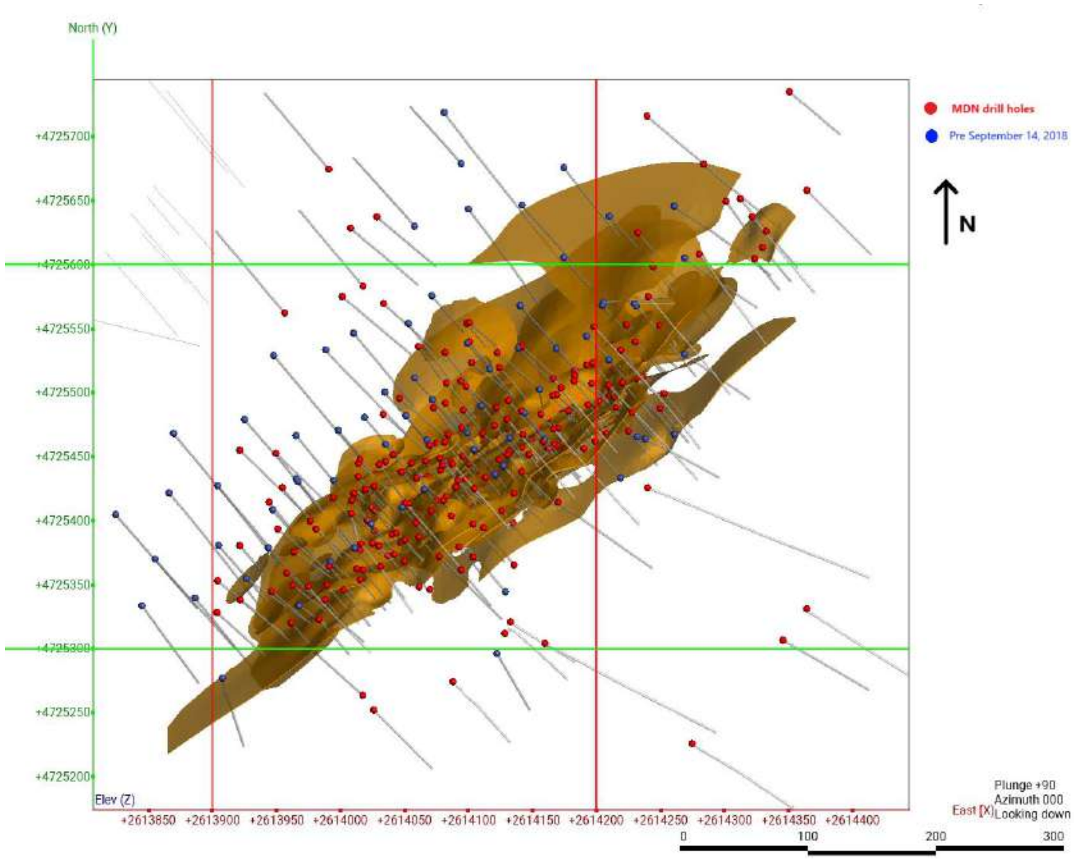
The Mineral Resource estimate is based on the Projection: Gauss-Kruger Zone 2 [Campo Inchaupe] coordinate system. The original database from Minera Mariana was in WGS84. Minera Don Nicolás performed a new-collar survey to converge the Las Calandrias coordinated system with the other projects from MDN. The project carried out these tasks using Trimble R4 RTK dual-frequency satellite receivers to establish and connect the fixed GPS point (GPS-LC1) to the POSGAR network.

GeoEstima received data from Cerrado in Microsoft Excel format. Data were imported into an independent Leapfrog Geo software (version 2023.2.3) for review. The drill hole information comprises coordinate, length, azimuth, dip, lithology, density, and assay data. For grade estimation, unsampled intervals within mineralisation wireframes were not replaced by zero, and detection limit text values (e.g., <0.05) were replaced with numerical values that were half of the analytical detection limit.

The drill hole data for the Mineral Resource estimate were limited to assays inside a boundary limited by mineralisation wireframes. This includes 313 drill holes containing 20,828 samples, totalling 25,669.41m. A total of 37 channel samples were excluded from the estimation of mineral resources.

Since the previous estimate dated September 14, 2018, 199 drill holes totalling 12,930.5m have been drilled on Calandrias Norte. Figure 14.1 illustrates the drill hole location of the mineralisation solid and the previous database.

Figure 14.1: Drill holes location and mineralised interpreted solid.



14.1.2. Geological Modelling

Wireframes were constructed considering geology a cut-off grade of 0.3 g/t Au in Seequent's Leapfrog Geo software. In support of mineralisation wireframes, a geological model, also created in Leapfrog Geo was prepared by Cerrado and was based on geological interpretation of lithological description, mineralisation type and reference assay threshold. All contacts are based on drill holes and channel samples for geological models.

The mineralisation strikes 50° azimuth extending over a 570m strike length. Thin lenses dip from 60° to 70° to the northwest and are modelled near the surface. Individual lenses thicknesses range from less than one metre to 6 m but are generally from one metre to two metres. The mineralisation consists of nine interpreted domains and one surrounding low-grade areas. Figure 14.2 shows a 3D view of the mineralisation, and Figure 14.3 show example sections of mineralisation.

Figure 14.2: 3D perspective of mineralised wireframes and drill holes in Calandria Norte.

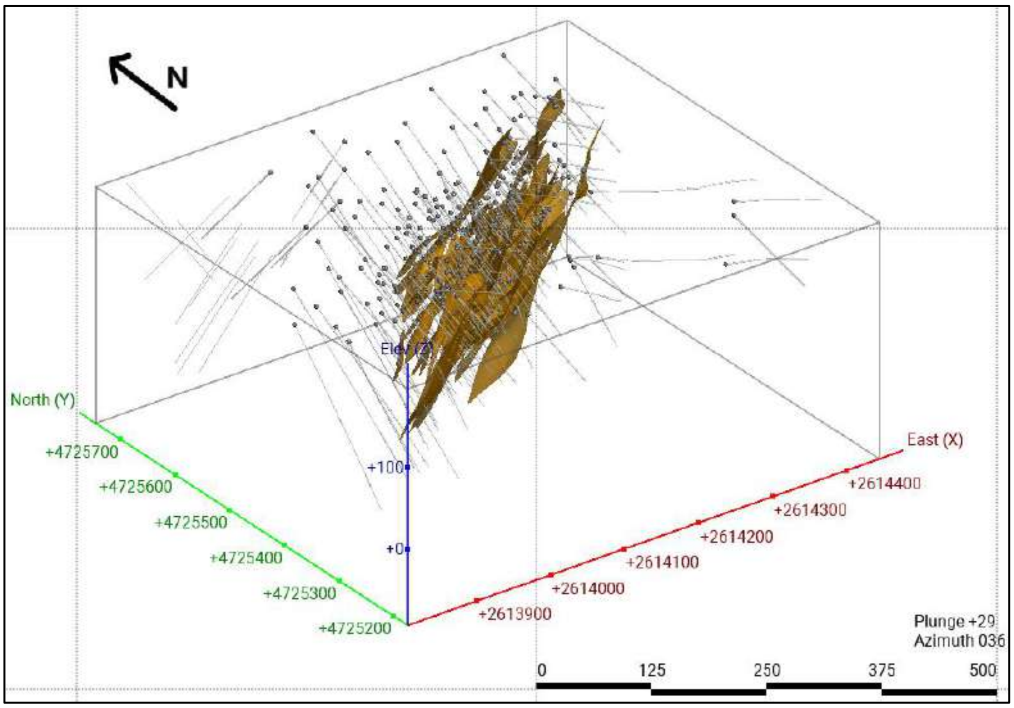
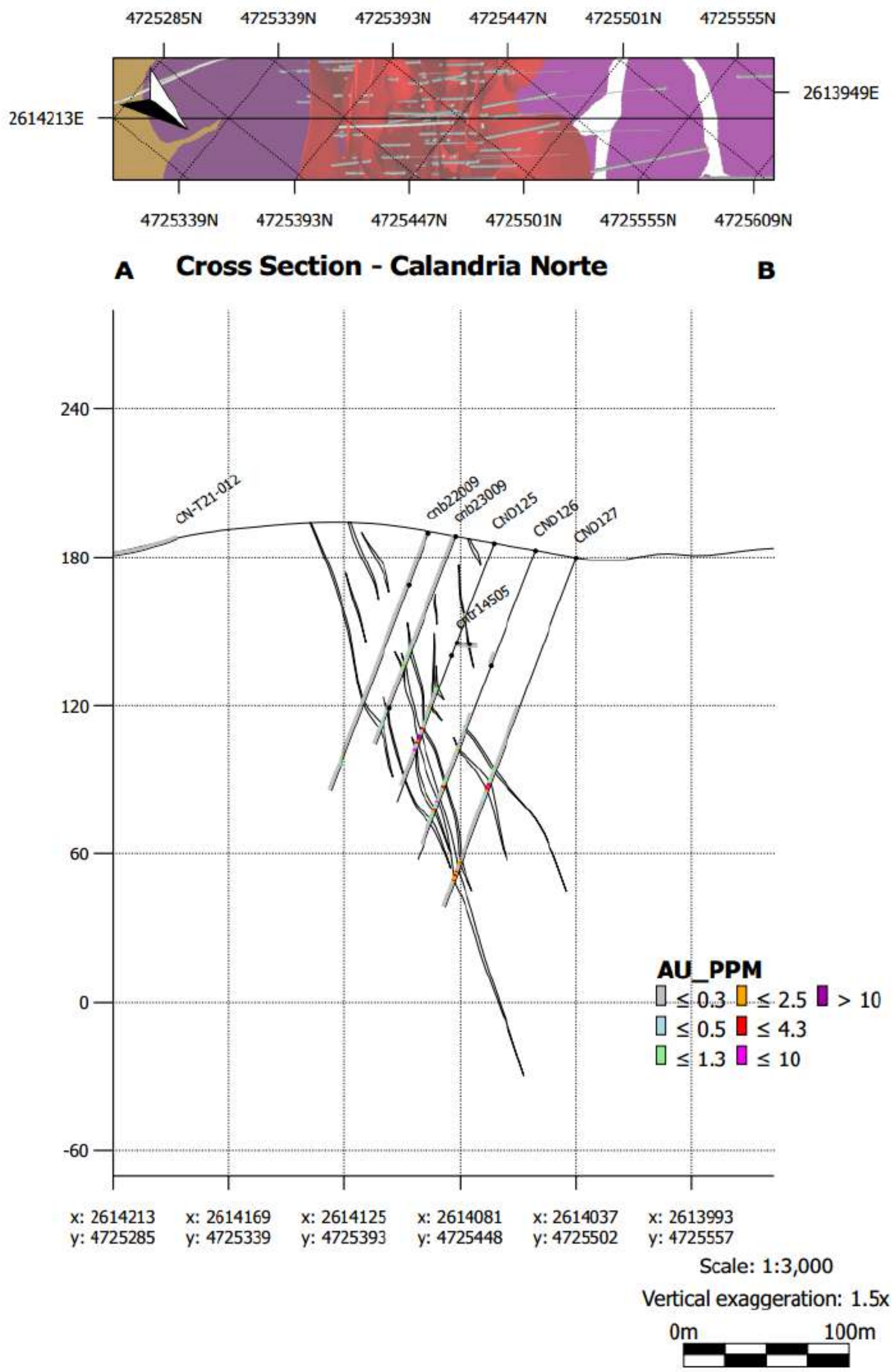


Figure 14.3: Cross Section from Calandrias Norte mineralisation.



14.1.3. Exploratory Data Analysis

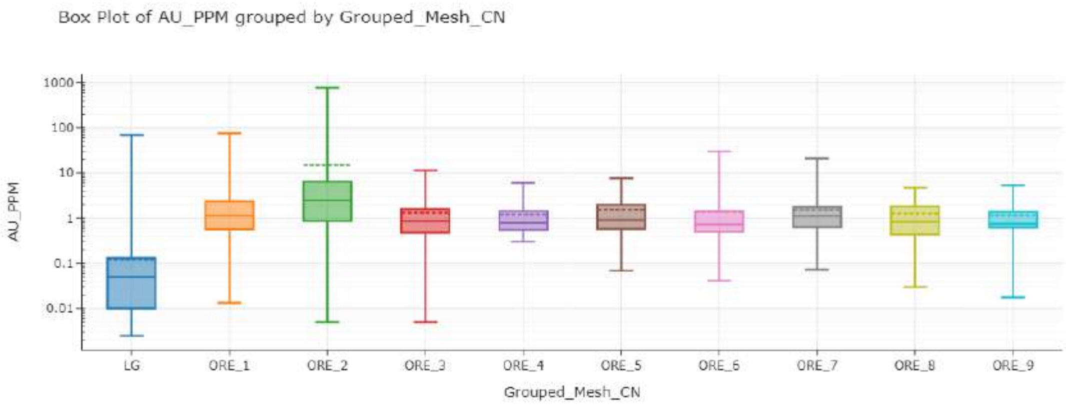
GeoEstima performed exploratory data analysis for each estimation domain, including univariate statistics, histograms cumulative probability plots; box plots to compare different domain statistics, and contact plots to investigate grade profiles between estimation domains and determine the extent of sample sharing across the contacts within the low grade type domain. Hard boundaries were determined for each estimation variable (gold and silver).

Table 14-2 lists raw univariate statistics for gold and silver by mineralised domains and Figure 14.4 shows gold box plot.

Table 14-2: Gold raw assay statistics by mineralised domain, Calandria Norte.

Domain	count	mean	std	min	0.250	0.500	0.750	0.950	0.990	max	cv
LG	19,373	0.127	0.685	0.003	0.011	0.050	0.131	0.433	1.070	69.965	5.396
ORE_2	523	15.339	57.194	0.005	0.863	2.354	6.423	59.200	290.073	774.600	3.729
ORE_1	282	2.420	5.270	0.013	0.587	1.187	2.407	7.920	19.353	75.067	2.178
ORE_3	182	1.306	1.386	0.005	0.480	0.920	1.590	3.912	6.940	11.433	1.061
ORE_6	144	1.512	3.141	0.041	0.504	0.729	1.445	3.560	20.600	30.500	2.078
ORE_7	106	1.651	2.316	0.073	0.627	1.134	1.850	3.943	9.780	21.100	1.403
ORE_4	86	1.195	1.235	0.303	0.554	0.770	1.225	3.930	6.060	6.060	1.034
ORE_9	62	1.158	1.000	0.017	0.620	0.765	1.382	3.279	5.350	5.350	0.863
ORE_5	57	1.524	1.465	0.069	0.588	0.909	1.897	4.390	7.689	7.689	0.961
ORE_8	45	1.333	1.179	0.030	0.480	0.887	1.890	3.500	4.750	4.750	0.885

Figure 14.4: Box Plot for raw data in mineralised domains, Calandrias Norte.



14.1.4. Compositing

Cerrado composited the assays to 1.0 m with a 0.5 m tolerance, beginning at the collars. Small intervals were merged with the previous interval. Sample lengths range from 0.5 to 2.5m. Composites were tagged with domain codes from the geological model interpretation. The majority of samples (97%) had a length from of 1.0 m.

Figure 14.5: Raw length distributions in the mineralised zone, Calandrias Norte.

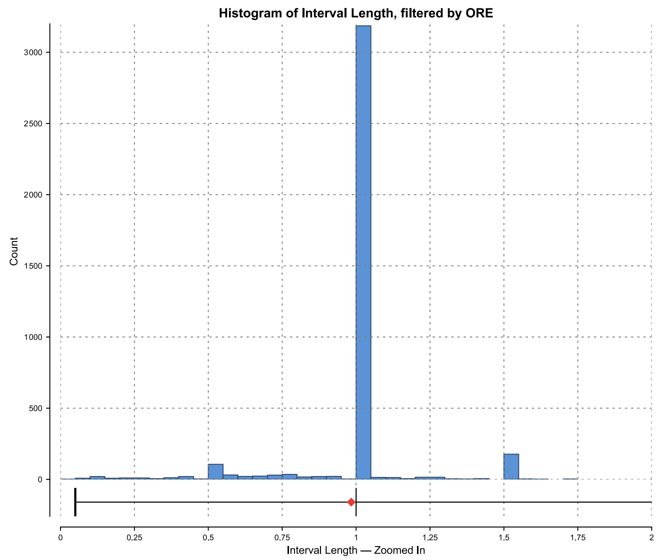


Table 14-3: Composite assay statistics by mineralised domain, Calandria Norte.

Domain	count	mean	std	min	0.250	0.500	0.750	0.950	0.990	max	cv
LG	19,829	0.122	0.662	0.003	0.012	0.050	0.130	0.414	1.010	69.965	5.417
ORE_2	495	14.947	54.393	0.005	0.889	2.496	6.688	62.033	289.480	774.600	3.639
ORE_1	267	2.317	5.203	0.013	0.561	1.157	2.362	7.920	15.450	75.067	2.246
ORE_3	184	1.316	1.384	0.005	0.507	0.921	1.623	3.912	6.940	11.433	1.051
ORE_6	137	1.302	2.003	0.062	0.521	0.732	1.419	3.560	8.379	20.600	1.539
ORE_7	106	1.610	2.207	0.073	0.630	1.134	1.850	3.943	6.090	21.100	1.371
ORE_4	79	1.215	1.215	0.310	0.550	0.780	1.430	3.930	5.870	5.870	1.000
ORE_9	61	1.142	1.005	0.017	0.620	0.760	1.360	3.279	5.350	5.350	0.880
ORE_5	59	1.574	1.540	0.069	0.588	0.909	1.980	5.650	7.689	7.689	0.979
ORE_8	45	1.281	1.118	0.030	0.480	0.970	1.745	3.400	4.750	4.750	0.873

GeoEstima reviewed the composites and offered the following conclusions and recommendations:

- The composite length is appropriate given the dominant sampling length and the 5 m block height and is suitable to support Mineral Resource estimation.
- GeoEstima recommends investigating increasing the composite length to 2.5 m based on the minimum block height size (2.5m).

14.1.1. Outlier Control

Where the assay distribution is skewed positively or approaches log-normal, erratic high-grade values can have a disproportionate effect on a deposit's average grade. One method of treating these outliers to reduce their influence on the average grade is to cut or cap them at a specific grade level.

Cerrado applied high-grade capping to Au assays to limit the influence of a small number of outlier values in the upper tail of the metal distributions. A summary of the final capping levels is shown in Table 14-4. A summary of capped grade statistics is provided in Table 14-5.

GeoEstima reviewed the capping levels utilised by Cerrado and believes that the capping grades are reasonable in general. The QP recommends investigating the Ag grades to minimize the high-grade values observed in Ag distributions.

Table 14-4: Au and Ag grade capping levels.

Domain	Composite Data	
	Au (ppm)	Ag (ppm)
ORE_1	69.9	-
ORE_2	152.13	-
ORE_3	-	-
ORE_4	5.87	-
ORE_5	-	-
ORE_6	8.38	-
ORE_7	-	-
ORE_8	-	-
ORE_9	-	-
LG	1.84	-

Table 14-5: Capped Assay Statistics and total metal impact.

Domain	AU_PPM				AU_CAP			Capped		
	count	mean	cv	max	mean	cv	max	N° cap	%metal	% samp
LG	19,829	0.12	5.42	69.97	0.11	1.7	1.84	42	7.43	0.212
ORE_1	267	2.32	2.25	75.07	2.3	2.15	69.9	1	0.835	0.375
ORE_2	495	14.95	3.64	774.6	11.64	2.43	152.13	10	22.116	2.02
ORE_3	184	1.32	1.05	11.43	1.32	1.05	11.43	-	-	-
ORE_4	79	1.22	1	5.87	1.22	1	5.87	-	-	-
ORE_5	59	1.57	0.98	7.69	1.57	0.98	7.69	-	-	-
ORE_6	137	1.3	1.54	20.6	1.21	1.05	8.38	1	6.853	0.73
ORE_7	106	1.61	1.37	21.1	1.61	1.37	21.1	-	-	-
ORE_8	45	1.28	0.87	4.75	1.28	0.87	4.75	-	-	-
ORE_9	61	1.14	0.88	5.35	1.14	0.88	5.35	-	-	-

14.1.2. Variography

In general, transformed experimented variograms were fit by three spherical models in three directions for variables Au and Ag in Leapfrog Edge software. Due to the style of mineralisation, all mineralised wireframes were grouped to define a single experimental variogram. The results are presented in Figure 14.6 and Figure 14.7.

Figure 14.6: Calandria Norte, mineralised domains Au directional variogram.

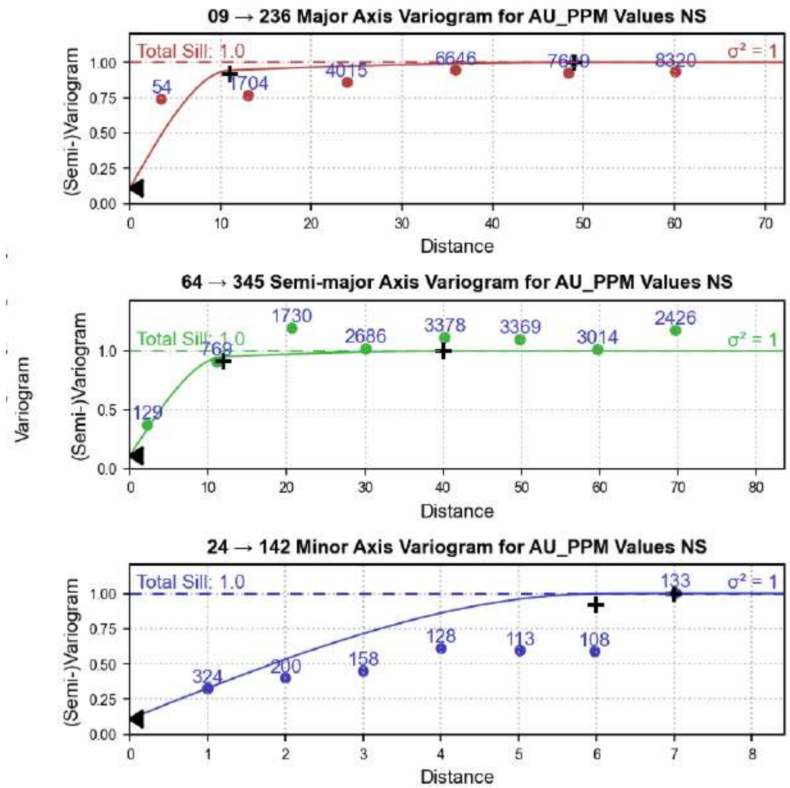
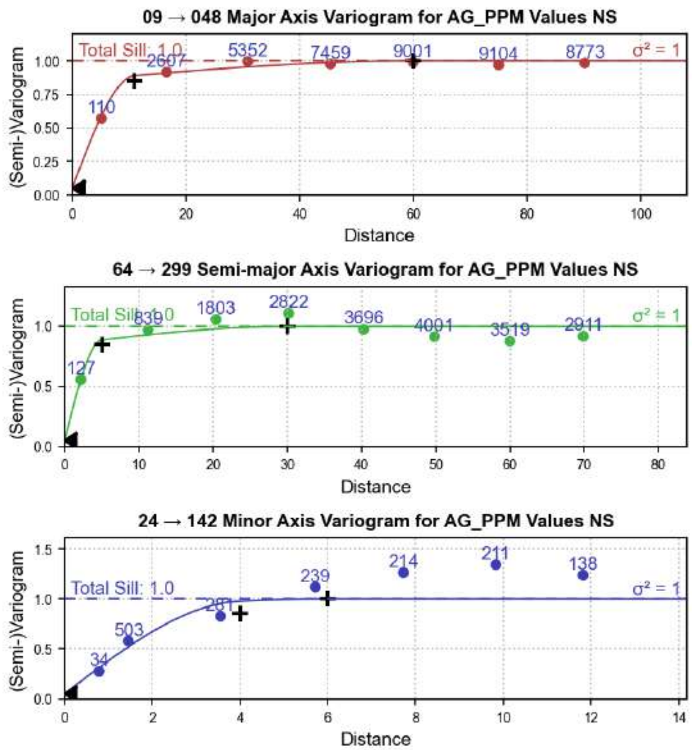


Figure 14.7: Calandria Norte, mineralised domains Ag directional variogram.



GeoEstima is of the opinion that, in general, the variograms are reasonable for Mineral Resources.

14.1.3. Block Model

The Calandrias Norte wireframes were filled with blocks in Leapfrog Geo considering the octree sub-block model type (Figure 14.8). The parent cells measure 3 x 5 x 5 m, and the minimum sub-cell sizes of 1.5 x 2.5 x 2.5 m. The block model setup is show in Table 14-6 and the description of block model output is provided in Table 14-7.

Table 14-6: Block Model Setup, Calandrias Norte.

Parameter	X	Y	Z
Origin (m)	2,613,715	4,725,385	200
Block Size (m)	3	5	5
Min. Sub Block size (m)	1.5	2.5	2.5
Number of Blocks	134	142	61
Azimuth Rotation	50°		

Figure 14.8: Prototype overview for Calandrias Norte wireframes.

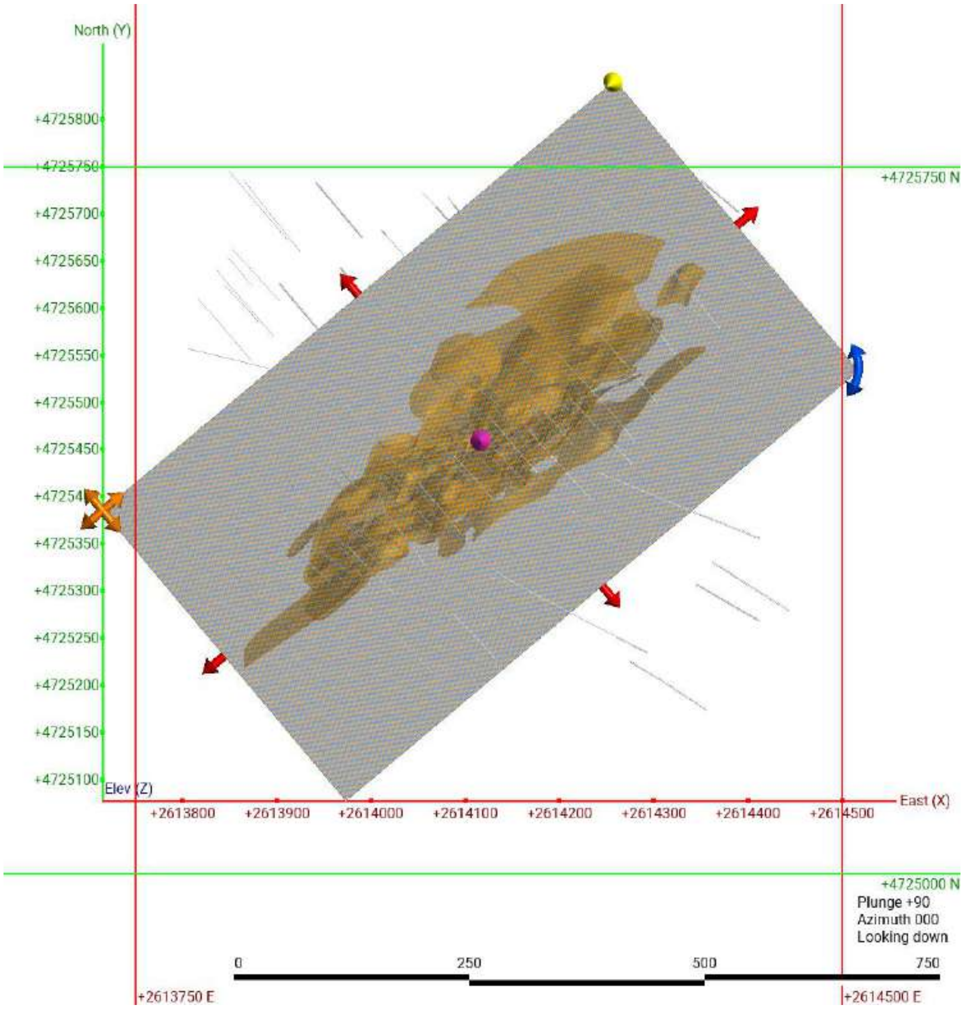


Table 14-7: Block model output variables.

Variable	Description	Unit/Code
Ag	Silver grade estimated	ppm
Au	Gold grade estimated	g/t
DENSITY	Density assigned	g/cm^3
Categ	Measured	1
	Indicated	2
	Inferred	3
	Potential	99
TOPO_CN	Air	4
	Exploited Resources	1
	Resources into Pit Shell	2
	Remaining Resources	3
	Out of resources Pit Shell	5
VOLUME	Block Volume	m^3
TONNES	Calculated (VOLUME*DENSITY)	t metric
DOMAIN	ORE_1	ORE_1
	ORE_2	ORE_2
	ORE_3	ORE_3
	ORE_4	ORE_4
	ORE_5	ORE_5
	ORE_6	ORE_6
	ORE_7	ORE_7
	ORE_8	ORE_8
	ORE_9	ORE_9
	LG	LG

14.1.4. Grade Interpolation and Interpolation Strategy

Grades were interpolated into blocks on a parent cell basis using OK and ID^3 interpolation. Both variables, Au and Ag, were interpolated, and estimates were not density weighted. All directions were based on Leapfrog's dynamic anisotropy, which varies search ellipsoid orientations according to the trend of the mineralisation domain. Table 14-8 present the search criteria for gold estimates and Table 14-9 presented the silver estimates parameters.

Table 14-8: Gold estimation parameters. Calandrias Norte.

Domain	Search Pass	Ellipsoid Ranges			Number of Samples			Discretisation		
		Max	Intermediate	Min	Min	Max	Max Samples per Hole	X	Y	Z
ORE_1	Pass 1	20	15	5	7	12	3	3	2	2
	Pass 2	30	25	5	5	12	3	3	2	2
	Pass 3	65	45	7	4	9	-	3	2	2
ORE_2	Pass 1	15	10	5	7	12	3	3	2	2
	Pass 2	30	15	5	5	12	3	3	2	2
	Pass 3	45	22.5	5	3	9	-	3	2	2
ORE_3	Pass 1	30	20	5	9	12	2	2	3	3
	Pass 2	35	25	5	5	12	3	2	3	3
	Pass 3	50	40	7	4	12	-	2	3	3
ORE_4	Pass 1	15	10	5	9	12	2	2	3	3
	Pass 2	30	15	5	5	12	2	2	3	3
	Pass 3	50	40	7	4	8	-	2	3	3
ORE_5	Pass 1	15	10	5	7	12	3	2	3	3
	Pass 2	30	15	5	5	12	3	2	3	3
	Pass 3	50	40	10	4	8	-	2	3	3
ORE_6	Pass 1	20	15	5	6	12	2	3	2	2
	Pass 2	35	20	5	4	9	2	3	2	2
	Pass 3	50	40	7	4	8	-	3	2	2
ORE_7	Pass 1	20	15	5	6	9	2	2	3	3
	Pass 2	30	15	5	4	9	2	2	3	3
	Pass 3	50	40	7	3	9	-	2	3	3
ORE_8	Pass 1	15	10	5	7	12	3	3	2	2
	Pass 2	30	15	5	5	12	3	3	2	2
	Pass 3	65	50	7	3	12	-	2	3	3
ORE_9	Pass 1	15	10	5	7	12	3	2	3	3
	Pass 2	30	15	5	5	12	3	2	3	3
	Pass 3	30	20	7	4	8	-	2	3	3
LG	Pass 1	20	20	5	7	12	3	2	3	3
	Pass 2	40	40	10	5	12	3	2	3	3
	Pass 3	60	60	15	4	8	-	2	3	3

Table 14-9: Silver estimation parameters. Calandrias Norte.

Domain	Search Pass	Ellipsoid Ranges			Number of Samples		Drill hole Limit
		Maximum	Intermediate	Minimum	Minimum	Maximum	Max Samples per Hole
ORE_1	Pass 1	15	10	5	6	9	2
	Pass 2	30	15	5	5	9	2
	Pass 3	45	22.5	5	4	12	-
ORE_2	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	4	8	-
ORE_3	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	4	8	-
ORE_4	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	4	12	2
	Pass 3	45	22.5	5	4	8	-
ORE_5	Pass 1	15	10	5	6	12	2
	Pass 2	30	15	5	4	12	2
	Pass 3	50	45	10	3	12	-
ORE_6	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	3	12	-
ORE_7	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	4	8	-
ORE_8	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	3	12	-
ORE_9	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	3	12	-
LG	Pass 1	20	50	5	7	12	3
	Pass 2	40	40	10	5	12	3
	Pass 3	60	60	15	4	8	-

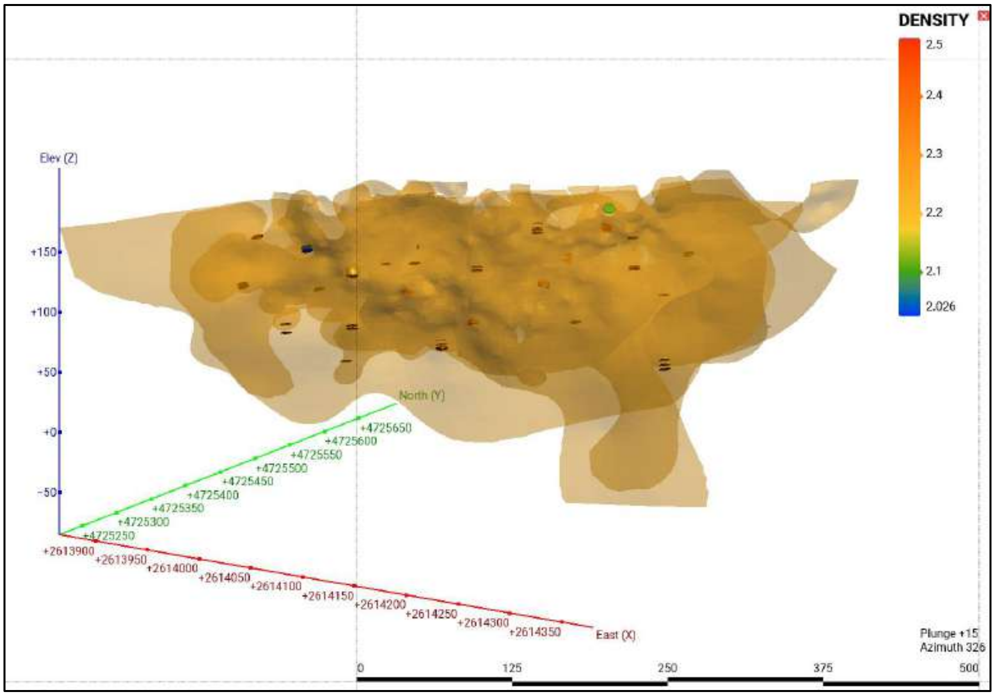
14.1.5. Bulk Density

The Calandrias Norte deposit has 33 density determination in the mineralisation domains and 49 in the low grade zone. A summary of the density measurements taken by geological domains is presented in Table 14-10 and Figure 14.9 shows the density sample location.

Table 14-10: Density Data, Calandrias Norte.

Domain	Total Samples	Length	Mean	Standard deviation	CV	Variance	Minimum	Maximum
ORE	33	15.76	2.42	0.10	0.04	0.01	2.09	2.71
LG	49	10.92	2.30	0.10	0.04	0.01	2.03	2.50

Figure 14.9: Density sample location by mineralised domains.



Density measurements were not carried out for all modelled veins. However, consistent values were observed and well-distributed throughout the interpreted model, making additional analyses unnecessary for this target.

For mineral resources purposes, the mean value used for mineralised domains was 2.42 g/cm³, and for low-grade domains, the applied value was 2.3 g/cm³.

14.1.6. Validation

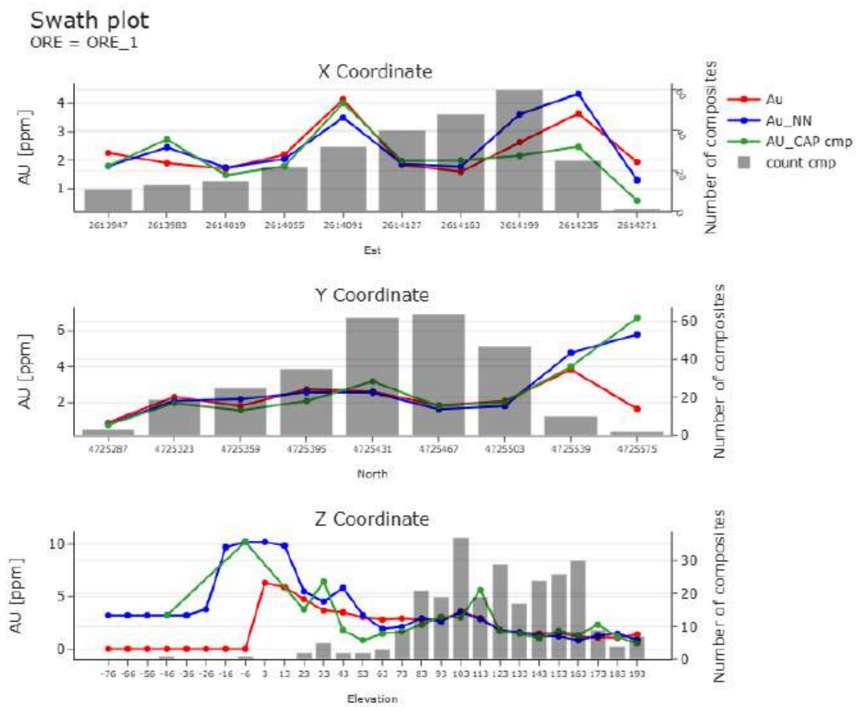
GeoEstima carried out several block model validation procedures including:

- Comparison between OK, NN, and composite mean grades (Table 14-11).
- Swath plots (Figure 14.10).
- Visual inspection of composite versus block grades (Figure 14.11 and Figure 14.12).

Table 14-11: Comparison between OK and NN means

Domain	Au		Au_NN		Validation
	count	mean	count	mean	Bias (%)
ORE_1	2,657	2.147	2,657	2.084	3.009
ORE_2	4,845	10.271	4,845	10.973	-6.400
ORE_3	1,836	1.280	1,836	1.339	-4.383
ORE_4	500	1.040	500	1.012	2.791
ORE_5	475	1.933	475	1.936	-0.162
ORE_6	1,453	1.148	1,453	1.139	0.823
ORE_7	1,096	1.316	1,096	1.365	-3.604
ORE_8	198	1.479	198	1.598	-7.489
ORE_9	406	0.806	406	1.112	-27.567
LG	74,372	0.163	74,372	0.151	8.174

Figure 14.10: Calandrias Norte Swath Plot – Au grade.



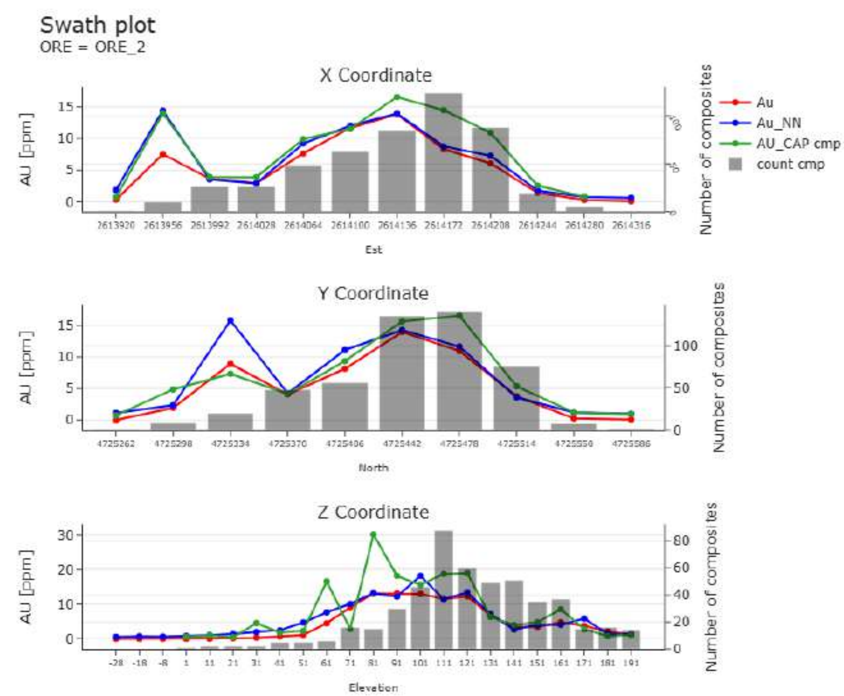


Figure 14.11: Calandrias Norte vertical section showing Au block grades vs Composite grade.

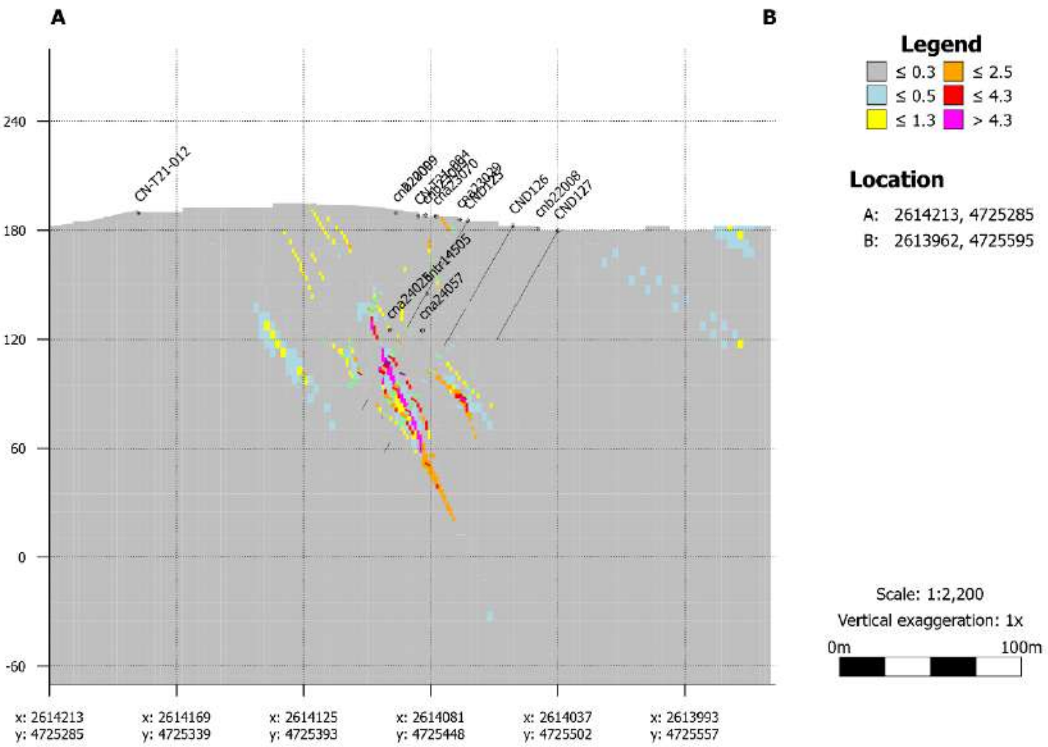
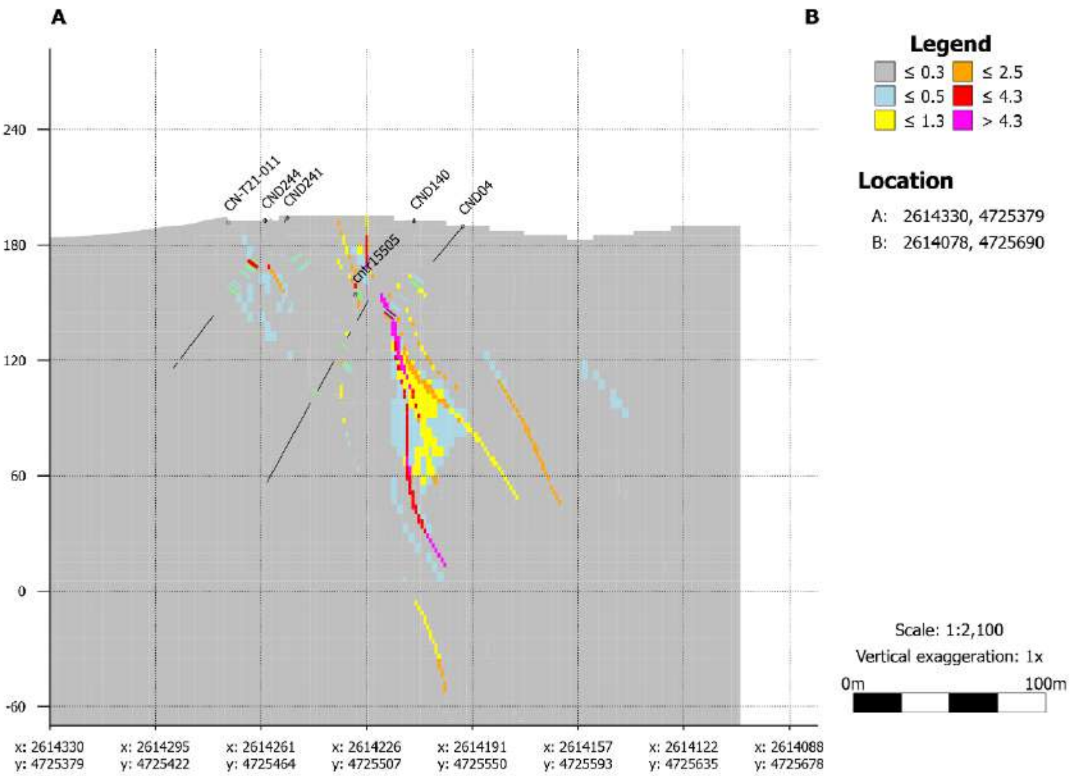


Figure 14.12: Calandrias Norte vertical section showing Au block vs Composite grade.



14.1.7. Classification

Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories.

Blocks were classified based on the following criteria:

- Confidence in modelling of mineralisation and rock type domains.
- Drill hole spacing studies related to confidence in estimating grade.
- Visual assessments of the geometries of the mineralised domain about drill hole spacing.
- Production experience in the deposit.

Based on the criteria listed above, Mineral Resource classification mineralised domains is based on the number of drill holes and distances determined by drilling grid spacing:

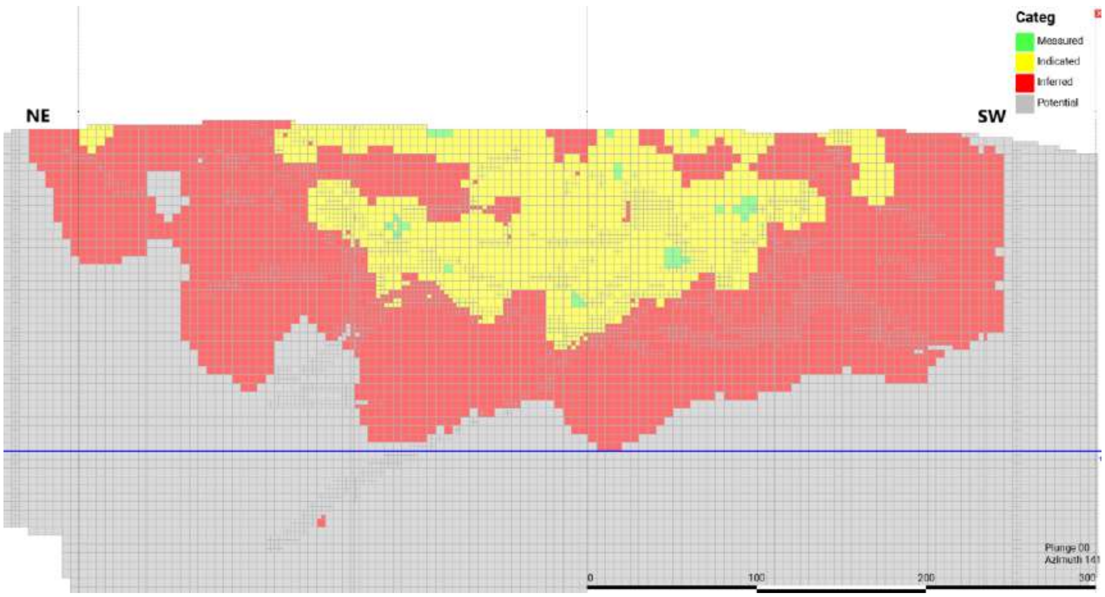
- Measured: drilling spacing ≤ 10m (DH = 4);

- Indicated: 10m < drilling spacing ≤ 20m (DH = 4);
- Inferred: 20m < drilling spacing ≤ 45m (DH ≥ 4).

Flagging the blocks by drill hole distances was performed using a search pass with dimensions and parameters that included the average Euclidean distance to sample. The classification was post-processed to remove isolated small patches and irregular shapes, yielding more realistic shapes from a mining perspective. Figure 14.13 shows a plan view of the final model classification.

GeoEstima believes that the definitions for resource categories used in this report are consistent with those defined by CIM (2014) and incorporated by reference into NI 43-101.

Figure 14.13: Final Classification Designation, Calandrias Norte.



14.1.8. Reasonable Prospects of Eventual Economic Extraction – Cut-Off Grade

The Mineral Resources are tabulated based on a pit optimisation analyses to determine the potential economics extraction by open pit methods. The parameters used in pit optimisation runs, using Whittle software, are presented in Table 14-12.

Whittle calculates a final break-even pit shell based on operating costs (mining, processing, and general and administrative, or G&A) required to mine a given block of material. Since all blocks within the pit shell must be mined (regardless of whether they are waste or mineral), any block with sufficient revenue to cover the processing costs and G&A is sent to the processing plant.

Using the parameters in Table 14-12 and adjusting the Process Cost to $78.33/t results in a break-even cut-off grade of 1.458 g/t Au. The Mineral Resources were reported from within the pit shell using the rounded breakeven cut-off grade of 1.46 g/t Au.

Table 14-12: Whittle pit n parameters for Calandrias Norte.

ITEM		Units	Mine-Process	
			CIL	HL
Overall Slope Angle		degree	51	
Mining Cost		USD/tonne	3.5	
Sustaining Capital		USD/tonne	0.67	
Process Cost	Process	USD/tonne	45.0	7.08
	Transport	USD/tonne	10.4	n/a
Recovery	HG Au	%	90	n/a
	HL Au Oxide	%	n/a	70
	HL Au Transition	%		60
	HL Au Primary	%		40
	Ag	%	61	30
G&A	CIL & HL	USD/tonne	22.21	n/a
	HL	USD/tonne	n/a	3.33
Metal Prices	Au	USD/Oz	2,100.00	
	Ag	USD/Oz	25.00	
Selling Costs	TC & RCs	USD/Oz	1.5	
	Transport to Refinery & Export Fees	USD/Oz	13.0	
	Export Taxes	USD/Oz	155.6	
	Private Royalty	USD/Oz Au	0.0	
	Mine Mouth Tax	USD/Oz	46.6	
	Royal Gold	USD/Oz	0.0	
	Sprott Stream	USD/Oz	26.3	
	Total Selling Costs Gold	USD/Oz	242.9	
	Total Selling Costs Silver	USD/Oz	5.7	

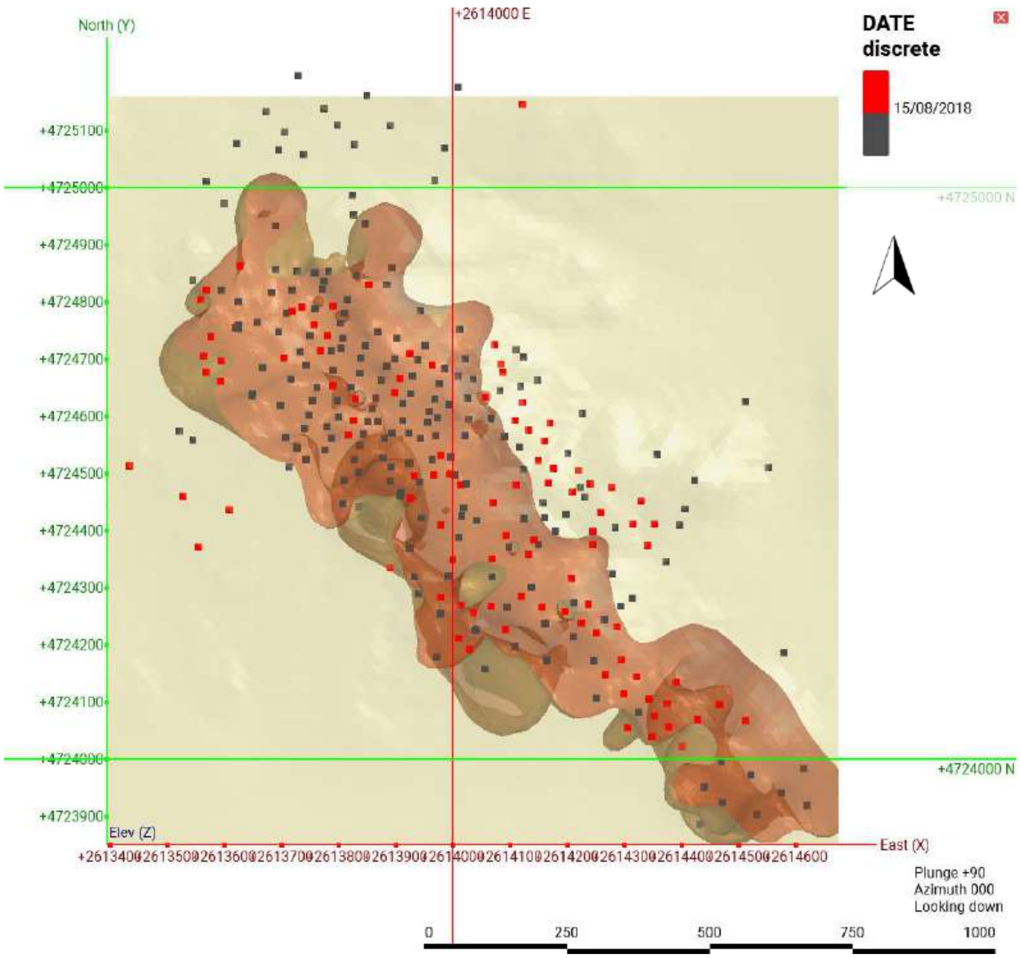
14.2. Calandrias Sur

14.2.1. Resource database

Cerrado Gold maintains the entire database in Studio RM-Fusion. The resource database contains drilling information and analytical results until April 1st, 2024. Information received after these dates was not included in the Mineral Resource estimate. The database comprises 225 diamond drill holes for 26,485.79 m and 74 reverse circulation drilling for 3,928 m.

The Mineral Resource estimate is based on the Projection: Gauss-Kruger Zone 2 [Campo Inchaupe] coordinate system.

Figure 14.14 – Drill hole location and mineralisation, Calandrias Sur.

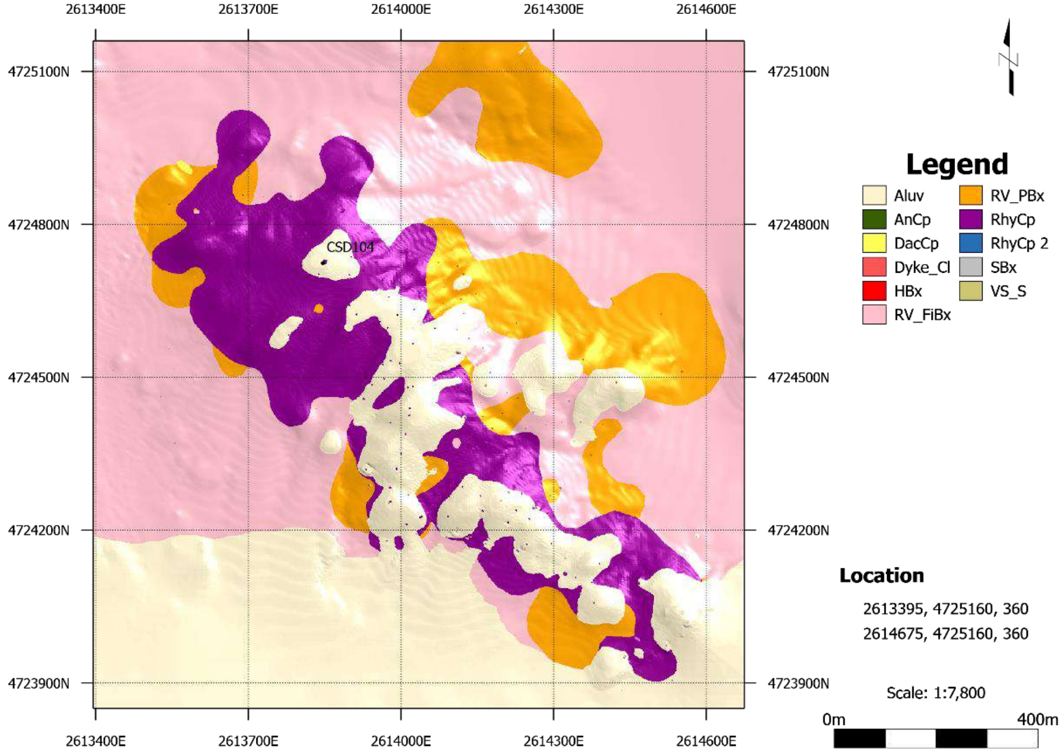


14.2.2. Geological Interpretation

Wireframes of lithology were constructed by MDN team and was based on geological interpretation of lithological description, mineralisation type and reference grade threshold. For geological models, all contacts are based on drill holes, trench and channel samples. The main zones modelled are indicated bellow (Figure 14.15):

- Dacitic Dikes (DacCP);
- Rhyolitic domes and lavas with mineralisation (RhyCp);
- Rhyolitic domes and lavas without mineralisation (RhyCp 2);
- Volcanoclastic facies (RV_FiBx);
- Volcanoclastic facies of polymictic breccias (RV_Pbx).

Figure 14.15: Section plan of geological interpretation, Calandrias Sur.



Mineralised wireframes were constructed considering rhyolitic domes at a AuEq cut-off of 1.0 g/t, where:

$$AuEq = Au\ grade + \frac{Ag\ grade}{89}$$

The overall is represented by an intrusion that is oriented 140° azimuth extending over a 1,400m strike length. Unlike Calandrias Norte, the mineralisation is disseminated within the rhyolitic units and may locally present some concentration of grades related to structures mapped in the region. The Figure 14.16 shows a 3D perspective view of the mineralisation and Figure 14.16 show example sections of mineralisation.

Figure 14.16: 3D isometric view of mineralised wireframe.

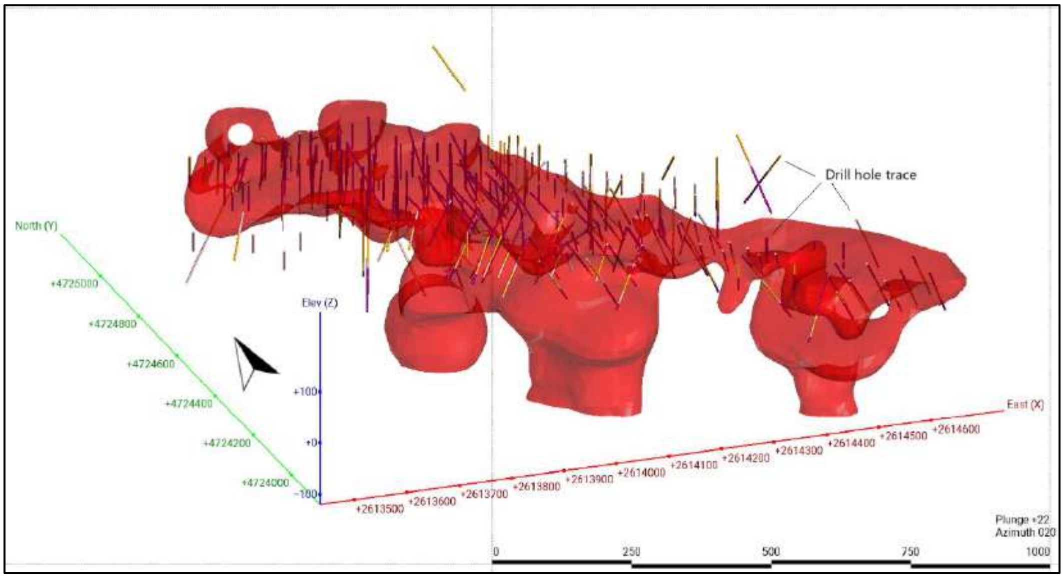


Figure 14.17: Cross Section of dome mineralised unit (DOME).

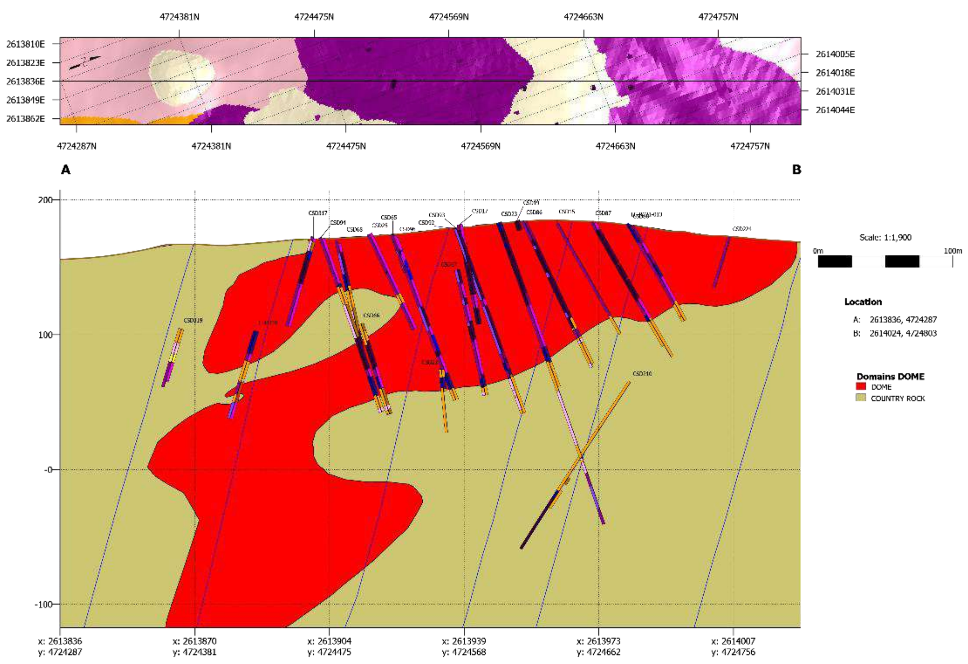
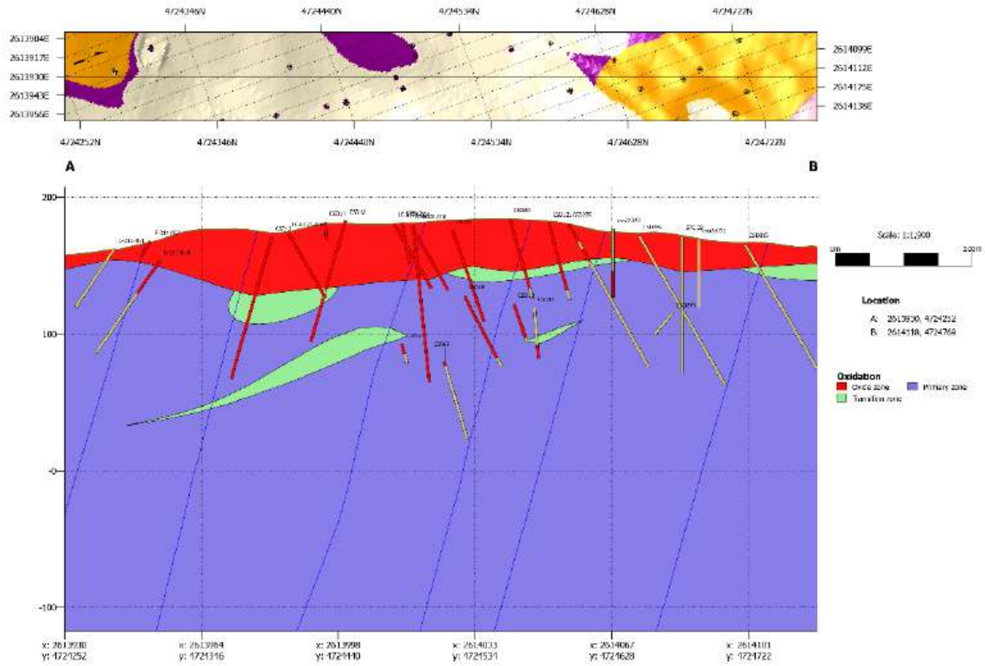


Figure 14.18: Cross Section of alteration zones, Calandrias Sur.



14.2.3. Exploratory Data Analysis

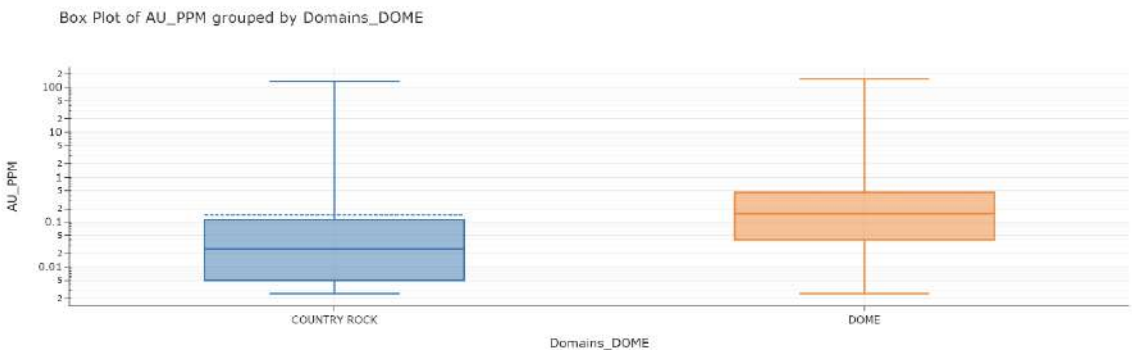
GeoEstima performed exploratory data analysis for each estimation domain, including univariate statistics, histograms cumulative probability plots, box plots to compare different domain statistics, and contact plots. Hard boundaries were determined for each of the estimation variables.

Table 14-13 lists raw univariate statistics for gold and silver by mineralised domains and Figure 14.19 show gold box plot.

Table 14-13: Gold raw assay statistics by mineralised domain, Calandria Sur.

Domain	count	mean	Std	min	0.25	0.5	0.75	0.95	0.99	max	cv
DOME	13,459	0.52	1.87	0.0025	0.05	0.18	0.52	1.895	4.82	154.5	3.6
COUNTRY ROCK	11,936	0.19	1.40	0.0025	0.01085	0.04	0.157	0.664	2.1	136	7.3

Figure 14.19: Box Plot for raw data in mineralised domains, Calandrias Sur.



14.2.4. Compositing

Cerrado composited the assays to 2.0 m with a 1.0 m tolerance, beginning at the collars. Small intervals were distributed equally throughout the drill hole. Sample lengths range from 0.02 to 261.5m. Composites were tagged with domain codes from the geological model interpretation. The majority of samples (95%) had a length of 2.0 m.

Figure 14.20: Raw length distributions in the mineralised zone, Calandrias Sur.

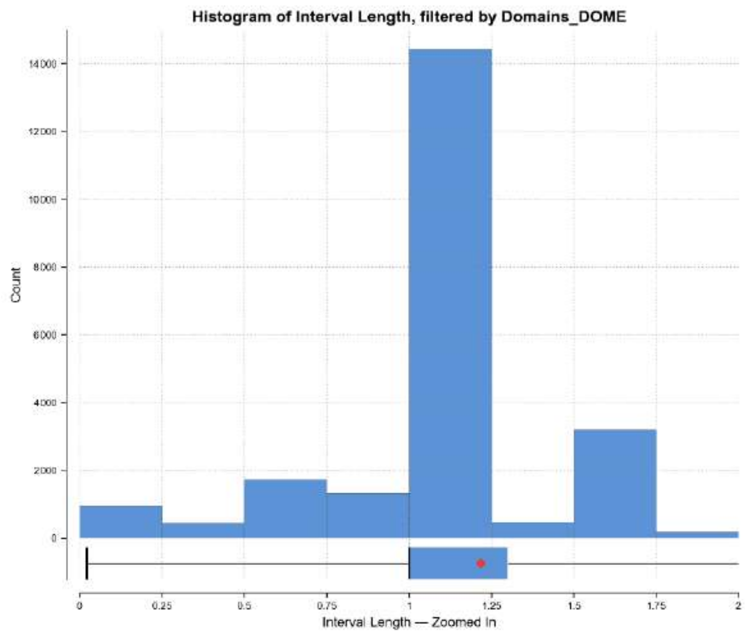


Table 14-14: Composite assay statistics, Au (ppm), Calandria Sur.

Domain	count	mean	Std	min	0.25	0.5	0.75	0.95	0.99	max	cv
COUNTRY ROCK	8,169	0.15	0.69	0.0025	0.005	0.03	0.13	0.54	1.63	48.3	4.7
DOME	7,250	0.45	1.06	0.0025	0.05	0.176	0.49	1.675	3.93	39.7	2.3

14.2.5. Outlier Control

Cerrado applied high-grade capping to Au and Ag assays to limit the influence of a small number of outlier values in the upper tail of the metal distributions. A summary of final capping levels is shown in Table 14-15. A summary of capped grade statistics is provided in Table 14-16.

GeoEstima reviewed Cerrado's capping levels and believes that the capping grades are reasonable overall.

Table 14-15: Au and Ag grade capping levels.

Domain	Composite Data	
	Au (ppm)	Ag (ppm)
DOME	10.6	76.2
COUNTRY ROCK	5.01	71.2

Table 14-16: Capped Assay statistics and total metal impact.

Domain	AU_PPM				AU_CAP			Capped		
	count	mean	cv	max	mean	cv	max	N° cap	%metal	% samp
COUNTRY ROCK	8,169	0.15	4.74	48.33168	0.135363	2.52038	5.01	11	7	0.13
DOME	7,250	0.45	2.34	39.724293	0.442333	1.87506	10.6	10	3	0.14

14.2.6. Variography

Two spherical models fitted experimental Gaussian variograms in three directions for variable Au in Leapfrog Edge software. The results are presented in Figure 14.21 and Figure 14.22.

Figure 14.21: Transformed variogram modelled for Au grades in Dome Domain.

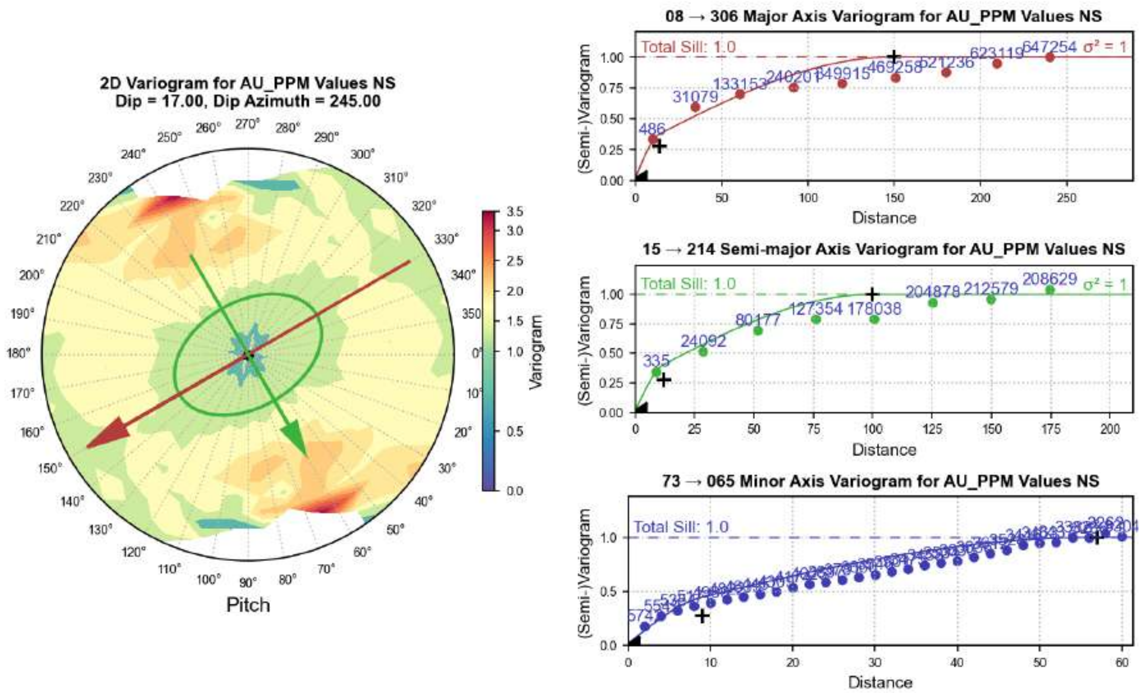
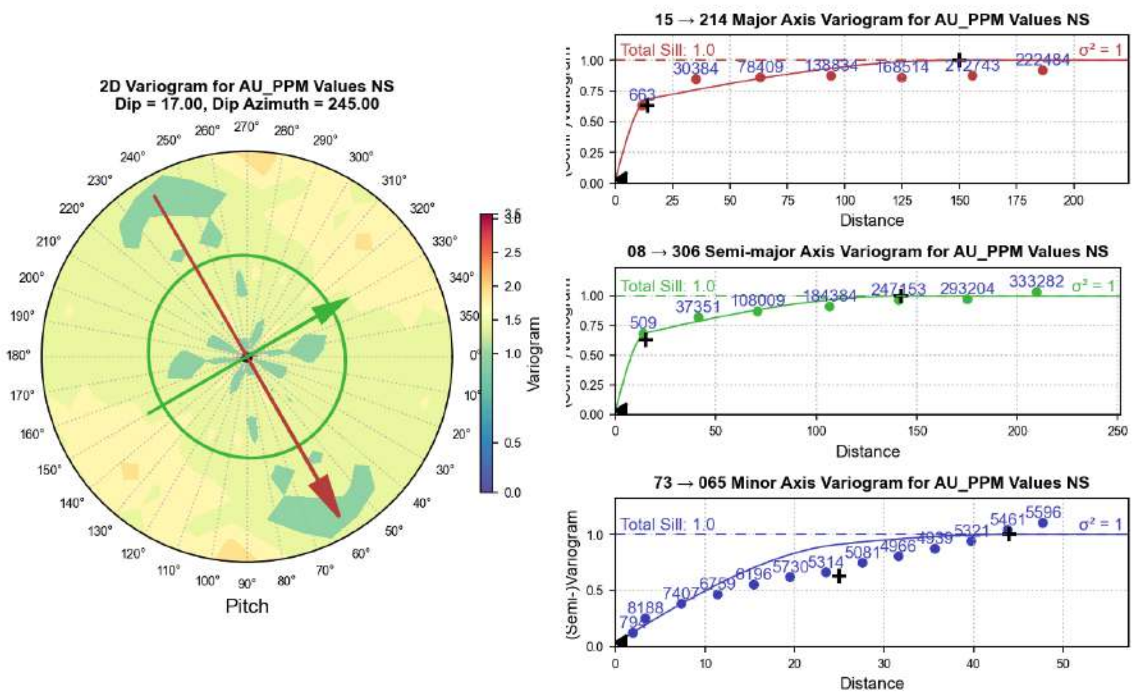


Figure 14.22: Transformed variogram modelled for Au grades in Country Rock Domain.



14.2.7. Block Model

The Calandrias Sur wireframes were filled with blocks in Leapfrog Geo, considering a regular block model type (Table 14-17 and Figure 14.8). The block model setup is shown in and the description of the block model output is provided in Table 14-18.

Table 14-17: Block Model Setup, Calandrias Sur.

Parameter	X	Y	Z
Origin (m)	2,613,434	4,723,335	200
Block Size (m)	6	6	5
Number of Blocks	215	289	60

Table 14-18: Block model output variables.

Variable	Description	Unit/Code
Ag	Silver grade estimated	ppm
Au	Gold grade estimated	g/t
DENSITY	Density interpolated	g/cm³
CATEG	Measured	1
	Indicated	2
	Inferred	3
	Potential	99
TOPO_CN	Air	4
	Exploited Resources	1
	Resources into Pit Shell	2
	Remaining Resources	3
	Out of resources Pit Shell	5
VOLUME	Block Volume	m³
TONNES	Calculated (VOLUME*DENSITY)	t metric
DOMAIN	Country Rock	CR
	Dome	DM
OXIDATION	Oxide	3
	Transition	2
	Primary	1
	Unknown	5

14.2.8. Grade Interpolation and Interpolation Strategy

Grades were interpolated into blocks on a parent cell basis using OK for gold grades and ID^2 interpolation for silver grades. Both Au and Ag variables were interpolated, and estimates were not density-weighted. The search strategy for kriging directions was based on Leapfrog's dynamic anisotropy, which varies search ellipsoid orientations according to the trend of the mineralisation domain. For Ag grades, it was considered a global direction definition of 245° Dip Azimuth, 17° Dip and 55° Pinch (Leapfrog's convention). Table 14-19 presents the search criteria for gold estimates, and Table 14-20 presents the silver estimates parameters.

Table 14-19: Sample selection strategy for Calandrias Sur, Gold.

Domain	Search Pass	Ellipsoid Ranges			Number of Samples		Drillhole Limit	Discretisation		
		Maximum	Intermediate	Minimum	Minimum	Maximum	Max Samples per Hole	X	Y	Z
Dome	Pass 1	30	30	9	6	12	5	3	3	3
	Pass 2	50	50	15	4	10	2	3	3	3
	Pass 3	80	80	18	3	9	-	3	3	3
Country Rock	Pass 1	20	20	6	6	15	2	3	3	2
	Pass 2	40	40	12	4	12	2	3	3	2
	Pass 3	80	80	18	3	9	-	3	2	2

Table 14-20: Sample selection strategy for Calandrias Sur, Silver.

Domain	Search Pass	Ellipsoid Ranges			Number of Samples		Drillhole Limit
		Maximum	Intermediate	Minimum	Minimum	Maximum	Max Samples per Hole
Dome	Pass 1	15	10	5	6	9	2
	Pass 2	30	15	5	5	9	2
	Pass 3	45	22.5	5	4	12	-
Country Rock	Pass 1	15	10	5	7	12	3
	Pass 2	30	15	5	5	12	3
	Pass 3	45	22.5	5	4	8	-

14.2.9. Bulk Density

The Calandrias Sur deposit has 755 density determinations inside mineralised domains. Table 14-10 summarises the density measurements taken by geological domains, and Figure 14.9 shows the density sample location.

Blocks were interpolated in domains considering ID², and the database was capped at 2.55 g/cm³. The strategy for interpolating considered one range pass of 100 x 100 x 20 m oriented 225° Dip Azimuth, 20° Dip and 157° Pitch (Leapfrog's convention). A minimum of 4 samples and a maximum of 15 were used, with a limited of 2 samples per drillhole.

Figure 14.23: 3D perspective for the density sample distributions in Calandrias Sur.

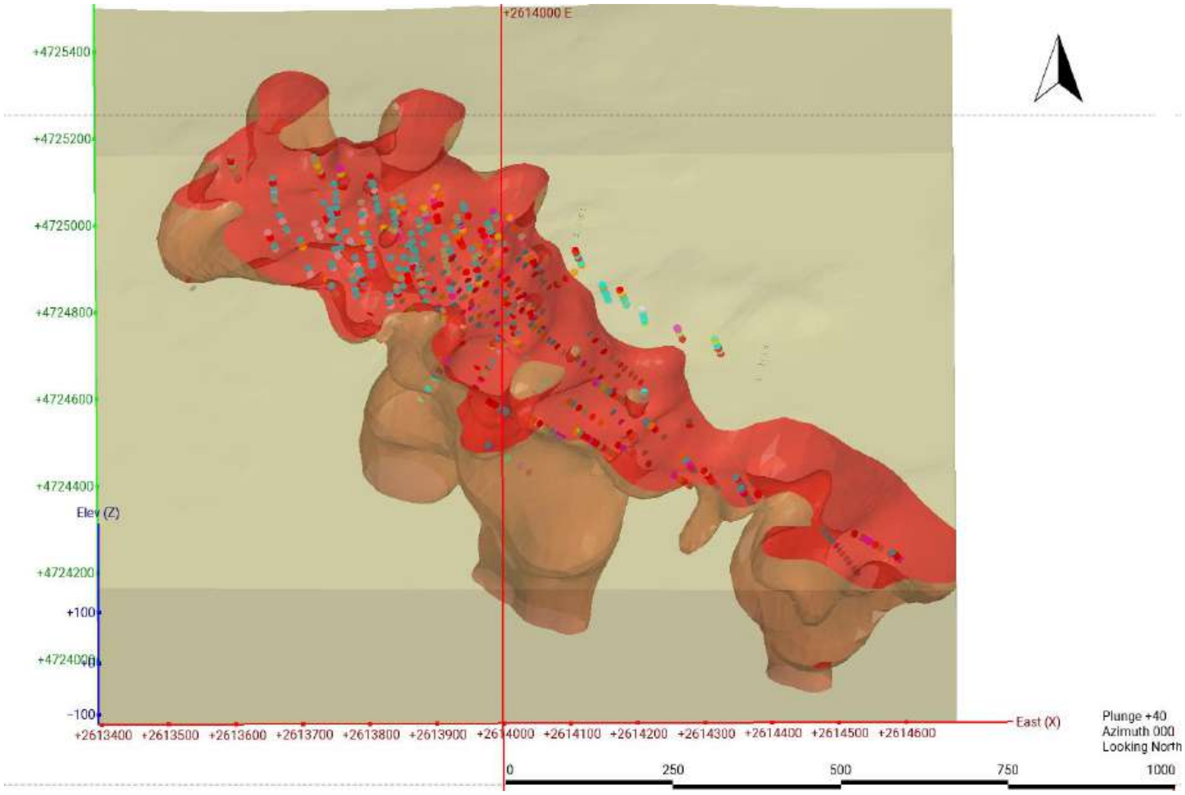


Table 14-21: Summary of density determination in Calandrias Sur.

Domain	count	mean	std	cv	var	min	0.5	max
DENSITY	755	2.26	0.18	0.08	0.03	1.49	2.27	4.01
DOME	474	2.21	0.17	0.08	0.03	1.49	2.23	2.86
COUNTRY ROCK	198	2.24	0.19	0.08	0.03	1.63	2.24	4.01
Density_cap	755	2.26	0.16	0.07	0.03	1.55	2.27	2.55
DOME	474	2.21	0.17	0.08	0.03	1.55	2.23	2.55
COUNTRY ROCK	198	2.23	0.13	0.06	0.02	1.63	2.24	2.55

14.2.10. Validation

GeoEstima carried out several block model validation procedures, including:

- Comparison between OK, NN, and composite mean grades (Table 14-22 and Table 14-23).
- Swath plots (Figure 14.24 and Figure 14.25).
- Visual validation comparing the estimated block grades to the composite data (Figure 14.26).

Table 14-22: Comparison between interpolated value, NN means, and total composite samples, Au grade.

Domains	Au		Au_NN		Validation	AU_CAP
	count	mean	count	mean	Bias (%)	count
COUNTRY ROCK	1,968,700	0.02	1,968,700	0.04	-42.96	8,169
DOME	188,500	0.27	188,500	0.27	0.35	7,250

Table 14-23: Comparison between interpolated value, NN means, and total composite samples, Ag grade.

Domains	Ag		Ag_NN		Validation	AG_CAP
	count	mean	count	mean	Bias (%)	count
COUNTRY ROCK	1,968,700	0.33	1,968,700	0.77	-57.40	6,667
DOME	188,500	5.63	188,500	6.19	-9.00	7,058

It is possible to observe that the estimated values for Au and Ag in the Country Rock domain show a high negative bias. The observed difference is not material because this domain is categorized as Inferred and consists of non-mineralised rocks.

Figure 14.24: Swath plot for Au blocks, Dome Domain.

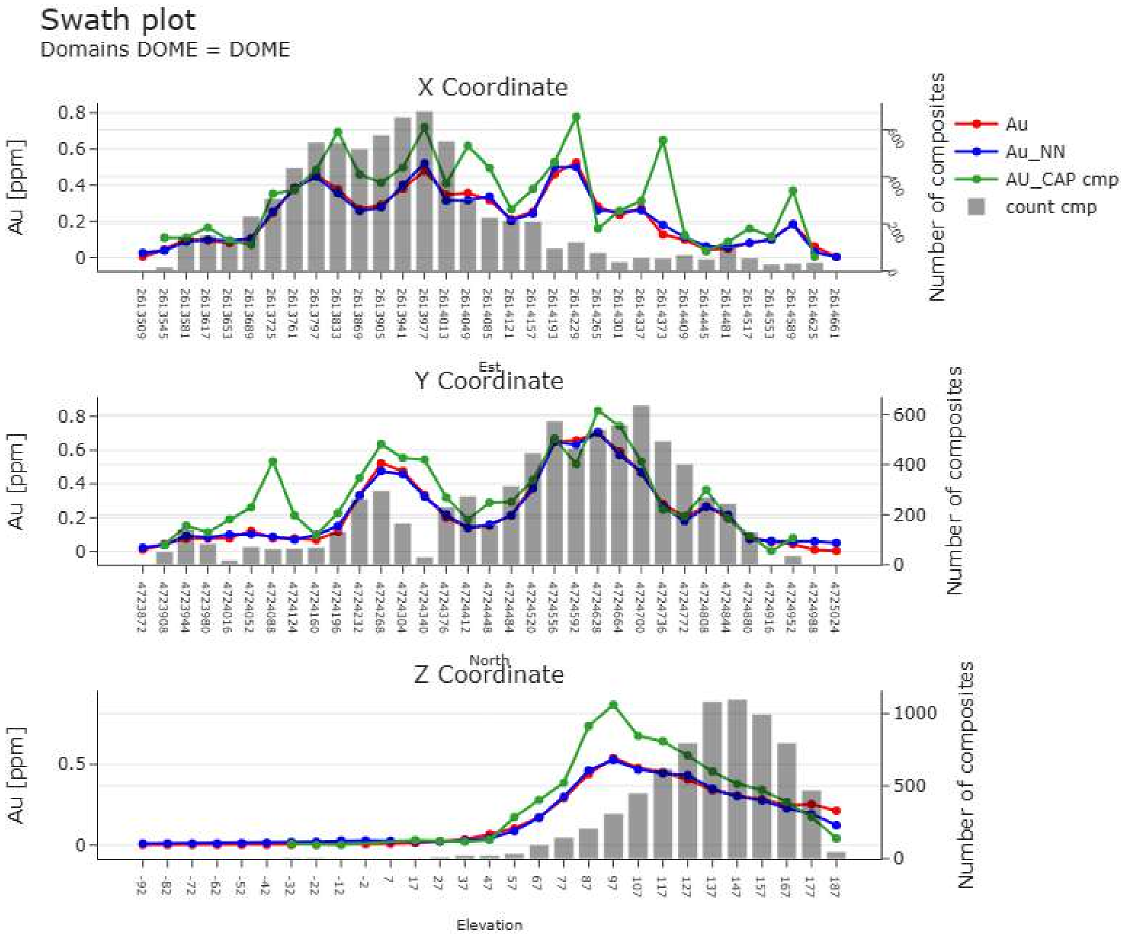


Figure 14.25: Swath plot for Ag blocks, Dome domain.

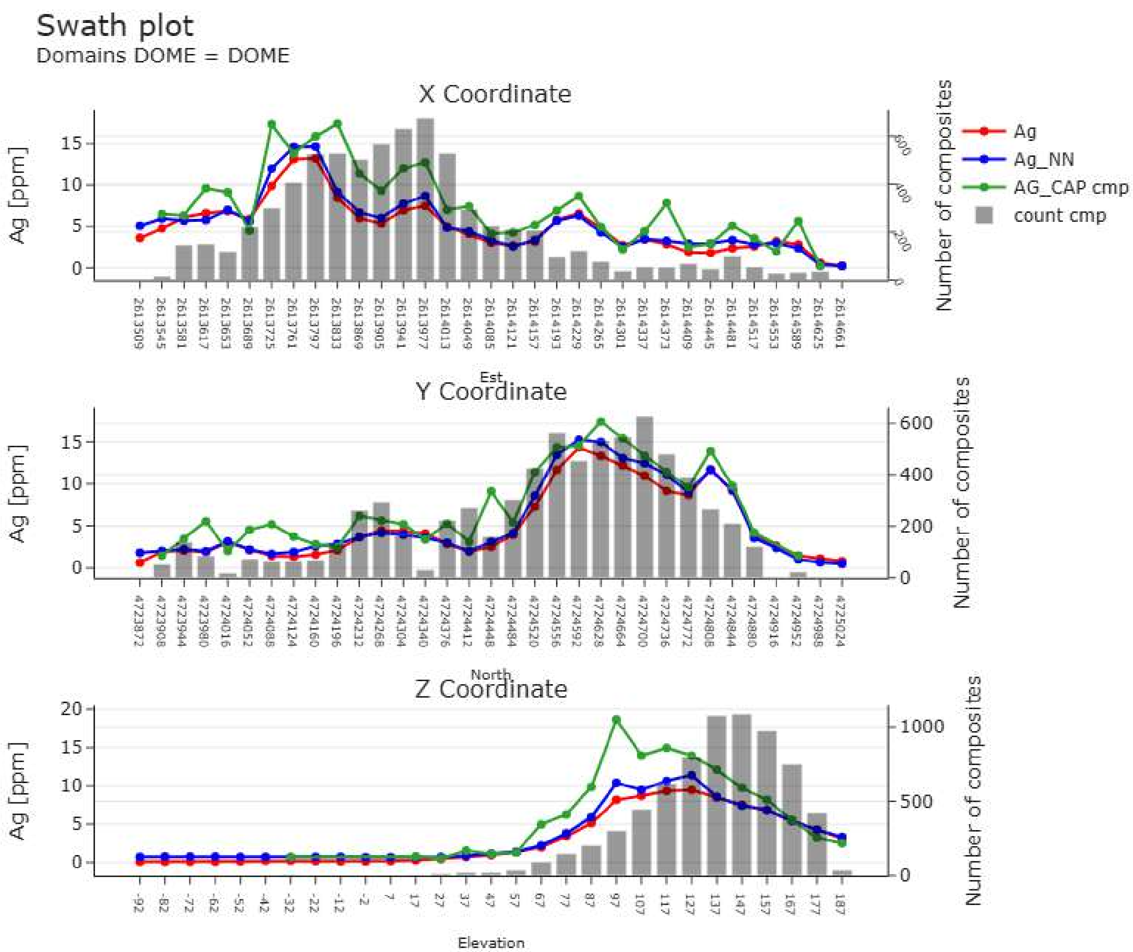
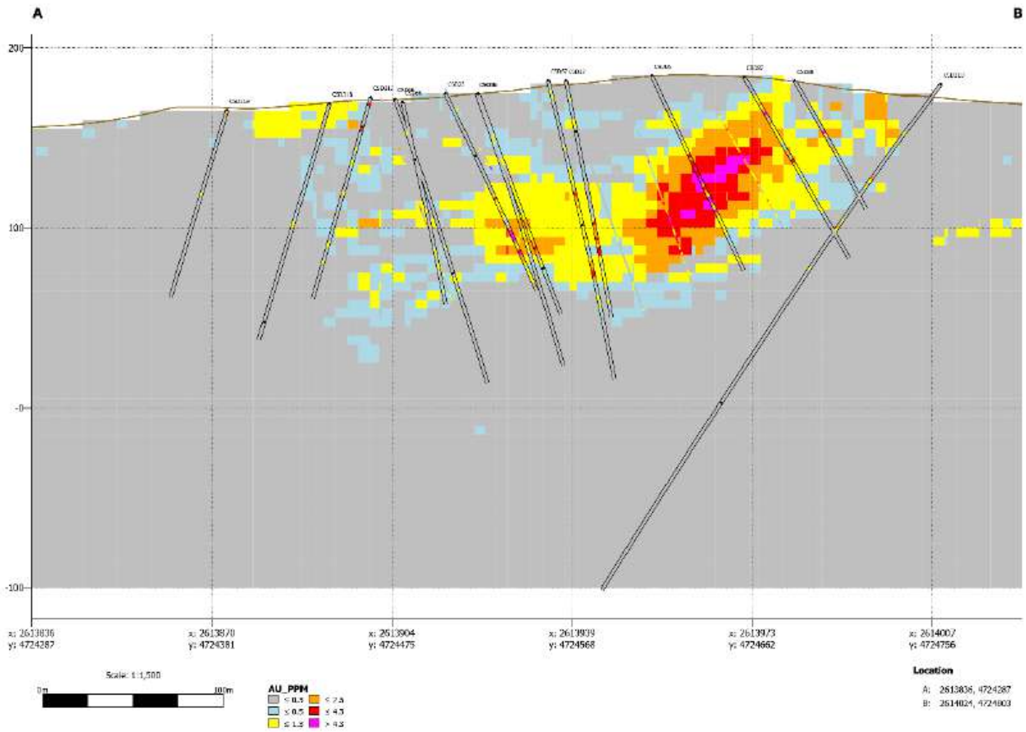
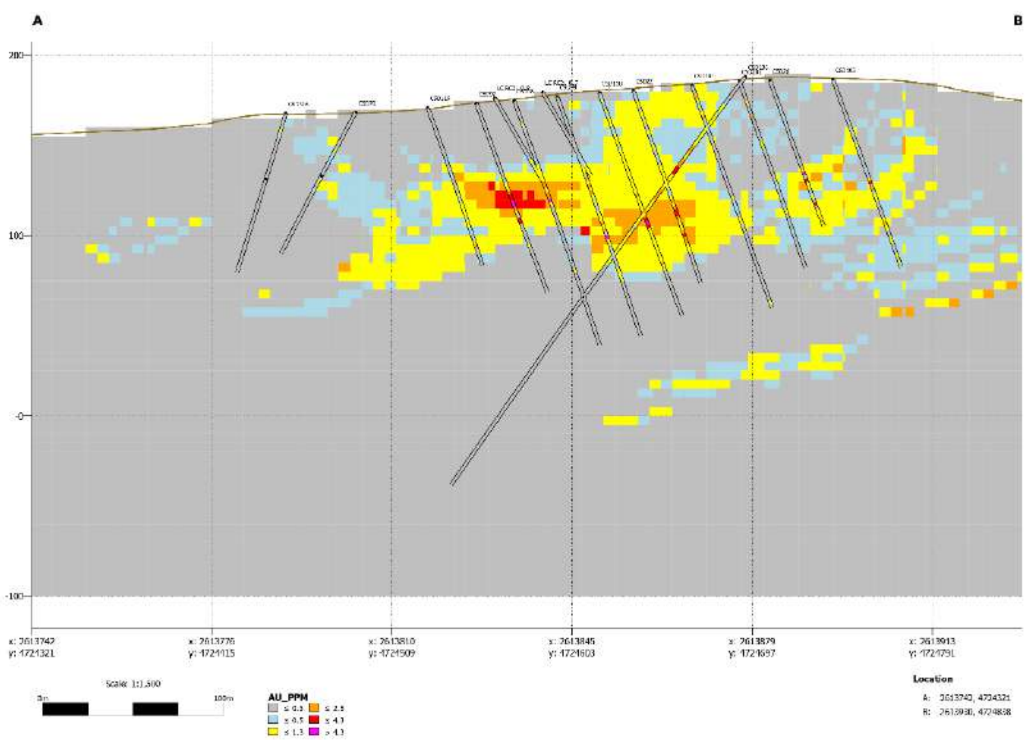


Figure 14.26: Visual validation for Au Estimates.





14.2.11. Classification

Blocks were classified based on the following criteria:

- Confidence in modelling of mineralisation and rock type domains.
- Drill hole spacing studies related to confidence in estimating grade.
- Visual assessments of the geometries of mineralised domain in relation to drill hole spacing.

Based on the criteria listed above, Mineral Resource classification mineralised domains is based on the number of drill holes and distances determined by drilling grid spacing:

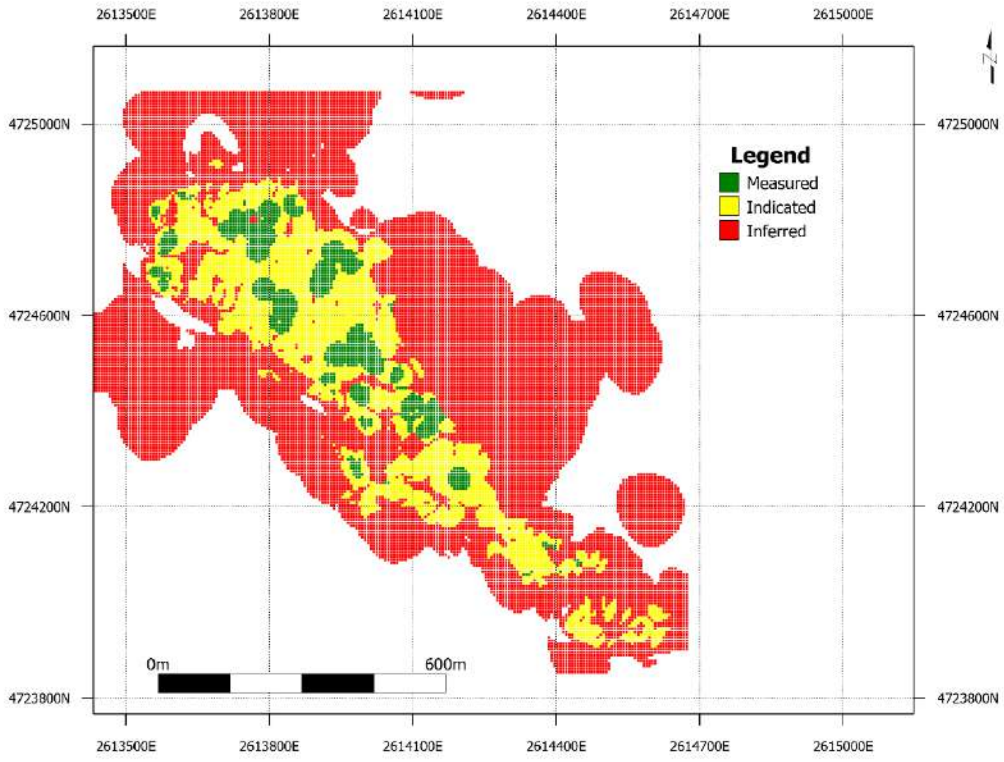
- Measured: drilling spacing ≤ 35m (DH = 4);
- Indicated: 35m < drilling spacing ≤ 70m (DH = 4);
- Inferred: drilling spacing > 70m (DH ≥ 4) or drilling spacing ≤ 150m in Country Rock domain.

Flagging of the blocks by drill hole distances was performed by using a search pass with dimensions and parameters that included the average Euclidean distance to sample. A post processing of the classification was performed to remove isolated small patches and irregular shapes, yielding more realistic shapes from a mining perspective. The Figure 14.27 shows a plan view of the final model classification.

GeoEstima has reviewed the classification and considers it to be reasonable, however, GeoEstima recommends monitoring the production data to ensure that the selected drill spacing is appropriate to support detailed mine planning.

GeoEstima is of the opinion that the definitions for resource categories used in this report are consistent with those defined by CIM (2014) and incorporated by reference into NI 43-101.

Figure 14.27: Final Mineral Resources Classification, Calandrias Sur.



14.2.12. Reasonable Prospects of Eventual Economic Extraction – Cut-Off Grade

The Mineral Resources are tabulated based on a pit optimization analysis to determine the potential economics extraction by open pit methods. The parameters used in pit optimization runs, using Whittle software, are presented in Table 14-12.

Using these parameters the cut-off grade was calculated based on different oxide zones modelled in deposit considering that all material is processed in HL process, the cut-off calculated for Mineral Resources is presented in Table 14-24.

Table 14-24: Cut-off grade used for Mineral Resources estimates.

Oxidation Zone	Cut-off Grade	
	Au (ppm)	Ag (ppm)
Oxide	0.265	59.5
Mixed	0.309	59.5
Primary	0.464	59.5

Table 14-25: Mineral Resources by Type, Calandrias Sur, April 1, 2024.

Oxidation	**Categorization**	**Mass (kt)**	***Grade Values***		***Metal Content***	
			Au (g/t)	**Ag (g/t)**	**Au (thousand t. oz)**	**Ag (thousand t. oz)**
Oxide zone	Measured	1,598	0.57	8.84	29.16	453.91
	Indicated	2,634	0.65	6.66	54.72	564.02
	M+I	**4,232**	**0.62**	**7481.67**	**83.87**	**1,017.93**
	Inferred	1,420	0.52	2.5	23.63	114.24
Transition zone	Measured	773	0.76	16.64	18.91	413.42
	Indicated	649	0.8	13.14	16.68	274.37
	M+I	**1,422**	**0.78**	**15044.19**	**35.58**	**687.79**
	Inferred	238	0.66	4.52	5.07	34.6
Primary Zone	Measured	2,822	1.14	21.84	103.26	1,981.71
	Indicated	4,359	1.27	18.85	178	2,641.55
	M+I	**7,181**	**1.22**	**20026.16**	**281.26**	**4,623.26**
	Inferred	604	0.84	4.78	16.28	92.8
Total	Measured	5,192	**0.91**	**17.07**	151.32	2,849.04
	Indicated	7,642	**1.02**	**14.16**	249.4	3,479.94
	M+I	**12,834**	**0.97**	**15.34**	**400.72**	**6,328.98**
	Inferred	2,261	**0.62**	**3.32**	44.99	241.64

Notes:

1. Mineral Resource estimates have been prepared in accordance with the May 10, 2014 edition of the Canadian Institute of Mining, Metallurgy and Petroleum (or CIM) Definition Standards for Mineral Resources and Mineral Reserves (“2014 CIM Definition Standards”) and disclosed in accordance with National Instrument 43-101 – Standards of Disclosure for Minerals Project (“NI 43-101”).
2. The Qualified Persons for the estimation of Mineral Resources are: Calandrias Sur, Calandrias Norte, Zorro, Paloma Trend and Stockpiles - Orlando Rojas, P.Geo, Member AIG, a GeoEstima Spa employee
3. Density was assigned and interpolated based specific gravity values by domain.
4. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
5. Numbers may not add due to rounding.

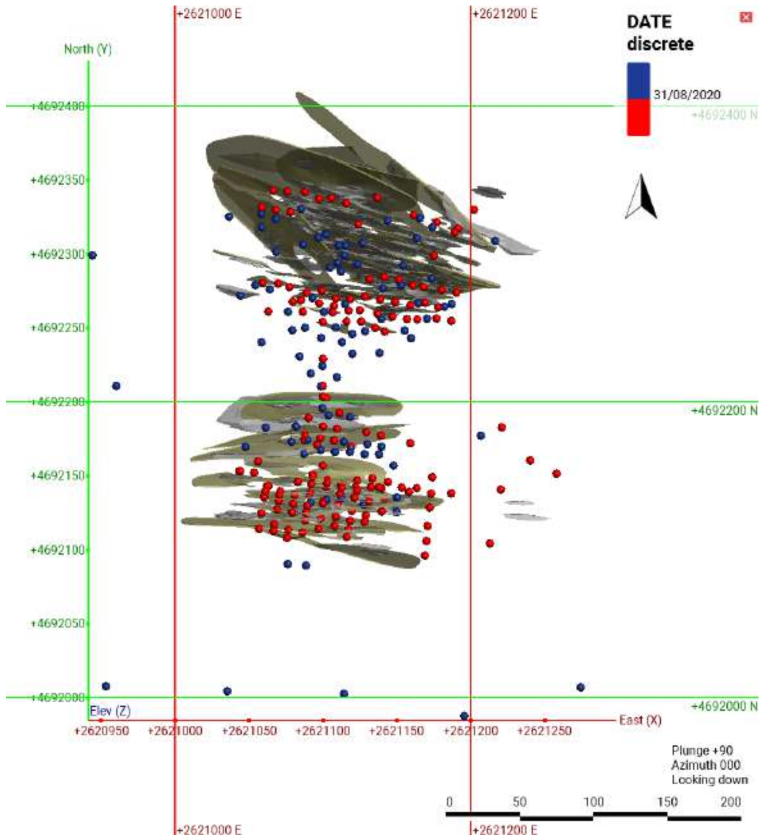
14.3. Zorro

14.3.1. Resource database

The resource database contains drilling information and analytical results up to April 1st, 2024. Information received after these dates were not included in the Mineral Resource estimate. The database comprises 7 diamond drill holes for a total of 352.50m, 40 trenches for a total of 1,743.24m and, 202 reverse circulation drilling for a total of 8,951.0m. The 209 drill holes were internally reviewed and found to be acceptable to support Mineral Resource estimation. The Figure 14.28 show the drill holes executed after previous Technical Report.

The trenches information was not fully validated by QP, however, all samples are located on surface and were majority used for delimited the continuity of veins and the from the 2,380 samples, only 3.5% is inside mineralised zone.

Figure 14.28: Drill hole location in Zorro target.

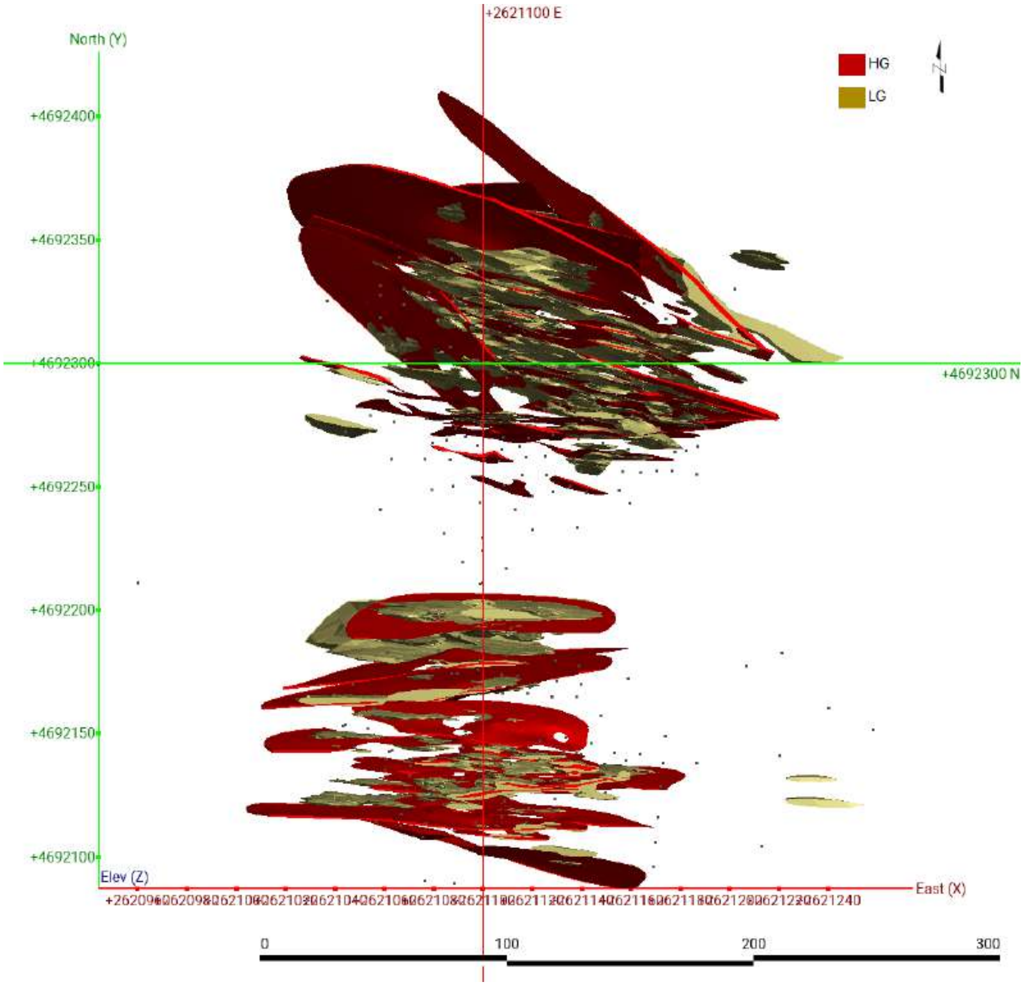


14.3.1. Geological Interpretation

All interpretation on mineralisation wireframes were generated by implicit modelling using Leapfrog Geo (2023.2.3) by MDN staff and reviewed by GeoEstima. The wireframes constructed were based on the vein system algorithm for a cut-off of 1.3 g/t Au and a lower grade domain encompassing mineralisation greater than 0.3 g/t Au generated by a numeric modeling (indicator algorithm).

A total of 40 high grade veins and 1 low grade envelope were interpreted. These veins form two distinct blocks with different orientations. The upper block trends approximately NW-SE, while the lower block trends W-E (Figure 14.29).

Figure 14.29: Interpreted mineralised model, HG and LG wireframes.



14.3.2. Exploratory Data Analysis

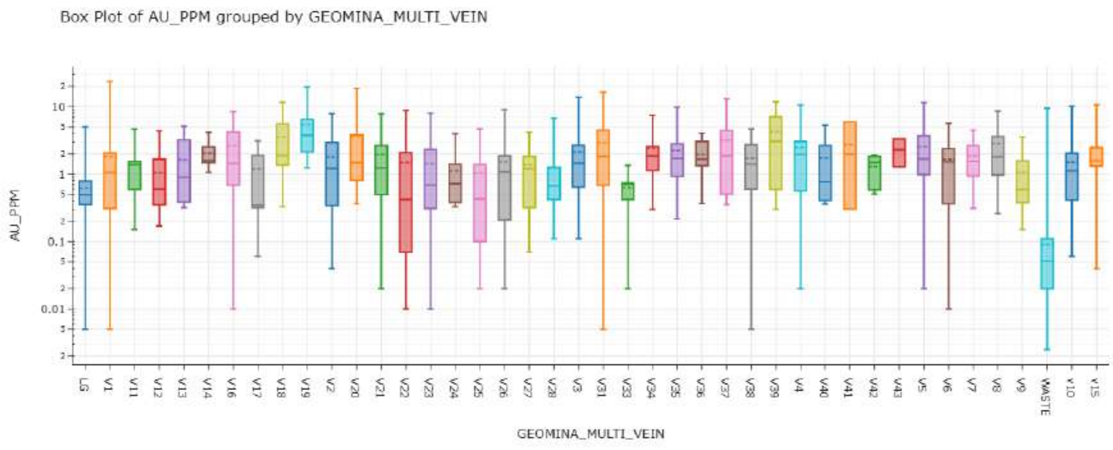
GeoEstima performed exploratory data analysis for each estimation domain, including univariate statistics, histograms cumulative probability plots; box plots to compare different domain statistics, and contact plots. Hard boundaries were determined for each of the estimation variables.

Table 14-26 lists raw univariate statistics for gold by mineralised domains and Figure 14.30 shows a gold box plot.

Table 14-26: Statistics for vein modelled, raw data, Zorro.

Vein	count	mean	std	min	0.25	0.50	0.75	0.95	0.99	max	cv
LG	879	0.60	0.48	0.01	0.33	0.48	0.77	1.33	2.43	5.01	0.80
V1	84	1.78	3.45	0.01	0.15	0.80	1.85	4.85	23.48	23.48	1.94
V5	60	2.62	2.54	0.02	0.86	1.64	3.99	7.95	11.52	11.52	0.97
V4	55	2.29	2.27	0.02	0.56	1.74	3.02	8.22	10.56	10.56	0.99
V23	54	1.56	1.88	0.01	0.33	0.81	2.40	5.61	8.00	8.00	1.20
V31	51	3.08	3.46	0.01	0.69	1.90	4.49	9.83	16.39	16.39	1.12
V2	47	1.74	1.79	0.04	0.32	1.20	2.96	4.79	7.93	7.93	1.03
V3	40	2.33	2.51	0.11	0.75	1.49	3.26	6.45	13.84	13.84	1.08
V6	39	1.50	1.40	0.01	0.31	1.35	2.24	4.85	5.64	5.64	0.93
V22	37	1.60	2.37	0.01	0.07	0.42	2.10	7.31	8.85	8.85	1.48
V28	35	1.20	1.24	0.11	0.51	0.73	1.50	3.26	6.79	6.79	1.03
V16	34	2.47	2.50	0.01	0.96	1.56	2.67	7.94	8.50	8.50	1.01
V7	32	1.69	1.11	0.31	0.94	1.36	2.44	4.41	4.48	4.48	0.66
V21	31	1.88	1.90	0.02	0.54	1.24	2.65	5.98	7.84	7.84	1.01
V26	30	1.45	1.80	0.02	0.09	1.04	1.87	3.98	9.06	9.06	1.24
V9	25	1.04	0.90	0.15	0.43	0.72	1.35	2.94	3.57	3.57	0.87
V20	24	3.84	5.15	0.36	0.88	1.60	3.91	14.22	18.73	18.73	1.34
V12	23	1.17	1.16	0.17	0.35	0.74	1.95	3.01	4.38	4.38	0.99
V18	23	3.57	3.31	0.33	1.36	1.89	5.53	10.39	11.57	11.57	0.93
V25	23	0.92	1.22	0.02	0.33	0.43	1.33	4.14	4.69	4.69	1.33
V39	21	4.26	4.07	0.30	0.59	3.07	7.10	10.52	11.81	11.81	0.96
v10	21	1.80	2.19	0.06	0.49	1.38	2.34	3.46	10.19	10.19	1.22
V35	19	2.21	2.16	0.22	0.88	1.71	2.83	9.87	9.87	9.87	0.97
v15	17	2.45	2.67	0.04	1.32	1.61	3.06	10.74	10.74	10.74	1.09
V8	15	2.58	2.65	0.26	0.78	1.53	3.62	8.69	8.69	8.69	1.03
V24	13	1.02	1.05	0.33	0.37	0.63	1.41	3.95	3.95	3.95	1.03
V13	12	1.60	1.76	0.32	0.42	0.72	2.29	5.12	5.12	5.12	1.10
V36	11	1.96	1.17	0.37	1.35	1.67	3.04	4.01	4.01	4.01	0.60
V11	11	1.34	1.23	0.15	0.38	1.35	1.55	4.66	4.66	4.66	0.92
V27	11	1.20	1.23	0.07	0.24	1.11	1.83	4.15	4.15	4.15	1.02
V38	10	1.68	1.70	0.01	0.42	1.26	2.73	4.71	4.71	4.71	1.01
V37	10	3.19	3.92	0.35	0.51	1.87	4.45	12.97	12.97	12.97	1.23
V34	9	2.11	2.20	0.30	0.67	1.71	2.58	7.43	7.43	7.43	1.04
V19	9	5.65	6.00	1.24	1.83	2.90	6.55	19.64	19.64	19.64	1.06
V33	9	0.63	0.37	0.02	0.42	0.73	0.74	1.35	1.35	1.35	0.59
V40	8	1.77	1.69	0.36	0.44	1.34	2.46	5.29	5.29	5.29	0.96
V14	8	2.05	1.00	1.06	1.49	1.59	2.53	4.16	4.16	4.16	0.49
V17	6	1.14	1.18	0.06	0.32	0.73	1.90	3.13	3.13	3.13	1.03
V42	6	1.30	0.64	0.51	0.58	1.50	1.82	1.93	1.93	1.93	0.49
V41	3	2.74	2.89	0.30	0.30	1.97	5.94	5.94	5.94	5.94	1.06
V43	2	2.30	1.43	1.29	1.29	2.30	3.31	3.31	3.31	3.31	0.62

Figure 14.30: Boxplot for mineralised vein, Zorro.



14.3.3. Compositing

Cerrado composited the assays to 1.0 m with a 0.25 m tolerance, beginning at the collars. Small intervals were discard. Original sample lengths range from 0.2 to 2.0m and were composite for the entire drillhole. The majority of samples (66%) had a length from of 1.0m.

Figure 14.31: Histogram of interval length.

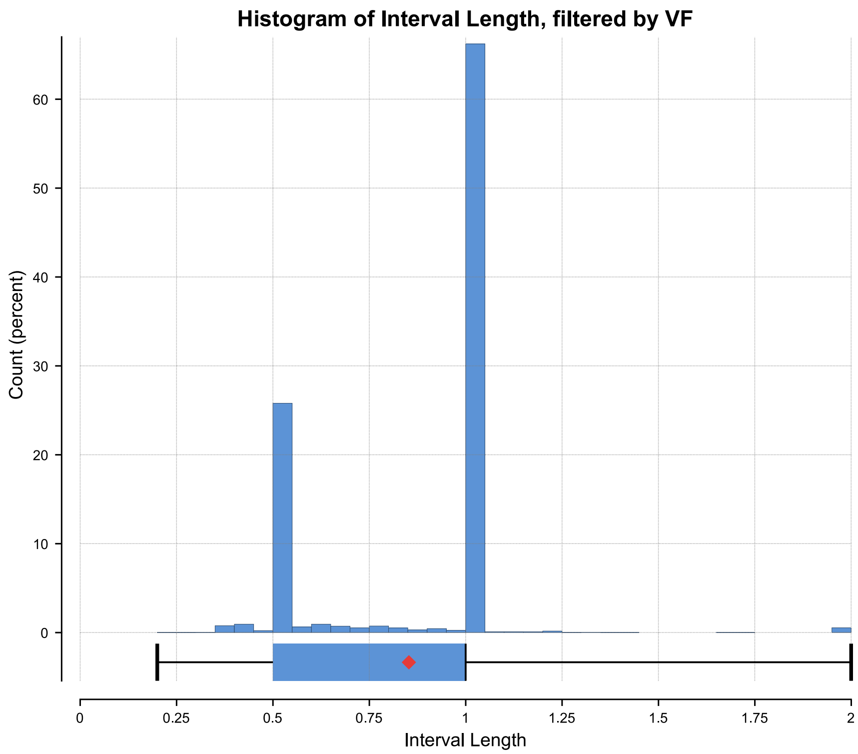


Table 14-27: Composite assay statistics, Au (ppm) and Ag (ppm), Zorro

	Ag_ppm									
Domain	**count**	**mean**	**std**	**cv**	**var**	**min**	**0.250**	**0.500**	**0.750**	**max**
HG	693	7.936	12.127	1.528	147.075	0.500	1.000	4.250	9.852	137.830
LG	763	4.412	5.205	1.180	27.094	0.500	1.000	2.880	5.510	52.488
WASTE	7,831	1.757	2.176	1.239	4.737	0.100	1.000	1.000	2.000	57.014
	Au_ppm									
Domain	**count**	**mean**	**std**	**cv**	**var**	**min**	**0.250**	**0.500**	**0.750**	**max**
HG	712	2.126	2.406	1.132	5.788	0.005	0.474	1.430	2.690	18.733
LG	779	0.725	0.632	0.871	0.399	0.005	0.380	0.545	0.869	7.515
WASTE	8,145	0.095	0.195	2.038	0.038	0.003	0.025	0.059	0.119	9.510

14.3.4. Outlier Control

Cerrado applied high grade capping to Au assays in order to limit the influence of a small amount of outlier values located in the upper tail of the metal distributions. A summary of final capping levels is shown in Table 14-28.

Table 14-28: Capping applied in Zorro composite data.

Domain	**Capping**	
	Au (ppm)	**Ag (ppm)**
HG	8.00	-
LG	1.29	-
WASTE	8.00	-

GeoEstima reviewed the capping levels utilised by Cerrado and is of the opinion that, in general, are reasonable; however, it is observed that the values applied for gold in the low-grade zone are reducing about 10% of the contained metal (Table 14-29), which may locally underestimate the block model. It is recommended to review this capping and adopt restrict ellipsoid for control the high-grade values in estimative process.

Table 14-29: Capped Assay statistics and total gold metal impact, Zorro.

Domain		**AU_PPM**			**Au_cap**			**capped**		
	count	**mean**	**cv**	**max**	**mean**	**cv**	**max**	**N° cap**	**%metal**	**% samp**
HG	712	2.12	1.13	18.73	2.03	1.01	8.00	27.00	4.60	3.79
LG	779	0.73	0.87	7.52	0.65	0.49	1.29	65.00	10.49	8.34
WASTE	8,288	0.09	2.05	9.51	0.09	2.05	9.51	-	-	-

The decile analysis conducted for both variables indicated a high concentration of silver in the top 90% decil, which suggests the use of capping to prevent high grades in adjacent blocks.

14.3.5. Variography

Experimental variograms were fit by two spherical models in three directions for variable Au and Ag in Leapfrog Edge software. The results are presented in Figure 14.32 and Figure 14.33.

Figure 14.32: Standard variogram model for Au grades in High Grade domain.

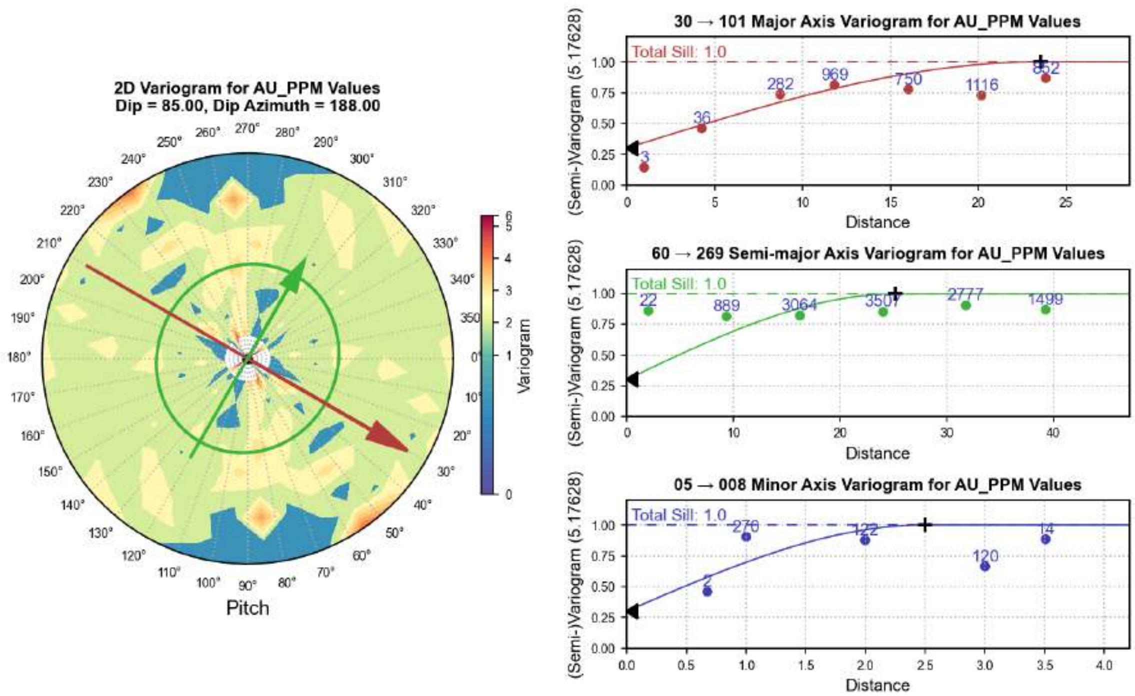
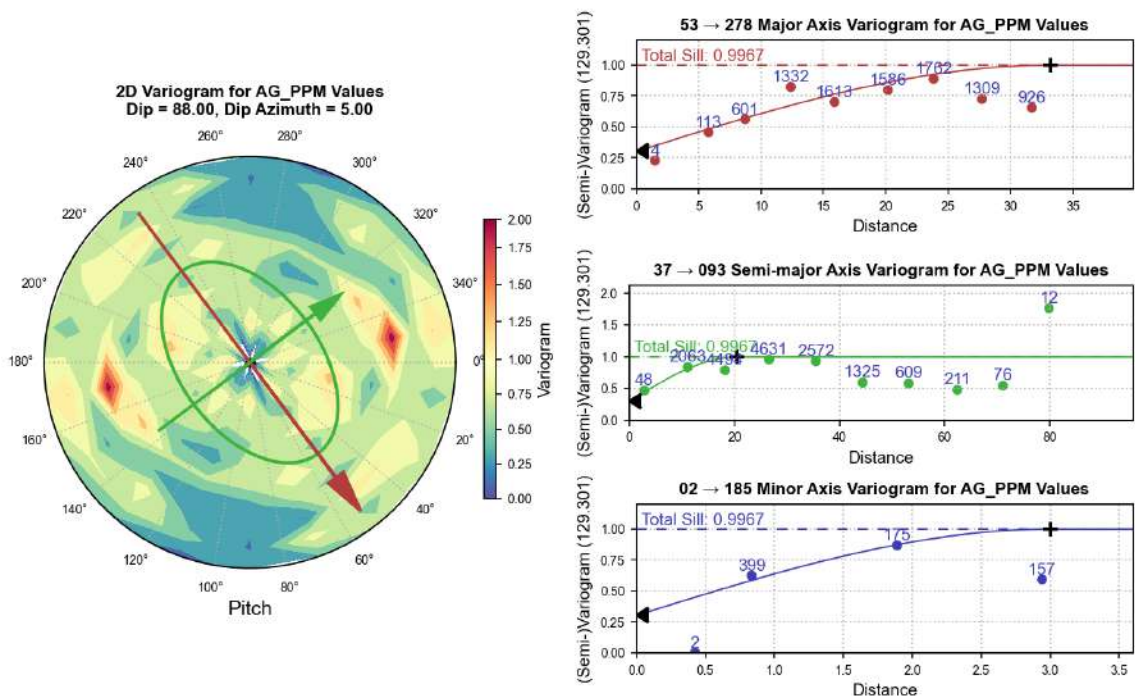


Figure 14.33: Standard variogram model for Ag grades in High Grade domain



It is observed that the experimental variograms exhibit a high nugget effect, suggesting significant variability. It is recommended that the variograms for Ag and Au be calculated based on Gaussian distributions, minimizing the proportional effect at the origin.

14.3.6. Block Model

The Zorro wireframes were filled with blocks in Leapfrog Geo considering the octree sub-block model type. The parent cells measuring 3 m by 5 m by 5 m and the minimum sub-cell sizes of 0.375 m by 0.8375 m by 0.625 m. The block model setup is show in Table 14-30 and the description of block model output is provided in Table 14-31.

Table 14-30: Block Model Setup, Zorro.

Parameter	X	Y	Z
Origin (m)	2,620,902	4,692,003	174
Block Size (m)	3	3	5
Min. Sub Block size (m)	0.375	0.375	0.625
Number of Blocks	123	138	21

Table 14-31: Block model output, Zorro.

Variable	Description	Unit/Code
Ag	Silver grade estimated	ppm
Au	Gold grade estimated	g/t
DENSITY	Density assigned	g/cm³
Class	Measured	1
	Indicated	2
	Inferred	3
	Potential	99
Mineral_Resources_FY24	Air	-
	Mined	-
	Pit_Shell	-
VOLUME	Block Volume	m³
TONNES	Calculated (VOLUME*DENSITY)	t metric
GEOMINA_INTERPRETATION_MULTI_VEIN	V1 to V43	-
	LG	-
	WASTE	-
DOMAIN	HG	HG
	LG	LG
	WASTE	WASTE

14.3.7. Grade Interpolation and Interpolation Strategy

Grades were interpolated into blocks on a parent cell basis using OK for gold and silver grades. Both variables, Au and Ag, were interpolated, and estimates were not density weighted. The search strategy for kriging directions were based on Leapfrog's dynamic anisotropy, which varies search ellipsoid orientations according to the trend of the mineralisation domain. The present the search criteria for gold estimates and Table 14-20 presented the silver estimates parameters.

Table 14-32: Sample selection strategy for Zorro, Gold.

AU GOLD PARAMETERS										
Domain	Search Pass	Ellipsoid Ranges			Number of Samples		Drillhole Limit	Discretization		
		Maximum	Intermediate	Minimum	Minimum	Maximum	Max Samples per Hole	X	Y	Z
HG	Pass 1	10	10	2	8	15	3	4	4	3
	Pass 2	20	20	4	4	15	3	4	4	3
	Pass 3	40	40	6	2	15	3	4	4	3
LG	Pass 1	20	20	2	8	15	3	5	5	5
	Pass 2	40	40	4	4	15	2	5	5	5
	Pass 3	100	100	8	2	15	2	5	5	5

Table 14-33: Sample selection strategy for Zorro, Silver.

AG SILVER PARAMETERS										
Domain	Search Pass	Ellipsoid Ranges			Number of Samples		Drillhole Limit	Discretization		
		Maximum	Intermediate	Minimum	Minimum	Maximum	Max Samples per Hole	X	Y	Z
HG	Pass 1	10	10	2	8	15	2	1	1	1
	Pass 2	20	20	4	4	15	2	1	1	1
	Pass 3	40	40	6	2	15	2	1	1	1
LG	Pass 1	20	20	2	8	15	3	5	5	5
	Pass 2	40	40	4	4	15	2	5	5	5
	Pass 3	100	100	8	2	15	2	5	5	5

The high-grade blocks were interpolated for Ag considering a point estimative (discretization = 1). It is recommended that kriging be performed with at least 3 points to minimize the volume/variance effect.

14.3.8. Bulk Density

The Zorro deposit contains a total of 41 density determination, only 5 inside mineralised domain (HG). A summary of the density measurements taken by geological domains is presented in

Due to the lack of information, blocks were assigned with mean value from all samples inside mineralised zone, 2.37 g/cm³.

Table 14-34: Statistics for density determinations in Zorro.

Domain	Count	Length	Mean	Std	CV	Minimum	Lower quartile	Upper quartile
HG	5	0.46	2.37	0.13	0.06	2.17	2.32	2.48
LG	-	-	-	-	-	-	-	-
Waste	36	4.19	2.39	0.08	0.03	2.20	2.32	2.46

Density samples need to be increased and better distributed throughout the deposit for a more accurate representation of the obtained values. After increase the density samples, it is recommended that the values be interpolated using classical methods (IPD or OK).

14.3.9. Validation

GeoEstima carried out several block model validation procedures, including:

- Comparison between OK, NN, and composite mean grades (Table 14-35 and Table 14-36).
- Swath plots (

- Figure 14.34 and Figure 14.35).
- Visual validation comparing the estimated block grades to the composite data (Figure 14.36).

It is possible to observe that the Au and Ag values show a tendency towards underestimation (within acceptable limits). This bias is visually correlated with areas of lower sample occurrence, categorized as Inferred.

Table 14-35: Au global mean validation comparing estimated (OK,ID) blocks vs NN interpolation

Domain	Au		Au_NN		Validation
	count	mean	count	mean	Bias (%)
HG	653,087	1.93	653,087	2.01	-3.76
LG	247,303	0.80	247,303	0.75	6.81

Table 14-36: Ag global mean validation comparing estimated (OK,ID) blocks vs NN interpolation

Domain	Ag		Ag_NN		Validation
	count	mean	count	mean	Bias (%)
HG	653,087	8.02	653,087	8.46	-5.16
LG	247,303	5.46	247,303	5.28	3.45

Figure 14.34: Swath plot for Au blocks, HG Domain.

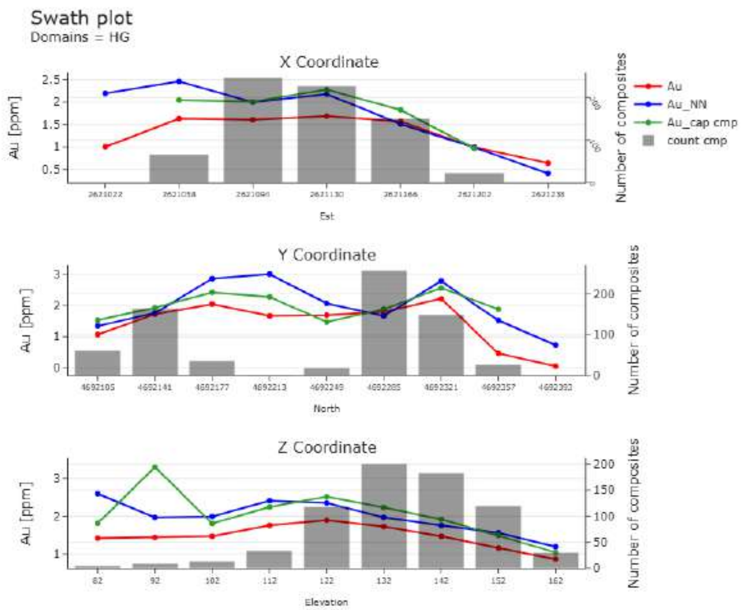


Figure 14.35: Swath plot for Ag blocks, High Grade Domain.

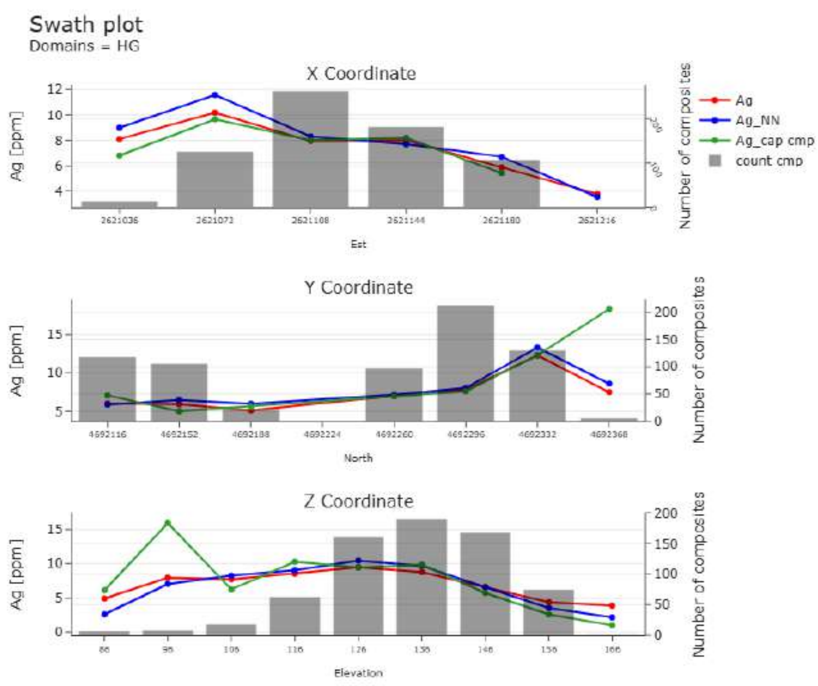
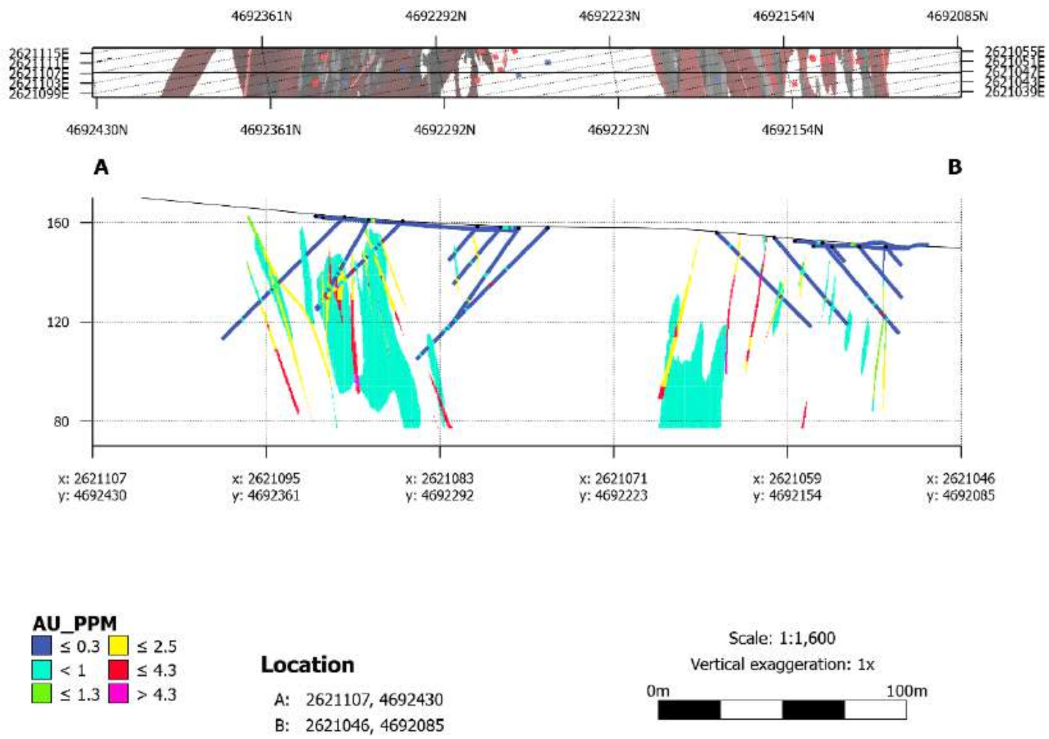


Figure 14.36: Visual validation for Au Estimates in Zorro



14.3.10. Classification

Blocks were classified based on the following criteria:

- Confidence in modelling of mineralisation and rock type domains.
- Drill hole spacing studies related to confidence in estimating grade.
- Visual assessments of the geometries of mineralised domain in relation to drill hole spacing.

Based on the criteria listed above, Mineral Resource classification mineralised domains is based on the number of drill holes and distances determined by drilling grid spacing by domain:

High Grade Shell (HG)

- Measured: drilling spacing ≤ 20m (DH = 4);
- Indicated: 20m < drilling spacing ≤ 40m (DH = 4);
- Inferred: drilling spacing > 60m (DH ≥ 4).

Low Grade Shell (LG)

- Indicated: drilling spacing ≤ 20m (DH = 4);
- Inferred: drilling spacing > 40m (DH ≥ 4).

Flagging of the blocks by drill hole distances was performed by using a search pass with dimensions and parameters that included the average Euclidean distance to sample. A post processing of the classification was performed to remove isolated small patches and irregular shapes, yielding more realistic shapes from a mining perspective. Figure 14.37 and Figure 14.38 shows a 3D view of the final model classification and a cross section respectively.

GeoEstima is of the opinion that the definitions for resource categories used in this report are consistent with those defined by CIM (2014) and incorporated by reference into NI 43-101.

Figure 14.37: 3D view from mineralised veins classified in Zorro.

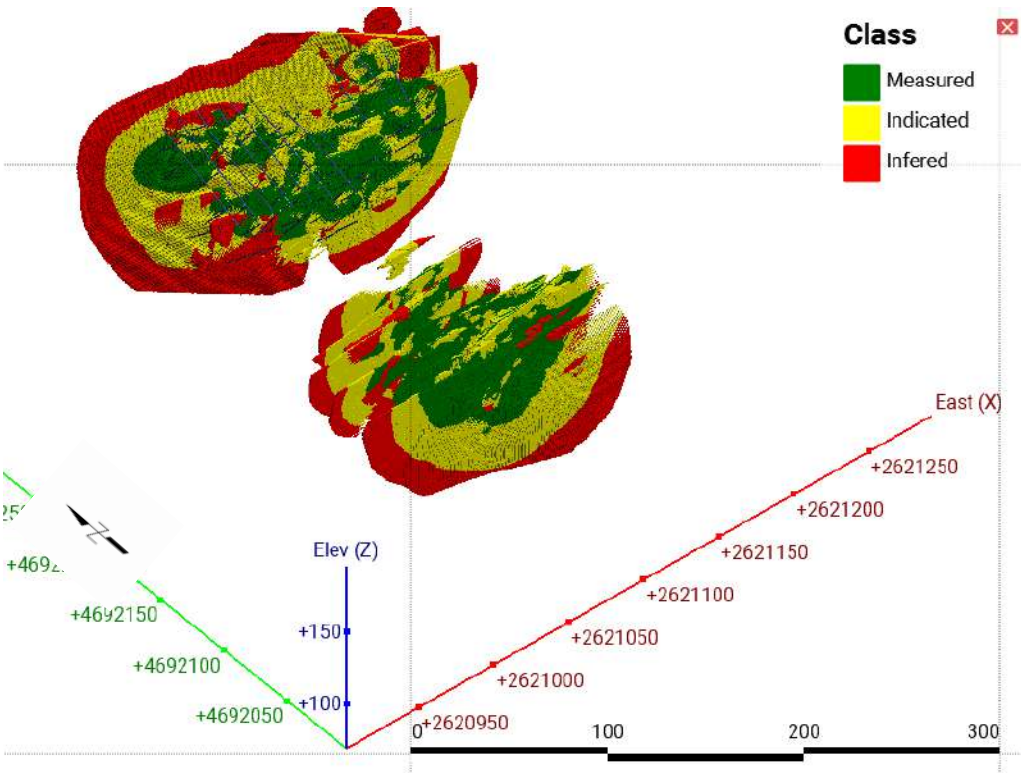
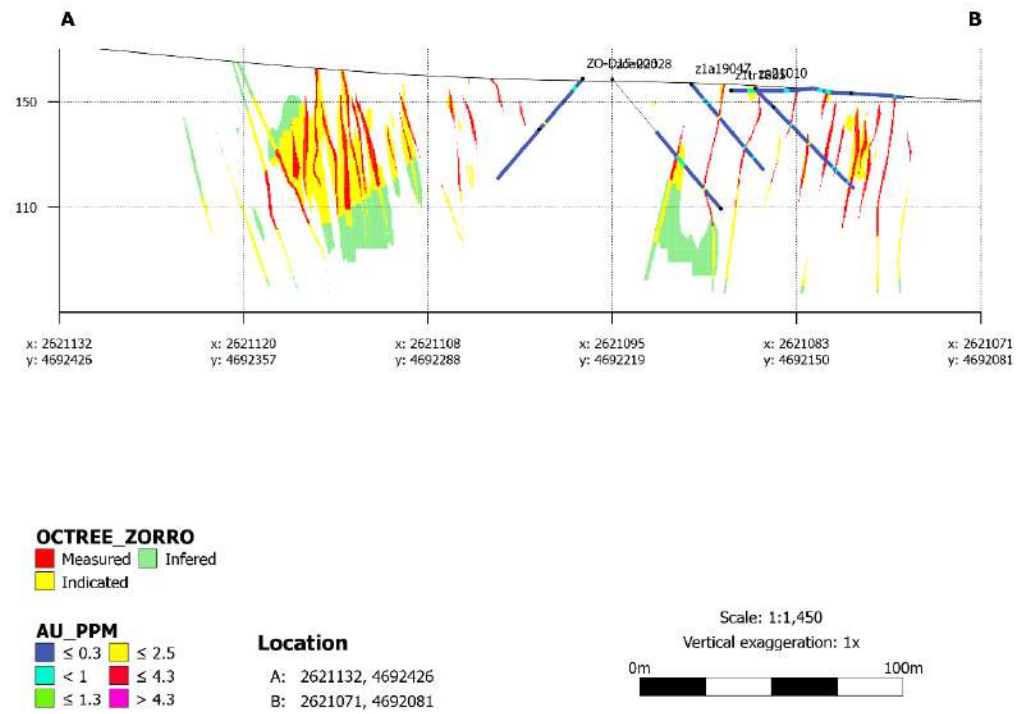


Figure 14.38: Cross section showing classification in Zorro.



14.3.11. Reasonable Prospects of Eventual Economic Extraction – Cut-Off Grade

The Mineral Resources are tabulated based on a pit optimization analyses to determine the potential economics extraction by open pit methods. The parameters used in pit optimization runs, using Whittle software, are presented in Table 14-37.

Whittle calculates a final break-even pit shell based on operating costs (mining, processing, and general and administrative, or G&A) required to mine a given block of material. Since all blocks within the pit shell must be mined (regardless if they are waste or mineral), any block that has sufficient revenue to cover the costs of processing and G&A is sent to the processing plant. The pit optimization process was developed by GE21 under Cerrados's team supervision.

For the purposes of developing a cut-off value, a total grade value of 0.3g/t Au was estimated for economic cut-off grade.

Table 14-37: Whittle pit n parameters for Zorro.

ITEM		Units	Costs	
			CIL	HL
Metal Prices	Au	USD/Oz	2,100.00	
	Ag	USD/Oz	25	
Process Cost		USD/tonne	45.0	7.08
Mining Cost		USD/tonne	3.5	
Recovery	Au	%	90	50
	Ag	%	61	30
G&A		USD/tonne	22.2	4.60
Overall Slope Angle		degree	51	
Sustaining Capital		USD/tonne	-	0.67
Selling Costs		USD/tonne	242.90	

14.4. La Paloma Trend

14.4.1. Resource database

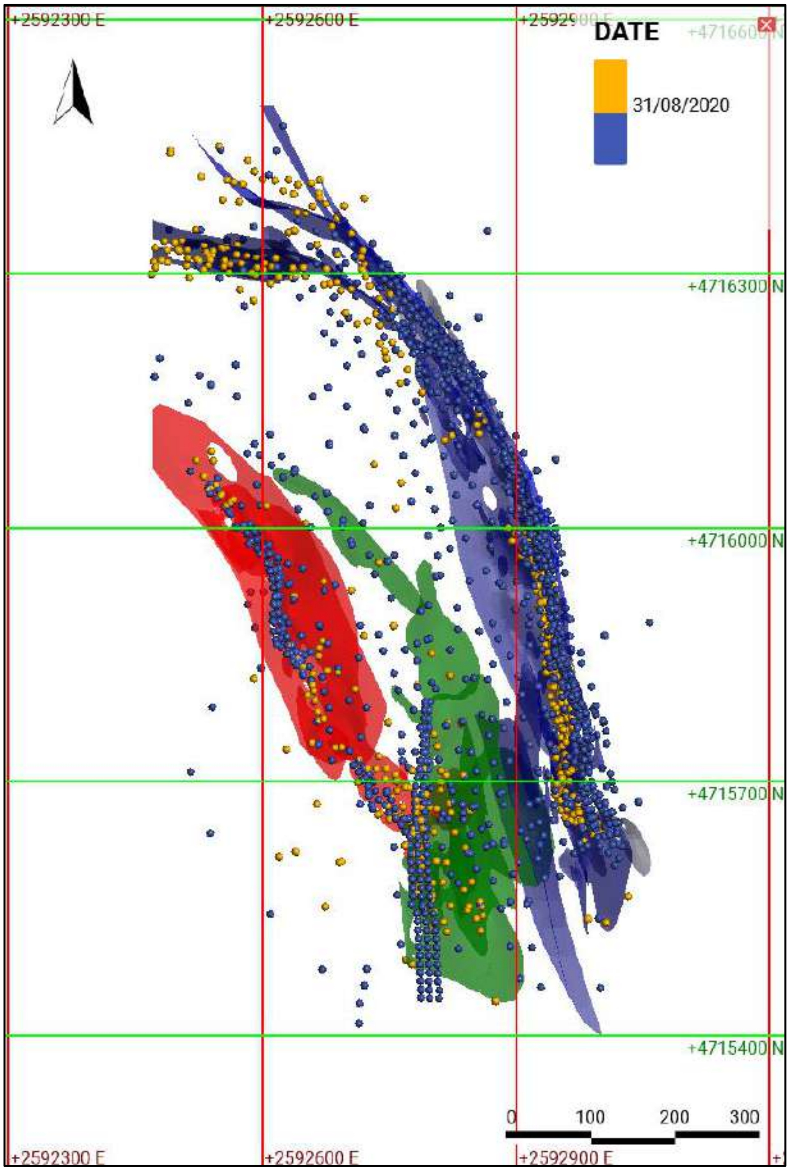
La Paloma Trend database contains diamond drill holes, reverse circulation drill holes, trench data, and channel data, distributed across five distinct targets: Esperanza, Rocio, Sulfuro, Polvorin and Chulengo.

The database comprises 320 diamond drill holes for a total of 45,195.22m, , 910 reverse circulation drilling for a total of 29,080.1m, 239 trenches for a total of 5,673.61m and, 64 channel totalling 647.15m. The total mineral resources database up to April 1st, 2024, comprise a total of 1,536 holes totalling 81,320.68m.

GeoEstima received data from Cerrado in Microsoft Excel format. Data were imported in an independent Leapfrog Geo software (version 2023.2.3) for review. The drill hole information comprises coordinate, length, azimuth, dip, lithology, density, and assay data. For grade estimation, Au unsampled intervals within mineralisation wireframes were not replaced by zero, and detection limit text values (e.g., <0.05) were replaced with numerical values that were half of the analytical detection limit. For Ag samples, all missing intervals were replaced by 0.0001. The

Figure 14.39 show the drill hole distribution after previous public report.

Figure 14.39: Drillhole location, La Paloma Trend.



14.4.2. Geological Interpretation

Mineralisation wireframes were generated in Leapfrog Geo (2023.2.1) considering an implicit modelling. The interpretation was carried out based on superficial mapping, logging of alteration, lithology, and associated vein structure. The main wireframes were grouped into three distinct domains: Trend Rocio, Trend Esperanza and Trend Sulfuro (*Figure 14.40*).

The economic wireframe were generated based on a cut-off of 1.3 g/t gold and a second domain (low-grade) were interpreted considering grades greater than 0.3 g/t of gold (*Figure 14.41*).

In total, 18 high-grade domains and 1 low-grade domain were interpreted and the target for each one is described in *Table 14-38*.

Figure 14.40: Geological interpretation for La Paloma Trend.

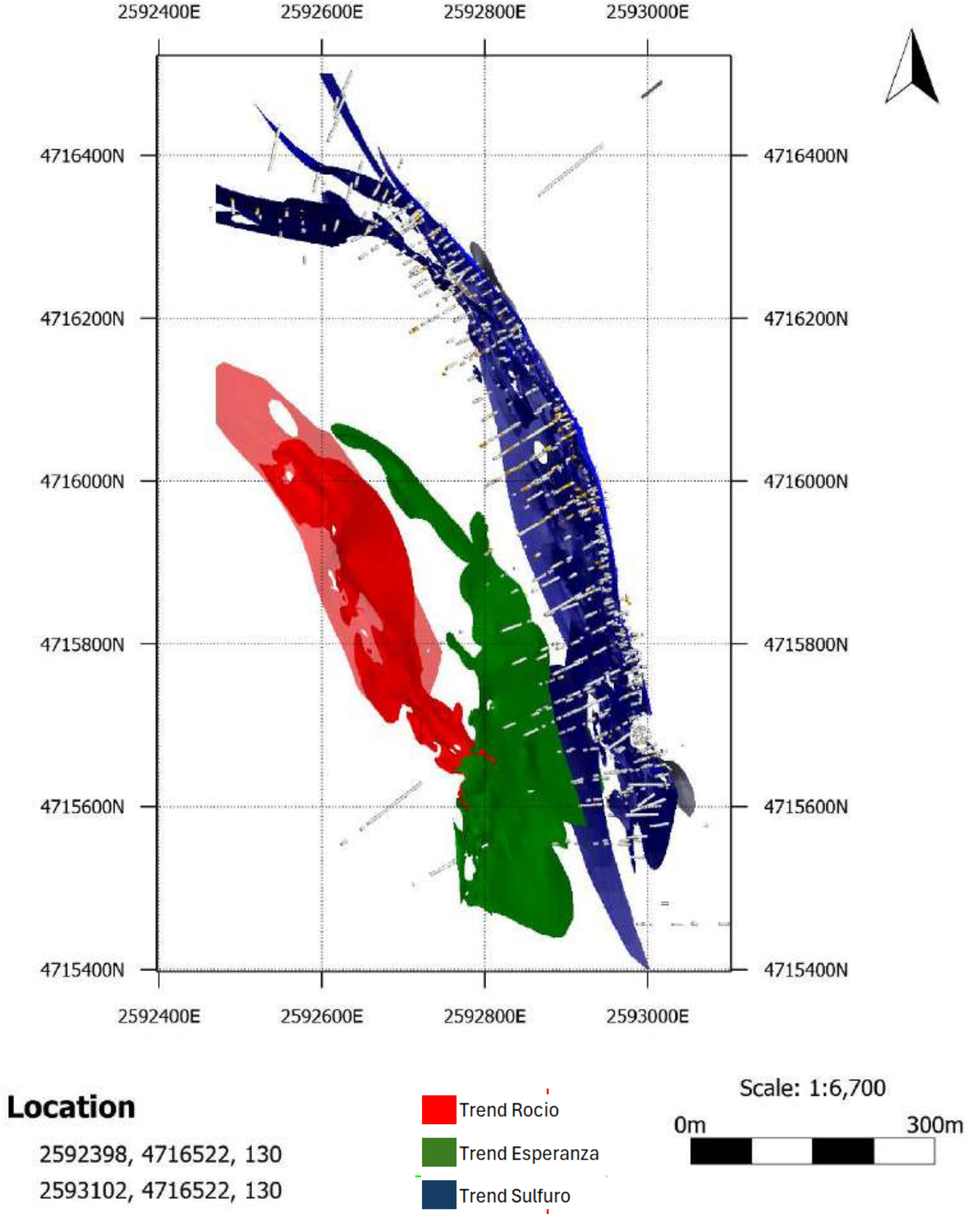
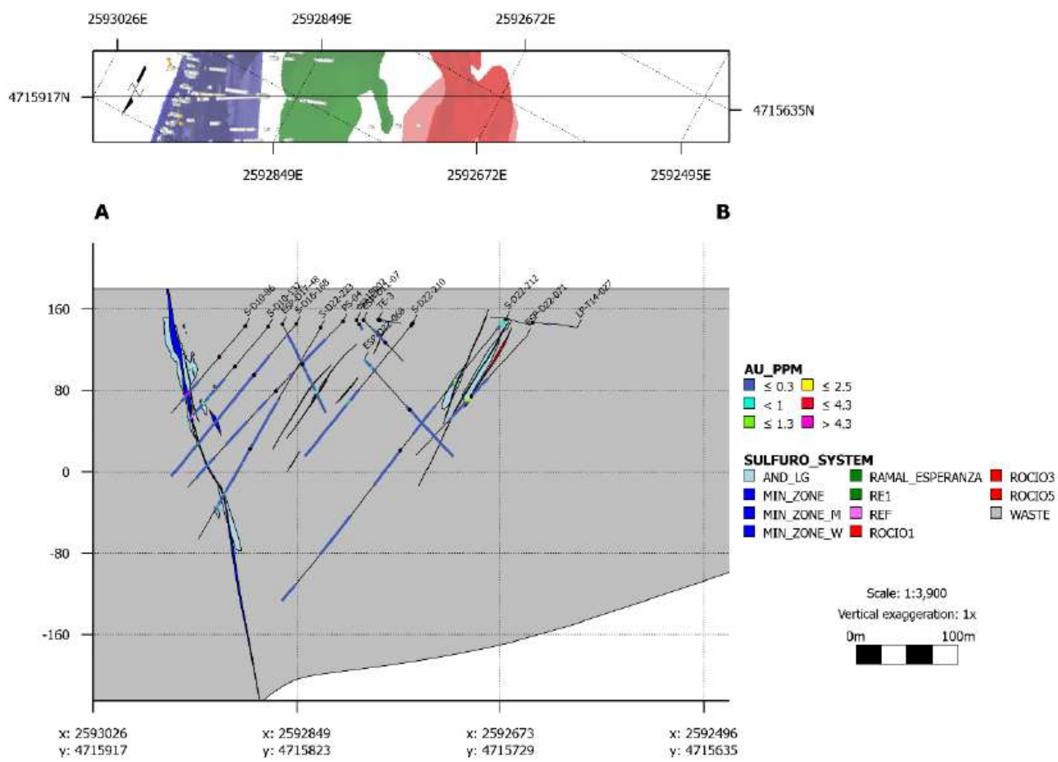


Table 14-38: Description of vein modelled and target, La Paloma Trend

Vein Modelled	Target
AND_LG	All
MIN_ZONE	Sulfuro
MIN_ZONE_M	Sulfuro
MIN_ZONE_N	Sulfuro
MIN_ZONE_O	Sulfuro
MIN_ZONE_S	Sulfuro
MIN_ZONE_V	Sulfuro
MIN_ZONE_W	Sulfuro
MINI_ZONE_T	Sulfuro

Vein Modelled	Target
ESPERANZA	Esperanza
ESPERANZA2	Esperanza
RAMAL_ESPERANZA	Esperanza
RE1	Esperanza
REF	Esperanza
ROCIO	Esperanza
ROCIO1	Rocio
ROCIO2	Rocio
ROCIO3	Rocio
ROCIO4	Rocio
ROCIO5	Rocio

Figure 14.41: Cross section La Paloma Trend.



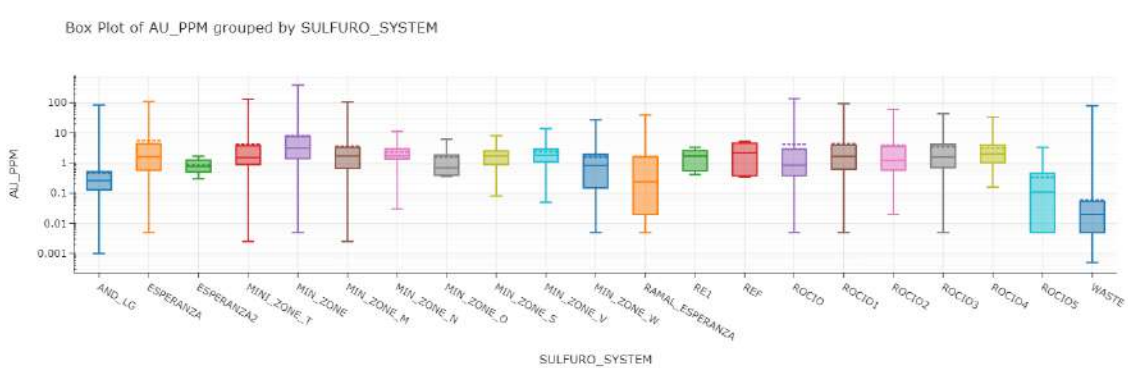
14.4.3. Exploratory Data Analysis

GeoEstima performed exploratory data analysis for each estimation domain, including univariate statistics, histograms cumulative probability plots; box plots to compare different domain statistics, and contact plots. Hard boundaries were determined for each of the estimation variables.

Table 14-39: Statistics for gold raw data.

SULFURO_SYSTEM	count	mean	std	min	0.25	0.50	0.75	0.95	0.99	max	cv
WASTE	41,819	0.06	0.45	0.00	0.01	0.02	0.06	0.22	0.68	79.52	7.05
AND_LG	10,584	0.48	1.27	0.00	0.13	0.26	0.53	1.35	3.29	84.40	2.67
MIN_ZONE	3,022	7.90	17.03	0.01	1.44	3.16	7.42	30.06	81.70	386.00	2.16
MIN_ZONE_M	496	3.66	7.64	0.00	0.77	1.87	3.40	13.22	44.90	106.00	2.09
ROCIO3	479	3.71	5.28	0.01	0.74	1.69	4.49	14.12	27.46	43.27	1.42
ROCIO1	347	4.35	9.46	0.01	0.63	1.66	3.69	16.30	56.64	93.52	2.18
MIN_ZONE_W	244	1.52	2.51	0.01	0.10	0.71	1.84	5.84	9.68	27.33	1.66
MINI_ZONE_T	227	4.70	11.91	0.00	1.00	1.72	4.26	13.14	63.57	131.80	2.53
MIN_ZONE_V	207	2.41	2.10	0.05	1.16	1.84	2.91	6.25	10.88	13.82	0.87
ESPERANZA	163	5.51	13.28	0.01	0.57	1.75	4.36	20.53	98.35	109.57	2.41
ROCIO	150	4.11	12.78	0.01	0.44	0.98	3.06	13.30	59.40	136.57	3.11
RAMAL_ESPERANZA	112	1.78	4.56	0.01	0.03	0.37	1.77	7.75	20.20	39.47	2.57
MIN_ZONE_S	57	1.77	1.28	0.08	1.00	1.74	2.35	3.76	8.15	8.15	0.72
ROCIO2	49	3.93	9.33	0.02	0.61	1.22	3.40	11.30	60.75	60.75	2.37
MIN_ZONE_N	46	2.33	2.04	0.03	1.37	1.76	2.94	6.87	11.19	11.19	0.88
ROCIO4	41	3.32	5.24	0.16	1.18	1.99	3.95	6.08	33.82	33.82	1.58
ESPERANZA2	26	0.83	0.44	0.30	0.50	0.73	1.24	1.66	1.70	1.70	0.52
ROCIO5	17	0.47	0.83	0.01	0.05	0.13	0.50	3.29	3.29	3.29	1.75
MIN_ZONE_O	16	1.52	1.82	0.36	0.41	0.79	1.79	6.12	6.12	6.12	1.20
REF	9	2.27	1.79	0.35	0.38	2.17	2.95	5.25	5.25	5.25	0.79
RE1	8	1.85	0.98	0.42	1.13	1.95	2.45	3.30	3.30	3.30	0.53

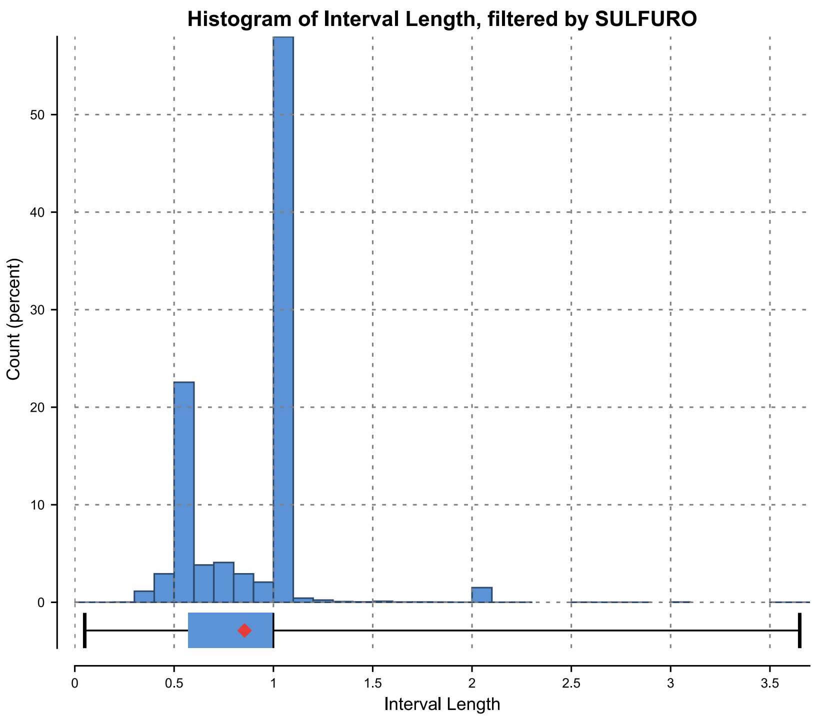
Figure 14.42: Box plot for gold grade in La Paloma Trend veins.



14.4.4. Compositing

The selection of an appropriate composite length began with examination of the descriptive statistics of the raw assay samples and preparation of sample length frequency histograms (*Figure 14.43*). Consideration was also given to the size of the blocks in the model. The GeoEstima QP is of the opinion that a composite length of one metre for all samples is reasonable.

Figure 14.43: Raw length distributions in mineralised zone, La Paloma Trend.



All samples contained within the mineralised wireframes were composited to a nominal one metre length with a 0.25m tolerance, beginning at the collars. Small intervals were addicted to the previous interval. Sample lengths range from 0.25m to 1.24m. Composites were tagged with domain codes from the geological model interpretation. A summary of composite statistics for gold is provided on *Table 14-40*.

Table 14-40: Composite assay statistics Au (ppm), La Paloma Trend.

SULFURO_SYSTEM	count	mean	std	min	0.25	0.50	0.75	0.95	0.99	max	cv
WASTE	37,244	0.06	0.45	0.00	0.01	0.02	0.06	0.20	0.62	79.52	7.44
AND_LG	8,870	0.47	1.20	0.00	0.15	0.27	0.53	1.29	3.07	84.40	2.57
MIN_ZONE	2,332	7.95	16.63	0.01	1.55	3.34	7.71	30.06	72.25	386.00	2.09
MIN_ZONE_M	470	3.59	7.49	0.00	0.78	1.82	3.38	13.11	40.66	106.00	2.08
ROCIO3	328	3.49	4.38	0.01	0.85	1.89	4.40	11.26	22.83	32.53	1.26
ROCIO1	287	4.30	8.22	0.01	0.63	1.72	4.21	16.24	50.98	72.21	1.91
MIN_ZONE_W	217	1.60	2.10	0.01	0.25	0.93	2.01	6.27	9.47	13.70	1.32
MINI_ZONE_T	207	4.24	9.27	0.00	0.91	1.55	4.01	15.10	63.57	79.20	2.18
MIN_ZONE_V	179	2.33	2.04	0.05	1.05	1.88	2.91	5.87	13.45	13.82	0.88
ESPERANZA	142	5.41	12.29	0.01	0.62	1.59	4.72	23.02	68.91	109.57	2.27
ROCIO	141	4.13	10.82	0.01	0.48	0.96	3.32	14.54	46.78	102.54	2.62
RAMAL_ESPERANZA	98	1.69	4.66	0.01	0.02	0.37	1.81	6.01	39.47	39.47	2.77
ROCIO2	59	3.62	7.65	0.02	0.61	1.39	3.29	13.93	51.93	51.93	2.12
MIN_ZONE_S	50	1.79	1.34	0.08	0.85	1.76	2.54	3.76	8.15	8.15	0.75
MIN_ZONE_N	43	2.29	1.98	0.03	1.37	1.73	2.85	4.33	11.19	11.19	0.87
ROCIO4	29	3.02	3.65	0.45	1.18	1.99	3.95	6.08	19.95	19.95	1.21
ESPERANZA2	25	0.86	0.43	0.30	0.51	0.78	1.19	1.66	1.70	1.70	0.50
REF	21	0.86	1.54	0.01	0.02	0.08	0.38	4.60	5.25	5.25	1.80
MIN_ZONE_O	15	1.56	1.86	0.39	0.43	0.88	1.73	6.12	6.12	6.12	1.19
ROCIO5	15	0.33	0.58	0.01	0.01	0.11	0.46	2.30	2.30	2.30	1.77
RE1	8	1.79	0.89	0.42	1.13	1.95	2.45	2.86	2.86	2.86	0.50

14.4.5. Outlier Control

Based on the review of the assay statistics, Cerrado applied high grade capping to Au and Ag assays in order to limit the influence of a small amount of outlier values located in the upper tail of the metal distributions. A summary of final capping levels is presented in Table 14-41. GeoEstima reviewed the capping levels utilised by Cerrado and is of the opinion that, in general, the capping grades are reasonable.

Table 14-41: Capped values applied in La Paloma Trend.

Domain	Capping	
	Au (ppm)	Ag (ppm)
AND_LG	15.00	150
ESPERANZA	40.00	20
ESPERANZA2	-	-
MIN_ZONE	70	900
MIN_ZONE_M	20.00	400
MIN_ZONE_N	-	-
MIN_ZONE_O	-	-
MIN_ZONE_S	-	-
MIN_ZONE_V	70	200
MIN_ZONE_W	9	80
MINI_ZONE_T	30	90
RAMAL_ESPERANZA	70	-
RE1	36	-
REF	36	-

Domain	Capping	
	Au (ppm)	Ag (ppm)
ROCIO	20	40
ROCIO1	28	35
ROCIO2	36	-
ROCIO3	28	-
ROCIO4	-	-
ROCIO5	-	-
WASTE	-	-

Table 14-42: Capped Assay statistics and total metal impact in composite data, La Paloma Trend.

Domain	count	AU_PPM			AU_PPM_CAP			Capped		
		mean	cv	max	mean	cv	max	N° cap	%metal	% samp
AND_LG	8,870	0.47	2.57	84.40	0.46	1.65	15.00	6	2.30	0.07
ESPERANZA	142	5.41	2.27	109.57	4.72	1.67	40.00	2	12.81	1.41
ESPERANZA2	25	0.86	0.50	1.70	0.86	0.50	1.70	-	0.00	-
MINI_ZONE_T	207	4.24	2.18	79.20	3.63	1.50	30.00	4	14.47	1.93
MIN_ZONE	2,332	7.95	2.09	386.00	7.42	1.55	70.00	24	6.68	1.03
MIN_ZONE_M	470	3.59	2.08	106.00	3.11	1.34	20.00	12	13.50	2.55
MIN_ZONE_N	43	2.29	0.87	11.19	2.29	0.87	11.19	-	0.00	-
MIN_ZONE_O	15	1.56	1.19	6.12	1.56	1.19	6.12	-	0.00	-
MIN_ZONE_S	50	1.79	0.75	8.15	1.79	0.75	8.15	-	0.00	-
MIN_ZONE_V	179	2.33	0.88	13.82	2.33	0.88	13.82	-	0.00	-
MIN_ZONE_W	217	1.60	1.32	13.70	1.57	1.25	9.00	3	1.86	1.38
RAMAL_ESPERANZA	98	1.69	2.77	39.47	1.69	2.77	39.47	-	0.00	-
RE1	8	1.79	0.50	2.86	1.79	0.50	2.86	-	0.00	-
REF	21	0.86	1.80	5.25	0.86	1.80	5.25	-	0.00	-
ROCIO	141	4.13	2.62	102.54	3.01	1.55	20.00	7	27.29	4.96
ROCIO1	287	4.30	1.91	72.21	3.84	1.47	28.00	6	10.60	2.09
ROCIO2	59	3.62	2.12	51.93	3.35	1.80	36.00	1	7.46	1.69
ROCIO3	328	3.49	1.26	32.53	3.48	1.24	28.00	1	0.40	0.30
ROCIO4	29	3.02	1.21	19.95	3.02	1.21	19.95	-	0.00	-
ROCIO5	15	0.33	1.77	2.30	0.33	1.77	2.30	-	0.00	-

14.4.6. Variography

Experimental variograms were fit by two spherical models in three directions for variable Au and Ag in Leapfrog Edge software. For the construction of experimental variograms, the modelled veins from each target were grouped together, thereby increasing the number of samples in each vein. The model variograms for gold and silver are presented in *Table 14-43* and *Table 14-44*.

Table 14-43: Summary of gold variogram parameters, La Paloma Trend.

Domain	Variance	Nugget	Structure 1								Structure 2							
			Sill	Structure	Major	Semi-major	Minor	Dip	Dip Azi.	Pitch	Sill	Structure	Major	Semi-major	Minor	Dip	Dip Azi.	Pitch
ESPERANZA	61.59	13.03	48.56	Spherical	56	36	4	65.0	81.0	70.0								
ESPERANZA1	21.72	3.26	9.77	Spherical	20	20	2	65.0	81.5	137.6	8.69	Spherical	50	50	2	65.0	81.5	137.6
ESPERANZA3	36.36	5.45	16.36	Spherical	20	20	2	65.0	81.5	137.6	14.54	Spherical	50	50	2	65.0	81.5	137.6
ESPERANZA4	2.30	0.35	1.04	Spherical	20	20	2	65.0	81.5	137.6	0.92	Spherical	50	50	2	65.0	81.5	137.6
ESPERANZA5	0.80	0.12	0.36	Spherical	20	20	2	65.0	81.5	137.6	0.32	Spherical	50	50	2	65.0	81.5	137.6
ESPERANZA_RAMAL	21.56	3.23	9.70	Spherical	20	20	2	65.0	81.5	137.6	8.62	Spherical	50	50	2	65.0	81.5	137.6
ROCIO1	31.88	3.19	28.69	Spherical	80	73	4	64.2	58.0	125.0								
ROCIO3	18.41	1.84	16.57	Spherical	80	73	4	64.2	58.0	125.0								
ROCIO4	13.34	1.33	12.01	Spherical	80	73	4	64.2	58.0	125.0								
ROCIO5	0.34	0.03	0.30	Spherical	80	73	4	64.2	58.0	125.0								
ROCIO6	0.18	0.02	0.16	Spherical	80	73	4	64.2	58.0	125.0								
SULFURO_M_HG	131.79	26.36	105.44	Spherical	67	40	4	73.0	257.6	8.1								
SULFURO_MAIN_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								
SULFURO_N_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								
SULFURO_O_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								
SULFURO_S_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								
SULFURO_T_HG	29.58	8.94	20.64	Spherical	40	30	3	73.0	257.0	31.8								
SULFURO_V_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								
SULFURO_W_HG	278.50	216.06	62.44	Spherical	40	24	1	77.2	250.8	16.0								

Table 14-44: Summary of silver variogram parameters, La Paloma Trend.

Domain	Variance	Nugget	Dip	Dip Azi.	Pitch	Structure 1					Structure 2				
						Sill	Structure	Major	Semi-major	Minor	Sill	Structure	Major	Semi-major	Minor
ESPERANZA	34.0	22.28	65	82	179	11.6	Spherical	40	30	1					
ESPERANZA1	34.0	5.10	65	82	138	15.3	Spherical	34	20	2.8	13.6	Spherical	80	50	3
ESPERANZA3	34.0	5.10	65	82	138	15.3	Spherical	34	20	2.8	13.6	Spherical	80	50	3
ESPERANZA4	34.0	5.10	65	82	138	15.3	Spherical	34	20	2.8	13.6	Spherical	80	50	3
ESPERANZA5	11.0	1.66	65	82	138	5.0	Spherical	34	20	2.8	4.4	Spherical	80	50	3
ROCIO1	42.5	12.76	64	58	125	14.9	Spherical	50	25	3	14.9	Spherical	70	60	3
ROCIO3	42.5	12.76	64	58	125	14.9	Spherical	50	25	3	14.9	Spherical	70	60	3
ROCIO4	42.5	12.76	64	58	125	14.9	Spherical	50	25	3	14.9	Spherical	70	60	3
ROCIO5	42.5	12.76	64	58	125	14.9	Spherical	50	25	3	14.9	Spherical	70	60	3
ROCIO6	42.5	12.76	64	58	125	14.9	Spherical	50	25	3	14.9	Spherical	70	60	3
SULFURO_M	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_MAIN	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_N	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_O	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_S	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_T	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_V	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3
SULFURO_W	6,109.7	610.97	73	257	8	1,221.9	Spherical	20	45	1	4,276.8	Spherical	70	70	3

14.4.7. Block Model

The La Paloma Trend wireframes were filled with blocks in Leapfrog Geo considering the octree sub-block model type. The parent cells measuring 3 m by 5 m by 5 m and the minimum sub-cell sizes of 0.375 m by 0.8375 m by 0.625 m. The block model setup is show in Table 14-45 and the description of block model output is provided in Table 14-31.

Table 14-45: Block Model Setup, La Paloma Trend

Parameter	X	Y	Z
Origin (m)	2,620,902	4,692,003	174
Block Size (m)	2.5	5	5
Min. Sub Block size (m)	0.5	1	1
Number of Blocks	244	220	83

Table 14-46: La Paloma Trend Block Model output

Variable	Description	Unit/Code
Ag	Silver grade estimated	ppm
Au	Gold grade estimated	g/t
DENSITY	Density interpolated	g/cm³
Class	Measured	1
	Indicated	2
	Inferred	3
	Potential	99
Mineral_Resources_FY24	Air	-
	Mined	-
	Pit_Shell	-
VOLUME	Block Volume	m³
TONNES	Calculated (VOLUME*DENSITY)	t metric
SULFURO_SYSTEM	Sulfuro Veins	-
	Esperanza Veins	-
	Rocio Veins	-

14.4.8. Grade Interpolation and Interpolation Strategy

Grades were interpolated into blocks on a parent cell basis using OK for gold and silver grades. Both variables, Au and Ag, were interpolated, and estimates were not density weighted. The search strategy for kriging directions were based on Leapfrog's dynamic anisotropy, which varies search ellipsoid orientations according to the trend of the mineralisation domain. The Table 14-47 presents the search criteria for gold estimates and Table 14-48 presented the silver estimates parameters.

Table 14-47: Search strategy for La Paloma Trend blocks. Gold parameters.

Domain	Search	Ellipsoid Ranges			Number of Samples		Drillhole Limit	Discretisation		
	Pass	Maximum	ntermediat	Minimum	Minimum	Maximum	Max Samples per Hole	x	y	z
AND_LG	Pass 1	20	20	2	8	16	2			
AND_LG	Pass 2	40	40	4	4	16	2			
AND_LG	Pass 3	100	100	8	2	16				
ESPERANZA1	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA1	Pass 2	30	30	4	3	20	2	2	5	5
ESPERANZA1	Pass 3	60	60	6	2	20		2	5	5
ESPERANZA3	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA3	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA3	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA4	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA4	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA4	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA5	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA5	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA5	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA_RAMAL	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA_RAMAL	Pass 2	40	40	4	3	16	2	2	5	5
ESPERANZA_RAMAL	Pass 3	100	100	6	2	16		2	5	5
ROCIO1	Pass 1	20	20	2	5	8	2	2	5	5
ROCIO1	Pass 2	40	40	4	3	8	2	2	5	5
ROCIO1	Pass 3	100	100	6	2	8		2	5	5
ROCIO3	Pass 1	20	20	2	5	8	2	2	5	5
ROCIO3	Pass 2	40	40	4	3	8	2	2	5	5
ROCIO3	Pass 3	100	100	6	2	8		2	5	5
ROCIO4	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO4	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO4	Pass 3	100	100	6	2	20		2	5	5
ROCIO5	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO5	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO5	Pass 3	100	100	6	2	20		2	5	5
ROCIO6	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO6	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO6	Pass 3	100	100	6	2	20		2	5	5
SULFURO_MAIN_HG	Pass 1	20	20	2	5	12	2	2	5	5
SULFURO_MAIN_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_MAIN_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_M_HG	Pass 1	20	20	2	8	16	2	2	5	5
SULFURO_M_HG	Pass 2	40	40	4	4	16	2	2	5	5
SULFURO_M_HG	Pass 3	100	100	6	2	16		2	5	5
SULFURO_N_HG	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_N_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_N_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_O_HG	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_O_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_O_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_S_HG	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_S_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_S_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_T_HG	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_T_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_T_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_V_HG	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_V_HG	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_V_HG	Pass 3	100	100	8	2	20		2	5	5
SULFURO_W_HG	Pass 1	20	20	2	8	16	2	2	5	5
SULFURO_W_HG	Pass 2	40	40	4	4	16	2	2	5	5
SULFURO_W_HG	Pass 3	100	100	8	2	16		2	5	5

Table 14-48: Search strategy for La Paloma Trend blocks. Silver parameters.

Domain	Search Pass	Ellipsoid Ranges Maximum	Intermedia	Minimum	Number of Samples Minimum	Maximum	Drillhole Limit Max Samples per Hole	Discretisation x	y	z
AND_LG	Pass 1	20	20	2	8	20	2			
AND_LG	Pass 2	40	40	4	4	20	2			
AND_LG	Pass 3	100	100	8	2	20				
ESPERANZA	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA	Pass 2	40	40	4	3	12	2	2	5	5
ESPERANZA	Pass 3	100	100	6	2	12		2	5	5
ESPERANZA1	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA1	Pass 2	40	40	4	3	8	2	2	5	5
ESPERANZA1	Pass 3	100	100	6	2	8		2	5	5
ESPERANZA3	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA3	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA3	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA4	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA4	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA4	Pass 3	100	100	6	2	20		2	5	5
ESPERANZA5	Pass 1	20	20	2	5	12	2	2	5	5
ESPERANZA5	Pass 2	40	40	4	3	20	2	2	5	5
ESPERANZA5	Pass 3	100	100	6	2	20		2	5	5
ROCIO1	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO1	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO1	Pass 3	100	100	6	2	20		2	5	5
ROCIO3	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO3	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO3	Pass 3	100	100	6	2	20		2	5	5
ROCIO4	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO4	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO4	Pass 3	100	100	6	2	20		2	5	5
ROCIO5	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO5	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO5	Pass 3	100	100	6	2	20		2	5	5
ROCIO6	Pass 1	20	20	2	5	20	2	2	5	5
ROCIO6	Pass 2	40	40	4	3	20	2	2	5	5
ROCIO6	Pass 3	100	100	6	2	20		2	5	5
SULFURO_MAIN	Pass 1	20	20	2	8	16	2	2	5	5
SULFURO_MAIN	Pass 2	40	40	4	4	16	2	2	5	5
SULFURO_MAIN	Pass 3	100	100	8	2	16	2	2	5	5
SULFURO_T	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_T	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_T	Pass 3	100	100	8	2	20	2	2	5	5
SULFURO_M	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_M	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_M	Pass 3	100	100	8	2	20	2	2	5	5
SULFURO_W	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_W	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_W	Pass 3	100	100	8	2	20	2	2	5	5
SULFURO_O	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_O	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_O	Pass 3	100	100	8	2	20	2	2	5	5
SULFURO_N	Pass 1	20	20	2	8	20	2	2	5	5
SULFURO_N	Pass 2	40	40	4	4	20	2	2	5	5
SULFURO_N	Pass 3	100	100	8	2	20	2	2	5	5
SULFURO_S	Pass 1	20	20	2	8	16	2	2	5	5
SULFURO_S	Pass 2	40	40	4	4	16	2	2	5	5
SULFURO_S	Pass 3	100	100	8	2	16	2	2	5	5
SULFURO_V	Pass 1	20	20	2	8	16	2	2	5	5
SULFURO_V	Pass 2	40	40	4	4	16	2	2	5	5
SULFURO_V	Pass 3	100	100	8	2	16	2	2	5	5

14.4.9. Bulk Density

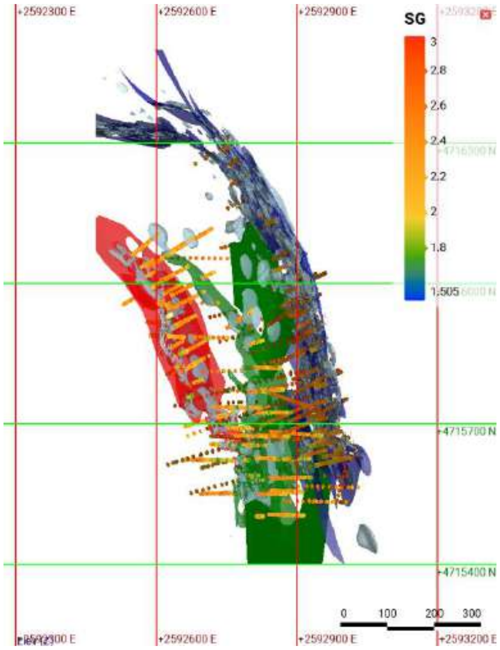
The La Paloma Trend deposit has 3,902 density determination inside mineralised domains. A summary of the density measurements taken by geological domains is presented in Table 14-49 and Figure 14.44 shows the density sample location.

Blocks were interpolated in domains considering ID² one range pass of 100m x 100m x 20m oriented according to veins orientation (dynamic anisotropy). A minimum of 2 samples and a maximum of 20 were used with no limited samples per drillhole.

Table 14-49: Statistics for density values in mineralised domains, La Paloma Trend.

Domain	count	mean	std	cv	min	0.25	0.50	0.75	max
ESPERANZA	7	2.31	0.25	0.11	1.97	2.08	2.39	2.52	2.65
ESPERANZA2	3	2.30	0.22	0.09	2.07	2.21	2.21	2.50	2.50
MIN_ZONE	112	2.50	0.28	0.11	1.79	2.50	2.57	2.63	3.06
MIN_ZONE_M	21	2.62	0.22	0.08	2.14	2.47	2.58	2.76	3.04
MIN_ZONE_N	0								
MIN_ZONE_O	1	2.54	-	-	2.54	2.54	2.54	2.54	2.54
MIN_ZONE_S	0								
MIN_ZONE_V	0								
MIN_ZONE_W	12	2.57	0.20	0.08	2.23	2.54	2.60	2.66	2.89
MINI_ZONE_T	6	2.52	0.06	0.02	2.45	2.49	2.50	2.58	2.59
RAMAL_ESPERANZA	16	2.37	0.26	0.11	1.79	2.26	2.41	2.48	3.04
RE1	3	2.41	0.14	0.06	2.28	2.28	2.47	2.54	2.54
REF	3	2.50	0.18	0.07	2.33	2.33	2.50	2.68	2.68
ROCIO	23	2.52	0.15	0.06	2.19	2.40	2.55	2.60	2.84
ROCIO1	42	2.45	0.24	0.10	2.09	2.30	2.41	2.57	3.15
ROCIO2	5	2.69	0.27	0.10	2.47	2.51	2.61	2.71	3.10
ROCIO3	40	2.37	0.17	0.07	2.05	2.28	2.33	2.41	2.99
ROCIO4	5	2.39	0.20	0.09	2.12	2.31	2.36	2.43	2.77
ROCIO5	0								
AND_LG	467	2.44	0.24	0.10	1.54	2.31	2.50	2.61	3.20

Figure 14.44: Density sample distributions, La Paloma Trend.



14.4.10. Validation

GeoEstima carried out several block model validation procedures including:

- Comparison between OK, NN, and composite mean grades (Table 14-50).
- Swath plots (Figure 14.45 and Figure 14.46).
- Visual validation comparing the estimated block grades to the composite data.

It is observed that for the main veins, the verified bias is within the acceptable limits of ± 5%. However, for the thinner veins with fewer samples, the bias shows higher values, especially in the veins with lower average grade (RE1, ROCIO 2, RAMAL ESPERANZA). Since the majority of the veins are under lower confidence categories (Inferred Resources), GeoEstima considers this bias acceptable at this stage of the work.

Table 14-50: Au global mean validation, La Paloma Trend

SULFURO_SYSTEM	Au		Au_NN_5m		Validation
	count	mean	count	mean	Bias (%)
AND_LG	1,855,676	0.48	1,855,676	0.47	2.50
ESPERANZA	30,970	4.87	30,970	5.17	-5.70
ESPERANZA2	7,754	0.70	7,754	0.72	-3.06
MINI_ZONE_T	45,633	3.87	45,633	4.11	-5.82
MIN_ZONE	419,816	6.42	419,816	6.75	-4.87
MIN_ZONE_M	90,059	2.81	90,059	2.89	-2.83
MIN_ZONE_N	11,121	2.25	11,121	2.35	-4.50
MIN_ZONE_O	1,937	2.05	1,937	2.11	-2.79
MIN_ZONE_S	8,991	1.74	8,991	1.73	0.37
MIN_ZONE_V	38,894	2.39	38,894	2.30	3.86
RAMAL_ESPERANZA	11,742	2.69	11,742	2.93	-8.36
RE1	902	1.47	902	1.67	-12.00
ROCIO	25,782	3.97	25,782	4.13	-4.01
ROCIO1	70,530	3.28	70,530	3.44	-4.50
ROCIO2	4,285	1.17	4,285	1.06	9.66
ROCIO3	77,707	2.82	77,707	2.92	-3.59
ROCIO4	3,501	2.85	3,501	2.95	-3.56
ROCIO5	6,227	0.22	6,227	0.23	-3.74

Figure 14.45: Swath Plot for Au grades in main mineralized domain (MIN_ZONE). Only Measured and Indicated Resources.

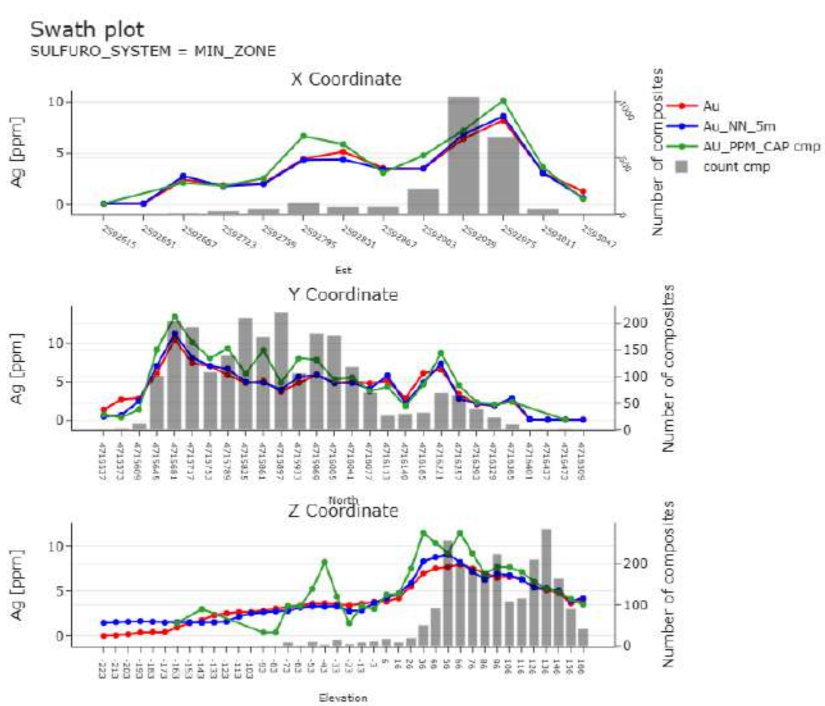
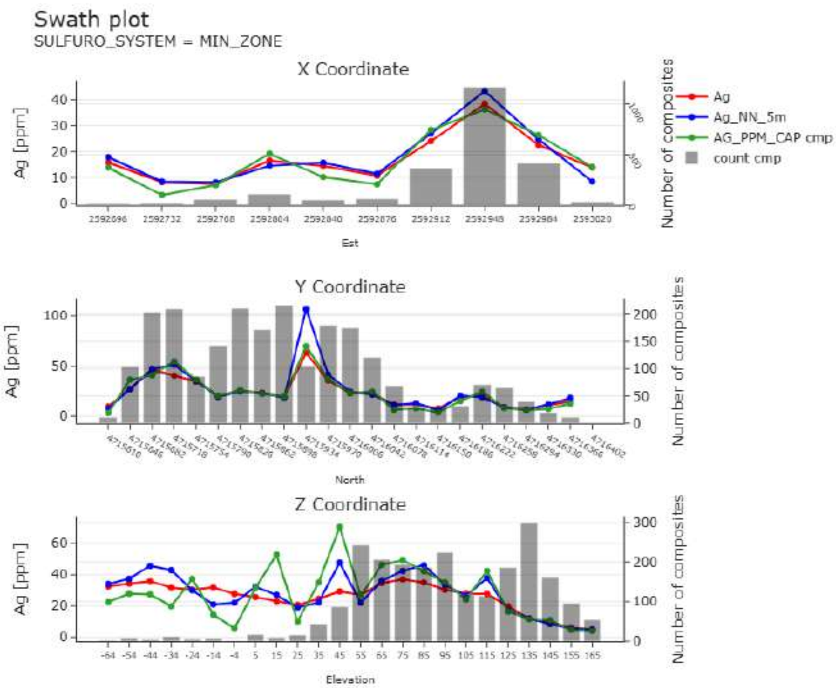


Figure 14.46: Swath Plot for Ag grades in main mineralized domain (MIN_ZONE). Only Measured and Indicated Resources.



14.4.11. Classification

Blocks were classified based on the following criteria:

- Confidence in modelling of mineralisation and rock type domains.
- Drill hole spacing studies related to confidence in estimating grade.
- Visual assessments of the geometries of mineralised domain in relation to drill hole spacing.
- Production experience in the deposit.

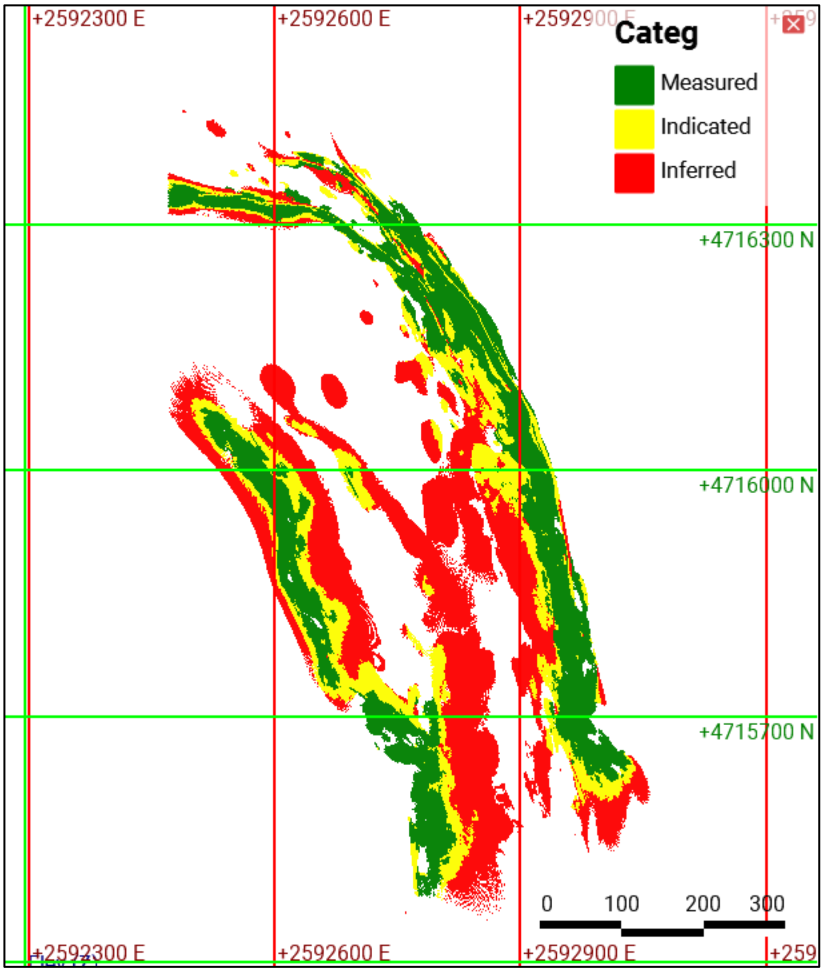
Based on the criteria listed above, Mineral Resource classification mineralised domains is based on the number of drill holes and distances determined by drilling grid spacing:

- Measured: drilling spacing ≤ 25m (DH = 4);
- Indicated: 25m < drilling spacing ≤ 40m (DH = 4);
- Inferred: 40m < drilling spacing ≤ 150m (DH ≥ 4).

Flagging of the blocks by drill hole distances was performed by using a search pass with dimensions and parameters that included the average Euclidean distance to sample. A post processing of the classification was performed to remove isolated small patches and irregular shapes, yielding more realistic shapes from a mining perspective. The shows a plan view of the final model classification.

GeoEstima is of the opinion that the definitions for resource categories used in this report are consistent with those defined by CIM (2014) and incorporated by reference into NI 43-101.

Figure 14.47: Classification Plan view ,La Paloma Trend.



14.4.12. Reasonable Prospects of Eventual Economic Extraction

A cut-off grade of 1.95 g/t Au is used for reporting of the of the current Mineral Resources at the La Paloma Trend deposit. Only those Mineral Resources that displayed spatial continuity were reported within a potentially mineable shape created in stope optmizer software. Constraining volumes (potentially mineable shapes) for the reporting of Mineral Resources were created using data from Cerrado's underground project. The parameters used for underground mining shapes is presented in *Table 14-51*.

Table 14-51: Underground parameters for La Paloma Trend

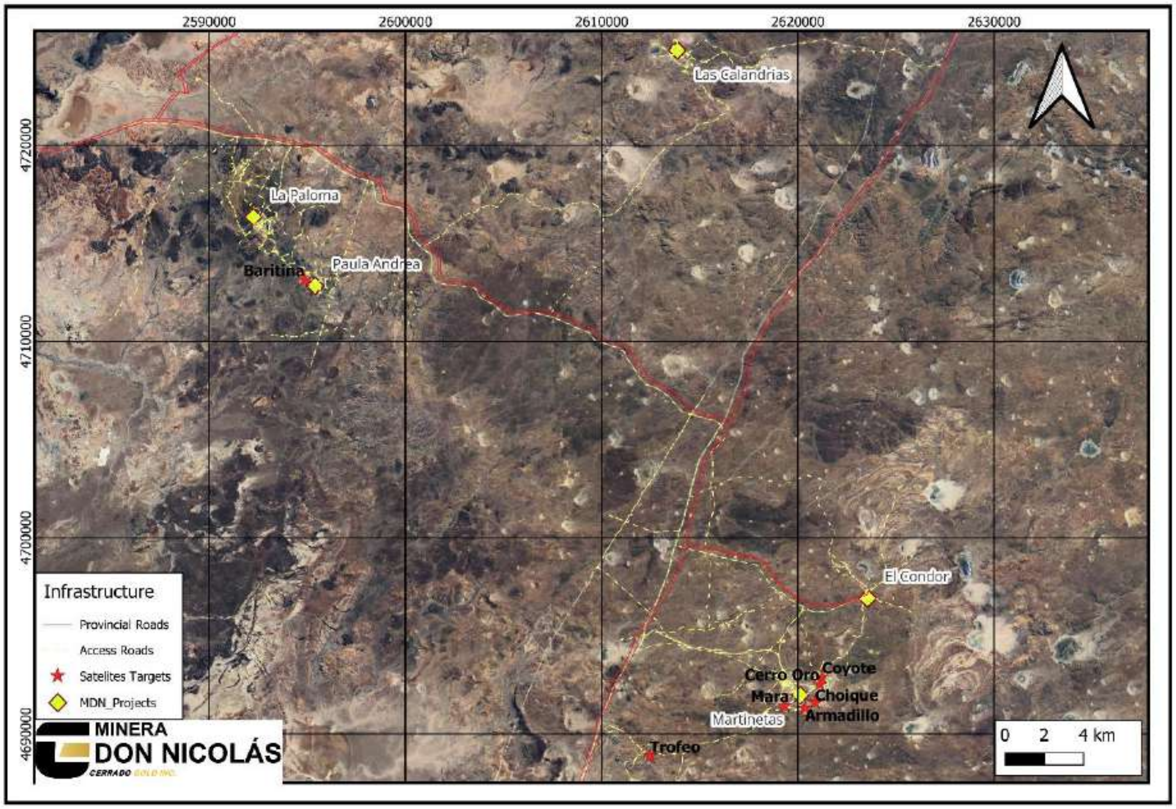
Description	Unit	Value
Mining		
Ore Mining Cost	US$/t	40.0
Processing		
Processing Cost	US$/t	45.0
General and Administration Cost	US$/t	3.3
Processing Recovery	%	90.0
Hauling	US$/t	10.0
Economics		
Gold Price	US$/oz	2100.0
Refining And Selling Cost	US$/oz	230.0
Effective Selling Price	US$/oz	1870.0
Mining		
Method	Long Hole Stoping	
Verical distance between drifts	m	15.0
Long Holes depth	m	12.0

14.5. Satellites

As outlined throughout this document, the MDN land package in Argentia is quite large with many known smaller deposits occurring near known, larger bodies. These can be economic depending on grade, composition and proximity to surface – however, currently most are in early to mid-stage exploration and their contribution to the current inventory is relatively minor. In the near future, however, Cerrado will be exploring opportunities for upgrading and exploiting many of these depending on the current mine production needs and exploration pipeline to help refresh the LOM.

The satellite deposits currently cover two main areas (Figure 14.48) on property, including:

Figure 14.48: Satelite targets location map.



1) **Martinetas – Microondas Area** – Armadillo, Cerro Oro, Choique, Coyote, Trofeo and Mara.
2) **Paula Andrea Block** – Baritina and Chulengo.

The original resource estimations for these deposits were produced by Gillies Arsenault of SRK (2020). This report contains only a high-level summary of the afore-mentioned mineral resource domaining and estimation strategy, with only minor adjustments made by MDN staff in the interim being documented herein. The satellite deposit included in this section have undergone mining since Cerrado acquired the MDN property in 2020 and the resources presented here represent the depleted portion with a new effective day relative to the original SRK (2020) MRE.

It is important point out that tables presented in this sub-section was originaly complete in now-defunct GEMS 5.1 software. As such, many of the rotation and coordinate descriptions are in said format and need conversation to the readers package for analysis as required.

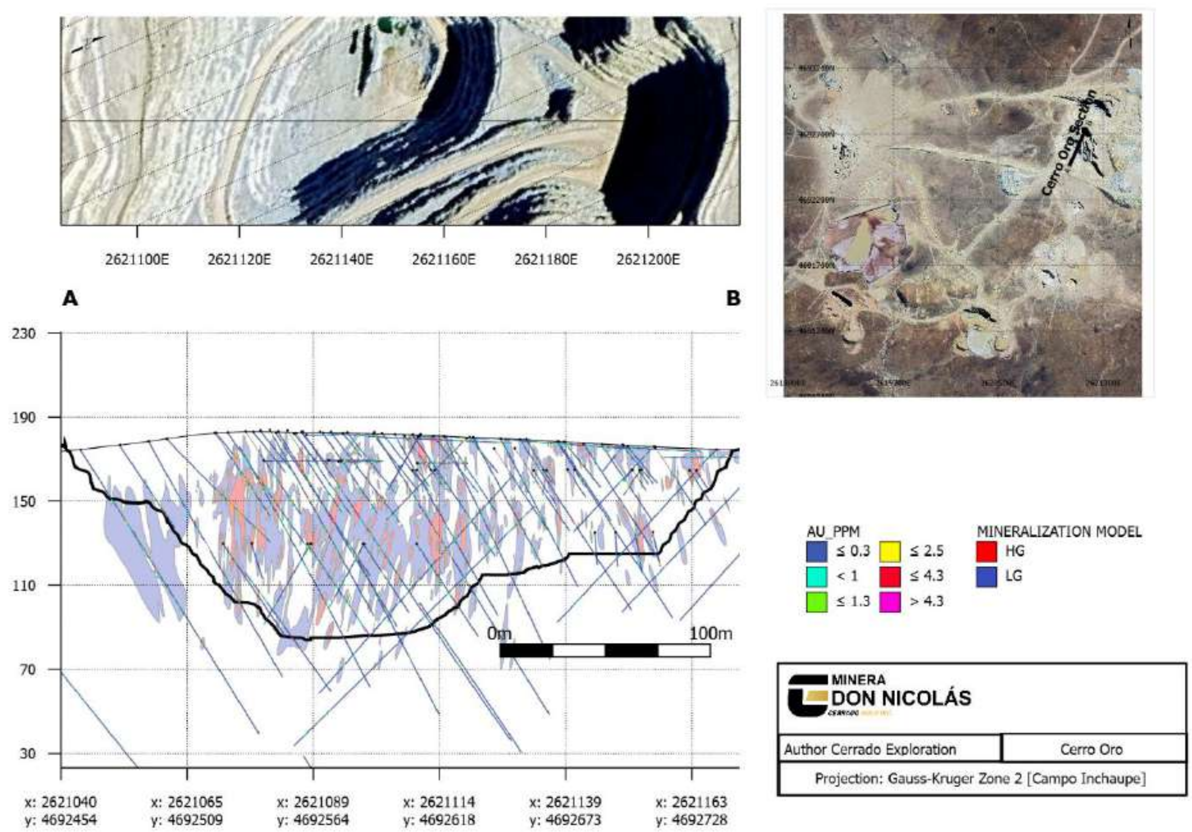
14.5.1. Resource Database

The MDN resource database contains diamond drill data, reverse circulation drill data and trench chip data. Information was gathered by various operators from 1994 to 2020.

The information collected defined mineral resources in 6 discrete areas over Martinetas and Paula Andreas.

The database used to estimate the MDN Project mineral resources was reviewed and audited by SRK on August 31, 2020. Since that date the database in Martinetas increased by 30%. Most of the new drilling was RC performed for ore control proposes with a minimum of investment in exploratory drilling. The new data (collected September 1, 2020, to 1 April, 2024) was incorporate to the previous database validated by SRK (2020) to support the MRE for those targets.

Figure 14.49: Cerro Oro Cross Section.



14.5.2. Geological Interpretation

The satellite deposits include different styles within the Epithermal clan. Including low-sulfidation Au-Ag and intermediate Au-Ag deposit hosted in acidic and intermediate sequences assigned to the Chon Aike Formation. The Martinetas district, where most of the Satellites Deposits are located covers 1.9 km by 2 km and includes six targets: Mara, Zorro, Armadillo, Choique, Cerro Oro and Coyote). The mineralisation consists of Low sulphidation quartz vein systems and veinlets. The ore minerals include gold, silver, and electrum, associated with iron oxide aggregates. The epithermal veins have dominant NW to WNW trends and subvertical to vertical dips. The emplacement of these structures is related to a regional NNE-oriented extensional event. Trofeo is part of the Microondas district (located

8 km to the southeast of Martinetas) , mineralisation is hosted by the Chon Aike formation and is associated to rhyolitic dome margins, forming continuous stockworks and breccia bodies along permissive NE structures.

Baritina and Baritina NE are in the Paloma District southern block (also known as Paula Andrea) and represent intermediate and possible high sulphidation epithermal styles associated to veinlets and hydrothermal breccias.

The mineralisation wireframes for the MDN satellites were generated via implicit modelling using Leapfrog Geo 5.1 and over time updated into Leapfrog Edge 2023.1. Where appropriate, low grade (AU > 0.3 g/t) and high-grade (AU > 1.3 g/t) regions were modeled and estimated separately to control grade distribution and smearing. As well, these thresholds align with the two-circuit cut off grades for gold recovery on site (CIL and heap leach being the HG and LG circuits for extraction).

Wireframes were generated by Cerrado and verified by SRK (2020) and GeoEstima (2024). There is no modification at the parameters used to generate the wireframes since the 2020 Mineral Resources Statement by SRK, only the new data (Channels, Diamond Drilling and RC drilling) were added to the database and to update at the same workflow the modeling and estimation. Recommendations for modifications by both bodies were considered and applied where applicable. These are believed to be the most accurate and current representations of the local geology produced to date on the satellite deposits

The mineralisation wireframes for the MDN satellites were generated via implicit modelling using Leapfrog Geo 5.1 and over time updated into Leapfrog Edge 2023.1. Where appropriate, low grade (AU > 0.3 g/t) and high-grade (AU > 1.3 g/t) regions were modeled and estimated separately to control grade distribution and smearing. As well, these thresholds align with the two-circuit cut off grades for gold recovery on site (CIL and heap leach being the HG and LG circuits for extraction).

Wireframes were generated by Cerrado and verified by SRK (2020) and GeoEstima (2024). Recommendations for modifications by both groups were considered and applied where applicable. These are believed to be the most accurate and current representations of the local geology produced to date on the satellite deposits

14.5.3. Exploratory Data Analysis

Exploratory Data analysis was conducted on the informing data for each deposit (Table 14-52 and Table 14-53).

Table 14-52: Raw Au ppm assay statistics by mineralised domain for Satellites Deposits.

Domain		Count	Mean	std	Min	0.250	0.500	0.750	Max	cv
Armadillo	All	2,255	2.59	12.14	0.01	0.39	0.65	1.37	292.72	4.69
	HG	686	7.64	21.95	0.04	1.60	2.58	5.56	292.72	2.87
	LG	1,569	0.57	0.33	0.01	0.35	0.50	0.76	3.70	0.58
Choique	All	2,425	1.50	3.39	0.01	0.40	0.66	1.41	62.60	2.25
	HG	699	3.80	5.70	0.02	1.59	2.27	3.89	62.60	1.50
	LG	1,726	0.58	0.35	0.01	0.35	0.49	0.76	4.09	0.59
Cerro Oro	All	22,175	1.94	9.44	0.00	0.37	0.65	1.53	996.54	4.87
	HG	6,488	5.06	15.66	0.01	1.65	2.47	4.52	996.54	3.09
	LG	15,687	0.67	4.49	0.00	0.34	0.48	0.76	878.32	6.67
Coyote	All	10,108	3.52	34.63	0.01	0.32	0.61	1.61	2,773.67	9.85
	HG	4,200	8.07	54.78	0.01	0.79	2.08	4.86	2,773.67	6.79
	LG	5,908	0.54	0.80	0.01	0.28	0.43	0.71	39.50	1.47
Mara	All	682	2.11	7.47	0.01	0.35	0.59	1.24	126.58	3.54
	HG	197	6.52	13.79	0.01	1.48	2.75	5.27	126.58	2.12
	LG	485	0.57	0.39	0.01	0.33	0.48	0.75	2.67	0.69
Baritina	Core	1,030	8.89	35.77	0.01	0.50	1.06	3.21	567.83	4.03
	Diatrema	2,215	0.30	5.68	0.01	0.01	0.04	0.11	235.50	19.06
	Country Rock	2,422	0.13	2.38	0.01	0.01	0.01	0.04	108.66	17.79
Britina NE	Vein	275	0.92	1.74	0.01	0.02	0.17	0.88	9.35	1.89
	Country Rock	4,446	0.06	1.17	0.01	0.01	0.01	0.02	74.67	20.49
Trofeo	VBx1	26	0.52	0.66	0.01	0.04	0.23	0.84	2.51	1.27
	VBx1a	12	0.44	0.38	0.01	0.02	0.53	0.70	1.22	0.86
	VBx2	15	0.22	0.29	0.01	0.01	0.05	0.37	1.12	1.31
	VBx3	63	0.76	1.81	0.01	0.06	0.42	0.91	22.20	2.38
	VBx4	121	1.61	2.75	0.01	0.25	0.67	1.25	16.34	1.71
	VBx4a	117	1.02	2.27	0.01	0.09	0.44	0.89	17.75	2.22
	VBx4b	48	1.94	3.80	0.03	0.16	0.46	1.18	17.75	1.96
	VBx5	45	0.57	0.53	0.01	0.10	0.42	0.79	2.14	0.92
	VBx6	17	0.93	1.35	0.19	0.31	0.62	0.91	6.39	1.45
	VBx2a	9	0.83	0.63	0.08	0.32	0.59	1.10	1.88	0.76
	VBx7	9	0.63	0.55	0.16	0.23	0.56	0.80	1.80	0.88
	LG	471	0.14	0.24	0.01	0.02	0.06	0.18	4.96	1.75
	RhyCp_Mbx	1,108	0.13	0.20	0.01	0.02	0.06	0.16	1.77	1.51
	Unknown	5,529	0.05	0.09	0.01	0.01	0.02	0.05	1.82	1.99
	VBx 3a	31	0.93	1.12	0.01	0.35	0.63	1.09	5.00	1.20
	VBx 3b	33	0.80	0.71	0.03	0.34	0.53	0.96	4.07	0.88
	VBx 8	3	2.98	2.47	0.63	0.63	4.66	4.66	4.66	0.83
	VBx4c	18	0.39	0.51	0.02	0.07	0.23	0.37	2.00	1.30

Table 14-53: Raw Ag assay statistics by mineralised domain for Satellites Deposits.

Domain		Count	Mean	std	Min	0.25	0.5	0.75	Max	cv
Armadillo	All	2,248	5.16	28.00	0.10	1.00	2.20	4.30	1,219.61	5.42
	HG	682	11.85	51.72	0.10	2.00	4.40	8.80	1,219.61	4.36
	LG	1,566	2.50	2.93	0.10	1.00	1.60	3.20	47.20	1.17
Choique	All	2,401	23.77	45.89	0.10	3.12	9.84	25.30	727.53	1.93
	HG	694	40.55	65.83	0.10	7.28	19.63	46.37	727.53	1.62
	LG	1,707	17.03	32.47	0.10	2.50	7.33	18.27	612.53	1.91
Cerro Oro	All	22,012	5.42	14.36	0.00	1.00	1.90	4.74	586.74	2.65
	HG	6,448	10.72	23.64	0.00	1.00	4.00	10.66	586.74	2.20
	LG	15,564	3.26	6.88	0.00	1.00	1.00	3.30	290.00	2.11
Coyote	All	10,083	7.20	28.75	0.10	1.00	2.30	5.40	1,790.00	3.99
	HG	4,194	13.18	44.35	0.10	1.20	3.88	10.51	1,790.00	3.36
	LG	5,889	3.29	6.50	0.10	1.00	1.30	3.31	213.57	1.98
Mara	All	555	4.34	11.89	0.10	1.00	2.24	4.51	210.01	2.74
	HG	173	8.02	21.07	0.25	1.00	3.98	8.26	210.01	2.63
	LG	382	2.90	4.04	0.10	1.00	1.00	3.50	44.92	1.39
Baritina	Core	1,030	4.02	16.71	0.13	0.25	1.00	2.74	323.62	4.16
	Diatrema	2,215	1.16	4.03	0.13	0.25	1.00	1.00	162.10	3.46
	Country Rock	2,422	0.52	1.07	0.13	0.13	0.25	0.70	28.91	2.06
Britina NE	Vein	275	2.66	5.13	0.13	0.50	1.00	2.82	47.11	1.93
	Country Rock	4,446	0.81	1.88	0.13	0.25	0.25	1.00	66.95	2.33
Trofeo	VBx1	13	1.96	2.05	0.25	0.80	1.20	2.00	8.00	1.05
	VBx1a	9	1.47	0.89	0.25	0.70	1.60	2.60	2.60	0.61
	VBx2	14	1.81	2.20	0.25	0.80	1.00	1.60	7.20	1.22
	VBx3	42	2.74	2.75	0.25	0.80	1.80	4.10	19.00	1.00
	VBx4	105	3.80	4.71	0.30	1.00	2.09	4.20	25.10	1.24
	VBx4a	87	3.04	5.94	0.10	0.90	1.60	3.10	49.60	1.95
	VBx4b	41	3.61	4.28	0.40	1.00	2.20	4.10	19.00	1.19
	VBx5	37	1.33	1.09	0.25	0.60	1.00	1.70	4.30	0.82
	VBx6	11	3.90	3.51	0.70	1.30	2.60	4.40	12.50	0.90
	VBx2a	8	6.02	7.21	0.80	1.00	2.80	7.00	20.80	1.20
	VBx7	7	2.32	0.70	1.40	1.50	2.50	2.70	3.30	0.30
	LG	381	1.12	1.51	0.25	0.50	0.70	1.20	13.60	1.35
	RhyCp_Mbx	858	1.51	1.84	0.10	0.60	1.00	1.60	19.20	1.22
	Unknown	4,375	0.96	1.19	0.05	0.50	0.80	1.00	38.00	1.24
	VBx 3a	26	2.97	2.33	1.00	1.60	2.20	3.00	8.22	0.79
	VBx 3b	13	3.17	3.27	0.90	1.70	2.20	2.80	17.00	1.03
	VBx 8	2	4.07	4.10	0.20	0.20	6.00	6.00	6.00	1.01
	VBx4c	15	1.15	0.53	0.60	1.00	1.00	1.10	2.60	0.46

Table 14-54: Raw sample length m statistics by mineralised domain for Satellites Deposits

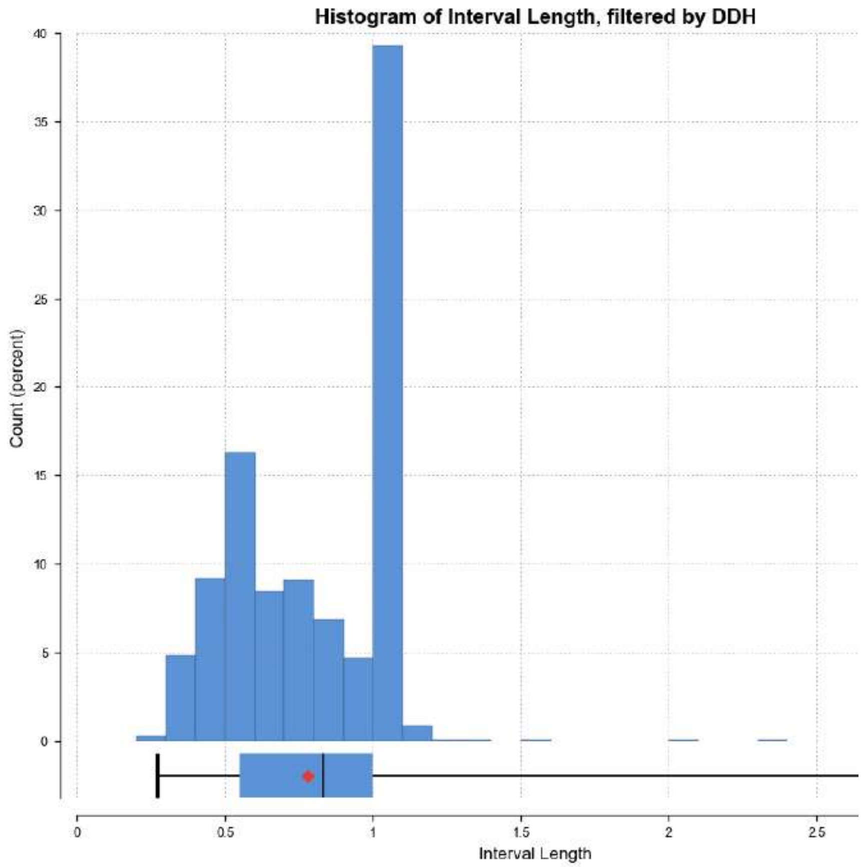
Domain		Count	Mean	std	Min	0.25	0.5	0.75	Max	cv
Armadillo	All	2,255	0.85	0.34	0.40	0.50	1.00	1.00	2.30	0.40
	HG	686	0.80	0.33	0.40	0.50	0.70	1.00	2.20	0.42
	LG	1,569	0.87	0.34	0.40	0.50	1.00	1.00	2.30	0.39
Choique	All	2,425	0.86	0.28	0.40	0.50	1.00	1.00	2.00	0.32
	HG	699	0.86	0.28	0.40	0.50	1.00	1.00	1.50	0.32
	LG	1,726	0.87	0.28	0.40	0.50	1.00	1.00	2.00	0.32
Cerro Oro	All	22,175	0.80	0.40	0.25	0.50	1.00	1.00	13.72	0.50
	HG	6,488	0.79	0.37	0.30	0.50	1.00	1.00	5.50	0.47
	LG	15,687	0.81	0.41	0.25	0.50	1.00	1.00	13.72	0.51
Coyote	All	10,108	0.73	0.29	0.05	0.50	0.50	1.00	5.00	0.39
	HG	4,200	0.70	0.29	0.40	0.50	0.50	1.00	5.00	0.41
	LG	5,908	0.76	0.29	0.05	0.50	0.70	1.00	5.00	0.38
Mara	All	682	0.74	0.28	0.30	0.50	0.60	1.00	2.00	0.38
	HG	197	0.66	0.26	0.30	0.50	0.50	0.90	2.00	0.39
	LG	485	0.77	0.28	0.30	0.50	0.80	1.00	2.00	0.37
Baritina	Core	1,030	0.99	0.26	0.35	1.00	1.00	1.00	3.60	0.26
	Diatrema	2,215	0.98	0.19	0.35	1.00	1.00	1.00	3.00	0.20
	Country Rock	2,422	0.99	0.21	0.40	1.00	1.00	1.00	2.40	0.21
Baritina NE	Vein	275	0.95	0.13	0.40	1.00	1.00	1.00	1.30	0.13
	Country Rock	4,446	0.98	0.09	0.40	1.00	1.00	1.00	2.00	0.09
Trofeo	VBx1	26	1.46	0.56	0.60	1.00	1.00	2.00	2.00	0.39
	VBx1a	12	1.40	0.64	0.55	0.80	1.00	2.00	2.00	0.46
	VBx2	15	1.16	0.55	0.55	0.75	1.00	2.00	2.00	0.48
	VBx3	63	1.12	0.64	0.30	0.50	1.00	2.00	2.00	0.57
	VBx4	121	1.07	0.53	0.31	0.70	1.00	1.00	2.00	0.50
	VBx4a	117	0.89	0.45	0.40	0.55	0.80	1.00	2.00	0.50
	VBx4b	48	0.76	0.51	0.30	0.45	0.55	0.79	2.00	0.67
	VBx5	45	1.15	0.52	0.27	0.85	1.00	1.10	2.00	0.46
	VBx6	17	0.86	0.66	0.33	0.46	0.55	0.70	2.00	0.77
	VBx2a	9	1.57	0.55	0.70	1.00	2.00	2.00	2.00	0.35
	VBx7	9	1.59	0.64	0.37	1.00	2.00	2.00	2.00	0.41
	LG	471	1.39	0.63	0.36	0.85	2.00	2.00	2.00	0.45
	RhyCp_Mbx	1,108	1.16	0.62	0.30	0.60	1.00	2.00	2.00	0.53
	Unknown	5,530	1.30	0.57	0.30	1.00	1.00	2.00	3.10	0.44
	VBx 3a	31	0.89	0.51	0.30	0.49	1.00	1.00	2.00	0.57
	VBx 3b	33	0.78	0.46	0.30	0.46	0.64	1.00	2.00	0.59
	VBx 8	3	1.20	0.73	0.59	0.59	1.00	2.00	2.00	0.61
	VBx4c	18	0.82	0.25	0.40	0.50	1.00	1.00	1.00	0.31

14.5.4. Compositing

Compositing is necessary to ensure that all assays are represented by the same theoretical core mass where interpolations are being calculated – without such an adjustment a 10cm sample would receive the same weight as a 10m sample. This would not be correct as a linear average between the two would not correctly represent the true mean – they must first be weighted by length via compositing to achieve the correct interpolation.

All informing data samples were composited within the same geology to 1m lengths. This was done by analyzing a histogram for all sample lengths on each deposit separately, though it is general MDN policy to sample to as near to 1m while honoring the local geological contacts. An example of a histogram used to determine the composite length is shows in Figure 14.50.

Figure 14.50: Histogram of Assay Lengths, Trofeo.



14.5.5. Outlier Control

Outliers in data values were controlled in various ways, through:

1) **Data treatment** – composting and checking low and high outliers. Low grade outlier examination is more important on the SG but at times below detection or negative values in the Au or Ag may be incorrectly transcribed. These are all set to ½ detection and used in the estimation (unless otherwise noted).
2) **Domaining** – separating LG and HG areas so no data is carried into inappropriate space.
3) **Capping** – Where applicable, both bottom and top cuts to the grade were made using cumulative probability plots and analyzing the results, along with comparing various values for impacts on the final estimation via sensitivity studies.

4) **Range restrictions** – the estimation ranges were restricted more to more locally reflect local measured assays and reduce outlier impacts.
5) **Octant and sector searches** – these were examined and abandoned. The veins are too narrow for this to have any effect, and the data is subdomain correctly already between LG ore and HG vein material.

The cap values used by deposit outlined in Table 14-55. Compositing was done to all samples prior to capping.

Table 14-55: MDN 2024 Parameters.

Deposit	Cap Level Au (g/t)	Number Capped
Armadillo (LG/HG)	60	10
Baritina + BN (Core, Diatreme, CR)	230/9/10	3/5/3
Cerro Oro (LG/HG)	5/30	80/68
Choique (LG/HG)	15/20	3/17
Coyote (LG/HG)	10/80	3/35
Mara (LG/HG)	1.3/15	3/11
Trofeo	10 (Zone 1). 9 in others	-
Deposit	**Comments**	
Armadillo	Same cap as 2020	
Baritina + BN	The new caps are summarise by new domains more restrictive to HG samples	
Cerro Oro	New LG Cap at lower value	
Choique	New LG Cap Applied	
Coyote	LG and HG Cap's applied seperatly	
Mara	New LG Cap at a lower value. HG is the same as 2020	
Trofeo	Cap applied summarised by ZONE – values are in line with SRK 2020	

Table 14-56: Changes (if any) from 2020 to 2024 block model estimation

Deposit	Comments
Armadillo	Same cap as 2020.
Baritina + B NE	The new caps are supperted by new domains more restrictive to HG samples.
Cerro Oro	New LG Cap at a lower value.
Choique	New LG Cap Applied.
Coyote	LG and HG Cap's applied seperatly.
Mara	New LG Cap at a lower value. HG is the same as 2020.
Trofeo	Cap applied seperatly by ZONE - values are in line with SRK 2020.

14.5.6. Variography

The original experimental variograms for the deposit and model were generated using Leapfrog Geo and verified in Sage2001. Subsequent model updates since the 2020 report have been done exclusively in LeapFrog.

Variogram models for the high-grade portion of the summarised zones are summarised below in Table 14-57. Variogram model rotations were based on the general attitude of the summarised zones. The nugget effects (that is, gold variability at very close distance) were established from down hole variograms for each of the summarised zones using normalized data. The nugget values range from 5% to 35%, averaging around 20% of the total sill. Note that the sill represents the grade variability at a distance beyond which there is no correlation in grade.

Baritina, Chulengo and Choique all were moved to IPD3. Cubed was chosen as it is quite nuggety and values representing more local samples were to be favored over those some distance away. All others used Kriging, as per SRK, 2020. The variograms are described in Table 14-56.

Table 14-57: MDN 2024 Variogram Parameters

Model		Nugget C0	Rotation ***			SillC1	Structure	Ranges (m)			Sill C2	Structure	Ranges (m)		
			Dip	Dip Azi	Pitch			Maj	SM	Minor			Maj	SM	Minor
Armadillo	LG	0.35	70	16	145	0.50	Spherical	20	2.5	2.8	0.15	Spherical	24	15	4
	HG	0.1	70	16	145	0.90	Spherical	20	16	2	-	-	-	-	-
Baritina	CORE	0.2	87	290	21.5	0.55	Spherical	10	7	6	0.25	Spherical	25	20	12
Cerro Oro	LG	0.1	85	224	145	0.50	Spherical	15	8	2.5	0.40	Spherical	30	9.6	3
	HG	0.25	85	224	145	0.25	Spherical	20	16	6.5	0.50	Spherical	50	35	7.8
Choique	LG	0.4	89	197	53	0.60	Spherical	12	12	2	-	-	-	-	-
	HG	0.4	89	197	53	0.60	Spherical	15	14	5	-	-	-	-	-
Coyote	LG	0.1	85	224	145	0.50	Spherical	15	11	5	0.40	Spherical	45	15	5.5
	HG	0.25	85	224	145	0.40	Spherical	25	7	3	0.35	Spherical	40	20	5
Mara	LG	0.3	86	41	11	0.70	Spherical	18	16	1.8	-	-	-	-	-
	HG	0.3	86	41	11	0.70	Spherical	18	20	1.8	-	-	-	-	-
Trofeo	Rhy Cap	0	84	131	20	1.00	Spherical	110	64	21	-	-	-	-	-
	VBx1a	0.1	75	137	156	0.95	Spherical	290	180	59	-	-	-	-	-
	VBx2	0.1	85	97	21	0.95	Spherical	170	99	15	-	-	-	-	-
	VBx2a	0.1	80	140	0	0.95	Spherical	180	110	36	-	-	-	-	-
	VBx3	0.1	80	127	5	0.95	Spherical	120	75	25	-	-	-	-	-
	VBx4	0.1	88	131	5	0.95	Spherical	100	60	20	-	-	-	-	-
	VBx4a	0.1	79	126	157	0.95	Spherical	78	47	16	-	-	-	-	-
	VBx4b	0.1	77	133	5	0.95	Spherical	89	53	3	-	-	-	-	-
	VBx5	0.1	80	132	2	0.95	Spherical	140	86	29	-	-	-	-	-
	VBx6	0.1	73	128	23	0.95	Spherical	160	95	32	-	-	-	-	-
	VBx7	0.1	80	127	166	0.95	Spherical	200	120	40	-	-	-	-	-

* Appears the recorded strikes in SRK doc are in GEMS format, not LF. 1-1 comparison not perfect. All current SE orientations and ranges are following updated mineralisation trends observed on site.

** We have moved back from Kriging on deposits where the VGRAM's are not well behaved. ID3 adopted. All sills normalized too 1.0

*** LF Rotation Convention

Most changes to the variograms were the result of:

1) Reinterpreting or collecting data
2) Restricting ranges on domains to acquire a more local resolution
3) Introducing separate HG and LG domains, requiring slight modifications.

14.5.7. Grade Interpolation

Following the foundation laid through the resource work with SRK in 2020 MDN has continued to evolve the interpolation on site to more accurately reflect the *in-situ* Au and Ag grades and Oz. Mostly this method has remained unchanged with some modifications described herein.

Three sample types were used: diamond drill holes (DDH), reverse circulation drill holes (RC) and trench (TR) samples. All samples were interpolated at the same base for modelling and estimation; no weight was applied at calculations due to different sample support. However, as all samples were composited to the same support size – and assayed at the same labs – no relative weighting was required.

For some deposits, the method of interpolation has changed from Kriging to Inverse Power of Distance. This is because in some cases the variograms do not have enough informing data to make a defendable variogram, primarily due to the drilling grid for exploration being spaced larger than the probable existing statistical correlation between samples. This can be challenging in gold estimation in even the most ideal epithermal narrow-vein deposits as mineralisation correlations are often at a different scale relative to drilling.

A three-pass system was used for confidence, with all resources falling into the lowest level of confidence at the INFERRED level. The first pass did not exceed the maximum variogram range on the first pass, with passes growing less and less restrictive in the 2nd and 3rd run through.

The parameters used on all passes can be seen in Table 14-58. Some of the changes (by deposit) and reasons for estimation changes are listed in Table 14-56.

Table 14-58: MDN 2024 Parameters.

Model	Estimator *		Search Pass	Rotation			Search Radii			Number of Composites		Max Samples per DDH
		ZONE		Dip	Dip Azi	Pitch	Max	Inter	Min	Min	Max	
Armadillo	OK	LG	1	70	16	145	24	15	4	8	15	4
			2	70	16	145	24	15	2	4	15	2
			3	70	16	145	48	30	8	2	15	1
		HG	1	70	16	145	20	15	2	8	15	2
			2	70	16	145	24	15	2	4	15	2
			3	70	16	145	48	30	8	2	15	2
Baritina	IPD3		1	variable parallel to contact			10	10	5	4	12	3
		CORE	2				20	15	10	3	8	2
			3				40	25	15	3	8	1
			1	variable parallel to contact			10	10	5	4	12	3
		Diatrema	2				20	15	10	3	8	2
			3				40	25	15	3	8	1
			1	variable parallel to contact			10	10	5	4	12	3
		Country Rock	2				20	15	10	3	8	2
			3				40	25	15	3	8	1
Baritina NE	IPD3		1	variable parallel to contact			20	15	2	4	12	3
			2				40	25	4	3	8	2
			3				80	65	6	3	8	1
Cerro Oro	OK	LG	1	85	224	145	50	15	2.2	8	15	4
			2	85	224	145	100	30	4.4	4	15	2
			3	85	224	145	100	30	4.4	2	15	1
		HG	1	85	224	145	50	35	7.8	8	15	4
			2	85	224	145	100	70	15. 6	4	15	2
			3	85	224	145	100	70	15. 6	2	15	1
Choique	OK	LG	1	89	197	53	15	14	2	8	15	4
			2	89	197	53	15	14	2	4	15	2
			3	89	197	53	15	14	2	2	15	1
		HG	1	89	197	53	15	14	5	8	15	4
			2	89	197	53	15	14	5	4	15	2
			3	89	197	53	15	14	5	2	15	1
Coyote	OK	LG	1	224	85	145	50	8	3	8	15	4

			2	224	85	145	100	16	6	4	15	2
			3	224	85	145	100	16	6	2	15	1
		HG	1	224	85	145	40	20	5	8	15	4
			2	224	85	145	40	20	5	4	15	2
			3	224	85	145	40	20	5	2	15	1
Mara	OK	LG	1	41	86	11	18	20	1.8	8	15	4
			2	41	86	11	18	20	2	4	15	2
			3	41	86	11	36	40	4	2	15	1
		HG	1	41	86	11	18	20	1.8	8	15	4
			2	41	86	11	18	20	2	4	15	2
			3	41	86	11	36	40	4	2	15	1
Trofeo			1	variable parallel to contact			20	20	2	4	20	-
	OK	ALL VEINS	2				40	40	4	4	20	-
			3				80	80	6	4	20	-

* All interpolations used a 5x5x5 discretization, except Trofeo (1x1x1) and Bartina (5x5x2)

** All Boundaries are HARD unless otherwise noted.

*** CLASS was assigned by PASS # (1 = Measured, 2 = Indicated, 3 = Inferred). All measured and Indicated were removed by GeoEstima and included in inferred (see Classification subsection)

**** All uninterpolated blocks are assigned a value of detection limit (0.005 g/t).

Table 14-59: Interpolation Strategy by Deposit.

Model	Comments
Armadillo	1) Project has advanced to the creation of a HG and LG domain (non in 2020). 2) Creation of subdomains and new information led to altering of estimation parameters. Still very restrictive. 3) 2020 "smeared" grade a little too much by restricting every search to 2 DDH's and the same range – just the number of informing samples than changed. New Parameters control this better. 4) HG passes are more restrictive on range by design to prevent grade smearing.
Baritina	1) The project has evolved since 2020, leading to new interpretations and parameters. 2) MDN introduced 3rd pass. 3) Baritina much more restrictive – goes SE pass ranges - 1/2 the distance on SE from SRK previously 4) CLASS base on passes and samples – much more restrictive than previous. 5) In general, better domains and more control on interpolations.
Baritina NE	1) Much more developed project since 2020 – same comments as above. More restive and tighter domaining.
Cerro Oro	1) Further domaining confidence since 2020 with addition of HG and LG Domains 2) LG domains follow 2020 ranges closely – HG is more restrictive to prevent HG smearing. 3) VRGAMS tweaked slightly but not major changes.
Choique	1) PASS 1 – 3 all are short range – this is due to relative understood continuity 2) CLASS controlled by informing # samples and # DDH's needed. 3) Introduction of HG and LG domains have added more domain control to EST.
Coyote	1) New HG and LG Domains led to a tighter control on interpolation and grade smearing. 2) 3 pass system is very similar to SRK 2020. HG still tightly controlled with LG extending a bit further on Indicated and Inferred. 3) VGRAMS are fine and adapted from 2020 SRK parameters.
Mara	1) Pass ranges are tight and like SRK 2020, though longer on the Inferred. All else is similar. 2) Trying to force 2 DDH's on Inferred to at least have 2 DDH's informing to make up on range. 3) Introduction of the HG and LG domains adds an extra layer of control to the Interpolation of grade.
Trofeo	1) Many new domains introduced to the estimation (~15), putting much righter controls on the GRADE EST 2) New 3 pass system vs SRK 2020 2 PASS for more confidence and resolution. . the Rhy Cap SE range on P1 is only 10x10x10 to reflect low grade continuity in the Cap rock. 3) No "MAX SMAPLES PER DDH" as this is controlled by the narrow veins and hard boundary – the vein structure will allow the nearest samples to inform without pulling from data too far away.

14.5.8. SG Measurements

There is no additional SG data from Satellites target since the issuing of SRK report on August 2020. The density values reported here are the same validated and used by SRK on the previous technical report.

A total of 3,166 bulk density measurements have been collected from the MDN Project. Most data were collected since 2016 when the mine began ramping up for production. Density measurements were collected using the water immersion method and most data were collected from core without wax coating. Of the 3,166 measurements, only 342 were coated with wax before water immersion. The wax coated samples, on average, returned bulk densities that were about 8% lighter than the samples not coated with wax. While the bulk density database is good, there are insufficient data to estimate bulk density in most models. For this reason, an average bulk density value was used in all of the resource models for the satellites (Table 14-60). As the SG had to be assigned and not interpolated, only an INFERRED classification is warranted.

Table 14-60: SG Measurements in the Satellite Deposits

Model	Water Inmersion		Wax Coating		Density Value
	Non-Wax	Average SG	Wax Count	Wax SG	
Armadillo	0.00	-	0.00	-	2.34
Baritina (all)	263.00	2.26	0.00	-	2.26
Cerro Oro	27.00	2.34	291.00	2.14	2.34
Coyote	18.00	2.32	0.00	-	2.34
Trofeo	0.00	-	0.00	-	2.26
Total	**452.00**	**2.27**	**291.00**	**2.14**	**2.27**

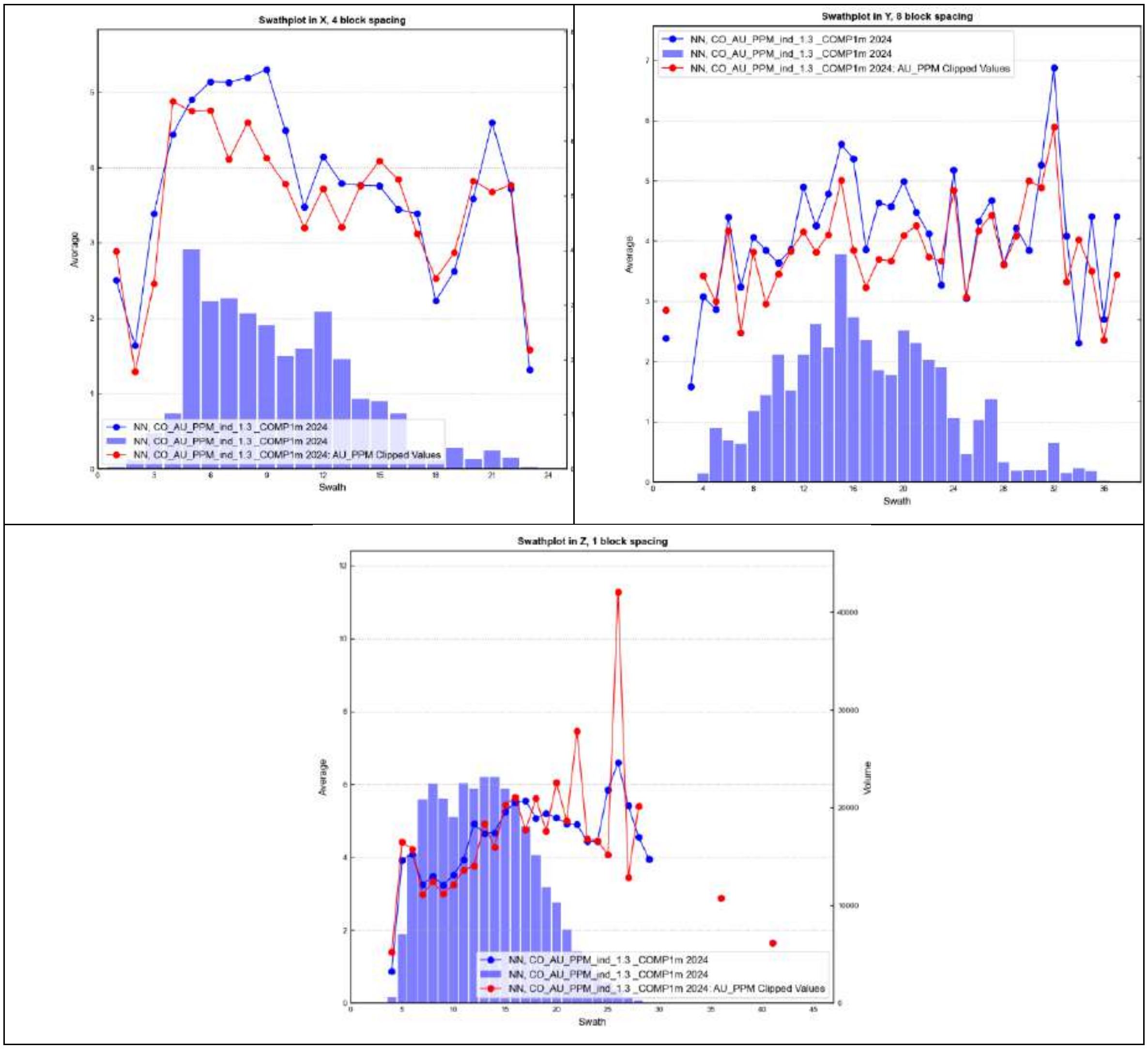
14.5.9. Validation

The MDN resource block models were validated by completing a series of visual inspections and by:

- Comparing the mean of estimated block grades against composited grades on sections and in plan vein.
- Comparing the results of NN and IPD estimators (where applicable) against the final estimator.
- Swath plots of grade on all 3 axes.

Figure 14.51 shows the estimated gold grade estimated for the Cerro Oro deposit against the grade of the composites interpolated using Near Neighbor. As can be seen the block grades agree reasonably well with the composite grades. This adherence pattern repeats all the other satellite target described at this section.

Figure 14.51: Swath Plot Validation Cerro Oro.



14.5.10. Classification

Mineral resource classification is typically a subjective concept. Industry best practices suggest that resource classification should consider both the confidence in the geological continuity of the summarised structures, the quality and quantity of exploration data supporting the estimates and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should aim at integrating both concepts to delineate regular areas at similar resource classification.

The Internal modelling of the depleted Satellites deposits honours the scheme used In the original SRK report (2020) adding new geological information and knowledge. The location of the samples and the assay data are sufficiently reliable to support resource evaluation. Mineralisation exhibiting good geological continuity investigated at an adequate spacing with reliable sampling information accurately located.

Satellite deposits were classified as Inferred, as Geostima did not conduct the full comprehensive validation carried out for the other deposits included in this report.

14.5.11. Reasonable Prospects of Eventual Economic Extraction

Conceptual pit shells were developed using the new models and the depleted pit topographies in the mined deposits. To this end Cerrado and G21 developed new updated conceptual constraining pits for Cerro Oro, Coyote, Choique and Armadillo. The table containing the parameters used for the Lerch-Grossman exercise are in Table 14-61. The other satellite resource numbers were generated using the 2020 parameters,

The CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a mineral resource as: "A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."

The "material of economic interest" refers to diamonds, natural solid inorganic material, or natural solid summarised organic material including base and precious metals, coal, and industrial minerals.

The "reasonable prospects for economic extraction" requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade considering extraction scenarios and processing recoveries.

To determine the quantities of material offering "reasonable prospects for eventual economic extraction" by an open pit, Cerrado and G21used a pit summarise and reasonable mining assumptions to evaluate the proportions of the block model (inferred in the Satellites) that could be "reasonably expected" to be mined from an open pit.

The summarised parameters were selected based on experience and benchmarking against similar projects. The parameters used to prepare mineral resources shells on the Martinetas lease are summarised in Table 14-61.

Table 14-61: Conceptual Satellite Pit Shell Parameters, August 2024

Subject	Item		Unit	CIL	HL
Revenue	Selling Price		US$/Oz	2,100	
Physical	Block Size	X	m	block model	
		Y		block model	
		Z		block model	
	ROM	ROM definition		> 1.3 g/t	0.3 < Au < 1.3 g/t
		Density	t/m³	block model	
		Grade	g/t	block model	
	Mining	Recovery	%	100	
		Dilution	%	0	
	Processing	Metallurgic Recovery	%	90.0	50.0
	Overall Slope Angle		°	51	
Costs		Mining	US$/t mined	3.50	
		Process	US$/t processed	45.00	7.08
		Transport	US$/t processed	1.00	1.00
		G&A	US$/t processed	22.20	4.60
		Sustaining Capital	US$/t processed	-	0.67
		Total Selling Costs	US$/Oz	242.90	

The reader is cautioned that the results from the pit summarised are used solely for the purpose of testing the “reasonable prospects for eventual economic extraction” by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the MDN depleted Satellites. The results are used as a guide only to assist in the preparation of a Mineral Resource Statement, to select an appropriate resource reporting cut-off grade and the use internally for exploration target ranking (

Table 14-62).

Table 14-62: Total MR Statement for Satellites Bodies, April 1st, 2024 (excepted indicated bellow).

Target	***Classification***	***Mass (kt)***	***Grade Values***		***Metal Content***	
			Au (g/t)	**Ag (g/t)**	**Au (kt oz)**	**Ag (kt oz)**
Armadillo[1]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	147.09	1.28	-	6.04	-
Baritina[2]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	17.50	4.90	-	2.76	-
Baritina NE[3]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	7.28	2.66	5.22	0.62	1.22
Cerro Oro[4]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	572.36	1.54	3.28	28.25	60.40
Choique[5]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	84.11	1.46	-	3.94	-
Coyote[6]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	214.05	1.82	-	12.55	-
Mara[7]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	M+I	-	-	-	-	-
	Inferred	17.64	2.98	-	1.69	-
Trofeu[8]	Measured	29.91	2.04	-	1.96	-
	Indicated	14.99	1.80	-	0.87	-
	M+I	44.90	1.96	-	2.83	-
	Inferred	56.99	1.25	-	2.28	-
Total	Measured	29.91	2.04	0.00	1.96	0.00
	Indicated	14.99	1.80	0.00	0.87	0.00
	M+I	**44.90**	**1.96**	**0.00**	**2.83**	**0.00**
	Inferred	**1,117.03**	**1.62**	**1,715.90**	**58.14**	**61.62**

Notes:

1. The Qualified Person for the Mineral Resources Estimate is Sergio Gelcich, PGeo, Vice President, Exploration for Cerrado Gold Inc.
2. Mineral Resources are reported within a pit shell to a cut-off grade of 0.3 g/t Au.
3. Mineral Resources are estimate using an average long-term metal prices of US$2,100.0/oz of Au and US$25.0/oz of Ag. Assuming a mining cost of US$3.5/t, plant cost of US$45.0/t, selling costs of US$242.9/t. The exchange rate considered is ARG 917.25 / 1 USD.
4. Recoveries are based on the type of host mineralization and the extraction method being utilized for the minerals. For the Carbon-in-Leach (CIL) process, Au recovery is based on historical metallurgical recovery and is 90% for Au and 61% for silver.
5. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
6. Mineral Resources are stated as in situ with no consideration for planned or unplanned mining dilution.
7. (1) Armadillo (Open Pit): Density was assigned based on the average of specific gravity measured and is 2.34 g/cm^3.
8. (2) Baritina (Open Pit): Density was assigned based on the average of specific gravity measured and is 2.26 g/cm^3.
9. (3) Baritina NE (Open Pit): Density was assigned based on the average value of 2.26 g/cm^3.
10. (4) Cerro Oro (Open Pit): Density was assigned based on the average value of 2.34 g/cm^3.
11. (5) Choique (Open Pit): Density was assigned based on the average value of 2.34 g/cm^3.
12. (6) Coyote (Open Pit): Density was assigned based on the average value of 2.34 g/cm^3.
13. (7) Mara (Open Pit): Mineral Resources have an effective date as of August 31, 2020. Mineral Resources are estimate using an average long-term metal price of US$1,550.0/oz of Au. Assuming a mining cost of US$2.65/t, plant cost of US$32.0/t, selling costs of US$127.0/t. Density was assigned based on the average value of 2.34 g/cm^3.
14. (8) Trofeu (Open Pit): Density was assigned based on the average value of 2.26 g/cm^3.
15. Numbers may not add due to the rounding.

15. MINERAL RESERVE ESTIMATE

This section is not relevant to this Report.

16. MINING METHODS

16.1. Introduction

The Don Nicolas Gold project consists of four surface mining operations (the open pits: Calandrias Norte, Calandrias Sur, Zorro, and the stockpile rehandle) and underground mining operations (Paloma Trend). The mining methods used are considered conventional, and conventional equipment is used for this kind of summarisation.

The mineralised material is mined from its source and transported to the process plants, depending on the gold grade. The high grade is sent to the CIL plant, and the HL plant processes the other grades. The low grade from Zorro is sent to stockpiles, where it is blended with existing stockpiles for future reclamation and processing at the end of the mine.

Waste material is taken to waste rock storage facilities.

The mining rate is variable and dependent on the phase of the active operations. However, when in full production, it is expected to peak at approximately 15,560 tpd as summarised material and 19,500 tpd as total extraction in the open pit operations and the underground operation with a ramp-up and a peak of 431 tpd for summarised material and 573 tpd including the waste generated for the mine development.

The open pit operation is currently in operation, and the underground operation is planned to start in 2026. The end of operations is expected in Q1 2029.

16.2. Surface Operations

Don Nicolas Gold Surface operates the open pits and stockpile rehandles. Surface mining uses conventional open pit mining methods, including drilling, blasting, loading, and hauling. Wheel dozers, bulldozers, motor graders, and water trucks support the operation.

The stockpiles rehandle consider the contractor operation based on the conventional loading and hauling operation.

16.2.1. Geotechnical Considerations

No geotechnical pre-feasibility or feasibility studies were completed in Calandrias Norte, Calandrias Sur, and Zorro pit areas, which are considered in the PEA for defining the inter-ramp angle, bench face angle, berm, and ramp widths.

Seven holes of 100m depth each were developed in the Calandrias Sur area, two of which were in the pit area. Geotechnical evaluations were performed using available geological models and drill hole data with lithology and RQD. In addition, laboratory tests for 120 core samples of 15 cm length (50 of PAD area and 70 of pit area) were carried out: compressive strength test, triaxial test, and Lugeo testing (Tech InGeo Ingenieria, 2022).

For Calandrias Norte y Sur, the parameters used are related to the pits currently in operation and have a stability analysis with the limit equilibrium method, using the Slide software and considering the data generated in the geotechnical evaluations made for the two holes in the pit area, with triaxial tests generate favorable results for the mining process. In addition, the summarised slope during the advance in the first benches in sectors with volcanic sedimentary deposits has been considered, as well as the detection of structures to disable possible local instability mechanisms.

In Martinetas Area, where the Zorro mine is located, economic studies prior to Cerrado included facilities designed for Open Pits, Tailings, process plants and waste dumps. For the open pits a geotechnical model development and summarised, and stability analysis carried out. A nominal pit slope configuration was assumed in stability analysis:

Table 16-1: Pit Slope Configuration

Case	Berm Width (m)	Bench Height (m)	Bench Slope (°)	Inter-ramp Slope (°)
Slope in upper, weathered zone (15m)	2.5	5.0	57	
Slope below weathered zone	2.5	5.0	80	56

Based on the kinematical and slope stability assessments, most pit slopes fulfil the acceptance criteria. Exceptions are in the Sulfuro pit (Paloma area) and Martinetas Norte pit (near Zorro). The recommendations were (Golder Associates, 2012):

- These exceptions can be managed by applying slope depressurisation techniques such as dewatering holes.
- Proper blasting techniques, such as pre-cutting or buffering, will be necessary to preserve the benches' crests and reduce the impact on the walls.
- Scaling will be necessary to reduce the risk of a rock fall related to kinematical instability (bench scale).
- Detailed face mapping must be performed along with mining to identify any local instability that may demand changes of pit designs.
- Geotechnical data collection must continue. Further geotechnical and structural mapping must be carried out.
- Exploration holes must be geotechnically logged to improve the geotechnical database

No geotechnical studies have been conducted at Zorro mine.

16.2.2. Hydrogeological Considerations

In 2024, a hydrogeological study was developed for Calandrias. The main objective was to complete the hydrogeological summary of the aquifer(s) in the Project area and report the results obtained from the groundwater exploration carried out to provide a minimum flow rate of 35 m^3/h required to supply water to the PAD.

Four exploratory wells were drilled in search of groundwater, two of which had positive results. These two wells crossed aquifers of interest with water inflows starting at 130m (PE-7Bis) and 150m (PE-8), increasing inflow at depth. The two wells in operation could supply

35 m^3/h and consider installing the pumps at a depth between 110 to 180m (Solucionart S.A, 2024).

A hydrogeological study was developed for the Martinetas area to supply water to the Don Nicolás Project. In this study the Coyote and Cerro Oro pits (near to Zorro Mine) were analyzed based on the information generated by the wells and hydraulic tests indicating the existence of a strong anisotropy, evidenced by the control generated by the local structure in the storage and circulation of water (Hidroar S.A., 2011). No hydrogeological studies have been completed for Zorro mine.

16.2.2.1. Block Models

The resource block model for Calandrias Norte, Calandrias Sur, and Zorro were completed by Cerrado and validated by GeoEstima. Each area was imported to the Surpac software as a singular block model.

Table 16-2: Block Model Properties.

Framework Description	Calandrias Norte	Calandrias Sur	Zorro
Block Model file name	CN – V3.csv	CDS_ESC_Long Term 2024.csv	OCTREE_ZORRO.csv
X origin (m)	2,613,715	2,613,434	2,620,902
Y origin (m)	4,725,385	4,723,335	4,692,003
Z origin (m)	-105	-100	69
Rotation (azimuth)	50	0	0
Number of blocks in X direction	134	215	246
Number of blocks in Y direction	142	289	276
Number of blocks in Z direction	61	60	42
X parent block size (m)	3	6	3
Y parent block size (m)	5	6	3
Z parent block size (m)	5	5	5
X minimal sub -blocked size (m)	1.5	-	0.375
Y minimal sub -blocked size (m)	2.5	-	0.375
Z minimal sub -blocked size (m)	2.5	-	0.625

16.2.3. Pit Optimisation

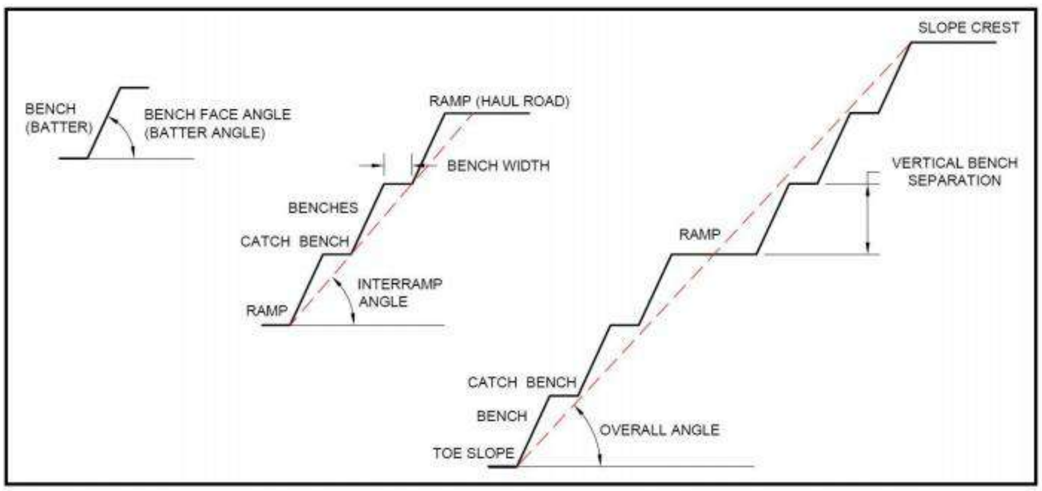
Open pit optimisation was conducted in GEOVIA Whittle™ to determine the optimal economic shape of the open pit to guide the pit design process. This task was undertaken using Whittle software, which utilises the Lerchs and Grossmann algorithm. The method works on a block model of the summarised material body and progressively constructs lists of related blocks that should or should not be mined.

The method uses the values of the blocks to define a pit outline with the highest possible total economic value, subject to the required pit slopes defined as a structure in the software. The pit optimisations that generated optimal pit limits to guide the ultimate pit design were based only on Measured, Indicated, and Inferred category blocks. The Inferred mineral resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be summarised as mineral reserves. The evaluation of the summarised material mined in the Cerrado PEA includes all categories of resources: Measured, Indicated, and Inferred. The selection of the final pit limit considered the summary of the material processed in the plant, and then the revenue factor 1 was considered. Slope Recommendations Based on the available information, the recommendations were to mine the design using two 10 m benches as the final bench height, with an 80 degrees bench face angle and a 5m catch bench for an inter-ramp angle of 56 degrees. The overall slope angle is 51°, which was applied to Calandrias Norte, Calandrias Sur, and Zorro. The design parameters used is shown in Table 16-3, and the explanations of the concepts in Figure 16.1.

Table 16-3: Open Pit Design Parameters.

Pit	Calandrias Norte	Calandrias Sur	Zorro
Final Bench Height	10m	10m	10m
Inter Ramp Angle	56°	56°	56°
Face Bench Angle	80°	80°	80°
Bench Width	5m	5m	5m
Ramp Width	14m	14m	8m (one way)

Figure 16.1: Pit Slope Terminology.



16.2.3.1. Pit Optimisation Parameters

A summary of the open pit summarised parameters is presented in Table 16-4.

Table 16-4: Economic Optimisation Parameters

Parameter	Unit	Calandrias Norte	Calandrias Sur	Zorro[1]
Gold Price	US$/Oz	2,100	2,100	2,100
Gold Selling Cost	US$/Oz	242.90	242.90	242.90
Silver Price	US$/Oz	25	25	-
Silver Selling Cost	US$/Oz	5.70	5.70	-
Mining Cost	US$/t	3.50	3.50	3.50
Process Cost	US$/t processed	45.00	7.08	HG: 45.00, LG: 7.08
G&A Cost	US$/t processed	22.21	3.33	HG: 22.20, LG: 4.60
Transport	US$/t processed	10.45	-	HG: 0.00, LG: 1.00

Parameter	Unit	Calandrias Norte	Calandrias Sur	Zorro[1]
Sustaining Capital	US$/t processed	0.67	0.67	0.67
Gold Recovery oxide	%	90%	70%	HG: 90%, LG: 50%
Gold Recovery transition	%	90%	60%	-
Gold Recovery primary	%	90%	40%	-
Silver Recovery oxide	%	61%	30%	-
Silver Recovery transition	%	61%	30%	-
Silver Recovery primary	%	61%	30%	-
Overall Slope Angle	°	51°	51°	51°
Mining Dilution	%	0%	0%	0%
Mining Recovery	%	100%	100%	100%

Note: (1): HG (High grade) Au ≥ 1.3 g/t and LG (Low grade); 0.3 < Au < 1.3 g/t

16.2.3.1. Outcomes

The Whittle was run for Calandrias Norte and Calandrias Sur, starting at a revenue factor of 0.30 and finishing at a revenue factor of 1.0 in 0.01 steps and Zorro, starting at a revenue factor of 0.30 and finishing at a revenue factor of 2.0 in 0.1 steps.

For all projects, the last pit selected to guide the pit design work was the Whittle run, with a revenue factor of 1.0 considering the summarised material. The outcomes is shown in the following table:

Table 16-5: Mining Resources by Phase and Mine

	Total Tonnage (t)	Waste (t)	Stripping Ratio (W/MM)	Mineralised Material (t)	Gold grade (g/t)	Silver grade (g/t)
Calandrias Norte	1,241,406	1,108,106	8.31	133,300	9.638	15.236
Calandrias Sur	25,085,265	8,969,054	0.56	16,116,211	0.881	13.639
Zorro	1,307,528	983,973	4.23	323,555	1.320	-

16.2.4. Dilution and Mining Recovery

Based on operational statistics, dilution parameters and mining recovery were assigned to each phase to estimate the additional dilution experienced during mining operations. The parameters used are:

- Calandrias Norte: Mining Recovery: 95% and Dilution 5%.
- Calandrias Sur: Not applied for bulk mineralisation.
- Zorro: Mining Recovery 97.5%; Dilution for high grade: 15% - at average low-grade halo grade 0.6 g/t Au; Dilution for low grade 15% at half cut-off grade: 0.15 g/t au)

The QP considers these assumptions to be appropriate based on operational results.

16.2.5. Mine Design

The open pit mine designs were guided using the revenue factor 1 from Whittle™ shells. The Cerrado open pit project mining is planned for a singular phase in Calandrias Norte, five in Calandrias Sur, and two in Zorro. The mining physicals of each phase are summarised in Table 16-6, while Table 16-7 presents the summarised material distribution for the project.

Figure 16.2 shows the phase designed in Calandrias Norte. Between Figure 16.3 and Figure 16.7 is shown the phase designed for Calandrias Sur. Finally, the phases designed for Zorro are shown in Figure 16.8 and Figure 16.9.

Table 16-6: Mining Resources by Phase and Mine.

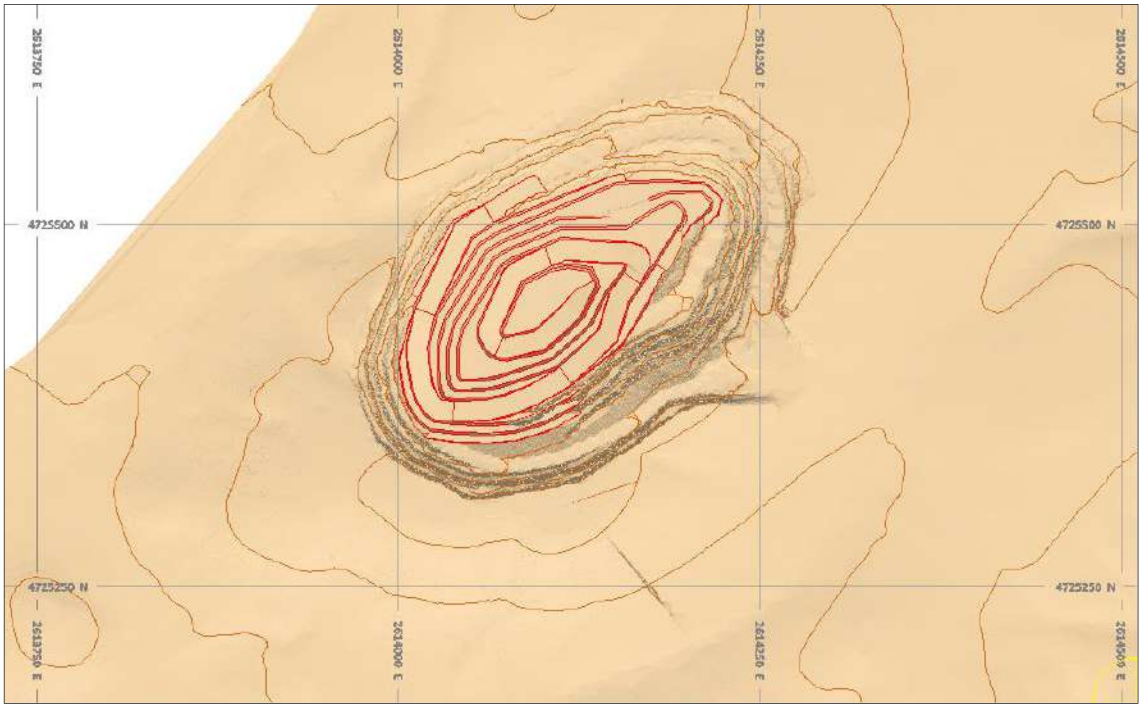
		Total Tonnage (t)	Waste (t)	Stripping Ratio (W/MM)	Mineralised Material (t)	Gold grade (g/t)	Silver grade (g/t)
Calandrias Norte	Phase 1	981,658	918,284	14.5	63,374	14.49	22.89
Calandrias Sur	West	245,812	140,055	1.3	105,757	0.42	16.67
	North	16,551,579	7,020,331	0.7	9,531,247	1.02	17.09
	Central	6,839,696	3,363,719	1.0	3,475,977	0.82	5.84
	East	144,427	57,839	0.7	86,587	0.47	1.41
	South	718,935	251,110	0.5	467,824	0.58	5.01
Zorro	Phase 1	356,163	335,616	16.3	20,547	1.45	4.95
	Phase 2	1,472,675	1,212,161	4.7	260,514	1.11	6.89

Table 16-7: Mineralised Material Distribution.

	Measured			Indicated			Inferred		
Area	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)
Calandria Norte	6,207	18.69	25.57	54,106	14.45	23.19	3,061	6.76	12.27
Calandria Sur	4,801,522	0.93	17.12	6,873,263	1.05	14.382	1,992,609	0.60	3.17
Zorro	61,363	1.85	7.32	118,824	1.12	6.15	100,874	0.71	6.47

Phases Calandrias Norte

Figure 16.2: Calandrias Norte Phase 1.



Phases Calandrias Sur

Figure 16.3: Calandrias Sur Phase West.

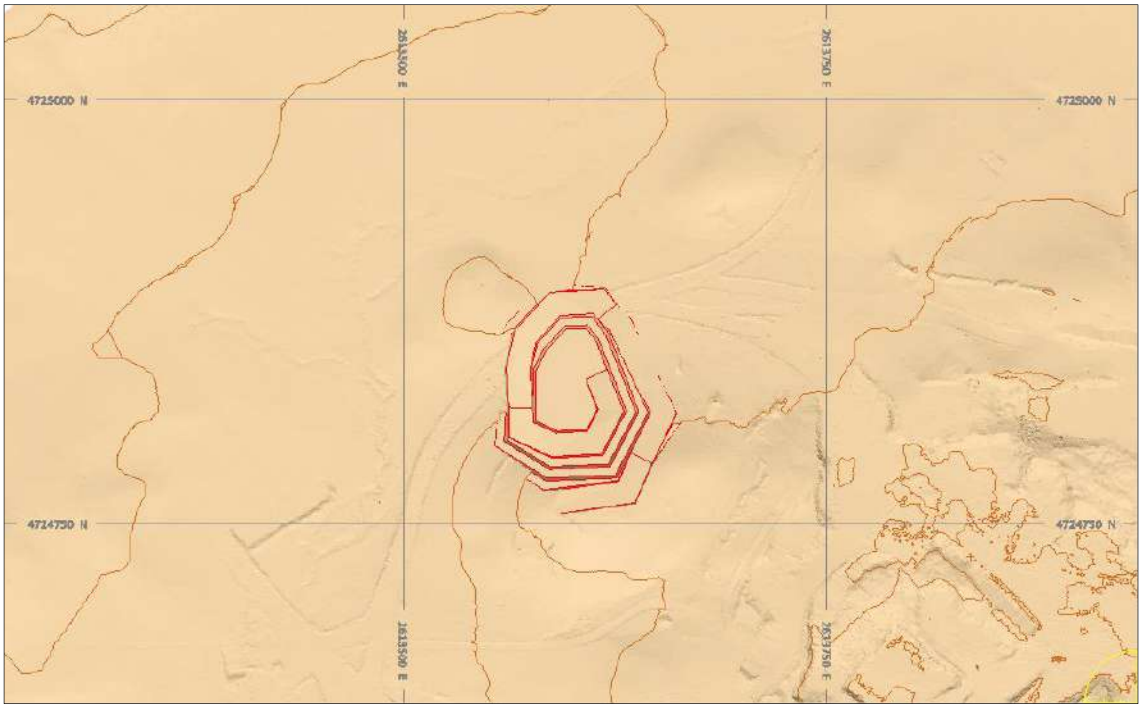


Figure 16.4: Calandrias Sur Phase North.

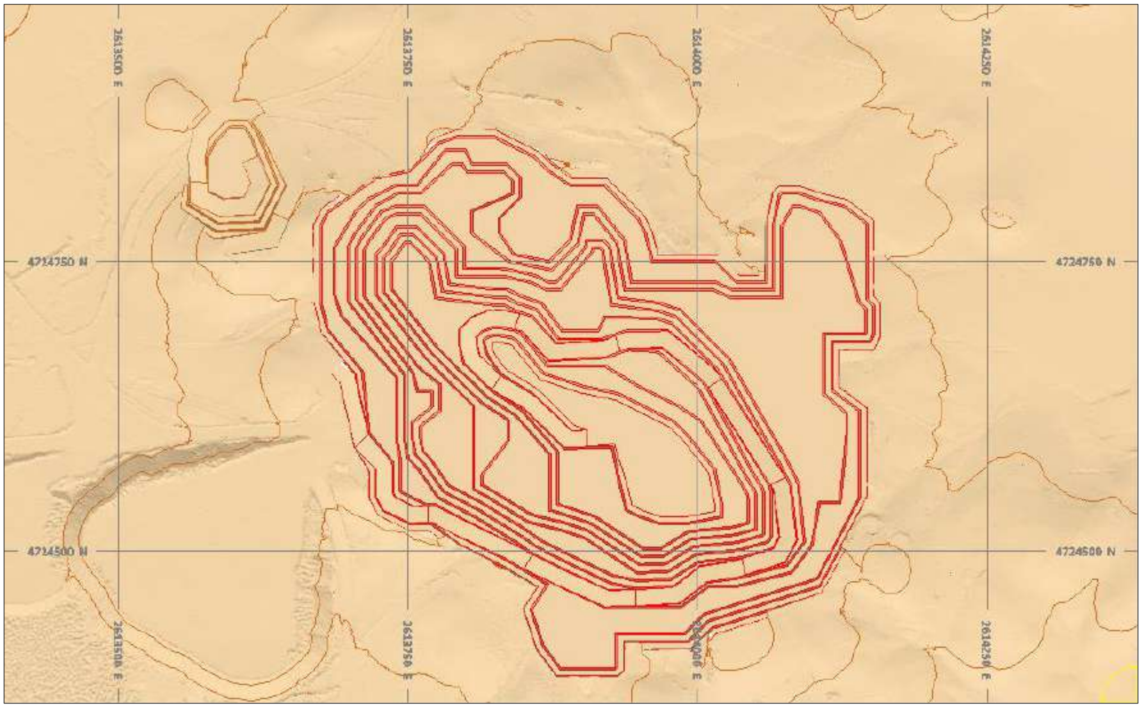


Figure 16.5: Calandrias Sur Central.

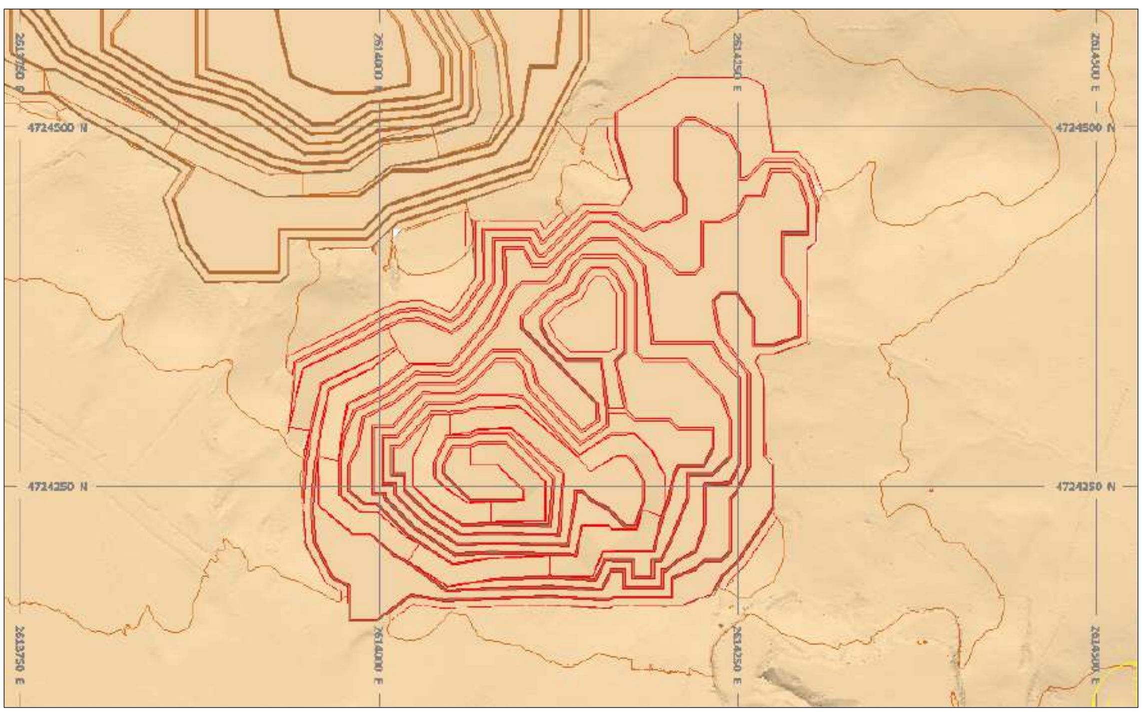


Figure 16.6: Calandrias Sur Phase East.

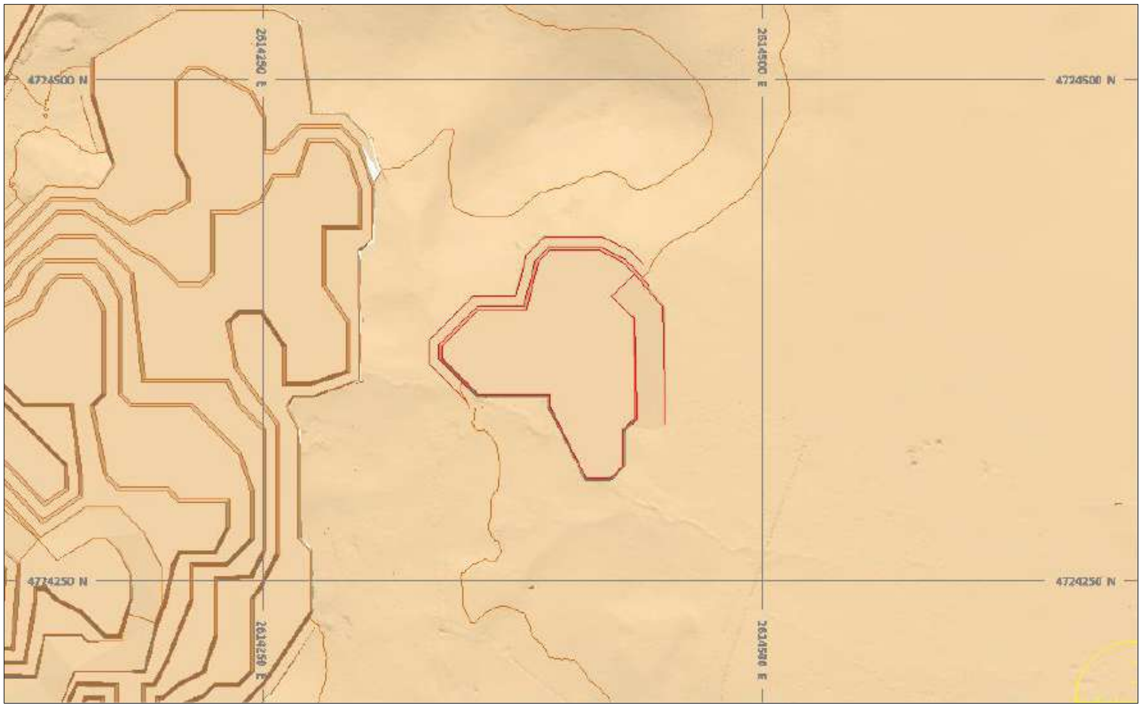
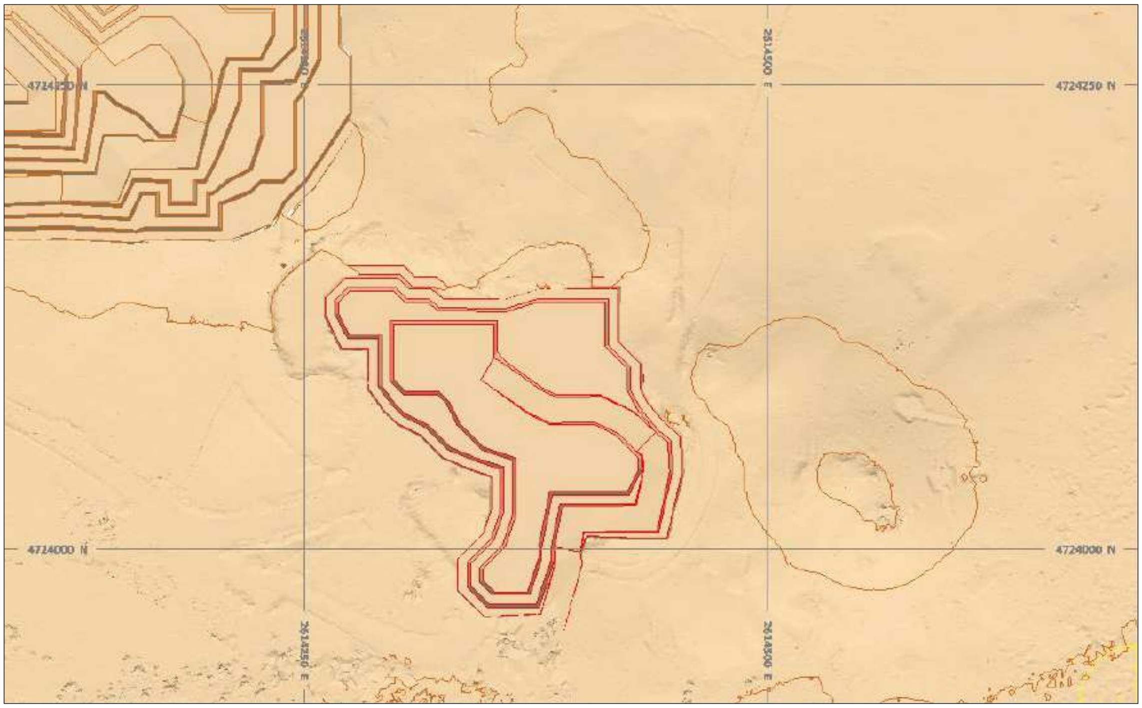


Figure 16.7: Calandrias Sur Phase South.



Phases Zorro

Figure 16.8: Zorro Phase 1.

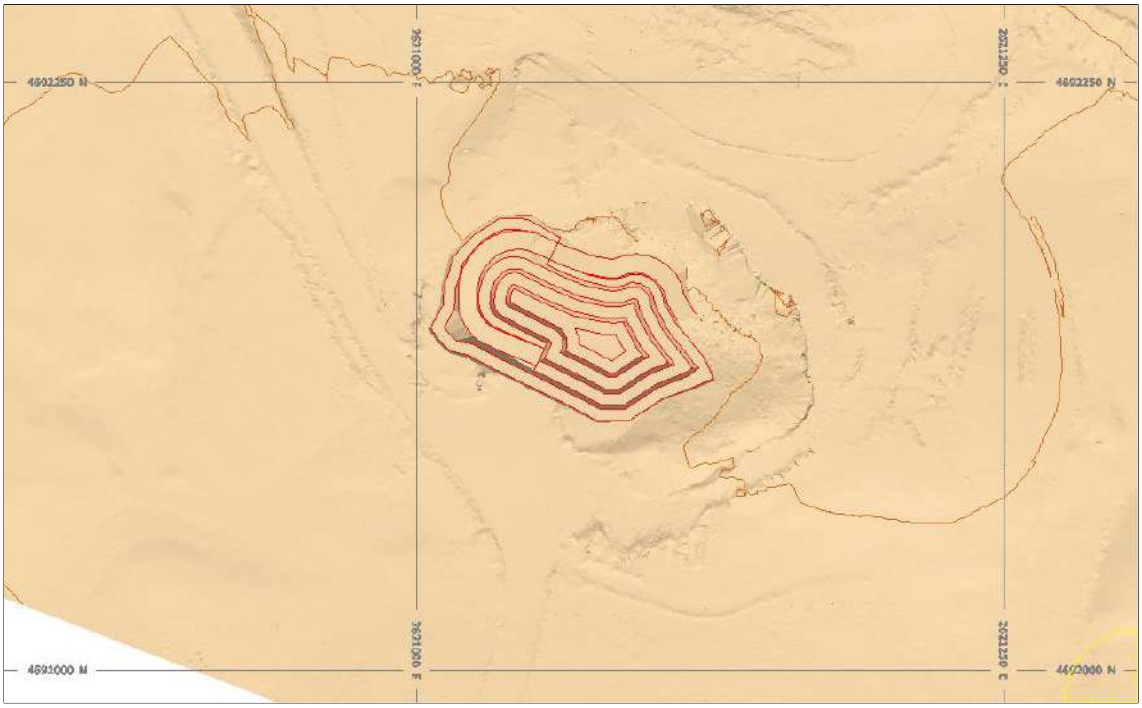
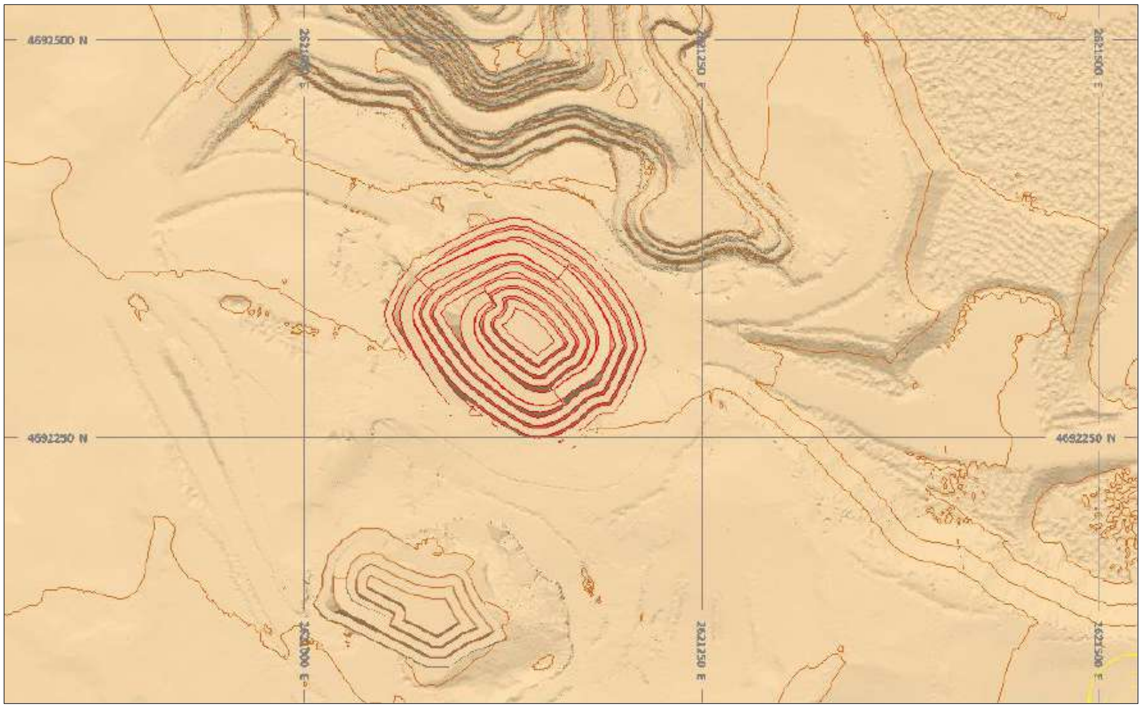


Figure 16.9: Zorro Phase 2.



16.2.6. Waste Rock Storage Facilities

The total amount of waste mined and stored within the open pit mine plan is 12,957,188 t. This is the total of the three main areas: Calandrias Norte, Calandrias Sur, and Zorro. The waste generated in Calandrias Norte is 918,284 t, Calandrias Sur generates 10,491,127 t, and 1,157,777 t will be generated in Zorro.

A swell factor of 1.28 was applied to the rock waste dumps, which were designed with a 37° face slope to mimic a final reclamation slope. The Calandrias Norte had a berm width of 5m with two lifts of 15m height, in Calandrias Sur, three lifts of 20m height with berm width of 15m, and Zorro has two waste dumps with one lift, with 10 and 30m as maximum height.

Figure 16.10: Waste Storage Facilities Calandrias.

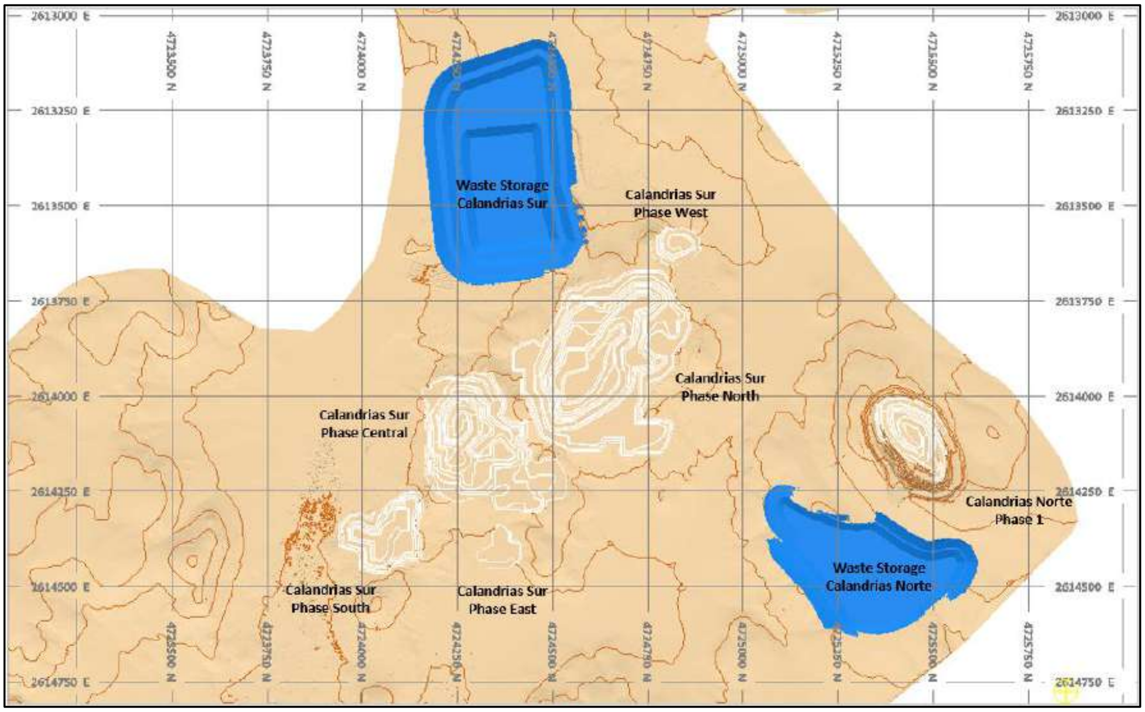


Figure 16.11: Waste Storage Facilities Zorro.

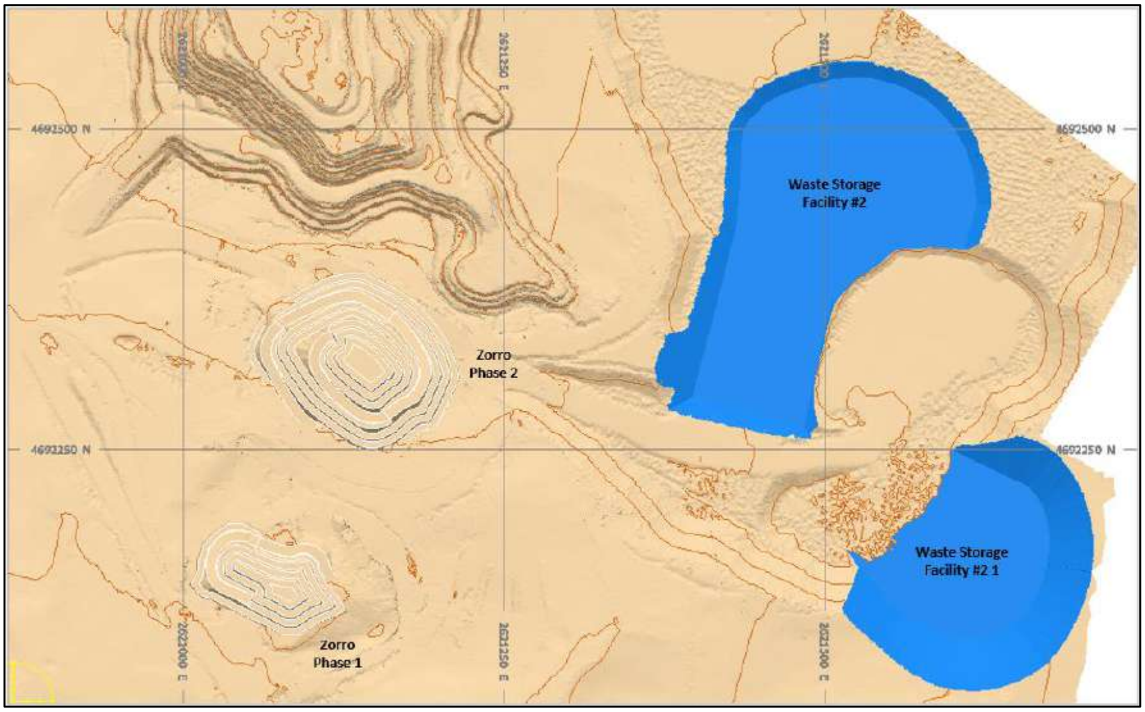


Table 16-8: Waste Dump Capacities.

Dump	Remaining Capacity (m³)	Capacity Used for Waste mine plan (m³)	% Filled
Waste Storage Facility Calandrias Norte	1,630,691	488,449	30%
Waste Storage Facility Calandrias Sur	7,094,810	5,762,263	81%
Waste Storage Facility #1 Zorro	361,473	350,118	97%
Waste Storage Facility #2 Zorro	473,168	473,168	100%

16.2.7. Mineralised Material Stockpile

Existing summarised material stockpiles are in the Martinetas area. The stockpiles considered are the following:

Table 16-9: Martinetas Stockpiles.

Stock	Tonnage (t)	Gold grade (g/t)	Silver grade (g/t)
Armadillo	83,135	0.49	1.29
Cerro Oro	625,630	0.54	1.64
Coyote	170,286	0.64	1.94
Choique	72,638	0.38	6.68
Mara	55	1.05	2.80
Total Martinetas	**951,744**	**0.54**	**2.05**

The mine plan will process all the summarised material from the stockpiles by the end of processing life.

16.2.8. Surface Production Schedule

The LOM production schedule for surfaces operation considers open pit mines, including stockpile rehandling. The mine plan was developed quarterly for the two first years and reported annually with detailed tracking of material movements, stockpile inventory, waste movements, and equipment usage.

16.2.8.1. Open Pit Mining Schedule

Open pit mining activities are planned over a duration of 4.25 years. The mining rate will ramp up to reach a maximum of 7.25 Mtpa on Year 2025, where it will ramp down on Year 2026. Figure 16.12 presents the open pit mining schedule by material type and Figure 16.13 presents the tonnage mined by pit for the Don Nicolás Gold Project.

Figure 16.12: Open Pit Mine Plan.

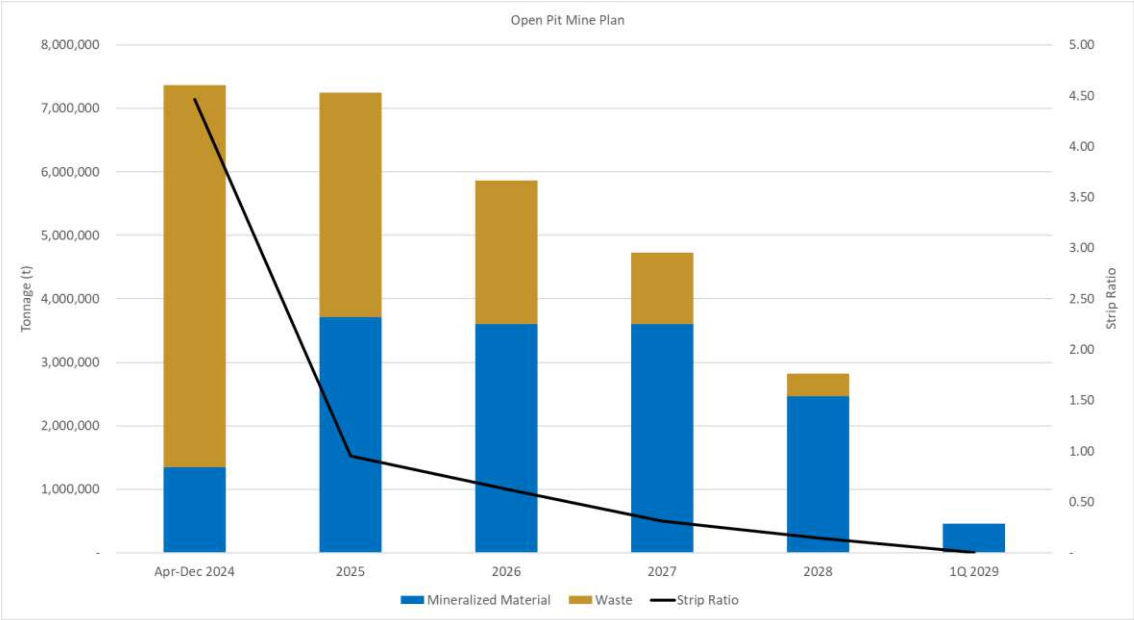
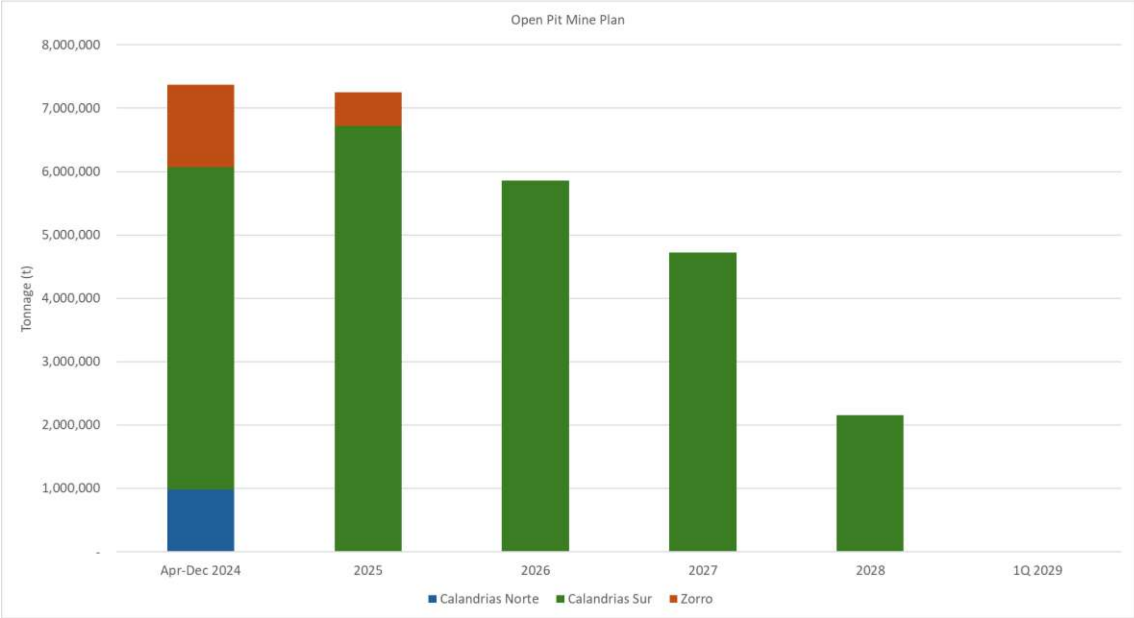


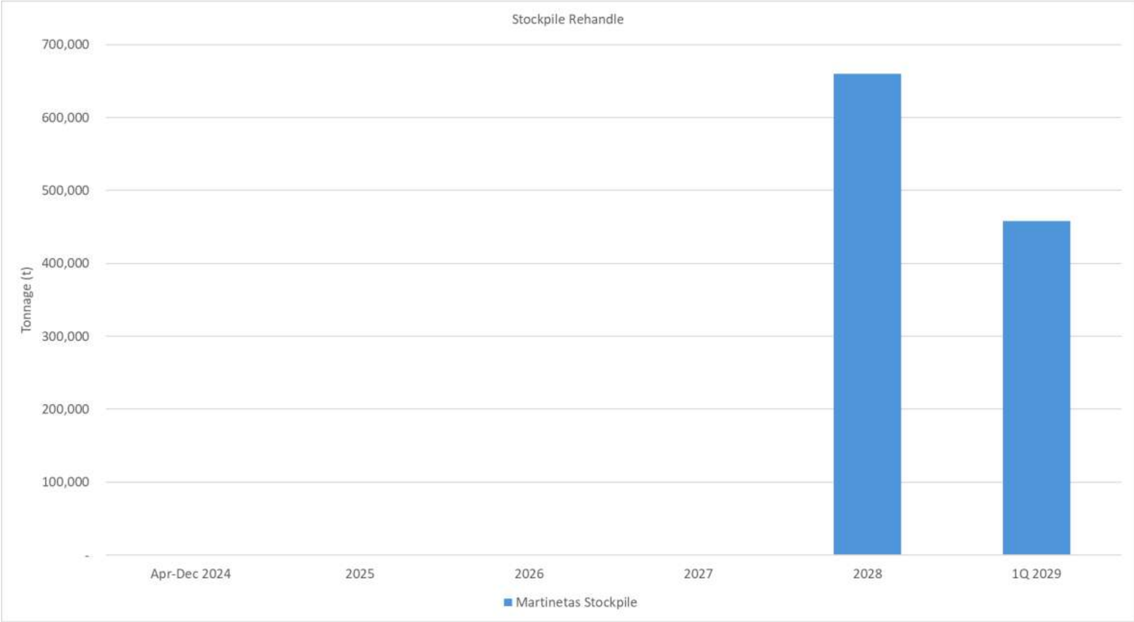
Figure 16.13: Open Pit Mine Production by Pit.



16.2.8.2. Stockpiles rehandle Schedule

The mine plan processes the summarised material from the stockpiles by the end of processing life. The Figure 16.14 shown the tonnage for each year.

Figure 16.14: Stockpile Rehandle Mine Plan.



16.2.8.3. Mine Operation and Equipment selection

The open pit mining operation is conducted with rental equipment, which excludes a number of the drilling rigs and trucks.

Drilling and Blasting

Production drilling is planned using a diesel drill on 5m benches, using 4” (101.6 mm) diameter holes for summarised material and 5” (127.0 mm) for waste. Diesel production drills are capable of drilling both diameters.

Drill and blast specifications are established according to material type and whether the rock is summarised material or waste. Table 16-10 shows the parameters considered.

Table 16-10: Drill and Blast Parameters.

Drill Design Parameters					**Explosive**		
Bench Heigh	**5m**	**Density**	**2.396**				
Hardness	**Burden**	**Spacing**	**t/hole**	**Power Factor (kg/t)**	**Nagolita**	**Gelamita**	**Kg expl/hole**
Soft	3.5m	4.0m	167.72	0.1677	25.00 kg	3.13 kg	28.125
Medium	3.3m	3.8m	150.23	0.1872	25.00 kg	3.13 kg	28.125
Hard	3.0m	3.5m	125.79	0.2360	25.00 kg	4.69 kg	29.688

The open pit uses parameters for medium to waste ground in most cases. Regarding mineral blasting, a granulometric analysis and fine generation were carried out. From this, it was determined that the same parameters will be used for medium and hard ground, analysing the alterations present in the mineral and the granulometry required by the crusher. Blast holes are planned to be initiated with Nonel detonators and primed with boosters.

Controlled blasting techniques, including buffer blasts and pre-splits, will be used. The pre-split consists of closely spaced holes along the design excavation limit. The holes are loaded with a light charge and detonated simultaneously or in groups separated by short delays. Firing the pre-split row creates a crack that forms the excavation limit and helps prevent wall rock damage by venting explosive gases and reflecting shock waves.

Cerrado is the owner of 5 drill machines. The description characteristics are shown in Table 16-11.

Table 16-11: Owner Drill Machines.

Equipment	**Internal Code**	**Horometer**
SANDVIK DP1500	0-1	24,798
SANDVIK DP1500	0-2	27,925
SANDVIK DP1500	0-3	22,760
FURUKAWA DP04	0-4	4,000
SANDVIK DP1500	0-5	5,213

Life: 40,000 hrs

Loading

The loading fleet is separated into a summarised material fleet and a waste fleet. The primary loading fleet consists of a 4.7 m³ diesel front-end loader and a 6.4 m³ diesel front-end loader. The 4.7 m^3 loader is used for summarised material, while the 6.4 m³ loader is used for waste. Table 16.9 presents the loading fleet productivity assumption. The number of units is in whole numbers for productivity assumption numbers.

The stockpiles rehandling will be contracted and will not be accounted for in the loading fleet. Table 16-12 presents the loading fleet productivity assumption.

Table 16-12: Loading Fleet Productivity Assumptions.

		Mineralised Material	Waste
Loading Unit		**4.7 m^3 Loader**	**6.4 m^3 Loader**
Haulage Unit		**40 t**	**40 t**
Rated Truck Payload	t	40	40
Heaped Tray Volume	m^3	23	23
Bucket Capacity	m^3	4.7	6.4
Bucket Fill Factor	%	88	85
Passes (Whole)	#	6	4
Hourly Productivity Wet	t/h-ef	518	619
Daily Productivity	tpd	7,900	9,440

Hauling

Haulage will be performed by 40 t class highway trucks for the summarised material and waste and 65 t high-capacity road trucks. The summarised material will be hauled to the process plants or stockpile located outside of the pits, while the waste will be hauled to the waste storage facilities.

The stockpiles rehandle will be contracted and is not accounted for in the hauling fleet.

Cerrado is the owner of 8 trucks. The description is shown in Table 16-13. Additional truck requirements for the mine plan are rented.

Table 16-13: Owner Trucks.

Equipment	Internal Code	Horometer
SCANIA G500 PAT:AF269WV	509	7,405
SCANIA G500 PAT:AF269WW	510	7,290
SCANIA G500 PAT:AF269WX	511	9,475
SCANIA G500 PAT:AF931HY	512	5,748
SCANIA G500 PAT:AF931HZ	513	5,837
SCANIA G500 PAT:AF942AA	514	3,572
SCANIA G500 PAT:AF942AB	515	4,840
SCANIA G500 PAT:AF942AC	516	5,881

Life: 50,000 hrs

Support Operations

Support equipment requirements are based on typical open pit mine operation and maintenance requirements to safely support the loading, hauling, and drilling fleets. Support equipment is planned to maintain dump areas, stockpiles, pit floors, and mine roads.

Mine dewatering

No dewatering operation was considered in the open pit extraction due to the aquifer depth.

Mining Fleet requirements

The table below summarises the gross operating hours for subsequent equipment fleet requirement calculations. The mine is expected to operate 20 hours daily, 360 days per year. This accounts for shift changes and weather delays. Additional delays and applied factors are described in productivity calculations for each fleet.

Table 16-14: Equipment Usage Assumption.

Time factors	Unit	FEL 4.7 m^3	FEL 6.4 m^3	Haul Truck 40 t	Drill
Calendar time	d/y	365	365	365	365
Scheduled shutdown	d/y	5	5	5	5
Unscheduled days down	d/y	0	0	0	0
Mine workdays	d/y	360	360	360	360
Shift per day	sft/d	2	2	2	2
Hours per shift	h/sft	12	12	12	12
Calendar time	h/y	8,760	8,760	8,760	8,760
Availability	%	85%	85%	85%	85%
Available time	h/y	7,446	7,446	7,446	7,446
Total Internal Standby	min/sft	104	104	104	104
Total Internal Standby	h/sft	1.73	1.73	1.73	1.73
Total internal standby	h/y	1,243	1,243	1,243	1,243
Utilization	%	83.3%	83.3%	83.3%	83.3%
h/day		20.0	20.0	20.0	20.0

Table 16-15: Equipment Requirements.

Equipment	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026	2027	2028
FEL 6.4 m^3	2	2	4	3	1	1	1	1	1	1
FEL 4.7 m^3	1	1	2	2	2	2	2	2	2	2
Haul Truck 40 t	9	8	15	13	6	7	7	7	7	7
Drill	3	3	5	5	2	2	2	2	2	2
Bulldozer	3	3	6	6	3	3	3	3	3	3
Motor grader	1	1	1	1	1	1	1	1	1	1
Water truck	1	1	1	1	1	1	1	1	1	1
Fuel & Lube Truck	1	1	1	1	1	1	1	1	1	1
Services truck	1	1	1	1	1	1	1	1	1	1
Backhoe (1.5 yd3)	1	1	1	1	1	1	1	1	1	1

Equipment	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026	2027	2028
Light plant	7	7	12	11	6	6	6	6	6	6
Pick Up	24	24	24	24	24	24	24	24	22	13

Open Pit Manpower Requirements

Mine personnel was divided into hourly and staff positions and was divided between mine operations, mine maintenance and technical services. Hourly positions were mostly associated with a shift roster of 14 days on and 14 days off, and as such, each unit of equipment requires four operators hired in hourly positions. A Mechanics per operator Ratio of 0.21 was considered and 12% additional operators was considered by for absenteeism, vacations, health and capacitation.

Staff positions in management, supervision or technical services roles that require a 7 days per week presence will also be on roster schedule. Most of the staff positions are considered local on a 4/3 schedule. Table 16-16 shows the estimated mine workforce requirements over the LOM. The mine workforce peaks at 230 individuals in Q4 2024.

Table 16-16: Open Pit Manpower.

	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026	2027	2028
Total Manpower	**168**	**165**	**233**	**218**	**150**	**156**	**156**	**161**	**151**	**122**
Direct Manpower										
Total Operators	**82**	**79**	**135**	**123**	**67**	**72**	**72**	**76**	**74**	**72**
Loading	13	14	26	21	13	14	14	14	12	12
FEL 6.4 m^3	9	9	17	12	4	5	5	5	3	3
FEL 4.7 m^3	4	5	9	9	9	9	9	9	9	9
Hauling	37	33	61	52	25	28	28	28	28	27
Haul Truck 40 t	37	33	61	52	25	28	28	28	28	27
Drilling	12	12	20	21	10	10	10	14	14	13
Drill	12	12	20	21	10	10	10	14	14	13
Ancillary	14	14	22	23	13	14	14	14	14	14
Bulldozer	2	2	6	6	2	2	2	2	2	2
Motor grader	6	6	11	12	5	6	6	6	6	6
Water Truck	3	3	3	3	3	3	3	3	3	3
Support	3	3	2	2	3	3	3	3	3	3
Fuel & Lube Truck	6	6	6	6	6	6	6	6	6	6
Services truck	2	2	2	2	2	2	2	2	2	2
Backhoe (1.5 yd3)	2	2	2	2	2	2	2	2	2	2
Indirect Manpower										
Required Mechanics	**17**	**17**	**29**	**26**	**14**	**15**	**15**	**16**	**16**	**16**
Site	3	3	6	6	3	3	3	4	4	4
Drills	2	2	4	4	2	2	2	2	2	2
Shovels	1	1	2	2	2	2	2	2	2	2
Workshop	14	13	23	20	11	11	11	11	11	11
Base	1	1	1	1	1	1	1	1	1	1
FEL	2	2	3	2	1	1	1	1	1	1
Truck	7	6	12	10	5	6	6	6	6	6

	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026	2027	2028
Ancillary	4	4	6	6	4	4	4	4	4	4
Mine Administration & Technical Services Manpower										
Mine Operations Overhead	***25***	***25***	***25***	***25***	***25***	***25***	***25***	***25***	***25***	***14***
Drilling Instructor	1	1	1	1	1	1	1	1	1	1
Drilling and Blasting Supervisors	2	2	2	2	2	2	2	2	2	2
Drilling and Blasting Assistants	8	8	8	8	8	8	8	8	8	2
Drilling and Blasting Spotter	2	2	2	2	2	2	2	2	2	2
Operations Instructor	2	2	2	2	2	2	2	2	2	2
Spotter Mine Operations	1	1	1	1	1	1	1	1	1	1
Mine Superintendent	2	2	2	2	2	2	2	2	2	1
Loading and Hauling Supervisor	7	7	7	7	7	7	7	7	7	3
Mine Maintenance Overhead	***18***	***18***	***18***	***18***	***18***	***18***	***18***	***18***	***14***	***8***
Maintenance Planning Assistant	2	2	2	2	2	2	2	2	2	1
Maintenance Manager	1	1	1	1	1	1	1	1	1	1
Mine Maintenance Planning	2	2	2	2	2	2	2	2	2	1
Instruction Supervisor	6	6	6	6	6	6	6	6	2	1
Mine Maintenance Supervisor	4	4	4	4	4	4	4	4	4	2
Mine Maintenance Supervisor Senior	1	1	1	1	1	1	1	1	1	1
Technical instructor	2	2	2	2	2	2	2	2	2	1
Technical Services	***26***	***26***	***26***	***26***	***26***	***26***	***26***	***26***	***22***	***12***
Mine Analysts	3	3	3	3	3	3	3	3	1	1
Short Term Mine Planning Engineer	1	1	1	1	1	1	1	1	1	1
Technical Services Superintendent	1	1	1	1	1	1	1	1	1	1
Surveyor Assistants	1	1	1	1	1	1	1	1	1	1
Surveyor Chief	1	1	1	1	1	1	1	1	1	1
Surveyors	3	3	3	3	3	3	3	3	3	1
Geology Analysts	5	5	5	5	5	5	5	5	3	
Ore Control Assistants	5	5	5	5	5	5	5	5	5	2
Geologist Geotechnical	1	1	1	1	1	1	1	1	1	1
Semi Senior Geologist	2	2	2	2	2	2	2	2	2	1
Ore Control Geologist Senior	1	1	1	1	1	1	1	1	1	1
Mine Geology Superintendent	1	1	1	1	1	1	1	1	1	1
Quality Control Technician	1	1	1	1	1	1	1	1	1	

Mine Management & Technical Services

The operations team is responsible for achieving production targets safely. The engineering and geology teams will support the operations team by providing short-term planning, grade control, surveying, mining resources estimation, and all other technical functions.

Ore Control

The Geology area is in charge of providing the Planning area with short-term models for subsequent mining. Likewise, Ore control is responsible for the daily grade control of mineral blasting and feeding to the Plant. For its part, Geotechnics carries out wall stability control and reviews pit designs. From near Mine trenches, ore control and infill drilling are carried out to give greater reliability to the short-term model.

Pit Slope Monitoring

Pit slope monitoring systems gather information on the micro and macro movements of the pit walls. They usually consist of strategically placed prisms that are surveyed under a controlled environment (windless, rainless, and stationary). No monitoring system was developed during the PEA study, but it could be an element of focus for a future installation.

Mine Maintenance

The Project consider owner maintenance and repair for its mobile equipment fleet.

The maintenance department and personnel requirements have been structured to fully manage this function, performing maintenance planning and training employees. Tire monitoring, rotation, and/or replacement is carried out by a specialised contractor.

Other equipment facilitates maintenance activities and supports operation, such as fuel and lube trucks. Other small equipment, such as a mechanic service truck, generators, compressors, light towers, welding machines, and air heaters, is also included.

16.3. Underground Operations

16.3.1. Underground Mining Method

Mechanised long-hole mining methods, namely sublevel longitudinal stoping, will be summarised to extract the summarised material.

The stopes will be drilled using top hammer production drills, and the blasting will use a combination of ANFO and emulsion explosives.

Diesel-powered load haul dump (LHD) vehicles will remove the blasted material from the stopes.

Blasted summarised material and waste will be transported to the surface using diesel trucks. Mechanised pneumatic mining equipment will be used for the lateral development necessary to access the ore deposit.

To achieve the production target, the mine plan will involve ore development and production from multiple mining blocks, with multiple stopes available per block across the six zones. Long-hole mining is a commonly used underground mining technique for extracting ore from underground deposits. This requires an undercut drift for stope upward drilling and ore extraction.

Once the drill and extraction drifts are developed, a slot raise creates a preferential void for production blasting. This method involves drilling long vertical or inclined holes, called production drill holes, at regular intervals along the length of the mining zone. After the production drill holes are completed, they are loaded with explosives. During the blasting phase, the explosives fracture the rock surrounding the slot raise and the drill holes.

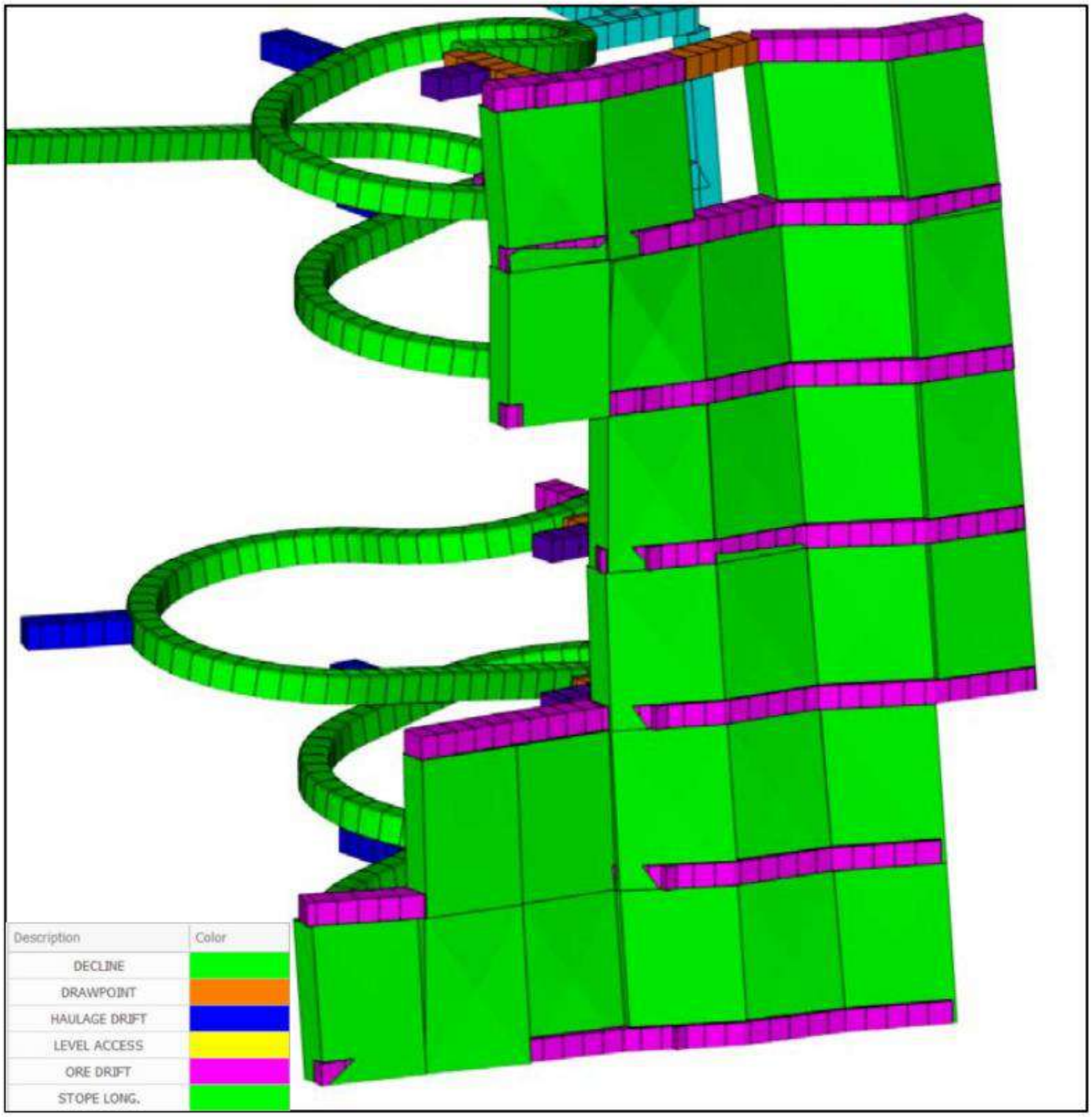
Once the rock is blasted, the fragmented material is removed from the stope through the undercut drift with a load haul dump (LHD). The long-hole mining method is a non-entry mining method, so once the blasting phase begins, the stopes are no longer accessible to personnel. This non-entry mining method offers several advantages, including, but not limited to, high productivity, reduced operating costs, efficient ore extraction, and improved worker safety.

The longitudinal mining area will be accessed by driving an ore drift inside the stopping area along the strike of the ore body. Once the drifts are developed to the extremity of the mining area, the production cycle can begin.

Subsequent stopes will be mined in the same cycle while retreating towards the main access. Stopes will be sequenced in an overhand approach.

Figure 16.15 illustrates the typical configuration of longitudinal sublevel stopes.

Figure 16.15: Longitudinal Sublevel Stope Arrangement.



16.3.2. Geotechnical Considerations

A few geotechnical studies have been carried out to date. It is recommended that a rock mechanics consulting firm be contracted to study ground and water conditions at the site and develop a plan for future engineering studies.

16.3.3. Hydrogeological Considerations

Several hydrogeological studies have been completed in the Plaoma area to assess groundwater conditions by (ELB yllA, 2012 Hidroar, 2016 y TechInGeo 2024).

Results reveale the presence of aquifer levels characteristic of a fractured and fissured environment, distinct from porous media aquifers. Water movement is primarily guided by preferential fissure planes, which typically form regional-scale fracture networks.

The underground system recharge occurs both from local and external sources, depending on the sector through which water enters the hydrogeological system. Surface runoff is limited to external sources (Deseado River) or temporary local runoff. The basins are predominantly endorheic, with transient drainage activated by heavy rainfall. The final destination of the watercourses is ephemeral lakes or low-lying areas.

Hydraulic tests conducted in 2011 were done on wells located in the Sulfuro and Arco Iris veins, as well as on a series of existing water intakes in the area.

Below is a description of the tests performed and the interpretation results for the Sulfuro:

Before the long-duration test, a step-drawdown test was performed with three increasing flow rates of 5, 7, and 9 m³/h which allowed for the selection of the first flow rate as optimal for the long-duration test due to the significant drawdown observed in the last two steps.

The constant flow rate test lasted 24 hours, with an average extraction rate of 5 m³/h and measurements of water level variations in the pumping well and four observation wells.

At the end of the test, the drawdowns recorded are shown in Table Below, from which the isodepression map was created.

Table 16-17: Drawdowns Generated During the Pumping of Well PA2

Well	Static Level(mbbp)	Dynamic Level(mbbp)	Drawdown(m)	Distance to umping Well (m)
PA2	13.2	63.12	49.92	0
S-D07-45	5.36	6.31	0.95	24
S-D07-47	12.15	18.85	6.7	49
S-D08-62	9.53	24.68	15.16	58
S-D07-49	11.78	13.94	2.16	69

Considering an average permeability of 0.04 m/day, adopted from the pumping tests conducted, an average hydraulic gradient of $8x10^{-2}$ determined from the local flow network, and an average effective porosity value of 1% derived from previous tests, the calculations indicate an effective velocity of 0.3 m/day.

This value should be considered approximate, as it results from applying formulations for porous media to a medium with different physical characteristics, such as a fractured environment (Hidroar, 2011).

16.3.4. Ground Support

The proposed standard ground support for the development consists of 1.5 m long rebars on a 1.2 x 1.2 m dice pattern with 4" x 4" 6-gauge mesh screen for the back of the excavations. Friction bolts of 1.2m or less are also installed as needed to prevent bagging in the mesh screen. In the intersections, some 2.4m long swelled bolts would be installed in a larger pattern to increase the ground support capacity.

16.3.5. Cut-off grade Calculation

The cut-off grade (COG) is the minimum concentration of minerals or metals in the ore for its extraction and processing to be profitable. It represents the grade at which the costs of extraction, processing, and marketing would equal the selling price of the extracted metal. To evaluate the Potentially Extractable Portion of the Mineral Resource Estimate, a cut-off grade was calculated for the selected mining method.

Table 16-18 shows the parameters used to estimate the mine's cut-off grade and the OPEX cost estimations for underground mining.

Table 16-18: Parameters for Cut-off Grade Estimation.

Parameter	Unit	Value
Gold Price	US$/Oz	2,100
Gold Selling Cost	US$/Oz	230
Underground Mining Cost	US$/t	40.0
Process Cost	US$/t	45.0
G&A Cost	US$/t	3.5
Transport (50 km)	US$/t	10.0
Total Operating Cost	US$/t	98.5
Gold Recovery	%	90%
Cut-off Grade	**g/t**	**1.82**

16.3.6. Mineralised Material Include in Life of Mine

16.3.6.1. Block Model

The resource block model was created using Leapfrog Software™ with the Edge module for evaluation and calculations. The Cerrado team completed the geological evaluation of the block model, and Geoestima Consultants validated this work. After the geological evaluation was finalised, the block model was imported into Surpac™ software as a single block model. Table 16-19 shows the block model properties. The block includes the estimation of three different summarised zones named Sulfuro, Esperanza and Rocio. The evaluation of the summarised material mined in the PEA includes all categories of resources: Measured, Indicated, and Inferred. A PEA is preliminary in nature and provides an initial, high-level review of the project's potential and design options.

Table 16-19: Block Model Properties.

Framework Description	Paloma Trend
Block Model file name	Paloma_System.csv
X origin (m)	2,592,760
Y origin (m)	4,715,375
Z origin (m)	-235
Rotation (azimuth)	335
X parental block size (m)	2.5
Y parental block size (m)	5.0
Z parental block size (m)	5.0
X minimal sub -blocked size (m)	0.5
Y minimal sub -blocked size (m)	1.0
Z minimal sub -blocked size (m)	1.0

The PEA mine plan and economic model include numerous assumptions and the use of Inferred resources. Inferred resources are too speculative geologically to have the economic considerations applied to them that would enable them to be categorised as mineral reserves and to be used in an economic analysis except as allowed for in PEA studies. There is no guarantee that Inferred resources can be converted to Indicated or Measured resources, and as such, there is no guarantee the Project economics described herein will be achieved. Dilution & Mining RecoveryrDilution parameters were assigned to each stope to estimate the additional dilution experienced during mining operations. A 0.5m equivalent linear overbreak slough (ELOS) was applied to the stope hanging wall and footwall. A minimum width of 5.0m was applied to the resource, along with a mining recovery factor of 95%.

16.3.7. Underground Design

16.3.7.1. Development Design

The same design parameters are applied for all the six zones of the mine. The main decline (drifted at average 14%), level access is 4.5 m wide by 4.5 m high and haulage drift are 3.0 m wide by 3.0 m high. This width and height in the ramp and level accesses allow for a conventional 15t capacity truck and support equipment. Table 16-20 is a list of the development type and their respective cross section that are present in the mine, and the total development meters of the mine. Each level is accessed through a level access and a haulage drift that leads to the crosscuts that are driven along the strike length of the stoping area for longitudinal mining. Typically, each level also has the following infrastructures: a sump, an electrical bay, a fresh air access, a return air access, and a safety egress.

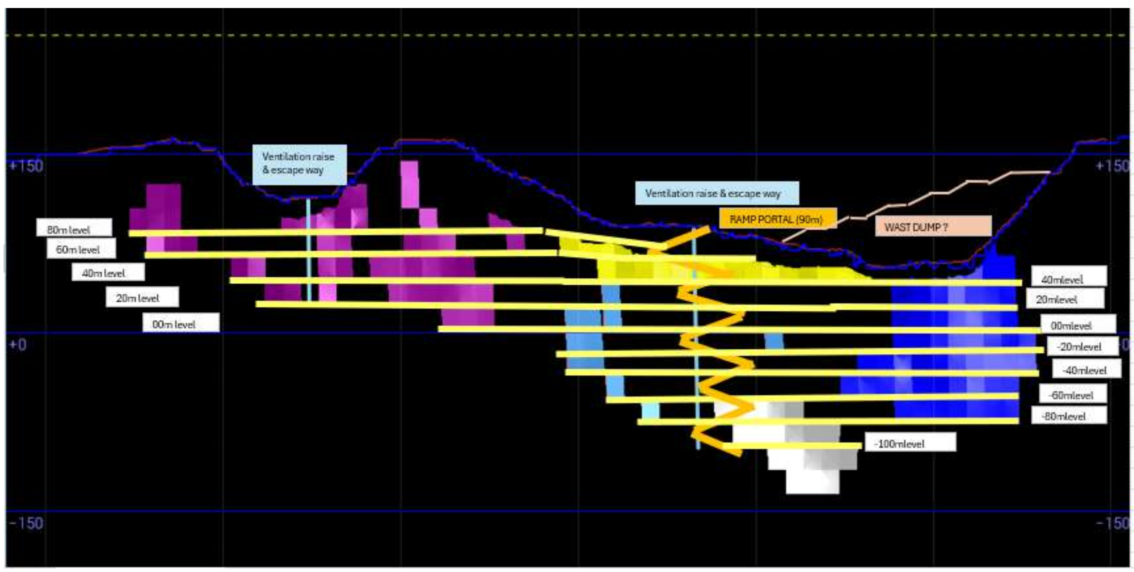
Table 16-20: Development Type and Dimensions.

Description	Unit	Length	Width	Height
Ramp	m	1,420	4.5	4.5
Level Access & Infrastructure	m	900	4.5	4.5
Ore Drifts	m	4,600	3.0	3.0
Mucking bays and others	m	250	4.5	4.5
Total Horizontal & Ramp	**m**	**7,170**		
Ventilation raises	m	300	2.0	2.0
Escape way raises	m	300	1.5	1.5
Slot raises stoping	m	1,200	1.2	1.2
Total Raises	**m**	**1,800**		

16.3.7.2. Stope Design

Paloma Trend has multiple distinctive mining horizons, and the proposed mining method is a longitudinal stoping in retreat mining. The ore body is divided into multiple lenses and grouped by six zones and Will be mined in a total of ten production levels. The orebody is sub-vertical, with stope thicknesses varying from 1m to 6m. Figure 16.16 shows the longitudinal view of the mine and the open pits Paloma Norte and Paloma Sur.

Figure 16.16: Longitudinal View Underground Sectors.



16.3.7.3. Physicals Summary

The stoping and development physicals are presented in Table 16-21 with both summarised material and waste development quantities.

Table 16-21: Underground Mine Design Physicals: Summary.

Description	Unit	Value
Mineralised Material from Development	t	53,001
Gold grade	g/t	3.08
Silver grade	g/t	13.87
Mineralised Material from Stoping	t	226,354
Gold grade	g/t	3.63
Silver grade	g/t	15.64
Waste from development	t	176,998

16.3.8. Underground Mine Operations

16.3.8.1. Development

The first step of the mine operations is the development phase.

The development cycle starts with the drilling of the heading. The drilling is performed with an electric/hydraulic one boom Jumbo. The drilling pattern includes a reamed cut to allow a drilled length of 3.05m with an effectiveness of drilling and blasting of 85% resulting an advance of 2.60m per round. The drilling pattern and diameter will be adjusted according to blasting results.

Once drilling is completed, the blasting crew will load the holes with explosives. A mix of ANFO and emulsion will be used for development blasting. Emulsion is typically used when there is an excessive presence of water. The perimeter control of the drilling should allow to reduce the dilution. The blasting of the loaded rounds will be performed at the end of every shift. A period of one hour is planned after the blasts to allow the gas clearance and coincides with the shift change. The third step of the development cycle is to muck the blasted material from the development face and to haul it with an LHD. The material is removed from the face as quickly as possible to allow the next step of the development cycle to begin. The performance of the LHD is a function of the dip of the slope and depends on the distance between the face heading and re muck. To reduce the haulage distance, re mucking points will be planned at less than 200m from the working face. The fourth step of the development cycle is to support the development face. The ground support is installed with a bolter and the ground support pattern is described in the corresponding section. Also, a Scaler is used when necessary. Next steps like surveying, geological mapping, and sampling takes place. The average total cycle, including drilling, blasting, mucking, and ground support time per round, is calculated at 40 h/round, including surveying, sampling, mapping and delays.

The vertical development such as ventilation intake raises, ventilation exhaust raises, and safety egresses will be performed by the same long hole drilling machines for stoping production. In stoping mining zones Slot Raises will be developed with the use of the long hole drills. The raises will be opened using drop-raising or Vertical Crater Retreat (VCR) method. Stoping Starting with the stope preparation process, the first step of the stoping phase is the slot raise drilling and the next step is the production drilling. After a stope is entirely drilled, the long holes are loaded with explosives, usually with ANFO or emulsion. The broken material from the stopes will be mucked by a LHD to a re muck bay and then loaded into trucks by another LHD or a FEL and transported to the surface.

16.3.9. Underground Mine Development and Production Rates

To achieve the targeted underground mine production of 279 kt of ore, multiple ore zones should be mined simultaneously. The combined production rate of the development and stoping in the various zones is set at a maximum rate of 480 t/d of ore in year 3.

16.3.10. Underground Mine Development and Production Sequencing

The development will begin with the development of the main ramp.

The approach is to reduces the initial project CAPEX and ensures that at least two zones are in production throughout the Life of Mine (LOM).

While the goal is to access the first stoping areas as quickly as possible, the development of the primary ventilation network is also a priority to allow stoping.

The stope production can only begin once the ventilation raises, and the emergency egress are completed.

The first zones to produce summarised material are zones s6 and s2 when the development of the ore drifts 80m Level North and 40m Level South arrive to the limits of the summarised zones, hence stoping begins approximately on second quarter of year 2.

The production profile of the underground mine is summarised in Table 16-22 and Table 16-23 presents the summarised material distribution for the project.

Table 16-22: Production Profile.

Description	Unit	2026	2027	2028	2029
Ramp & Infrastructure	m	555	750	865	0
Level access & Infrastructure – waste	t	29,221	39,488	45,542	0
Ore Drifts	m	370	1,065	630	200
Ore Drifts – Mineralised Material	t	8,658	24,921	14,742	4,680
Gold grade	g/t	3.34	2.74	3.76	2.26
Silver grade	g/t	17.28	11.80	16.14	11.46
Ore Drifts – Waste	t	1,919	35,135	17,503	8,190
Stoping – Mineralised Material	t	0	27,921	142,463	55,970
Gold grade	g/t	0	4.46	3.81	2.77
Silver grade	g/t	0	20.20	16.41	11.41
Total Mineralised Material	t	8,658	52,842	157,205	60,650
Gold grade	g/t	3.34	3.65	3.80	2.73
Silver grade	g/t	17.28	16.24	16.39	11.41
Total Waste	t	31,140	74,623	63,045	8,190

Table 16-23: Mineralised Material Distribution.

	Measured			Indicated			Inferred		
Area	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)	Tonnes (t)	Gold grade (g/t)	Silver grade (g/t)
Paloma Trend	-	-	-	216,552	3,95	17.10	62,896	2.17	8.41

16.3.11. Underground Mine Equipment

The requirements in terms of underground equipment were determined based on the number of operating hours needed to achieve the projected production and development rates achieved in the mine plan.

Mucking and hauling cycles are determined based on a fixed distance between stopes and trucks, or between loading bays and trucks.

Haulage cycles consider the distances from the loading point in the footwall level access, then up the ramp, and to the surface stockpile.

The quantities of non-critical auxiliary equipment were estimated based on the size of the operation or derived from other equipment requirements.

Table 16-24 shows the results of the equipment requirements for the LOM.

Table 16-24: Equipment Requirements.

Equipment	Requirement
One boom Jumbo	2
Long Hole Drill	2
Bolter	2
Scaler	1
Shotcreting	1
Scissor Lift	1
ANFO Charger	1
LHD (2 yd^3 and 2.5t capacity)	3
Truck (conventional 15t capacity)	2
Pickups	3
Tractors (mechanics and electricians)	2
Fuel & Lubricating Truck	1
Diesel generator	2

16.3.12. Underground Mine Labour

The mine site is located approximately 280 km south-west from Comodoro Rivadavia in the province of Santa Cruz Argentina. It is anticipated that the workforce will be on a fly-in fly-out rotational Schedule of 14 days in and 14 days out.

A total UG workforce of 98 is estimated to be employed for the underground project. Note that some positions are shared with the open pit mine workforce and thus are not accounted for in this section.

Underground mine labour is shown in Table 16-25.

Table 16-25: Underground Mine Staff.

Function	Staff	Number	Staff
	Per shift	shifts/day	Total (14/14t)
Long Hole Driller	1	3	6
Blast charger	1	3	6
LHD Operator	1	3	6
FEL operator	1	2	4
Truck Operator	1	2	4
Jumbo operator	1	3	6
Rock bolter	1	3	6
Service	2	3	12
Shotcrete	2	1	4
Mine Maintenance			
Surface Mobile Mechanic	1		2
Underground Mobile Mechanic	1	1	2
Electrician	1		2
Underground Electrician	1	1	2
Technical Staff			
Senior Engineer			2
Surveying – Lead	1	2	4
Surveying – Help	1	2	4
Senior Geologist			2

Function	Staff Per shift	Number shifts/day	Staff Total (14/14t)
Sampling	1	3	6
Safety officer	1	3	6
Ventilation			2
Geomechanical			2
Mine Planner			2
Mine Supervision	1	3	6
TOTAL LABOUR			**98**

16.3.13. Underground Mine Ventilation

The actual studies have no details of ventilation circuits. These will be developed in the next stages of the Project. Basically, the intake air will be through the main ramp and the flow will be held by exhaust fans installed in the ventilation raise close or the ramp system and another ventilation raise on the North side. Once a lower level is developed a 20m raise will be opened creating a new circuit including this new level.

For the development of the ramp, infrastructure and ore drifts a system of secondary fans will be installed with inflow piping to bring fresh air to the faces.

16.3.13.1. Ventilation Fresh Requirements

The actual studies have no details of ventilation circuits. These will be developed in the next stages of the Project. Basically, the intake air will be through the main ramp and egress raises and the flow will be produced by exhaust fans installed in the ventilation raise close to the ramp system and another ventilation raise on the North side. Once a lower level is developed a 20m raise will be opened including to the main circuit this new level.

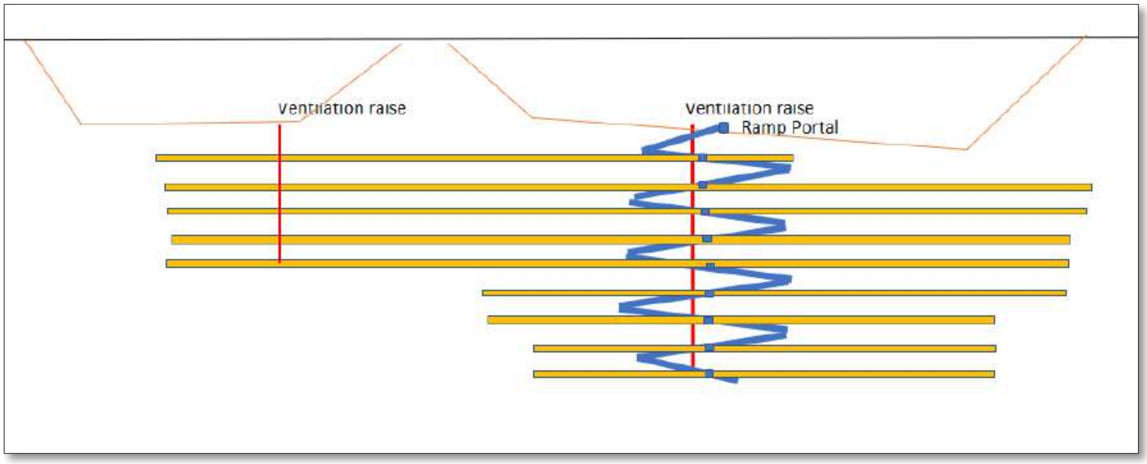
For the development of the ramp, infrastructure and ore drifts a system of secondary fans will be installed with inflow piping to bring fresh air to the faces.

Development ramp, infrastructure for every level and ore drives will have an inflow of 8m3/sec enough for the LHD 106kW. The fan will be installed in the intake air circuit and an 800mm diameter duct with less than 300m length.

16.3.13.2. Ventilation Design

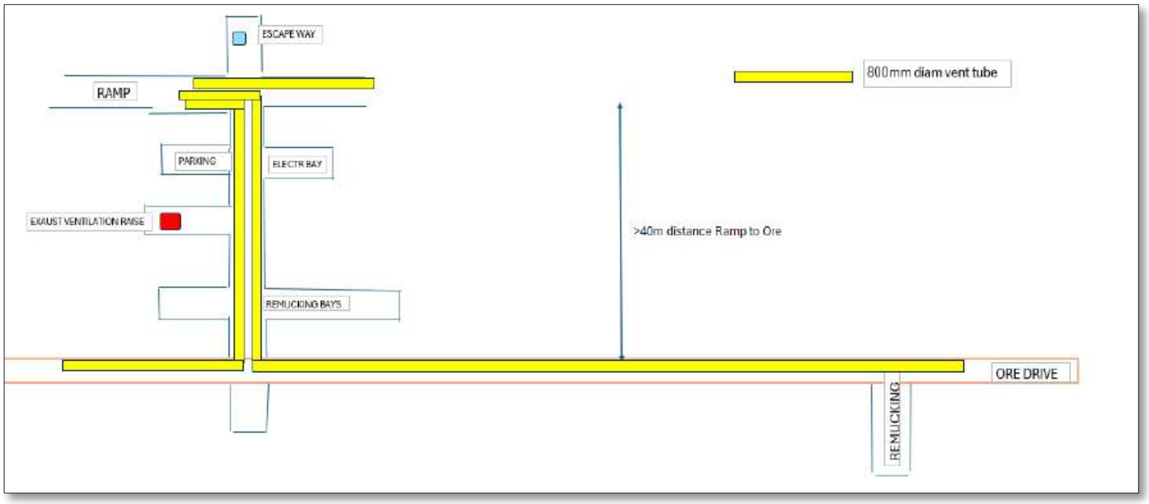
The mine ventilation system is illustrated in Figure 16.17 and Figure 16.18, as described in the previous section.

Figure 16.17: Mine Ventilation System.



The drawing below illustrates the secondary ventilation system.

Figure 16.18: Secondary Ventilation System.



16.3.14. Underground Mine Services

16.3.14.1. Dewatering

There is no detailed hydrogeological study of the mine yet.

During the development of the ramp and levels an auxiliary pump will pump water to the deepest level and from there to Surface. A pumping system will be installed near the deepest production level and an intermediate pumping station will be required due to the overall Depth (170m).

Water from the underground mine will be pumped to a surface pond and will then be reused for the mine operations.

Mine operations water consumption will be calculated based on the equipment lists and their respective water consumptions.

16.3.14.2. Communications

An underground network with leaky feeder radio communication system will be installed on site and will be expanded over the LOM. Mobile equipment operators, light vehicles, and supervisors will be equipped with handheld radios to communicate with personnel on surface.

16.3.14.3. Fuel Storage

Fuel will be stored on the Surface, and a fuel truck is also planned as part of the fleet to distribute the fuel to underground equipment that cannot travel quickly to the surface for refuelling.

16.3.14.4. Explosives storages and Handling

Underground explosive and detonator magazines will be installed in a designated location.

Explosives and accessories will be delivered to the mine site by the local explosive supplier. A one-month stock Will be kept in the main magazines. Every day the explosive truck that serves the open pit will deliver the daily consumption to the underground mine. An adequate truck will transport the explosives and accessories from the portal to the underground stocks and to the development heads and stopes to by flatbed service truck for later use.

16.3.14.5. Personnel and Underground Material transportation

Supplies and personnel will access the underground mine via the main access ramp. A series of pickups will be used to transport workers in the underground mine from surface. Supervisors and technical services will also use pickups for transportation underground. Mechanical and electrical personnel will use maintenance tractors. The construction team will use the same type of tractor. A flatbed truck equipped with a service boom will be used to move supplies from the surface to the underground active heading, stope, and material storage.

16.3.15. Underground Mine Safety Measures

16.3.15.1. Emergency Exits

The main ramp is planned to provide primary egress from the underground workings. For secondary egress, most of the ventilation raises will be equipped with manways, and many of the drift connections between different mine area zones will serve as secondary egress. The safety egress will be equipped with prefabricated modular manway systems.

16.3.15.2. Refuge Stations

Refuge stations will be positioned so that all employees would access a refuge in less than 15 minutes from the moment they leave their workplace or at every 1,000 m.

Each refuge station will be equipped with the following:

- Telephone or radio to surface, independent of mine power supply

- Compressed air, water lines, and water supply
- Emergency lighting
- Hand tools and sealing material
- Plan of the underground work showing all exits and the ventilation plans
- All other necessary items according to the applicable regulation

16.3.15.3. Fire Protection

Underground mobile vehicles will be equipped with automatic fire suppression systems in accordance with regulations. Fire extinguishers will be provided and maintained in accordance with regulations and best practices at the electrical installations, pump stations, service garages and wherever a fire hazard exists. Every vehicle will carry at least one fire extinguisher of adequate size and proper type.

16.3.15.4. Mine Rescue

Fully trained and equipped mine rescue teams will be established in accordance with Québec regulations. Mine rescue equipment and a foam generator will be located on site.

Rescue teams will be trained for surface and underground emergencies. An emergency response plan will be developed and kept up to date as the mine and regulations evolve.

16.4. Combined Production

16.4.1. Mine Plan Schedule

The combined open pit and underground mine plant consider the operation of three mines simultaneously, one underground project and the stockpile rehandle in the final mine of life. The open pit has a 5-year of operation, and the underground project has 3.25 years.

The overall mine strip ratio for the PEA is 0.87:1 (waste: feed). The detailed annual mining summary is shown in Table 16-26.

16.4.2. Processing Schedule

The production plant includes the operation of two metallurgical process plants. The Heap Leaching (HL) and Carbon-In-Leach (CIL).

The CIL process is feed with the highest grade available from both open pits and underground while the lower grade from the open pits and existing stockpiles is send to the HL process. The total operation is achieved for 5-year.

The detailed annual of process plan is shown in Table 16-27.

16.5. Comments on Section 16

The PEA mine plan is based on a subset of the Mineral Resource estimates and assumes open pit mining of the Calandrias Norte, Calandrias Sur and Zorro, Paloma Trend deposit will be followed by sublevel longitudinal stoping and the stockpile rehandle of the existing Martinetas stockpiles, and the low grade extracted of Zorro.

The open pit will operate for 5 years. The sublevel longitudinal stoping will operate for 3.25 years. The Don Nicolas Gold Project is expected to be in operation for 5 years.

Table 16-26: Mine Plan Summary.

	Unit	Total	April – Dec 2024	2025	2026	2027	2028	1Q 2029
			Mine Surface					
Calandrias Norte								
Waste	t	918,284	918,284					
Mineralised Material	t	63,374	63,374					
Gold grade	g/t Au	14.49	14.49					
Silver grade	g/t Ag	22.89	22.89					
Calandrias Sur								
Waste	t	10,833,127	3,971,645	3,120,818	2,259,683	1,125,865	355,116	
Mineralised Material	t	13,667,393	1,065,545	3,600,000	3,600,000	3,600,000	1,801,849	
Gold grade	g/t Au	0.94	0.56	0.69	0.80	1.29	1.28	
Silver grade	g/t Ag	13.71	6.26	6.83	13.32	20.89	18.27	
Zorro								
Waste	t	1,547,777	1,131,643	416,133				
Mineralised Material HG	t	114,342	75,339	39,003				
Gold grade	g/t Au	1.94	1.68	2.45				
Silver grade	g/t Ag	8.30	6.85	11.10				
Mineralised Material LG	t	166,719	92,001	74,718				
Gold grade	g/t Au	0.58	0.58	0.58				
Silver grade	g/t Ag	5.29	5.08	5.55				
Stockpile In								
Mineralised Material	t	166,719	92,001	74,718				
Gold grade	g/t Au	0.58	0.58	0.58				
Silver Grade	g/t Ag	5.29	5.08	5.55				
Stockpile Balance								
Mineralised Material	t		1,043,745	1,118,463	1,118,463	1,118,463	458,463	
Gold grade	g/t Au		0.54	0.55	0.55	0.55	0.55	
Silver Grade	g/t Ag		2.31	2.53	2.53	2.53	2.53	
Martinetas Stockpile Rehandle								
Mineralised Material	t	1,118,464					660,000	458,464
Gold grade	g/t Au	0.55					0.55	0.55
Silver recovery	%	2.53					2.53	2.53
Total Moved Surface								
Waste	t	13,299,188	6,021,573	3,536,951	2,259,683	1,125,865	355,116	
Mineralised Material	t	15,130,292	1,296,259	3,713,721	3,600,000	3,600,000	2,461,849	458,464
Gold grade	g/t Au	0.97	1.30	0.70	0.80	1.29	1.08	0.55
Silver recovery	%	12.79	7.03	6.85	13.32	20.89	14.05	2.53

	Unit	Total	April – Dec 2024	2025	2026	2027	2028	1Q 2029
Mine Underground								
Paloma Trend								
Waste	t	176,998			31,140	74,623	63,045	8,190
Mineralised Material Develop	t	53,001			8,658	24,921	14,742	4,680
Gold grade	g/t Au	3.08			3.34	2.74	3.76	2.26
Silver grade	g/t Ag	13.87			17.28	11.80	16.14	11.46
Mineralised Material Stopes	t	226,354				27,921	142,463	55,970
Gold grade	g/t Au	3.63				4.46	3.81	2.77
Silver grade	g/t Ag	15.64				20.20	16.41	11.41
Total Underground								
Waste	t	176,998			31,140	74,623	63,045	8,190
Mineralised Material Develop	t	53,001			8,658	24,921	14,742	4,680
Gold grade	g/t Au	3.08			3.34	2.74	3.76	2.26
Silver grade	g/t Ag	13.87			17.28	11.80	16.14	11.46
Mineralised Material Stopes	t	226,354				27,921	142,463	55,970
Gold grade	g/t Au	3.63				4.46	3.81	2.77
Silver grade	g/t Ag	15.64				20.20	16.41	11.41
Total Moved								
Waste	t	13,476,113	6,021,500	3,536,951	2,290,823	1,200,488	418,161	8,190
Mineralised Material	t	15,409,647	1,296,259	3,713,721	3,608,658	3,652,842	2,619,055	519,114
Gold grade	g/t Au	1.02	1.30	0.70	0.81	1.32	1.24	0.80
Silver grade	g/t Au	12.83	7.03	6.85	13.33	20.83	14.19	3.57

Table 16-27: Process Plan Summary.

	Unit	Total	April – Dec 2024	2025	2026	2027	2028	1Q 2029
Mine								
Calandrias Norte								
Mineralised Material	t	63,374	63,374					
Gold grade	g/t Au	14.49	14.49					
Silver grade	g/t Ag	22.89	22.89					
Zorro								
Mineralised Material HG	t	114,342	75,339	39,003				
Gold grade	g/t Au	1.94	1.68	2.45				
Silver grade	g/t Ag	8.30	6.85	11.10				
Paloma Trend								
Mineralised Material HG	t	279,355			8,658	52,842	157,205	60,650
Gold grade	g/t Au	3.53			3.34	3.65	3.80	2.73
Silver grade	g/t Ag	15.31			17.28	16.24	16.39	11.41
CIL								
Mineralised Material	t	457,071	138,713	39,003	8,658	52,842	157,205	60,650
Gold grade	g/t Au	4.65	7.53	2.45	3.34	3.65	3.80	2.73
Silver grade	g/t Ag	14.61	14.18	11.10	17.28	16.24	16.39	11.41
Gold recovery	%	90%	90%	90%	90%	90%	90%	90%
Silver recovery	%	61%	61%	61%	61%	61%	61%	61%
Calandrias Sur								
Mineralised Material	t	13,667,393	1,065,545	3,600,000	3,600,000	3,600,000	1,801,849	
Gold grade	g/t Au	0.94	0.56	0.69	0.80	1.29	1.28	
Silver grade	g/t Ag	13.71	6.26	6.83	13.32	20.89	18.27	
Martinetas								
Mineralised Material	t	1,118,464					660,000	458,464
Gold grade	g/t Au	0.55					0.55	0.55
Silver Grade	g/t Ag	2.53					2.53	2.53
HL								
Mineralised Material	t	14,785,857	1,065,545	3,600,000	3,600,000	3,600,000	2,461,849	458,464
Gold grade	g/t Au	0.92	0.56	0.69	0.80	1.29	1.08	0.55
Silver Grade	g/t Ag	13.07	6.26	6.83	13.32	20.89	14.05	2.53
Gold recovery	%	46%	65%	61%	48%	37%	39%	50%
Silver recovery	%	24%	34%	32%	25%	21%	21%	30%

17. RECOVERY METHODS

17.1. Background

Minera Don Nicolas currently processes around between 1,000 to 1,200 tpd of gold-silver ore in a plant in leach whit carbon activated in pulp (CIL process) and around 8,000 to 10000 tpd of low grade gold-silver ore in a heap leach plant. The CIL plant, located at Las Martinetas, was originally developed for treating ore from Martinetas and Las Palomas deposits, but now is treating ore coming from Las Calandrias deposits. The heap leach plant was developed for processing ore from Calandrias Sur deposit and adjacent deposits.

Below is a description of the recovery methods applied in these two ore processing facilities currently treating ore coming from Las Calandrias deposits. The design and operational parameters of these ore processing facilities are outlined and summarized in this chapter

17.2. Gold Recoveries in the Processing Plants

The Table 17-1 shows the gold recoveries obtainable for the mineral resources that could be processed in the two processing facilities mentioned above.

Table 17-1: Gold Recoveries in the Processing Plants.

<table>
<tr><th colspan="4">for Mineral Resources Criteria</th><th></th><th></th></tr>
<tr><th>Processing Plant</th><th>Ore Type</th><th>Calandria Sur</th><th>Calandria Norte</th><th>Zorro & Martinetas</th><th>Paloma (UG)</th></tr>
<tr><td>Martinetas CIL
80% - 75 µm</td><td>All</td><td>…</td><td>90%</td><td>90%</td><td>90%</td></tr>
<tr><td rowspan="3">Las Calandrias Heap Leach
80% -12.7 mm</td><td>Oxide</td><td>70%</td><td>…</td><td>…</td><td>…</td></tr>
<tr><td>Transition</td><td>60%</td><td>…</td><td rowspan="2">50%</td><td>…</td></tr>
<tr><td>Primary</td><td>40%</td><td>…</td><td>…</td></tr>
</table>

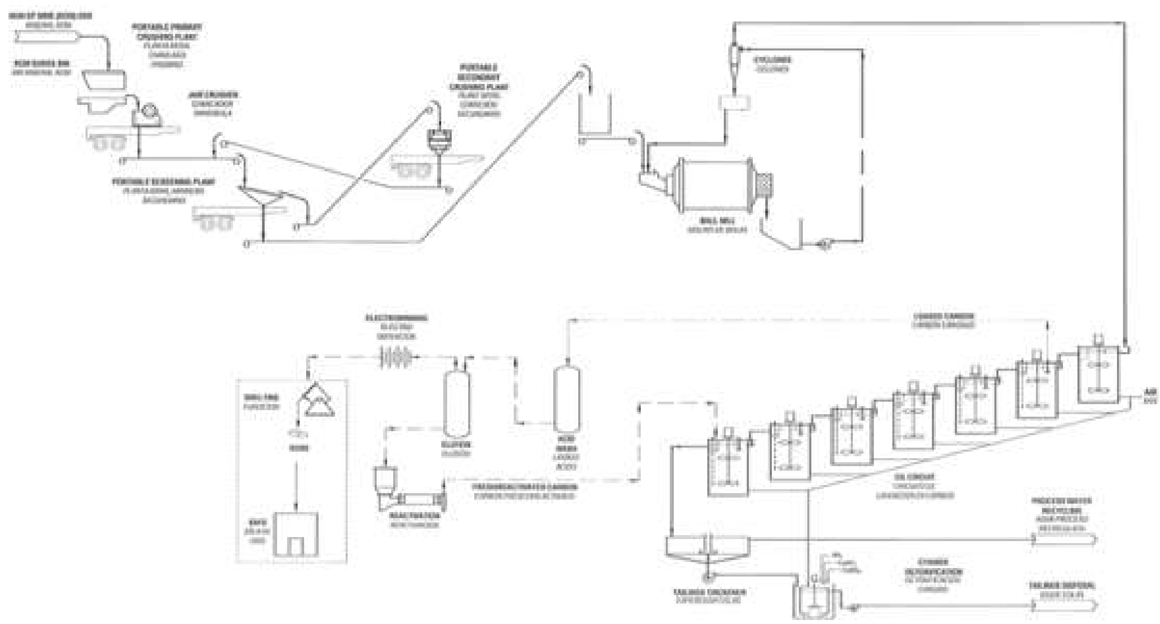
17.3. Carbon-in-leach Processing

This section describes the recovery methods used for the conventional crushing/grinding, carbon in leach circuit and carbon gold strip, and gold recovery (EW & smelting) processing facilities. This gold recovery process was designed based on leaching 0.36 Mt of ore per year with an average gold head grade of 4.6 g/t at an overall gold recovery of +90%. The crushing/grinding plant and CIL unit can operate at a nominal 56 – 58 t/h throughput, 360 days per year. The loaded carbon processing plant operates with carbon batches of 3 t carbon/batch. The gold-bearing solution flows from elution to the EW cells at a nominal rate of 12.5 m3/h. This gold recovery plant was designed to produce 14 kg of metal per day. Gold desorption and refining to produce the gold doré are carried out at Las Martinetas processing plant.

17.3.1. Processing Plant Flowsheet

The general processing flowsheet, with major flows, and plant equipment for Martinetas CIL Plant is shown in the Figure 17.1.

Figure 17.1: CIL Plant (Martinetas) General Flowsheet.



17.3.2. Process Design Criteria

The process design criteria detail the annual ore throughput, major flows, and plant operating parameters for Martinetas CIL Plant. The key process design criteria are summarised in the Table 17-2.

Table 17-2: Key Process Design Criteria. CIL Leach Processing.

Parameter	Unit	Value
Annual treatment rate, nominal	t/y	360,000
Au head grade, average	g/t	4.6
Crushing/Grinding Operation	days/y	360
Crushing/Grinding/CIL Throughput	t/h	60
Crushing Circuit Configuration		2 stages, with closed circuit
Grinding Circuit Configuration		Ball mill + classification cyclones in closed loop
Crushing/Grinding Plant Operation	h/d	24
Crushing Circuit Product Size, P80	µm	6,350
Grinding Circuit Product Size, P80	µm	75.0
CIL Circuit Configuration		1 leach tank + 6 CIL tanks
Retention Time	hours	36
Carbon load in CIL circuit	g/L	18
NaCN concentration in CIL leach	mg/L	324 to 720
Loaded carbon batch size in CIL leach	t	3.0
CIL slurry thickened density	% solids	37 – 50
Average Au recovery	%	90
Carbon elution cycle	hours	18
Tailings density at disposal	% solids	52 – 55
EW/smelting capacity, design	kg metal/d	14

17.3.3. Process Description

17.3.3.1. Crushing/Grinding Plant

Run-of-mine ore (ROM), with a nominal size of 600 mm, is trucked from the open pits and dumped directly into a primary crushing feed hopper. Primary crusher feed is drawn from the feed hopper by an apron feeder discharging onto a vibrating grizzly screen. The grizzly screen oversize feeds the primary jaw crusher. The grizzly undersize and jaw crusher products are transported to the secondary screen by a secondary screen feed conveyor, which is equipped with a metal detector and magnet. The crushing plant operates 360 days per year. If the crushing plant is down, the mine haul trucks dump onto the ROM stockpile. A FEL is used to reclaim the ROM material and deliver the material to the dump pocket. The ROM stockpile is also used to feed the crusher if the mining operations are suspended. Ore from the secondary screen feed conveyor is transported to the secondary vibrating screen. Screen undersize material (final product with a P80 of 12 mm to 7 mm) is conveyed to the grinding circuit.

The mill circuit is designed to reduce the size of the crushed material down to a product P80 of 75 microns. The grinding process is carried out in a single stage with a ball mill in a closed loop with classification cyclones.

- Crushed ore is drawn from the fine ore bin using a belt feeder with controlled speed and regulation of pencils in of the discharge of fine ore bin. This feed material is discharged onto the ball mill belt feeder. The mill is fed at a nominal rate of 50 – 55 t/h. The cyclone's underflow is also part of the ball mill feed. Process water is added, as needed, to maintain the mill charge slurry at 60 – 72% solids.
- The classification circuit includes a cyclone feed box, cyclone feed pumps, and a classification cyclone group. The cut size for the cyclones is a P80 particle size of 75 microns and the circulating charge is 400%. Cyclone underflow is redirected to the ball mill for additional milling.
- Milk of lime is added to the ball mill by thoung with an endless screw directly from the lime silo that discharges about the conveyor belt that feeds ore to the mill, to adjust the pH in 10 – 10,8 of the mill slurry before it enters the leach circuit. Steel mill balls of 2,5 inch are periodically added to the circuit to maintain milling efficiency and power between 1050 – 1070 KW. The ball mill make-up size is 63,5 mm (2,5 inches). CIL Leach & Tailings Handling.

In the CIL leach circuit gold and silver contained in the ground ore is leached with solution cyanide and adsorbed on activated carbon. The CIL leach circuit consists of:

- feed distribution box;
- leach tank, 8.25 m diameter x 9.28 m height, with 30 kW agitator;
- six CIL leach tanks, 8.25 m diameter x 9.28 m height, with 30 kW agitators each;
- six 22.5 m3/h carbon slurry advance pumps;
- loaded carbon recovery and reactivated carbon feed screens;
- and, a carbon safety screen, to retain fine carbon leaving the CIL circuit.

The pulp coming from the grinding circuit is fed to the leach tank 131 which is used to condition the pulp and allow oxidation. Subsequently, the pulp is fed by overflow to tank 132 where cyanide solution is added. Concentration in the CIL circuit, between 324 and 720 mg/L sodium cyanide, depending on the type of material being treated in the plant.

Under design conditions, the carbon concentration on each CIL tank is kept at a nominal value of 18 g/L. The nominal transference of gold-loaded carbon to elution from the secont CIL tank 132 is daily 3 t of carbon in a slurry volume of 167 m3/d. To balance this transference of carbon to the next processing stage, 3 t of a blend of reactivated carbon o fresh carbon are added to the final CIL tank each day. The transfer slurry pumps are used to transfer slurry and carbon between the CIL tanks to allow for keeping the design concentration of carbon of 18 g/L in each CIL tank.

The leached slurry leaves the CIL circuit from the last CIL tank and Is discharged onto the carbon safety screen. This vibratory screen is used to prevent carbon particles leave the circuit with the leached tailings. All carbon collected in this screen is returned to the CIL circuit. The underflow of the safety screen is discharged onto the tailings thickener. The leached tailings are thickened to maximize the recovery of water and cyanide before the cyanide detoxification and final disposal of them.

CIL tailings are thickened to 52 – 58% solids before they are pumped into the cyanide detoxification system. This later system consists of a single tank with an agitator (residence time of 1.2 hours) and air injection that receives detoxification reagents, hydrogen peroxide. Process recuperate water is also foresees added into this tank to reduce slurry density to 45 – 50% solids, which facilitates the efficiency of the detoxification reactions. The overflow of the detox tank is directed to the existing tailings storage facility. The downstream processing of the loaded carbon coming from the CIL circuit is carried out with the following batch processes:

- Acid wash, where the batch of carbon is washed with a hydrochloric acid solution to eliminate lime and other inorganic contaminants from the carbon.
- Neutralization with caustic soda, to wash the carbon with water and caustic soda to remove traces of hydrochloric acid.
- Elution, in a pressurized column with a Zadra modified system with a heated solution of sodium cyanide and sodium hydroxide, to generate a pregnant solution that is sent to further processing.
- Reactivation, in a kiln (680 to 750 °C) to remove contaminants from the carbon and regenerate its porous structure. The activated carbon is sent back to the CIL circuit.

The gold & silver pregnant solution obtained in the elution system is processed by an electrowinning process in two EW cells. The precious metals are electrodeposited on stainless steel wool cathodes. The design EW rate is 14 kg of metal (gold and silver) daily.

At the end of the EW cycle, the cells are drained, and the cathodes are washed. The resulting slurry formed by metal and cathodic slime is pumped through a filter press to remove the solution sent back to the EW system or the CIL circuit. The slime collected in the filter is sent to further processing in the smelting area of this processing plant.

The precious metals slime is first dried in trays before is passed to the tilting smelting furnace, where the slime is mixed with borax, sodium nitrate, carbonate and silica sand. At the end of the smelting, and slagging periods, the melted metal is discharged from the furnace onto a cascade mold unit to form doré bars. These bars are cleaned, identify correlatively, are sampled and weighed and stored in a doré vault before are sent to their destination.

The doré samples are sent to the chemical laboratory for determination of % gold, silver and impurities. Leaving a counter sample saved to send for reanalysis if necessary.

The slag produced in the doré smelting process is crushed in a small jaw crusher to be re-smelted or sent to the feed of the ball mill in the ore grinding area.

17.3.3.2. Energy, Water and Reagents Consumption

The power demand for this gold recovery process is equivalent to 56.00 kWh/t ore, which is composed of the following sources:

- Crushing circuit, 2.0 kWh/t.
- Grinding circuit, 45.05 kWh/t.
- CIL circuit & tailings thickening, 8.25 kWh/t.

- Carbon elution & reactivation, 0.45 kWh/t.
- EW & doré smelting, 0.25 kWh/t.

The water usage of this gold recovery process is equivalent to 1.44 m3/t ore, which is composed of the following sources:

- Grinding circuit, 0,77 m3/t.
- Tailings disposal, 0.05 m3/t.
- Carbon elution & reactivation, 0.60 m3/t.
- EW & doré smelting, 0.02 m3/t.

Activated carbon is delivered to the site in 0.5 t super sacks. The carbon consumption rate for this processing plant is 0.07 kg/t of ore.

Sodium cyanide briquettes are delivered to the site in containers and 1 t super sacks in a wood frame. The briquettes are mixed in the cyanide mix tank and transferred to the cyanide solution storage tank. The concentrated cyanide solution is added to the barren tank at a rate of 1.8 kg/t of ore. The principles and standards of practice for the transport to site and handling of cyanide on site are by the guidelines set out in the International Cyanide Management Code (ICMC).

Lime is delivered to the site trucks and stored in a lime silo. The lime will be delivered at 0,7 – 1.35 kg/t of ore.

Other reagents and supplies that are required for the operation of this ore processing plant are the following:

- Sodium hydroxide, 0.22 kg/t.
- Hydrochloric acid, 0.27 kg/t.
- Hydrogen peroxide, 1.55 – 1,8 kg/t
- Floculant, 0.05 kg/t.
- Antiescaling, 0,034 kg/t.
- Natural gas, for uses in carbon elution & smelting processes and general process heating,18.35 m3/t.

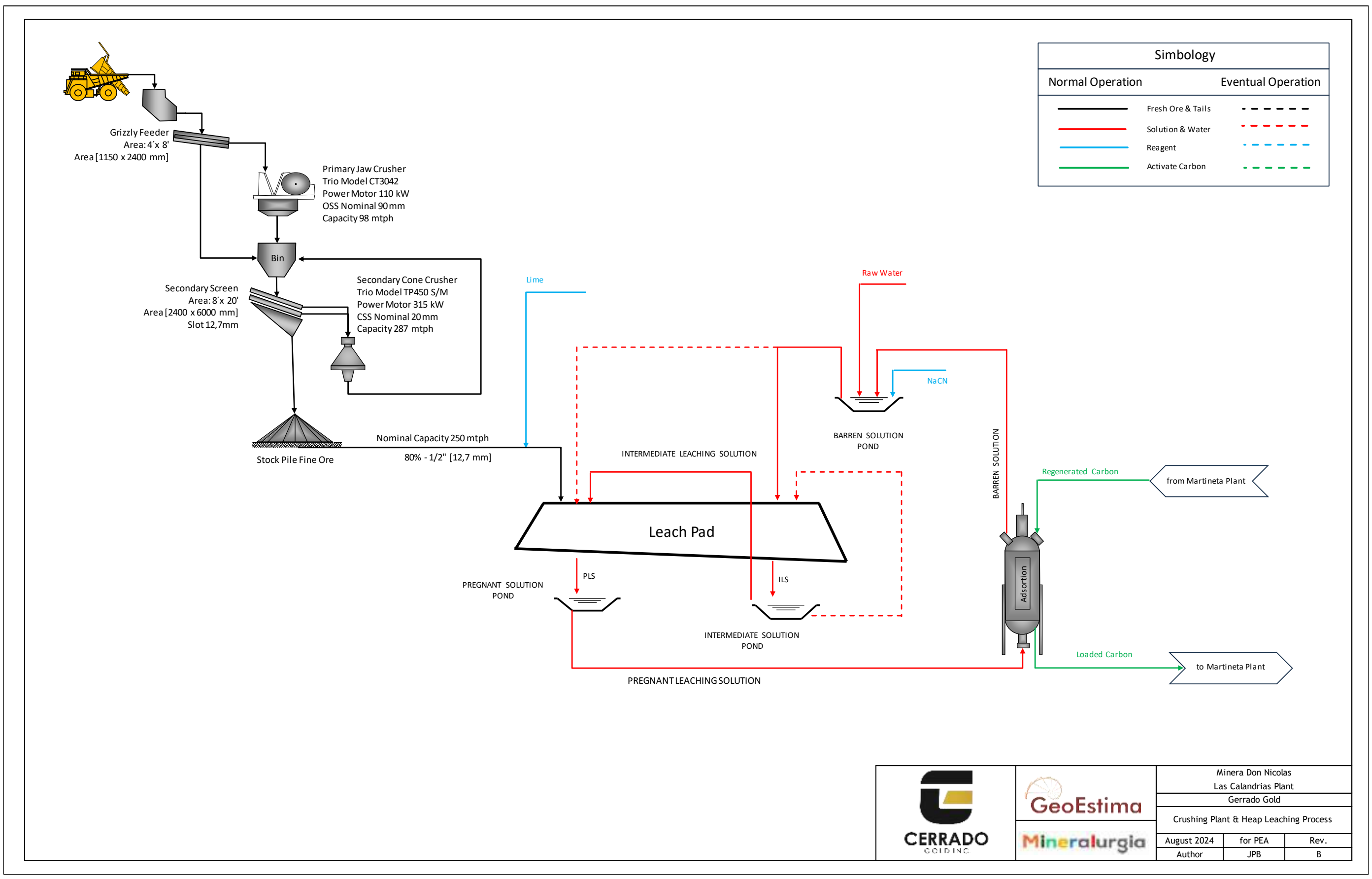
17.4. Heap Leaching Processing

This section describes the recovery methods used for the crushing, heap leach and pregnant leach solution (carbon in the column) processing facilities. The gold recovery process was designed based on leaching 1.8 Mt of ore per year with an average gold head grade of 1.0 g/t at an overall gold recovery of 70%. There are two line of trituration two-stage with a processing capacity of 10000 tpd each one crushing plant operates at a nominal 250 t/h throughput, 360 days per year. The solution processing plant, located near to and down-gradient from the heap leach pad to minimize the pumping and pipeline requirements for pregnant and barren solutions, operates 365 days per year. The pregnant solution flows to the CIC plant at a nominal rate of 130 – 160 m^3/h and a design flow rate of 108 m^3/h. This plant was designed to process 12.75 t of carbon per day using an absorption process to extract gold from the pregnant solution. Gold desorption and refining to produce the gold doré are carried out at Las Martinetas processing plant.

17.4.1. Processing Plant Flowsheet

The general processing flowsheet, with major flows and plant equipment for the Heap Leach Plant, is shown in the Figure 17.2.

Figure 17.2: General Flowsheet of Heap Leach Plant.



17.4.2. Process Design Criteria

The process design criteria detail the annual ore throughput, major flows, and plant operating parameters. The key process design criteria are summarised in the Table 17-3.

Table 17-3: Key Process Design Criteria. Heap Leach Processing.

Parameter	Unit	Value
Annual treatment rate	t/y	3,480,000
Crushing Plant Operation	days/y	360
Crushing Plant Throughput	t/h	500
Crushing Plant Configuration		2 stages, with closed circuit
Crushing Plant Operation	h/d	20
Crushing Plant Product Size, P80	mm	12.7
Heap Loading and Spreading Method		Truck and dozer
Heap loading operation rate	t/d	10,000
Heap lift height	m	10
LOM Heap Loading tonnage	t	7,492,563
LOM feed grade, range	g/t Au	0.46 to 2.72
Average LOM feed grade	g/t Au	0.88
Leach cycle	days	40
Solution application rate	l/h/m2	4 – 6 – 10
Area under leach	m2	108,000
LOM Au recovery, range	%	36.0 to 70.0
Overall ultimate LOM Au recovery	%	53.9
Pregnant solution flow to CIC	m3/h	130 – 170
Carbon in columns		2 train x 3 columns and 1 train x 2 columns

17.4.3. Process Description

17.4.3.1. Crushing Plant

Run-of-mine ore (ROM) is trucked from the open pits and dumped directly into a primary feed hopper. Primary crusher feed is drawn from the feed hopper by an apron feeder discharging onto a vibrating grizzly screen. The grizzly screen oversize feeds the primary jaw crusher. The grizzly undersize and jaw crusher products are transported to the secondary screen by a secondary screen feed conveyor, which is equipped with a metal detector and magnet. The crushing plant operates 360 days per year. If the crushing plant is down, the mine haul trucks dump onto the ROM stockpile. A FEL is used to reclaim the ROM material and deliver the material to the dump pocket. The ROM stockpile is also used to feed the crusher if the mining operations are suspended.

Ore from the secondary screen feed conveyor is transported to the secondary vibrating screen. Screen undersize material (final product with a P80 of 12.7 mm) is conveyed to the heap leach feed stockpile. Lime is added to the stockpile feed conveyor from the lime silo by screw conveyor for pH control at a rate of 1.5 kg/t. Screen oversize material is conveyed to the secondary cone crusher. The secondary cone crusher discharge and jaw crusher product combine on the secondary screen feed conveyor back to the secondary screen.

17.4.3.2. Heap Leach

The heap leach pad was designed to allow crushed ore stacking to a maximum height of approximately 50 m (measured vertically over the liner system), which results in an original design capacity of 5.6 Mt. The heap leach comprises a multi-lift (nominally 10 m per lift), free-draining heap over a gently sloping heap leach pad.

The leach pad (172,200 m^2) is graded and was constructed in a nominally balanced cut-and-fill manner using a locally borrowed rock for structural fill, supplemented by mine waste including waste rock. This pad has permanent and interim perimeter diversion channels and berms to manage surface water flows. It also has perimeter access and ore haulage roads. The Leach pad liner system consists of:

- graded subgrade to provide a non-puncturing surface for the geosynthetic liner
- leak detection using horizontal wick drains
- reinforced geosynthetic clay liner (GCL)
- primary geomembrane liner, 2.0 mm thick linear low-density polyethylene.
- overlined gravel (crushed ore), 500 mm thick, with drainage pipes, to protect the liner from ripping during initial ore stacking and to minimize the hydraulic head directly over the geomembrane.

The heap leaching process was designed to allow ore irrigation with drippers at an irrigation rate of 4 – 6 – 10 $l/h/m^2$. The nominal barren solution flow for irrigation is 150 – 170 m^3/h and the pregnant solution flow from the heap is 130 – 160 m^3/h.

17.4.3.3. Carbon in column

The carbon in column system is based on a conventional design of 2 train with 3 stages of free discharge column and 1 train with 2 pressure column. Each carbon stage or column can be bypassed to allow versatility of operation and maintenance.

One CIC column was designed to be emptied of loaded carbon and filled with fresh carbon in one operating day. Three loaded columns are required to fill a carbon transport of 7.5 t (or 13.98 m^3) container. The frequency of transference of gold-loaded carbon to Martinetas plant is around 5 to 7 days.

This plant was designed to cope with higher flows and additional capacity. In this case, column rotation and transport frequency can be modified accordingly.

17.4.4. Energy, Water and Reagents Consumption

Power demand for this process is equivalent to 4.40 kWh/t, which is composed of the following sources:

- Crushing plant, 2.40 kWh/t.
- Heap solution pumping, 1.85 kWh/t
- Carbon in column plant and gold recovery, 0.15 kWh/t

The water usage of this process is equivalent to 0.084 m^3/t, which is composed of the following sources:

- Evaporation in the heap, 10.8 m^3/h (0.04 m^3/t).
- Impregnation in the heaps, 9.6 m^3/h (0.04 m^3/t).
- Evaporation in solution pond, 0.6 m^3/h (0.002 m^3/t).
- Carbon elution and gold recovery 0.6 m^3/h (0.002 m^3/t).

Sodium cyanide briquettes are delivered to the site in containers and 1 t super sacks in a wood frame. The briquettes are mixed in the cyanide mix tank and transferred to the cyanide solution storage tank. The concentrated cyanide solution is added to the barren tank at a rate of 0.6 kg/t of ore. The principles and standards of practice for the transport to site and handling of cyanide on site are by the guidelines set out in the International Cyanide Management Code (ICMC).

Lime is delivered to the site in big bags of 500 kg or 1,000 kg by trucks and stored in a lime silo. The lime will be delivered at a rate of 1.5 – 2 kg/t of ore by screw feeder onto the heap leach feed conveyor during heap loading operations.

17.5. Opportunities to upgrade gold production

After the analysis of the information for current ore processing in the two existing processing facilities, several opportunities have been identified to upgrade gold production in this project by processing ore resources not included in the current mining plan. These are described below.

17.5.1. Low-grade oxide resources

For low-grade oxide resources (ore grades below 1 g/t Au), amenable to be processed by heap leaching, these are the opportunities identified to upgrade gold production in this project:

- Evaluate the potential for higher gold extraction in heap leaching by reducing ore particle size from P80 12.7 mm to P80 6.4 mm in laboratory tests. This type of operation should be linked with the incorporation of an agglomerating drum downstream of the crushing plant, to allow granulation of the fine crushed ore with cement.
- Evaluate potential satellite deposits whose ore may be processed by heap leaching in the vicinity of the deposit, pumping pregnant solution to either the existing heap leach plant or the CIL plant, depending on the distance deposit-processing plant.

17.5.2. Higher grade primary resources

For higher grade primary resources (ore grades above 1 g/t Au), amenable to be processed in the Martinetas CIL Plant, these are the opportunities identified to upgrade gold production in this project:

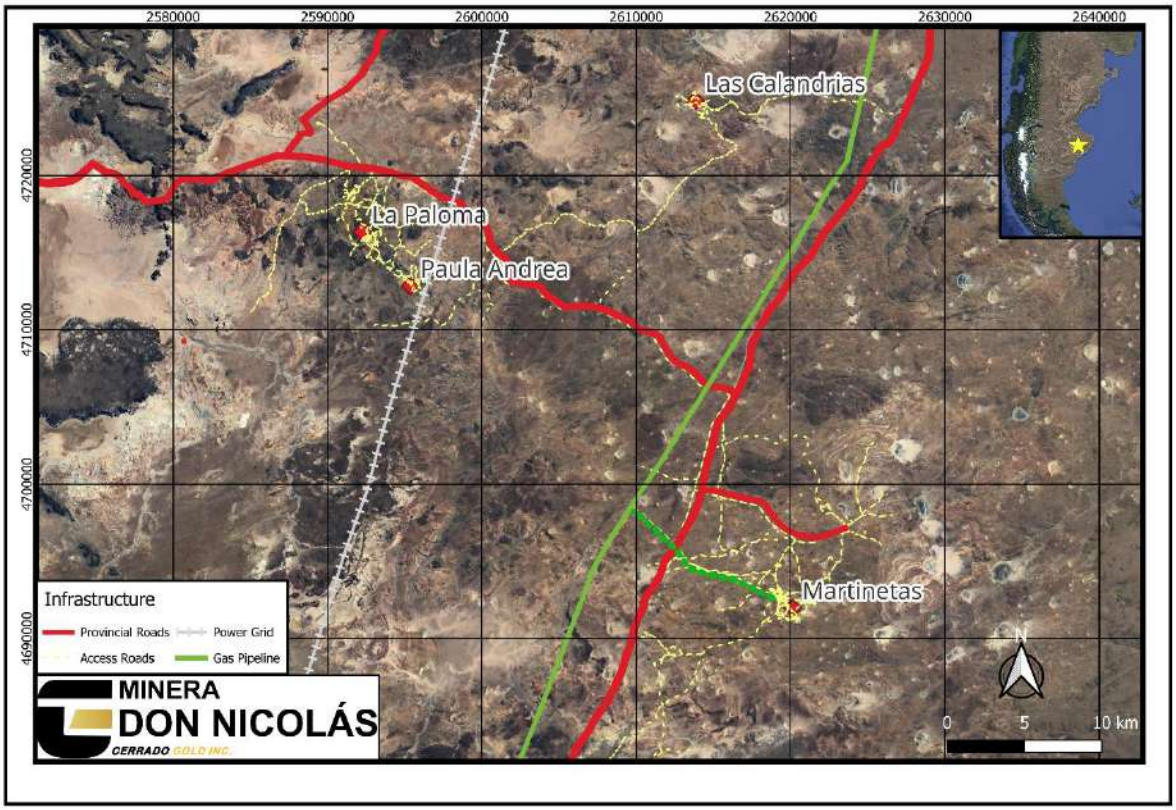
- Evaluate in lab tests potential resources that may have higher gold extraction in CIL processing by diminishing ore particle size from 75 µm to 53 or 45 µm.
- Evaluate the processing of deep sulfide ores in a circuit with flotation to obtain a concentrate that could be processed by POX. Flotation tailings could be processed in the existing CIL plant.

18. PROJECT INFRASTRUCTURE

18.1. Local Infrastrucurte

The area is well-served by infrastructure, including power lines, a natural gas pipeline, paved roads, and unpaved local access roads. The Comodoro Rivadavia Airport, located about 280 km to the north, provides regular flights to Buenos Aires, which is the main hub used by employees for fly-in and fly-out operations.

Figure 18.1: Mine infrastructure location.



18.2. Historical

The MDN operation is currently a producing gold mine

In July 2014, Compañía Inversora en Mina S.A. (CIMINAS), a company owned by the Argentine investors acquired the property and commenced development and construction shortly after. Final construction was completed in the third quarter of 2017 for the 1,000 tpd operation.

The operation was commissioned in the third quarter of 2017. MDN began operations of a series of conventional open pit mines in the Martinetas and La Paloma areas with a carbon-in-leach facility (CIL). The ramp-up continued until late 2019.

The operation started with mining in three active pits (Coyote, Cerro Oro, and Sulfuro) at a rate of +1,000 tpd, and the mill can handle the throughput.

In 2022, areas from historically MDN properties, including Baritina and Chulengo from the Paula Andrea Project, were upgraded from exploratory targets to open pits operations. The mineral resources from the recently acquired Las Calandrias project, including Calandrias Sur and Calandrias Norte, also began production in 2023 and 2024. Part of the infrastructure from Martinetas and La Paloma was transferred to Las Calandrias; however, the processing plant and staff offices continue to operate in the Martinetas camp area. A heap leaching (HL) processing site was built in Las Calandrias to process low-grade ore from Las Calandrias Sur open pit, and the CIL plant in Martinetas is now being fed with ore from High-grade ore from Calandrias Norte.

18.3. Mining Operation

The mining operation incorporates several deposits exploited through open-pit mining methods. Two open-pit mines are producing at Calandrias, Calandrias Sur and Calandrias Norte (Figure 18.2).

Three fully equipped mining sites allows for mining activities at Paloma, Martinetas and Calandrias. All three sites are equipped with offices, explosive storage facilities (

Figure 18.3), fuel depots and truck shops. Martinetas and Calandrias have warehouse facilities, power generation and accommodation.

Figure 18.2: Calandrias Norte Pit

Figure 18.3: Explosive storage Facility – Martinetas (one of three storage facilities)

Martinetas is the base for high grade material processing and is equipped with a 50tph crushing section, Mill and Carbon-In-Leach plant ().

Figure 18.4: Crushing plant Martinetas

Calandrias is used for low grade ore processing and is equipped with a 500tph crushing plant, Carbon-I-Columns plant and Heapleach pad.

Most of these facilities have been discussed in detail in previous sections. The following pictures reflects the actual mine and plant infrastructure.

Figure 18.5: CIL plant at Martinetas site.

Figure 18.6: Crushing Circuit 1 Calandrias

Figure 18.7: Crushing Circuit 2 Calandrias

Figure 18.8: Carbon In Columns Plant Calandrias

The marginal-grade material has been stockpiled over time, resulting in a long-term, low-grade stockpile (referred to in Chapter 13 for the resource estimation of these piles).

Table 18-1: Total equipment.

Owership	Fleet	Model	Total Equipment	Out of Service
IN-HOUSE	Auxiliary	CARR 102	1	
		COM	2	
		REG 101	1	
		REG 105	1	
		REG 109	1	
	Drilling	FURUKAWA	1	
		SANDVIK DP1500	4	
	Loaders	CAT 320	1	1
		CAT 336	1	
		CAT 374D	1	1
		CAT 980H	5	3
		CAT 988	2	2
	Support	CAT 14M	1	1
		CAT 160M	2	1
		CAT 824H	1	
		CAT D8T	3	2
	Trucks	CAT 730C	1	1
		CAT 772G	5	2
		Scania G500	8	1
IN-HOUSE Total			**42**	**15**
RENTAL	Loaders	PC	1	
		VOLVO EC480DLC	1	
		WA500	3	
		WA600	3	2
	Support	CAT 160M	1	
		CAT D8T	2	
	Trucks	VOLVO	7	
RENTAL Total			**18**	**2**

18.4. Facilities

The site's offices and accommodation are basic but relatively comfortable, prefabricated buildings. Dormitories are shared except for senior management, which has its own. A catering company manages food around the clock for the site.

There are 253 beds available in the accommodation at Martinetas Camp and an additional 93 at Las Calandrias Camp. The facilities also include one major dining hall in Martinetas, two smaller ones in Las Calandrias, and two medical stations in operation, one located in Maritnetas Camp and the second in Las Calandrias Camp.

Figure 18.9: Example of facilities at Martinetas Site.

The Core Storage and Exploration Offices are located at El Cóndor Ranch, which is 6 km from Martinetas Camp. This camp is equipped to handle drilling core samples, reverse circulation chips, and surface samples. Additionally, to the mapping room and desktop offices, the facility accommodates other services such as spectrometry, portable X-ray assays (by Niton), core photography, and density measurements.

Figure 18.10: Facilities at El Condor Ranch.

Three Security gates are in place at the MDN project, one main gate in Martinetas a second in Las Calandrias an the third one less busy in La paloma Area.

18.5. Laboratory

18.5.1. General

The laboratory at the El Condor Ranch camp is equipped with the necessary infrastructure and equipment for developing and controlling processes in the Plant, Geology, and Exploration sectors. The lab facilities are fully prepared to offer physical-chemical, geochemical, and metallurgical analysis services for various samples extracted and processed at the mine, including exploration samples, plant process pulps, and solutions. Some of the most important assays conducted in this area include:

- Mechanical preparation of minerals: Primary, secondary, quartering, and pulverization, as well as preparation of pulps (filtration, quartering, and pulverization).
- Assays for tailings and granulometry.
- Gold and silver analysis by fire assay: Determination of Au by Atomic Absorption Spectrophotometry and Ag by gravimetry using ultra/micro-balances on 30g samples (including rock samples, drilling samples, and process pulps).
- Process solution readings: Using Atomic Absorption Spectrophotometry for metals such as Au, Ag, Cu, and Fe.
- Determination of free cyanide and WAD cyanide.
- Gold and silver analysis in carbon samples: By fire assay and gravimetry using micro-balances.
- Gold and silver analysis in dore samples: By fire assay and gravimetry using ultra/micro-balances.
- Carbon adsorption methods.
- Analysis by argentometric methods.

Figure 18.11: Lab facilities and atomic absorption area.

The laboratory is subdivided into five zones, as outlined below:

18.5.2. Sample Preparation

The process chain begins in this area for 90% of the samples received. Here, the received batches are checked and controlled before being input to prepare analyses. The list below summarises the equipment in this area:

- 1 primary crusher
- 2 secondary crushers
- 1 riffle splitter
- 2 sample pulverizing mills
- Various sieves for tailings and granulometric assays
- 1 process pulp filter
- 1 drying oven with a capacity for up to 250 samples

18.5.3. Area 2 Weight Scale and Gravimetry

In this area, samples are pretreated before they are melted. Pulps (30g) obtained from mechanical preparation are weighed here, and any necessary additives are added based on the sample composition.

Additionally, this zone is responsible for weighing the buttons obtained after the cupellation of previously melted samples and conducting gravimetric calculations for gold (Au) following acid digestion. Equipment in this area is listed below.:

- 2 precision micro-analytical balances
- Precision balance
- Porcelain materials
- Precision hand instruments

- Workstation PC

18.5.4. Fire Assay

In this section, the sample fusion process is conducted to recover the precious metals from the previously processed ore. A flux mixture composed of 95% lead carbonate is added to the samples to facilitate the extraction of the metals. Equipment's are listed below:

- 2 fusion furnaces with a capacity of 50 samples each
- 2 cupellation furnaces with a capacity of 50 samples each

18.5.5. Acid digestion and preparation of analytical solutions:

Following the cupellation process, this section performs the acid digestion of buttons using aqua regia. The weight of each button is recorded using an analytical micro-balance. Silver (Ag) is also separated to perform gravimetric calculations for gold (Au) as specified by the sample requirements.

In this area, various solutions essential for other analyses are also prepared. This includes silver nitrate solution for cyanide titrations and indicators such as methyl red, rhodamine, potassium iodide, and potassium chromate. The area also analyses free cyanide and WAD cyanide and manages the preparation and handling of various chemical products.

- Test tubes
- Dissolution plates
- Magnetic stirrers
- Measuring instruments
- Certified glassware

18.5.6. Sample reading on atomic absorption spectrophotometers, data calculation, and reporting and QAQC

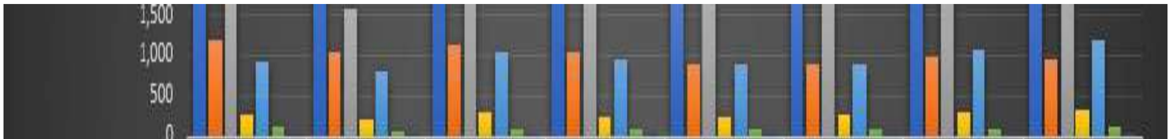
The analyst in charge of this sector operates the Atomic Absorption Spectrophotometers to read and calculate the results of the analysed samples. The quality control of the samples is evaluated, and any assay out of the standards is reassessed. Equipment is listed below:

- 2 Atomic Absorption Spectrophotometers
- Measuring instruments
- Workstation PC

18.5.7. Production

The following chart illustrates the quantities of samples processed throughout 2024, summarised by sample type and analysis up to August 30, 2024.

Figure 18.12: Annual production by sample type.



	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO
MINERALES.	3,130	3,350	5,032	4,237	2,056	2,350	3,460	3,314
PULPA DE PROCESO	1190	1,035	1,118	1,035	884	901	980	951
SOLUCION DE PROCESO	1,806	1,578	2,107	1,712	1,719	1,755	2,040	1,951
CARBONES	258	222	295	254	231	283	314	336
CN LIBRE	929	811	1,044	949	886	900	1,071	1,182
CN WAD	118	56	88	92	83	90	103	113
DORÉ	23	12	22	28	23	19	23	37

18.6. Waste Rock and Storage Facilities

The Calandrias Norte mine generates a total of 0.92 Mt of waste material, which is placed in an existing waste storage facility near the extraction phase.

The Calandrias Sur mine generates a total of 10.49 Mt of waste material, which is stored in an existing waste storage facility near the open pit area.

The Zorro operation will generate a total of 1.55 Mt of waste material, which will be placed in two existing waste storage facilities located near the open pit phases.

For Zorro, 167 kt of low-grade material will be deposited in the Cerro Oro low-grade stockpile.

All haul roads between the pit exit and the different material destinations were considered as 13m wide and a maximum 10% gradient.

18.7. Fuel Storage System

Several fuel storage systems have been installed in different deposit areas: Martinetas area 140,000 L capacity, consisting of two 50,000 L tanks and one 40,000 L tank; Calandrias area 150,000 L capacity with three 50,000 L tanks; and Paloma area 50,000 L capacity with one tank.

18.8. Truck Shop

This facility is located between the process plant and the tailings dam, in the Martinetas Sector, near the secondary roads coming from the mine, to facilitate the entry of heavy equipment.

The truck shop has seven areas and includes:

One Maintenance bay (an additional bay could be constructed in the future)

- Lubrication room

- Toolroom
- Hydraulic hose assembly workshop
- Welding and tyre workshop
- General and spare parts warehouse
- Offices

18.9. Explosive Magazine

Explosive magazines exist in the Calandrias, Martinetas, and Paloma areas. Each magazine consists of three containers that store explosives and detonators and are installed on a reinforced concrete slab. The magazine is located far enough from any structures to minimize potential hazards.

18.10. Water Management

In MDN 26 exploratory wells were drilled and evaluated to characterize the groundwater systems in the La Paloma and Martinetas areas. Laboratory analysis indicates that the groundwater quality is suitable for mill use. Pumping test analysis shows that strategically located wells can recover groundwater from the aquifers in these areas.

The water for the industrial process at Martinetas comes from five wells—PH5, PM 18, PM 19b, PM 38, PM 44, and PM 47—while the water used for the process at Calandrias comes from two wells—PE 7b and PE 8. The State Secretariat for Water Resources authorizes all of these wells for industrial use. The Environmental Department monitors them daily to ensure compliance with the authorized monthly consumption.

The water distribution used in the Martinetas Plant's industrial process is sourced from wells near the proposed office and camp facilities. It is then pumped to a collection tank and distributed through a piped pressure pump system. Meanwhile, the water used for heap leaching at Las Calandrias, sourced from the wells located in Calandrias, is transported to the site by trucks.

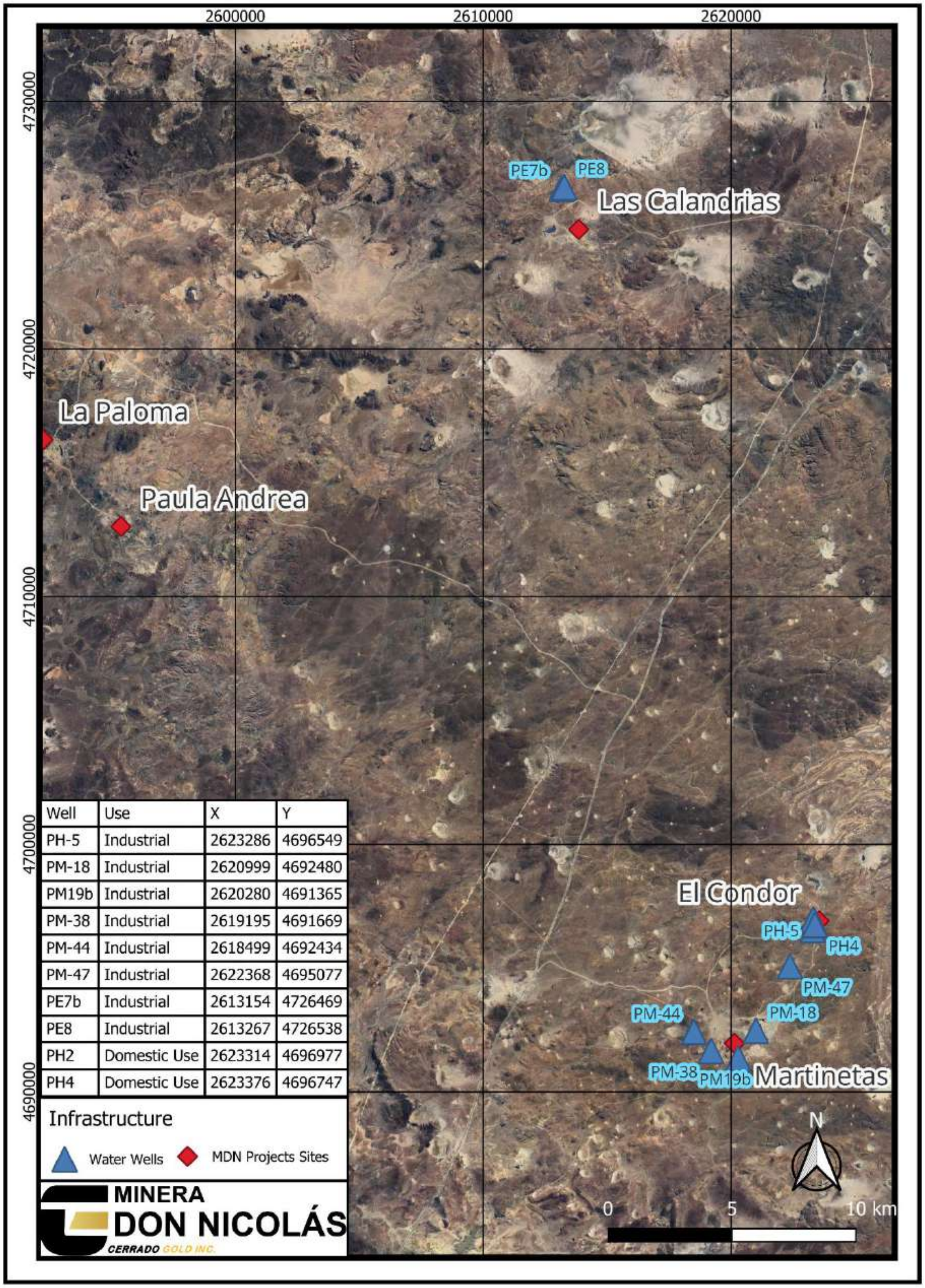
Water consumed at the main Martinetas/El Cóndor and Las Calandrias camps comes from two wells located near El Cóndor camp. It is pumped to a collection tank and distributed via trucks for showering washing, and general cleaning.

Distilled water is provided in 20-litre dispensing stations strategically placed around the Martinetas, La Paloma, and Las Calandrias sites.

Table 18-2: Total water consumption per day, different uses.

Water for Mining Processing	1,551 m^3/day (50% recyclable) Mar + Cal
Water for human use	66 m^3/day Mar + Cal
Drinkable Water	0.66 m^3/day Mar + Cal

Figure 18.13: Wells at the project site.



Well	Use	X	Y
PH-5	Industrial	2623286	4696549
PM-18	Industrial	2620999	4692480
PM19b	Industrial	2620280	4691365
PM-38	Industrial	2619195	4691669
PM-44	Industrial	2618499	4692434
PM-47	Industrial	2622368	4695077
PE7b	Industrial	2613154	4726469
PE8	Industrial	2613267	4726538
PH2	Domestic Use	2623314	4696977
PH4	Domestic Use	2623376	4696747

18.11. Power and Electrical

The Generation Plant is a power station that provides the necessary energy for production processes, administrative activities, service areas, and more. It is the mine's only source of power generation. At Martinetas, the Generation Plant consists of internal combustion generator sets that use two types of fuel: natural gas and diesel. Power is supplied at medium voltage (13.2 kV) to electrical distribution rooms at low voltage (0.4 kV).

Figure 18.14: The Generation Plan.

Within the site, there is the EMED plant, which receives gas from the General San Martín pipeline located 11.7 km away. This plant is responsible for reducing the pressure of the gas obtained from the network to the level required to feed the generators and various internal consumers within the processing plant, such as the smelting furnace, carbon regeneration furnace, and boiler.

Figure 18.15: EMED plant reduces gas pressure from the General pipe line to supply generators and processing equipment on-site.


At Calandrias, the generation supplies power to different operational areas using diesel equipment. Unlike at Martinetas, this is done at low voltage (0.4 kV). See below the monthly consumption table for the main areas in MDN operation.

Table 18-3: Monthly Consumption.

	KWh	GAS (m^3)	DIESEL(l)
Planta Martinetas	1,653,604	574,736	
Las Capandras	315,047		97,427
El Condor	106,504		25,887
Water Wells Martinetas	16,876		5,845
Waster Wells Calandras	9,504		4,054

18.11.1. Martinetas Power Plant details

The plant is located within Minera Don Nicolás at the Martinetas site beside the Mineral Processing Plant and is entirely operated by Cerrado Gold. It has an installed capacity of 6.6 MW with an average instant load demand of around 2.4 MW. It is equipped with:

- 5 CATERPILLAR G3516 natural gas generators, each consuming an average of 323.2 m^3 per hour, operating at 85% capacity. Each generator provides 10 kV and 1206 kVA. These are the primary units of the power plant. Additionally, there are 5 transformers, each with a capacity of 1.6 MVA, stepping up the voltage from 10 kV to 13.2 kV. The plant also includes 6 synchronization panels with ComAp equipment for auxiliary services and peripheral power supply.
- 1 CATERPILLAR 3516B diesel generator, with an average consumption of 320 litres per hour. It delivers 0.4 kV and 1.6 MVA, providing complementary power. There is also one transformer, stepping up the voltage from 0.4 kV to 13.2 kV with a capacity of 2.2 MVA.
- 1 OLYMPIAN GEH275-4 diesel generator, consuming 46.45 litres per hour, delivering 0.4 kV and 275 kVA. This unit serves as an emergency generator known as the BLACK START unit. There is one auxiliary service transformer (SSAA) with a capacity of 500 kVA, supplying power to the main low-voltage switchboard (TGBT).
- 1 medium-voltage auxiliary services cell (SSAA).

- 6 medium-voltage cells for synchronising each generator.
- 1 measurement cell.
- 5 medium-voltage cells for output to consumption points.
- 1 main low-voltage switchboard (TGBT) for supplying power to the plant's auxiliary services.

18.11.2. Description of the EMED Plant

The EMED Plant is responsible for reducing the inlet pressure and regulating, heating, and odorizing the gas to ensure the efficiency and proper operation of the equipment.

The gas pipeline connects from the General San Martín branch. The inlet pressure is approximately 45 kg/cm² and is reduced to 3.8 kg/cm², with two safety valves calibrated at 4 kg/cm².

Equipment that uses gas to operate:

- Generators
- Smelting furnace
- Regeneration furnace
- Boiler

The plant has a flow meter that records the daily gas consumption from 6:00 am to 6:00 am.

18.11.3. El Condor Power Generator

This system provides power to the Laboratory, Exploration, Water wells (PH2, PH4, and PH5), and Camp.

- 1 SULLAIR C330D5E diesel generator, with an average consumption of 34.79 litres per hour. It delivers 0.4 kV and 330 kVA, serving as the central unit.
- 1 JOHN DEERE 6068HF diesel generator, with an average consumption of 34.75 litres per hour. It delivers 0.4 kV and 200 kVA as the emergency standby unit.

18.11.4. Las Calandrias Power Generators

The energy distribution for the process differs from that of Martinetas, as generators are installed near the areas with higher demand:

CRUSHING PLANT:

- 1 SCANIA DC13 diesel generator, with an average consumption of 26.29 litres per hour. It delivers 0.4 kV and 550 kVA.
- 1 SCANIA DC16 diesel generator, with an average consumption of 46.08 litres per hour. It delivers 0.4 kV and 780 kVA.
- 2 ComAp synchronisation controllers installed on each generator.
- 1 fuel tank with a capacity of 40 m³.

CIC PLANT:

- 1 SCANIA DC13 diesel generator, with an average consumption of 30.7 litres per hour. It delivers 0.4 kV and 550 kVA.
- 1 OLYMPIAN GEP165-3 diesel generator, with an average consumption of 9.89 litres per hour. It delivers 0.4 kV and 150 kVA.

PAD CAMP:

- 1 SULLAIR C550D5RB diesel generator, with an average consumption of 14.76 litres per hour. It delivers 0.4 kV and 550 kVA.

CALANDRIA ESTANCIA CAMP:

- 1 SULLAIR C330D5E diesel generator, with an average consumption of 21.7 litres per hour. It delivers 0.4 kV and 330 kVA.

18.12. Communications

Portable radios are available on-site in all mining areas and some exploration areas. We have eight repeaters, approximately 200 handheld radios, and 40 Motorola DGM 5500e base radios. This system covers the main project sites, including Martinetas, Las Calandrias, and La Paloma. The repeaters are distributed as follows: 2 on the Martinetas Tower, three on the Calandrias Tower, one on the small Cerro Oro Tower, and one on the Paloma Tower. However, the radio system does not cover the southern targets, including Michele, Cisne, and Pan de Azúcar.

The internal network is connected to the internet via a fibre optic cable with a 200 MBPS connection at the Martinetas site. The La Paloma site is linked to Martinetas through a radio signal within the internal network, and La Paloma connects to Las Calandrias using the same system. This setup ensures that all MDN sites are connected and services like database, file system, email, and video calls are available throughout the site. Additionally, there is a phone central that allows calls to external sites. However, none of the MDN sites have cell phone coverage.

18.13. Comments

Existing and future infrastructure needs have been assessed under the PEA to support open pit and underground mining activities.

19. MARKET STUDIES AND CONTRACTS

The assumptions under this PEA for the sale, refining, logistics and pricing of Minera Don Nicolas' products have been based on the prevailing market conditions and the current and ongoing contracts in place at the operation.

19.1. Market Studies

As a producer of gold and silver dore bars, there is a continuous and steady demand for Mineral Don Nicholas' production. Gold and silver, as dore bar, are freely traded commodities in the world market. As such, and given the production and sales history of the operation, no specific market studies have been commissioned by Cerrado Gold nor its affiliates or consultants concerning this Project.

19.2. Commodity Pricing and Refining Assumptions

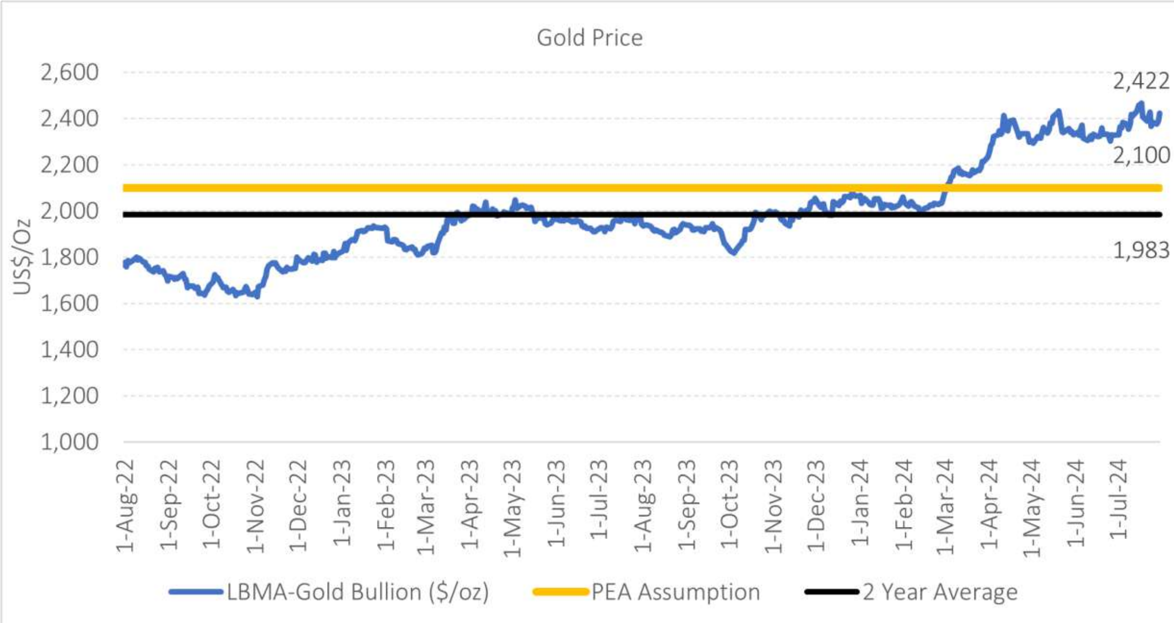
Cerrado Gold has adopted the following PEA financial model base case price projections, as presented in Table 19-1.

Table 19-1: Base Case Metal Pricing.

	Unit	Value
Gold (Au)	US$/oz	2,100.00
Silver (Ag)	US$/oz	25.00
Treatment & Refining Charge -Au	US$/oz	1.50
Treatment & Refining Charge – Ag	US$/oz	1.50

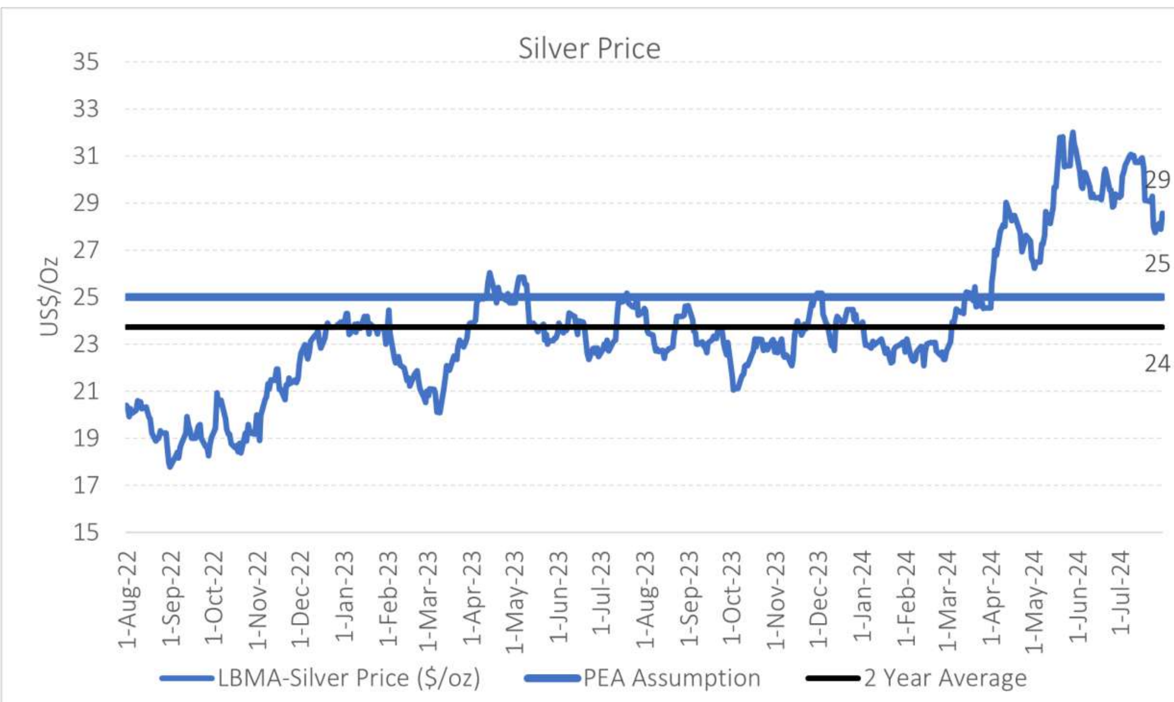
The base case pricing has been selected based on the consideration of spot pricing, historical pricing, and the longer-term consensus outlook for both Au and Ag, as provided by third-party market forecaster. Figure 19.1 and Figure 19.2 highlight the trailing 2-year average for Gold as US$1,983/oz and Silver as US$24/oz. Table 19-2 and Table 19-3 demonstrates that the long-term analyst consensus estimates for Gold and Silver were US$1,851/oz and US$23.5/oz, respectively, as of May 2024. Given the 5-year mine life and current spot prices being materially higher, a slightly higher consensus pricing deck was used as the Base case. These assumptions align with other economic studies currently being completed in the market.

Figure 19.1: Historic Gold Pricing.



Source : SP Global Market Intelligence

Figure 19.2: Historic Silver Pricing.



Source: SP Global Market Intelligence

Table 19-2: Consensus Gold Price.

Gold *(US$/oz)*						
Date	**Firm**	**2024**	**2025**	**2026**	**2027**	**LT**
21-Apr-24	Deutsche Bank	$2,168	$2,200	-	-	$2,100
19-Apr-24	Morgan Stanley	$2,219	-	-	-	$1,430
19-Apr-24	TD	$2,293	$2,400	$2,300	$2,200	$2,000
18-Apr-24	Cantor	$2,071	$2,000	$2,000	$2,000	$2,000
18-Apr-24	HSBC	$2,160	$1,980	$1,880	$1,851	$1,700
17-Apr-24	JPMorgan	$2,315	-	-	-	$1,600
17-Apr-24	Raymond James	$2,019	$1,900	$1,800	$1,800	$1,800
17-Apr-24	RBC	$2,044	$2,140	$2,000	$1,900	$1,700
17-Apr-24	H.C. Wainwright	$2,100	$2,100	$2,100	$2,100	$2,100
16-Apr-24	Barclays	$2,181	$2,150	$2,100	$1,750	$1,750
15-Apr-24	BMO	$2,168	$2,100	$2,000	$1,950	$1,650
15-Apr-24	Desjardins	$2,025	$2,025	$1,950	$1,850	$1,850
15-Apr-24	BofA	$2,317	$2,451	$2,499	$2,273	$1,850
15-Apr-24	UBS	$2,185	$2,225	$2,075	$2,000	$1,750
14-Apr-24	National Bank	$2,206	$2,250	$2,050	$1,900	$1,800
12-Apr-24	CIBC	$2,106	$2,000	$1,900	$1,875	$1,875
12-Apr-24	Macquarie	$2,125	$1,988	$1,825	$1,850	$1,650
12-Apr-24	Laurentian	$1,943	$1,900	$1,900	$1,900	$1,900
11-Apr-24	Canaccord	$2,226	$2,377	$2,476	$2,549	$2,582
11-Apr-24	BNP Paribas	$2,050	$2,150	$2,000	-	$1,600
09-Apr-24	Scotia	$2,018	$1,950	$1,800	$1,800	$1,800
08-Apr-24	Jefferies	$2,093	$2,200	$2,100	$2,100	$2,100
02-Apr-24	Eight Capital	$1,995	$2,100	$2,200	$2,100	-
01-Apr-24	Cormark	$2,000	$2,000	$2,000	$2,000	$2,000
01-Apr-24	Haywood	$2,075	$2,200	$2,100	$1,950	$1,950
26-Mar-24	Berenberg	$2,143	$2,150	$2,050	$1,950	-
19-Mar-24	Societe Generale	$2,150	$2,200	-	-	-
15-Mar-24	Stifel	$2,050	$1,950	$1,850	$1,800	$1,800
10-Mar-24	Paradigm	$2,000	$1,800	$1,800	$1,800	$1,800
Average		**$2,119**	**$2,107**	**$2,030**	**$1,969**	**$1,851**

Source: CIBC Global Mining Group

Table 19-3: Consensus Silver Price.

Silver *(US$/oz)*						
Date	**Firm**	**2024**	**2025**	**2026**	**2027**	**LT**
21-Apr-24	Deutsche Bank	$23.80	$25.00	-	-	$24.00
19-Apr-24	Morgan Stanley	$25.70	-	-	-	$20.40
19-Apr-24	TD	$27.46	$30.00	$29.00	$28.00	$25.00
17-Apr-24	JPMorgan	$27.38	-	-	-	$25.00
17-Apr-24	Cantor	$26.31	$24.00	$24.00	$24.00	$24.00
17-Apr-24	RBC	$24.96	$26.75	$25.50	$24.00	$22.50
17-Apr-24	Raymond James	$23.10	$22.00	$22.00	$22.00	$22.00
17-Apr-24	H.C. Wainwright	$26.00	$26.00	$26.00	$26.00	$26.00
16-Apr-24	Canaccord	$24.94	$26.47	$27.35	$27.78	$27.99
16-Apr-24	Barclays	$25.30	$25.00	$24.50	$21.00	$21.00

Silver *(US$/oz)*						
Date	**Firm**	**2024**	**2025**	**2026**	**2027**	**LT**
15-Apr-24	BMO	$25.56	$25.25	$24.00	$23.50	$21.50
15-Apr-24	Desjardins	$22.50	$22.50	$23.00	$23.50	$23.50
15-Apr-24	BofA	$26.46	$31.71	$33.31	$30.88	$26.00
14-Apr-24	National Bank	$24.60	$25.00	$24.00	$23.00	$22.00
12-Apr-24	CIBC	$24.97	$24.00	$23.50	$23.00	$23.00
12-Apr-24	Macquarie	$24.89	$28.50	$26.75	$24.50	$21.00
12-Apr-24	Laurentian	$23.09	$23.00	$23.00	$23.00	$23.00
11-Apr-24	BNP Paribas	$24.70	$25.90	$26.51	-	$24.62
11-Apr-24	Cormark	$24.00	$24.00	$24.00	$24.00	$24.00
09-Apr-24	Scotia	$23.84	$23.50	$23.00	$23.00	$23.00
08-Apr-24	UBS	$26.20	$27.60	$23.60	$23.00	$22.00
02-Apr-24	Eight Capital	$23.12	$24.00	$25.00	$24.00	-
02-Apr-24	HSBC	$24.33	$25.50	$26.20	-	$24.00
01-Apr-24	Haywood	$25.94	$27.50	$26.25	$24.38	$24.38
26-Mar-24	Berenberg	$24.86	$25.00	$24.50	$23.00	-
15-Mar-24	Stifel	$23.19	$24.00	$24.00	$24.00	$24.00
06-Feb-24	Paradigm	$22.50	$22.50	$22.50	$22.50	$22.50
Average		**$24.80**	**$25.39**	**$25.06**	**$24.18**	**$23.46**

Source: CIBC Global Mining Group

19.3. Material Contracts

The principal offtake contract governing the sale and treatment of dore produced by the operation was entered into by a well-established independent third party on March 12, 2020, and has been amended and renewed since then. The contract sets payment, delivery, and refining terms standard for the industry. Delivery and provisional payment for the dore are made EXM at the Don Nicholas Mine site. The associated costs relating to transport, refining, and treatment have been summarised in Chapter 19. The contract is currently valid and in force.

On Friday, 26th of April 2024, Cerrado Gold entered into a hedging arrangement with the same independent third party for 22,000 ounces of production over 11 months, beginning in June 2024 and terminating in April 2025. The hedging arrangement comprised a zero-cost collar with an upper bound of US$2,440/oz and a lower bound of US$2,300/oz. The potential effects of this hedge have not been considered in this PEA.

19.4. Sales Logistics

Gold Dore produced at Minera Don Nicolas is transported by aircraft under a contract with a refiner set by the offtake partner. While Cerrado Gold bears the transport cost, the offtake partner delivers at the mine gate. Cerrado Gold may invoice for 90% of the estimated revenue on delivery and will receive the balance and any adjustment on final delivery, weighing and assay results.

The PEA has assumed a total of 2 shipments per month. The aggregate of fixed and variable shipping and transportation components implies an average cost of approximately US$11/GEO.

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

20.1. Introduction

The following factors are noted for environmental consideration, which may limit Mineral Resources extraction:

- Potential for Acid Rock Drainage.
- The presence (excessive water) of aquifers or water-bearing fractures.
- Nearby Archaeological/Paleontological Sites.
- Abiotic-Biotic Environment natural channels, springs, water sources, among others.
- Nearby Protected Areas (reserves).
- Identification of Protected Species (fauna).
- Future Condemnation Areas involve severe changes to the physical environment related to the issues outlined in items 2 and 3.

Minera Don Nicolas conducts various evaluations and technical studies to ensure mineral extraction are carried out with minimal disruption to the previously mentioned factors. It is emphasized that Argentine environmental and mining legislation requires an Environmental Impact Assessment (EIA) detailing and describing the above and many other factors before any mining activity stage (Prospecting, Exploration, and Exploitation), can be approved.

20.2. Project Status

A summary of the projects and their current respective statuses is provided below:

Table 20-1: Summary of projects.

Projects	Areas	Type
Exploitation Project Don Nicolas Exp. N° 421,090/IRL/12	La Paloma I Syrah La Lechuza I La Lechuza II La Paloma II Paula Andrea Paula Andrea I Blanca I Syrah I Gol I Gol II Mar III Mar IV Micro I Micro II Mara Mara I Mara II Armadillo	Exploitation
Project Zefiro Genitor Lazlos Cecilias. Exp. 424,068/HA/10	Zefiro I Zefiro II Zefiro III Genitor II Lazlos I Lazlos II Lazlos III Cecilia I Cecilia II Cecilia III	Exploration
Project Calandrias. Exp. 425983/MM/09	Calandrias I Escondido I	Exploitation
Project Michelle Exp. N° 426,055/HA/09	Dorcon 3 Dorcon 4 Estella I Estrella II Micaela Michelle III. Sombra Gris I, II y III. Sombra Gris I-A y Sombra Gris III-A. Michelle III-A	Exploration
Project Alberto I Exp. N° 424,917/HA/09	Alberto I Alberto II Alberto III	Exploration
Project Gato Mancha Spark Exp. N° 402,883/CMP/97	Gato I Gato II Mancha I Mancha II Mancha III Spark y Spark I	Exploration
Project Bucefalo Podarga Exp. N° 408,828/FWH/06	Bucéfalo I Bucéfalo II Bucéfalo III Podarga I Podarga II y Podarga III	Exploration

Projects	Areas	Type
Project Pegaso Tormenta Exp. N° 413,771/FWH/06	Pegaso I Pegaso II Tormenta	Exploration
Project La Paloma Exp. N° 425,980/HA/09	Escondido II La Paloma III la Paloma IV	Exploration
Project Janto Yatasto Gaviota Babieca Rocinante Armadillo Balio Exp. N° 408,829/FWH/06	Janto I Janto II Janto III Yatasto I Yatasto II Yatasto III Yatasto IV Yatasto V Yatasto VI Yatasto VII Gaviota I Gaviota II Gaviota III Gaviota IV Gaviota V Gaviota VI Gaviota VII Gaviota VIII Gaviota IX Gaviota X Babieca I Babieca II Babieca III Rocinante I Rocinante II Rocinante III Rocinante IV Rocinante Vrocinante VI Rocinante VII Armadillo I Armadillo II Armadillo IIIBalio I Balio II Balio III	Exploration
Project Guanaco Golondrina Strategus Exp. N° 413,772/FWH/06	Guanaco I Guanaco II Guanaco III Guanaco IV Guanaco la Golondrina I Golondrina II Golondrina III Stategus I Strategus II Strategus III Agregar Strategus IIA Strategus I A Strategus IV A Strategus III A Strategus V A	Exploration
Project Lampos Alberto Exp. N° 425,976/HA/09	Lampos I Lampos II Lampos III. Agregar Lampos III-A. Alberto IIA Alberto IIB Alberto IIIA	Exploration

20.3. Exploitation Projects

According to the table provided, the exploitation projects Don Nicolas (Martineta and La Paloma) and the Las Calandrias Project currently hold an Environmental Impact Declaration (DIA).

20.3.1. Tailings Dam

The tailings dam is located 800m south of the processing plant, in a natural depression in the ground (closed basin) with a baseline level of approximately 133m above sea level. After processing the economically unprofitable or waste material (tailings) is transported via pipeline to the the dam. Approximalty 70% of process water is recycled for future use.

The tailings pipeline is located around the perimeter anchor trench of the geomembrane and includes twelve (12) discharge points. It extends 760 m from the processing plant and follows a perimeter of 2,000 m.

Currently (2024), a raise is being carried out on all sides of the dam to meet operational demands and comply with environmental capacity requirements (1.4 m).

Figure 20.1: View of the tailings dam.

Figure 20.2: View of the tailings dam.

Figure 20.3: Tailings dam.

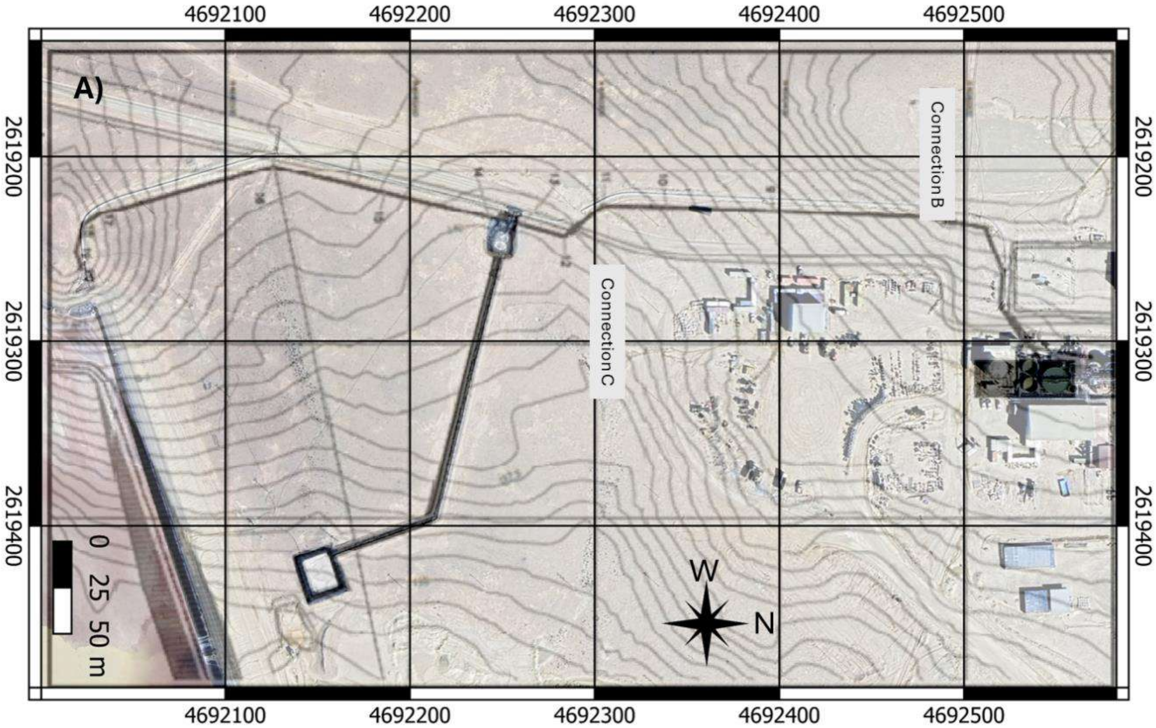
The water management system in the tailings dam includes, on Wall 1 (Muro), a forced drainage system through a centrifugal pump that allows the accumulation to be directed to the dam itself. On Wall 3, the drainage is natural, while Walls 2 and 4 do not have drainage systems.

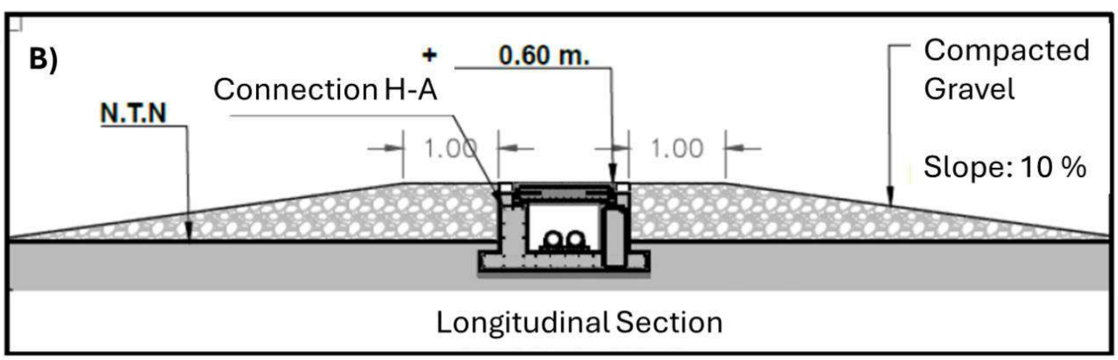
20.3.2. Tailings Transport and Disposal System

The transport of recovered water is carried out through a high-density polyethylene (HDPE) pipeline with a diameter of 140 mm, a nominal pressure of PN=10 Mpa, and a length of 750 meters. The pipeline starts at the processing plant and ends at the tailings dam.

The transport pipelines are situated within a concrete contingency channel designed to contain potential leaks. The channel is 550 meters long, equipped with metal covers, and includes three containment pits, each with a capacity of 20 m³. The pits are located southeast of the access road, on Wall 1, and are covered with geomembranes to prevent potential soil contamination.

Figure 20.4: Tailings Pipes: A) Layout; B) Longitudinal Section.





On Wall 1, the pipeline splits into two branches. Branch 1 feeds discharges 1 to 8, while Branch 2 feeds discharges 9 to 14.

Figure 20.5: Contingency Channel Layout.

Figure 20.6: Pits C and B in channel layout.

Figure 20.7: Pit C in channel layout.

Figure 20.8: Tailings Pipeline Layout.

Operational Environmental Control – Daily

For the purposes of environmental control, chemical analyses are conducted daily, both during the day and night shifts, ensuring that cyanide concentration levels remain below legal limits (50 ppm CN Wad). These analyses are performed at the discharge point and in the lagoon formed by the discharge flow (discharge analysis vs. topography).

In addition, weekly and monthly visual inspections are carried out to ensure the proper functioning of bird deterrent systems and the condition of the fencing around the tailings dam area. This is to prevent the entry of local wildlife.

It is reported that every month, MDN provides the regulatory body with reports on cyanide chemical values, pH, and dosage (hydrogen peroxide).

20.3.3. Water Management (Operation)

MDN has underground wells to supply water for both industrial and human use. These wells are located on the mining properties of both Martineta and Las Calandrias.

Table 20-2: Weels description in MDN property.

Wells	Sector	Use
PH2	Martineta	Domestic
PH4	Martineta	Domestic
PH5	Martineta	Industrial
PM19B	Martineta	Industrial
PM47	Martineta	Industrial
PM44	Martineta	Industrial
PM18	Martineta	Industrial
PM38	Martineta	Industrial
PE-tBis	Las Calandrias	Industrial
PE-8	Las Calandrias	Industrial

For the Martineta Project (CIL), the company meets the goal of recovering process water, which is a positive aspect of achieving balanced water management in line with production.

The water use at Las Calandrias involves new wells, which were brought into operation at the end of 2023, in December. This process (Heap Leach) will also have a water recovery percentage once it enters the recirculation/stability phase.

All company wells are monitored daily for water discharge (m^3/day) using electromagnetic flow meters.

From a physicochemical perspective, monthly and quarterly monitoring is carried out; monthly monitoring is done by MDN staff and analyzed in an external laboratory. The aim is to maintain environmental control over critical points or those requiring greater environmental supervision. For quarterly monitoring, an external laboratory visits MDN to sample all water points and perform subsequent analysis, with a greater number of measurable parameters.

20.3.4. Water Management – Mine Closure Process

Environmental closure criteria to achieve chemical stability of the open pits and waste dumps have been defined, partly based on geochemical studies developed to establish the potential for Acid Rock Drainage (ARD).

According to the studies, certain open pits and waste dumps present potential for ARD generation. Don Nicolás, located in a temperate cold arid plateau climate with marked aridity and annual precipitation around 212 mm (IIA Don Nicolás project), is expected to have reduced ARD generation in waste dumps and exposed rocks in the open pit walls.

Another important factor is the depth of the groundwater. Studies conducted by Hidroar S.A, specifically the Dewatering Study for the La Paloma area in 2016, indicate that the groundwater depth in the area is around 20 meters below the terrain level (mbnt). In the Martinetas area, it ranges between 16.4 and 40.6 mbnt.

The Dewatering studies also indicate that dewatering of the mine (open pits) will be necessary during the exploitation of the deposit. Therefore, after exploitation activities are completed, these facilities are expected to be partially or fully flooded, depending on the groundwater level in each area.

To ensure the chemical and hydrological stability of the remaining facilities during the post-closure stage, it will be necessary to prevent non-contact runoff water from entering the open pits or encountering the waste dumps or tailings dam to avoid or minimize the release of contact water (ARD).

20.3.5. Closure Measures and Activities

The design of closure measures aims to achieve a safe and stable condition in the long term, mitigating the environmental changes and impacts originating from mine operation, by national and international guidelines and practices applicable to the early stages of the closure plan (conceptual level) and Law 3751 of the province of Santa Cruz.

The measures consider activities to achieve physical and chemical stabilization of the areas affected by the project. It is important to note that some closure measures may be modified based on the detailed engineering of the works and/or specific studies conducted after this document’s presentation.

In general terms, the closure of Don Nicolás Mine includes the implementation of the following closure measures:

- Dismantling, disassembly, and demolition of temporary facilities.
- Removal of equipment.
- Physical stabilization: Grading of the terrain shape.
- Geochemical stabilization: Installation of a cover system on the tailings dam.
- Hydrological stabilization: Implementation of a system for managing non-contact and contact water.
- Restricting access to the mine, and closing access to the open pits, waste dumps, and tailings dam.
- Revegetation – Habitat rehabilitation.
- Social programs.
- Final disposal of all waste by applicable legislation.

20.3.6. Final Closure of the Open Pits

Upon completion of the open pit exploitation stage, a stability analysis of each open pit will be conducted, considering the actual construction topography. This aims to verify that the design parameters adopted are consistent with those established in the original design and closure criteria, ensuring long-term physical stability.

The potential for ARD generation from the open pits is unknown as these prospects have not been covered by studies conducted to date.

20.3.7. Final Closure of Waste Dumps

The closure of waste dumps aims to achieve long-term physicochemical stability, ensure public safety, and protect surface and groundwater resources. The definition of closure measures for the waste dumps considered addressing the following critical aspects:

- Long-term physical stability of the deposited material.
- Long-term chemical stability of the deposited material.

The construction of the waste dumps has been designed considering a 1,000 year earthquake event. The closure stage criteria will consider a 10,000-year earthquake event, so once the construction of these facilities is completed, a stability analysis will be carried out with the actual designs of the waste dumps.

The potential for ARD generation from the waste dumps is unknown as these prospects have not been covered by studies conducted to date.

Upon completion of the waste dump exploitation stage, a stability analysis of each waste dump will be conducted, considering the actual construction topography.

Closure measures include:

- Non-contact water management system: Where applicable, natural runoff flows will be captured to prevent entry into the waste dump and directed (through open, non-waterproofed channels) downstream of the facility.
- Upon completion of the waste dump construction, a design review will be conducted considering the actual topography, to verify that design parameters are compatible with closure criteria and achieve long-term physical stability.
- Based on the design review, if necessary, slope re-profiling will be carried out to achieve physical stability compatible with closure criteria.
- Revegetation: Revegetation of the waste dumps with native species will be carried out. The methodology to be used will be defined through specific studies.
- Scarification of access roads, except those necessary for monitoring or control points.
- Construction of closure berms on access roads to each waste dump to restrict entry by unauthorized persons and vehicles.

20.3.8. Process Plant and Auxiliary Facilities

The implementation of closure measures and actions for the process plant aims to protect the environment and surface and groundwater resources, complying with current legislation on waste management and water resource preservation, and the principles established in the International Cyanide Management Code implementation guide.

For the cessation of process and auxiliary facilities, the following general activities have been considered:

- De-energizing of facilities.
- Cleaning and washing of plant equipment and the chemical laboratory.
- Removal of equipment.
- Dismantling and removal of metal structures.
- Demolition of concrete to ground level.
- Disposal of demolition debris in waste dumps.
- Disposal of contaminated, non-contaminated, hazardous, and non-hazardous waste according to waste management procedures.
- General levelling of the area and scarification of surfaces.
- General site cleanup and sanitation.
- Soil quality control.

20.4. Exploration Projects

MDN currently has all permits up to date. In summary, both exploitation projects have their respective DIAs. Exploration projects also have their approvals. The closure plan has been submitted to the regulatory authority and is under state review.

Financial data regarding the reserve for implementing the closure plan is subject to management decisions.

Additionally, as part of compliance assurance, MDN is carrying out remediation tasks primarily in trenches and platforms across various projects. These environmental remediation tasks are being conducted with internal company personnel and machinery.

Table 20-3: Schedule for Closured Mine Plan.

Plan de Cierre Trincheras

			Cronograma de Cierre								
Proyecto	**Target**	**Target**	**Marzo**	**Abril**	**Mayo**	**Junio**	**Julio**	**Agosto**	**Septiembre**	**Progreso**	**Pendiente**
MIC	La Macarena	296.3	**296.3**							296.3	
		282.9									
	Torre	249.4									
Paloma	Antena	463			**394**					394	
		463			**456**					456	
		663.5									
	Polvorín	52									
	Palito	306.8				**164.4**				164.4	
	Clara	47.5									
Paula Andrea	Link	160.8									
	Potrillo	211.2									
Las Calandrias - Escondido	Nido Sur	165									
			296.3	**745.9**	**712.4**	**663.5**	**406.3**	**372**	**165**	**1310.7**	**3361.4**
										39%	**61%**

20.5. Social and Community Relations

20.5.1. Analysis scales

The criteria for defining these scales are related to the impact on socioeconomic and cultural factors, such as economic activities, employment (both direct and indirect), income, institutions, human capital, and social capital, caused by the closure of the mine, which will affect the population residing within the influence of the project. In this sense, it considers the modification of the current socioeconomic scenario of the Province of Santa Cruz and the communities of Puerto Deseado, Jaramillo, Fitz Roy, Tres Cerros, and Puerto San Julián, linked to the available resources derived from the operation of the project.

Accordingly, it is highlighted that the province of Santa Cruz will be impacted by the reduction in royalties and taxes paid by Minera Don Nicolás S.A. (MDN) to the state, as well as the cessation of contributions made by suppliers who operate directly with the mine.

The communities of Puerto Deseado, Jaramillo, Fitz Roy, Tres Cerros, and Puerto San Julián will be affected by the reduction in employment and income, the retraction of commercial and retail services activities, migration in search of new job opportunities, and the cessation of social-community actions implemented by MDN in the area.

20.5.2. Regional Scale

The province of Santa Cruz is in the south of Argentina and has an area of 243,943 km², representing 8.77% of the national territory. It borders the province of Chubut to the north, the Atlantic Ocean to the east, and Chile to the south and west. Santa Cruz is part of the Patagonian region of Argentina, along with the provinces of Chubut, Neuquén, Río Negro, and Tierra del Fuego, Antártida e Islas del Atlántico Sur.

Politically and administratively, the province of Santa Cruz is organized into 7 jurisdictions called departments, which contain municipalities and promotion committees. The provincial capital is Río Gallegos. The Don Nicolás mine is in the northeast of the province, in the Deseado department.

20.5.2.1. Local Scale

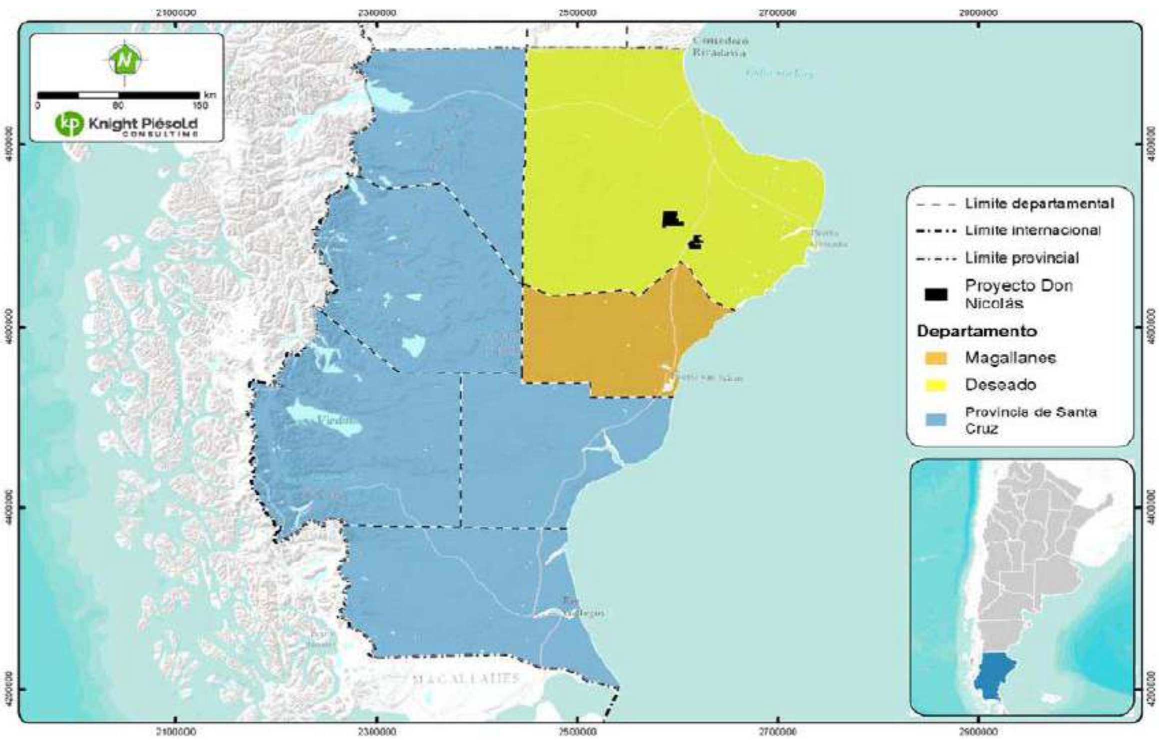
The Deseado department is in the northeast of the province of Santa Cruz. It covers 63,784 km² (26.14% of the provincial area). It borders the departments of Lago Buenos Aires and Magallanes to the west and south, respectively, the Atlantic Ocean to the east, and the province of Chubut to the north. The capital city is Puerto Deseado.

The Magallanes department covers an area of 19,805 km², equivalent to 8% of the provincial area. It borders the Deseado department to the north, the Río Chico department to the west, the Corpen Aike department to the south, and the Atlantic Ocean to the east. The capital city is Puerto San Julián.

The Don Nicolás mine is approximately 220 km southwest of Puerto Deseado and 181 km north of Puerto San Julián. These cities, along with Jaramillo, Fitz Roy (Deseado Department), and Tres Cerros (Deseado and Magallanes Departments), constitute the localities within influence of the project.

The following illustration shows the analysis scales of the socioeconomic work plan for the closure of the Don Nicolás mine.

Figure 20.9: Administrative Division Santa Cruz Province



20.5.2.2. Socioeconomic diagnosis

This section presents the socioeconomic diagnosis for the preparation of the socioeconomic work plan for the Don Nicolás mine. At the regional level, it describes the macroeconomic aspects of Argentina and the province of Santa Cruz. The local scale addresses the socio-demographic, cultural, and economic characteristics of the localities of Puerto Deseado, Jaramillo, Fitz Roy, Tres Cerros, and Puerto San Julián.

20.5.2.3. Methodological Aspects

The socioeconomic diagnosis considered Argentina and the province of Santa Cruz as the regional scale and the localities of Puerto Deseado, Jaramillo, Fitz Roy, Tres Cerros, and Puerto San Julián in the province of Santa Cruz as the local scale.

The regional scale describes the macroeconomic aspects of Argentina and the province of Santa Cruz, focusing on the country's Gross Domestic Product (GDP) and the province's Gross Geographic Product (GGP), employment levels, economic sectors, gold and silver production, and exports of these products. The local scale addresses the socio-demographic, cultural, and economic characteristics of the localities of Puerto Deseado, Jaramillo, Fitz Roy (Deseado Department), Tres Cerros (Deseado and Magallanes Departments), and Puerto San Julián (Magallanes Department). It describes the dynamics of the population (size, structure, and spatial distribution) and their living conditions (education, health, housing, and poverty), as well as the economic and productive activities developed in the mine's area of influence.

The plan focuses on these communities as well as the mine's employees and suppliers, paying special attention to MDN's relationship with these stakeholders.

20.5.3. Socioeconomic Closure Action Plan

This section contains the proposed socioeconomic measures for the closure of the Don Nicolás mine, which are integrated into the so-called Socioeconomic Action Plan (PAS). The following outlines the foundations, objectives, beneficiaries, responsible parties, and programs contained in the PAS, the activities it includes, and the schedule for its implementation.

20.5.3.1. Presentation and Foundation

The PAS has been designed considering the three stakeholder groups related to the mine operation that will be primarily impacted by the cessation of activities: the communities in the project's area of influence, the employees, and the suppliers. The plan also includes the participation and involvement of other key factors such as government agencies, educational institutions, scientific-technical organizations, and civil associations.

The PAS was developed by Law No. 3,751 "Closure of mines in the province of Santa Cruz," concerning "Annex I, Part VI. Social Aspects." Additionally, it followed the standards recommended by the International Council on Mining and Metals (ICMM) through its publication Community Development Toolkit (ICMM, 2013) and considered the guidelines proposed by the International Finance Corporation (IFC) in the Environmental, Health, and Safety Guidelines for the Mining Sector (IFC, 2017).

The PAS aims to control the socioeconomic impacts generated by the mine closure on the mentioned stakeholders, promoting development opportunities to keep costs and liabilities as low as possible during the mine closure process. The plan is based on strategic planning of programs aimed at strengthening the capabilities of employees, suppliers, and communities in the short, medium, and long term, ensuring their sustainability after the mine closure. Ithe design of the PAS includes the continuation of some of the social community actions implemented by MDN during the closure stage, as well as the implementation of new measures to minimize the impact of the project's closure.

Beneficiaries

- The direct beneficiaries of the PAS are:
- Direct employees of the Mine.
- Suppliers or indirect employees of the Mine.
- Communities in the Mine's area of influence.

20.6. Closure plan and costs

This study includes the closure costs for the Calandrias project, which is assumed to reach the end of its useful life after the fifth year of production.

The closure of the CIL plant is not included in the analysis as the company plans to convert and generate new resources that may extend the operation beyond the horizon of the present economic evaluation.

20.6.1. General organization of calandrias cost estimation

The cost of closure activities consists of 3 main parts:

CAPEX: Refers to costs directly related to closure activities, such as supplies and materials for construction, soil movement, demolition of structures, area restoration, construction of water management works, and equipment mobilization to the site for these activities. This also includes complementary costs associated with direct costs.

OPEX: Refers to costs derived from the administration and supervision of activities, maintenance of works, monitoring of facilities, and fuel consumption for closure and post-closure.

Contingency: This is the portion of the budget allocated to cover unforeseen costs and/or uncertainty in cost estimation associated with the level of closure plan development. Contingency is higher in the initial stages (conceptual development) and decreases with the end of mine operation and progress of the closure plan, towards a level of detailed engineering and costs.

20.6.1.1. OPEX

The costs for this item are divided into the following sub-items:

Environmental Monitoring Program: The environmental monitoring program follows the guidelines in Section 9 of this closure plan.

Social Closure Programs: Costs associated with this component have been estimated based on KP's experience with other closure plans, as the social closure plan had not yet been developed at the time of this document's preparation. MDN has allocated a total of USD 303,840 for the social closure plan, distributed as follows:

Table 20-4:

Stage	Operation	Closure			Post closure									
Year	1	1	2	3	1	2	3	4	5	6	7	8	9	10
% Budget	9.1%	18.2%	18.2%	18.2%	4.5%	4.5%	4.5%	4.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

Engineering Monitoring and Maintenance Costs: Engineering monitoring consists of the cost of a team of surveyors with their mobility, travel expenses, and accommodation, who will provide periodic inspection services. For engineering maintenance, the cost of engineering monitoring campaigns is added to the cost of the equipment and machinery needed to carry out the required activities.

Monitoring and engineering maintenance costs: Engineering monitoring consists of the cost of a team of surveyors with their mobility, travel expenses, and accommodation, who will provide periodic inspection services. For engineering maintenance, the cost of engineering monitoring campaigns is added to the cost of the equipment and machinery needed to carry out the required activities. This includes a loader, a dump truck with a capacity of 24 t = 15 m³, and a 14-foot motor grader.

Fuel consumption: These costs are related proportionally to the number of people involved in closure activities, as fuel provision is necessary to keep auxiliary facilities operational, such as camps, water supply, and fuel provision for power generation. These consumptions are assumed to be constant during the closure period (3 years), and no energy will be required during the post-closure stage.

Closure and post-closure administration: This cost includes the management and supervision by mine personnel, considering a reduced structure sufficient to manage and oversee closure and post-closure activities. Personnel salaries were provided by MDN. The staff structure planned for closure will be reduced for the post-closure stage.

20.6.1.2. Contingency

Based on the level of detail of the available information to estimate the closure plan costs, according to the American Association of Cost Engineers (AACE), the contingency falls into Class 4. Considering this and QP's previous experience in similar projects, an average contingency of 30% was considered.

Table 20-5: Contingency levels by American Association of Cost Engineers (AACE).

Estimate Class	AACE Recommended Contingency
5	L: -20% to -50% H: +30% to +100%
4	L: -15% to -30% H: +20% to +50%
3	L: -10% to -20% H: +10% to +30%
2	L: -5% to -15% H: +5% to +20%
1	L: -3% to -10% H: +3% to +15%

Table 20-6: Cubic measurements applied to the entire Las Calandrias mining complex.

Closure Activity	Quantity
Concrete demolition (m³)	5672 m³
Dismantling of light structure I (m²)	6.189 m²
Dismantling of perimeter fence (m)	500.2388792
Dismantling of standard building 15 kg/m³ (m³)	2.454 m³
Dismantling of heavy building 30 kg/m³ (m³)	29.250 m³
Disassembly of module (unit)	46 m³
Filling without compaction quarry 10 km	173.957 m³
Surface to be scarified (m²)	4.326.458 un
Excavation in common soils + t 10 km	4531 m³
Filling and compaction with quarry material at 10 km	8.324 m²
Reprofiling of 10 m high slope	13903 m²

Closure Activity	Quantity
Revegetation service	367.986 m²

20.6.1.3. Cost Estimate

CAPEX for the closure stage is estimated at USD 2,926,000. OPEX for the closure and post-closure stages is estimated at USD 2,495,979. A contingency of 30%, equivalent to USD 1,627,000, by AACE standards, results in a total closure cost of USD 7,049,000.

Table 20-7: Detailing CAPEX for mine closure plan

Ítem	Descripción	Unidad	Cantidad	Valor Unitario	Valor Total	Inc.
1	*COSTOS DIRECTOS*					
1	**COSTOS DIRECTOS DE CIERRE POR INSTALACIÓN**				**1.557.349 usd**	**22,1%**
1.1	**Instalaciones de mina**				**687.652 usd**	**9,8%**
1.1.1	Caminos de accesos internos			193.877 usd/un	193.877 usd	
1.1.2	Apertura de PIT para extracción de mineral			57.265 usd/un	57.265 usd	
1.1.3	Escombrera			436.509 usd/un	436.509 usd	
1.2	**Instalaciones de procesamiento**				**685.121 usd**	**9,7%**
1.2.1	Planta de trituración			54.508 usd/un	54.508 usd	
1.2.2	PAD Lixiviación HL Calandrias			532.622 usd/un	532.622 usd	
1.2.3	Planta de CIC			97.992 usd/un	97.992 usd	
1.3	**Instalaciones auxiliares**				**181.900 usd**	**2,6%**
	Oficinas de planta			81.887 usd/un	81.887 usd	
	El acceso al proyecto incluye 15 km de camino de tierra existente hasta la Rruta Nacion			3.480 usd/un	3.480 usd	
	Patio de residuos			8.652 usd/un	8.652 usd	
	Suministro energético			6.407 usd/un	6.407 usd	
	Almacén			4.368 usd/un	4.368 usd	
	SUM y Comedor			9.020 usd/un	9.020 usd	
	Loguera			2.556 usd/un	2.556 usd	
	Tanques de agua			2.114 usd/un	2.114 usd	
	Zeppelin de Gas			1.648 usd/un	1.648 usd	
	Habitaciones y Oficinas generales			6.501 usd/un	6.501 usd	
	Oficinas auxiliares			3.065 usd/un	3.065 usd	
	Establo en desuso			2.322 usd/un	2.322 usd	
	Depósito de SSGG			2.090 usd/un	2.090 usd	
	Planta de Efluentes			1.526 usd/un	1.526 usd	
	Campamento nuevo			37.891 usd/un	37.891 usd	
	Polvorin			8.373 usd/un	8.373 usd	
1.4	**Instalaciones de exploracion**				**2.676 usd**	**0,0%**
	Trincheras			2.676 usd/un	2.676 usd	
SUBTOTAL A					**1.557.349 usd**	**22,1%**

Ítem	Descripción	Unidad	Cantidad	Valor Unitario	Valor Total	Inc.
2	*OPEX*				*2.495.979 usd*	*35,4%*
2.1	**Programa De Monitoreo Ambiental**				**530.864 usd**	**7,5%**
2.1.1	**Etapa de Cierre (3 años)**				**326.875 usd**	**4,6%**
	Laboratorio	años	3	44.312 usd/un	132.937 usd	1,9%
	Consultoría Externa	años	3	64.646 usd/un	193.937 usd	2,8%
2.1.2	**Etapa de Post Cierre (10 años)**				**203.989 usd**	**2,9%**
	Laboratorio	años	10	1.575 usd/un	15.752 usd	0,2%
	Consultoría Externa	años	10	18.824 usd/un	188.237 usd	2,7%
2.2	**Programas de cierre Social**				**303.840 usd**	**4,3%**
	Etapa de pre cierre	Estudio	1	27.622 usd/un	27.622 usd	0,4%
	Etapa de Cierre	Estudio	1	165.731 usd/un	165.731 usd	
	Etapa de post-Cierre	Estudio	1	110.487 usd/un	110.487 usd	
2.3	**Costos Monitoreo Y Mantenimiento Ingeniería**				**483.182 usd**	**6,9%**
2.3.1	**Monitoreo ingeniería**					
	cierre	años	3	37.529 usd/un	112.588 usd	1,6%
	pos cierre	años	10	18.765 usd/un	187.647 usd	2,7%
2.3.2	**Mantenimiento ingeniería**					
	cierre	años	3	22.868 usd/un	68.605 usd	1,0%
	pos cierre	años	10	11.434 usd/un	114.342 usd	1,6%
2.4	**Consumo de gas (generación eléctrica)**	**años**	**3**	**26.460 usd/un**	**79.379 usd**	**1,1%**
2.5	**Administración de cierre y post cierre**			**1.098.714 usd/un**	**1.098.714 usd**	**15,6%**
TOTAL CAPEX + OPEX (item 1+ item2)					5.422.000 usd	77%
3	*CONTINGENCIA (30% de capex+opex)*			*30%*	*1.627.000 usd*	*23%*
	TOTAL GENERAL				7.049.000 usd	100%

21. CAPITAL AND OPERATING COSTS

Capital and operating costs for the process were estimated by GeoEstima and mining components of the project costs were estimated by MDN engineers. The estimated costs are considered to have an accuracy of +/-30% for capital costs and +/-20% for operating costs and are presented in this section.

21.1. Capital Cost Estimates

Capital costs estimates were allocated to:

- Direct Costs
- Indirect Construction Costs
- Contingency
- Owner Costs

Capital costs for the Don Nicolás Gold Project does not consider the initial capital due to the mining areas are in operation. The Project need only a sustaining capital cost for the construction and develop of the future underground mine and the construction of a new leach PAD.

Due to the short mine life, it is expected that a significant salvage value will be obtained for underground principal mobile equipment that was purchased new at the start of the Project.

21.1.1. Basis of Estimate

The accuracy of the estimates contained within the PEA study varies due to the different methods of derivation used to estimate the costs. The sustaining capital cost estimate for this PEA is the following:

- Underground mine is a Class 3 based on AACE recommendations and have an accuracy of -20% to +30% at the 80% confidence level.

Leach PAD, with a budget quotation, is a Class 3 based on AACE recommendations and have an accuracy of -20% to +30% at the 80% confidence level.

21.1.2. Mine Capital Costs

The capital for Paloma Trend Underground Project was based on first principles for the mining equipment and has been defined as the access, develop and infrastructure. This includes the access tunnel, pump and electric installations, generator, fans, Vents and pipes, refuges and equipment.

It is envisaged that Paloma Trend mine development and operation will be undertaken by a owner.

The mine capital costs are summarised in Table 21-1.

Table 21-1: Mine Capital Cost.

Item	unit	Unit price US$	Quant	US$
Access and develop				
Ramps, X-cut access, vent access, loading point level	m	4,000/m	2,170	8,680,000
Subtotal Access Development				**8,680,000**
Equipment				
Jumbo (for 2.5m x 2.5m to 4.5m x 4.5m)	unit	400,000	2	800,000
Long Hole Drill	unit	500,000	2	1,000,000
Bolter	unit	510,000	2	1,020,000
Scaler	unit	440,000	1	440,000
Shotcreting	unit	100,000	1	100,000
Scissor Lift	unit	180,000	1	180,000
ANFO Charger	unit	365,000	1	365,000
LHD	unit	342,000	3	1,026,000
Truck (conventional 15t capacity)	unit	100,000	2	200,000
Exhaust Fan & Electric Installation	unit	50,000	2	100,000
Development Fan & Electric	unit	30,000	8	240,000
Pump & Electric Installation	unit	20,000	6	120,000
Safety Escape Mask	unit	2,000	30	60,000
Refuge Chamber	unit	50,000	4	200,000
Pick Ups	unit	50,000	3	150,000
Fuel & Lubricating Truck	unit	200,000	1	200,000
Diesel generator	unit	200,000	2	400,000
Equipment Parts Initial Stock		500,000		500,000
Vent ducts, pipes, others		200,000		200,000
Subtotal Equipment Purchasing				**7,301,000**
Others				
Cleaning Pit Bottom	unit	2	7,500	15,000
Excavation on West Side & Pit Ramp	unit	3	500,000	1,500,000
Portal Concrete & Support	unit	100,000	1	100,000
Main fans installation	unit	100,000	1	100,000
Ladders & Platforms in Escapeway	m	200	120	24,000
Cost for recruiting & training crew				378,344
Subtotal Others				**2,117,344**
TOTAL				**18,098,344**

A salvage cost has been considered for the principal mobile equipment. This value is 40% of the purchase cost. The Table 21-2 shown the salvage cost.

Table 21-2: Equipment Salvage Cost.

Item	unit	Unit price US$	Quant	US$
Jumbo	unit	400,000	2	320,000
Long Hole Drill	unit	500,000	2	400,000
Bolter	unit	510,000	2	408,000
Scaler	unit	440,000	1	176,000
Scissor Lift	unit	180,000	1	72,000
ANFO Charger	unit	365,000	1	146,000
LHD	unit	342,000	3	410,400
Truck (conventional 15t capacity)	unit	100,000	2	80,000
Fuel & Lubricating Truck	unit	200,000	1	80,000
Diesel generator	unit	200,000	2	160,000
TOTAL				2,252,400

21.1.3. Process Capital Costs

The project does not consider capital costs for the processing plant, however the economic evaluation includes a sustainability cost corresponding to the rental of a crushing plant equivalent to the existing plant in Las Calandrias for an additional 250 tph of ore.

21.1.4. Infrastructure Capital Costs

Table 21-3: Construction Leach PAD Costs.

PROJECT AREA				
COMPUTATION AND COST ESTIMATION – PROJECT: "CONSTRUCTION OF MARTINETAS LEACHING PAD"				
Item Designation	**Unit**	**Quantity**	**Unit Price**	**Sale Price (USD)**
EARTHWORKS				
CLEARING	m^3	**980.00**	**7.27**	7,124.60
PAD				
CUT	m^3	**15,458.52**	**9.34**	144,382.58
FILL	m^3	**3,156.09**	**10.38**	32,760.21
ROADS				
CUT	m^3	**2,742.29**	**9.34**	25,612.94
FILL, SUBGRADE LEVELING	m^3	**2,915.50**	**10.38**	30,262.89
WEARING COURSE e= 0.15m	m^3	**1,389.15**	**10.38**	14,419.38
IMPERMEABILIZATION SYSTEM				
SOIL LINER	m^3	**12,634.65**	**12.46**	157,427.74
GEOMEMBRANE INSTALLATION	m^2	**41,809.25**	**8.41**	351,615.79
ANCHOR TRENCH	m^3	**290.30**	**40.48**	11,751.51
SRRF				
GEOTEXTILE	m^2	**2,938.40**	**5.19**	15,250.30
DRAINAGE MATERIAL	m^3	**267.20**	**10.38**	2,773.54
SOLUTION COLLECTION SYSTEM				
OVER LINER	m^3	**33,702.48**	**8.56**	288,493.23
PIPING				0.00
PIPE INSTALLATION (excluding materials)	ml	**5,576.00**	**40.48**	225,716.48
PONDS (OPERATIONAL, EMERGENCY)				
H° OPERATIONAL POND 20m x 20m x 8m h (Materials and Labor)	m^3	**1,200.00**	**45.00**	54,000.00
GEOMEMBRANE INSTALLATION FOR EMERGENCY 1.5 mm	m^2	**5,680.80**	**8.41**	47,775.53
COLLECTION CHANNEL	GL	**1.00**	**40,000.00**	40,000.00
MEDIUM VOLTAGE LINE	ud	**1.00**	**60,000.00**	60,000.00
PUMPING LINE	ud	**1.00**	**45,000.00**	45,000.00
CRUSHING (Cone + Jaw + Screen) + 15% operation, spare parts	ud	**1.00**	**1,500,000.00**	1,500,000.00
CIC PLANT (Pumps for injection and return, valves, concrete, piping, tank modification, instrumentation)	ud	**1.00**	**500,000.00**	500,000.00
MINING OF ZORRO NOT CONSIDERED				
				$3,554,366.71

Table 21-4: Materials Leach PAD Costs.

PROJECT AREA – APRIL 2024				
COMPUTATION AND COST ESTIMATION – PROJECT: “MARTINETAS LEACHING PAD MATERIALS”				
Item Designation	**Unit**	**Quantity**	**Unit Price**	**Sale Price (USD)**
ROADS				
WEARING COURSE e= 0.15m (PRODUCTION AND TRANSPORT)	m^3	**2,835.00**	**6.00**	17,010.00
IMPERMEABILIZATION SYSTEM				
GEOMEMBRANE SST – LLDPE 2 mm + 20% Waste	m^2	**71,673.00**	**7.50**	537,547.50
EXTRUSION WIRE	kg	**143.35**	**40.48**	5,802.65
SRRF				
GEOTEXTILE + 20% Waste	m^2	**3,085.32**	**5.19**	16,012.81
DRAINAGE MATERIAL + 20% Waste	m^3	**280.56**	**10.38**	2,912.21
SOLUTION COLLECTION SYSTEM				
OVER LINER (Production and Hauling)	m^3	**50,553.72**	**8.56**	432,739.84
PIPING				
PRIMARY PIPE Ø450 mm (10% waste)	m	**154.00**	**39.49**	6,081.48
PRIMARY PIPE Ø300 mm (10% waste)	m	**84.70**	**21.02**	1,780.49
SECONDARY PIPE Ø250 mm (10% waste)	m	**823.90**	**18.23**	15,020.82
TERTIARY PIPE Ø100 mm (15% waste)	m	**4,499.95**	**2.50**	11,252.28
ELBOW 45º Ø450 mm	ud	**1.40**	**38.89**	54.44
COUPLING Ø450 mm	ud	**5.60**	**6.04**	33.81
COUPLING Ø300 mm	ud	**4.20**	**4.83**	20.28
COUPLING Ø250 mm	ud	**32.20**	**4.23**	136.07
COUPLING Ø100 mm (15% waste)	ud	**372.72**	**2.11**	787.51
YE (450 mm – 250 mm)	ud	**2.10**	**184.62**	387.71
YE (450 mm – 100 mm)	ud	**9.10**	**184.62**	1,680.08
YE (300 mm – 250 mm)	ud	**1.40**	**52.41**	73.37
YE (300 mm – 100 mm)	ud	**1.40**	**52.41**	73.37
YE (250 mm – 250 mm)	ud	**0.70**	**52.41**	36.69
YE (250 mm – 100 mm) (15% waste)	ud	**86.94**	**52.41**	4,556.29
REDUCER (450 mm – 250 mm)	ud	**0.70**	**124.26**	86.98
TIES (5 mm x 30 cm) x 100 ud	ud	**56.00**	**13.00**	728.00
TIES (3 mm x 15 cm) x 100 ud	ud	**210.00**	**3.10**	651.00
PONDS (OPERATIONAL, EMERGENCY)				
GEOMEMBRANE SST – HDPE 1.5 mm + 20% Waste	m^2	**8,521.20**	**6.10**	51,979.32
MEDIUM VOLTAGE LINE (approx. 200m)	ud	**1.00**	**120,000.00**	40,000.00
PUMPING LINE (approx. 1,200m)	ud	**1.00**	**90,000.00**	35,000.00
CIC PLANT (Pumps for injection and return, valves, concrete, piping, tank modification, instrumentation)	ud	**1.00**	**200,000.00**	200,000.00
				$1,382,445.00

Table 21-5: Summary Infrastructure Capital Cost.

Area	Sub Area	USD
Infrastructure	Leach PAD Construction	3,554,367
	Leach PAD Materials	1,382,445
Total		**4,936,812**

21.1.5. Indirect Capital Costs and Contingency

Indirect costs were estimated as 8% of the direct cost. Contingency factors were applied to the sustaining cost estimates as 35% of the direct, owner and indirect costs.

Indirect capital costs and the contingency allocation are summarised in Table 21-6.

Table 21-6: Summary Indirect and Contingency.

Area	Sub Area	USD
Indirect Costs	Underground Mine	1,367,430
	Leach PAD	373,004
Contingency		8,671,457
Total		**10,411,891**

21.1.6. Owner Capital Costs

A sustaining Capital is estimated at US$1,800,000 per year and for underground development is considering US$26,300,000 and US$6,500,000 in additional drilling and studies.

Owner capital costs and the contingency allocation are summarised in Table 21-7.

Table 21-7: Summary Owner Capital Costs.

Area	Sub Area	USD
Owner Costs	Sustaining	9,450,000
	Underground Additional drilling	5,000,000
	Underground Additional studies	1,500,000
Total		**15,950,000**

21.1.7. Closure Cost

The closure costs are estimated to be US$7,048,571. Closure costs would cover the following activities:

- Mobilization
- Site closure and dismantling
- Pre closure, Closure and Post closure monitoring
- Studies
- Demobilization

21.1.8. Capital Cost Summary

The overall capital cost estimate is summarised in Table 21-8

Table 21-8: Capital Cost Estimate.

Area	Sub Area	USD
Capital Cost	Underground Mine	18,098,344
	Infrastructure	4,936,812
	Indirect Cost	1,740,434
	Contingency	8,671,457
	Owner Cost	15,950,000
	Closure Cost	7,048,571
Total		**56,445,618**

21.2. Operating Cost Estimates

21.2.1. Basis of Estimate

Operating costs detailed in the PEA were derived from a variety of sources including, but not limited to, basic calculation, benchmarking analysis, derivation from first principles, and factoring from other costs contained within this study.

The operating cost estimate is considered to have a level of accuracy of –35% to +35%. The overall assumptions for operating costs comprise:

Costs are presented in 2024 US dollars, unless stated otherwise.

The cost per tonne of material treated (US$/t) provided in this report are the average costs over the life of the mine (LOM).

Cerrado delivered the following cost information:

- Rental rates for open pit equipment.
- The underground operating mining cost (based on benchmarking information from similar operations).
- Contractor cost for transport to process plant from underground mine.
- Contractor rehandling mining cost operation.
    - Crusher rental.
    - Personnel salaries.
    - G&A cost.

The following items are excluded from the overall operating costs:

- Escalation and exchange rate fluctuations
- Exploration
- Permits
- Import duties
- Taxes
- Interest and financing charges.

- Mine or plant closure/rehabilitation activities (considered in capex)
- Operating cost contingency.

21.2.2. Mine Operating Costs

The operation costs calculation has the following considerations:

- The open pit mine plans assumes that Cerrado currently has and will continue its operation until the end of mining.
- The Paloma Trend Underground mine consider an owner operation but the mineralised material transport to the process plant will be developed for a contractor.
- The Martinetas HL rehandling that contractors will operate

For the open pit operation, the Equipment operating costs were estimated by determining the parts, wear steel, tires, contracted services and lubrication costs by period. Fuel and lubricant consumptions were based on the estimated annual equipment operating hours and the typical fuel and lubricant consumption for each piece of equipment. The annual operating hours for the equipment type were determined from the annual production quantities. Fuel consumptions were determined for Cerrado. The hourly equipment maintenance, tires and wear steal costs were determined using benchmark and equipment supplier information.

The estimation of mining cost for Paloma Trend was based on a fixed mining cost of US$40.00/t based on a benchmarking information. The transport of the summarised material to the process plant assumes a cost of US$10.00/t.

Table 21-9: Mining Cost.

		April – Dec 2024	2025	2026	2027	2028	2029
Calandrias Norte Open Pit							
Loading	USD	574,888					
Hauling	USD	904,921					
Drilling & Blasting	USD	676,041					
Ancillary	USD	597,537					
Support	USD	196,867					
Eng. & Adm	USD	393,848					
Total Calandrias Norte	USD	*3,344,102*					
Calandrias Sur Open Pit							
Loading	USD	2,953,646	3,904,609	3,592,179	2,920,149	1,308,996	
Hauling	USD	3,239,878	3,819,117	3,682,868	3,453,423	1,565,992	
Drilling & Blasting	USD	3,432,333	4,895,421	4,587,567	3,818,192	1,690,077	
Ancillary	USD	2,806,500	4,113,622	3,643,647	3,730,651	1,972,814	
Support	USD	818,747	1,510,463	1,397,071	1,418,301	768,105	
Eng. & Adm	USD	3,491,233	5,466,336	5,579,963	4,998,170	1,762,683	
Total Calandrias Sur	USD	*16,742,337*	*23,709,568*	*22,483,294*	*20,338,887*	*9,068,667*	
Zorro							
Loading	USD	759,329	310,153				
Hauling	USD	901,200	376,995				
Drilling & Blasting	USD	872,203	361,232				
Ancillary	USD	747,903	303,265				
Support	USD	213,713	87,257				
Eng. & Adm	USD	468,539	185,860				
Total Zorro	USD	*3,962,887*	*1,624,762*				
Martinetas HL							
Rehandle	USD					660,000	458,464
Total Martinetas	USD					*660,000*	*458,464*
Paloma Trend Underground Mine							
Operation	USD			346,320	2,113,670	6,288,203	2,426,002
Transport to plant	USD			86,580	528,418	1,572,051	606,500
Total Paloma Trend	USD			*432,900*	*2,642,088*	*7,860,254*	*3,032,502*
Total	**USD**	**24,049,326**	**25,334,330**	**22,916,194**	**22,980,974**	**17,588,921**	**3,490,966**

The re-handle for Martinetas HL a cost of US$1.00/t was used.

21.2.3. General and Administrative Operating Costs

General and administrative (G&A) costs used in the PEA were considered in two parts:

- For a global operation at US$3,000,000 per year.

Additional cost for the underground operation of US$3.5 per tonne treated.

The Table 21-10 present the carbon-in-leach plant operation costs

Table 21-10: CIL Plant Operating Cost.

	Units per tonne	Unit	Unit Price USD/unit	Op.Cost USD/t	Op.Cost USD/year
Labour					
Operators	40	#/year	40,000	4.44	1,600,000
Supervisors	10	#/year	60	1.67	600,000
Supplies					
Electric Energy	56	kWh/t	0.15	8.4	3,024,000
Natural Gas	18.35	m^3/t	0.14	2.57	924,840
Water	1.44	m^3/t	1.5	2.16	777,600
Reagents & Materials					
Grinding balls	1.38	kg/t	2,000	2.75	990,000
Sodium Cyanide	1.8	kg/t	3,000	5.4	1,944,000
Lime	2.3	kg/t	0.2	0.46	165,600
Carbon	0.075	kg/t	6.5	0.49	175,500
Sodium Hydroxide	0.55	kg/t	0.85	0.21	76,500
Hydrogen Peroxide	1.55	kg/t	0.2	0.31	111,600
Hydrochloric Acid	0.3	kg/t	0.35	0.11	37,800
Floculant	0.05	kg/t	3.5	0.18	63,000
Maintenance & Materials					
Crushing & grinding	global	USD/t	6.67	6.67	2,400,000
General	global	USD/t	3.33	3.33	1,200,000
Laboratory	global	USD/t	0.83	0.83	300,000
Total CIL Plant Op.				**40**	**14,390.44**

Table 21-11: G&A Costs.

		April – Dec 2024	2025	2026	2027	2028	2029
G&A Cost							
Global Operation	USD	2,250,000	3,000,000	3,000,000	3,000,000	3,000,000	1,000,000
Underground Mine	USD			30,303	184,946	550,218	212,275
Total	**USD**	**2,250,000**	**3,000,000**	**3,030,303**	**3,184,946**	**3,550,218**	**1,212,275**

21.2.4. Process Operating Costs

21.2.4.1. Carbon in Leach Plant

Operating costs estimated for the CIL processing plant are presented in this subsection. The unit cost estimate for this plant is 40.0 USD/t and is based on 1,000 tpd of material being processed. Table 21-12 contains the detail of the estimate.

Table 21-12: CIL Plant Operating Cost.

	Units per tonne	Unit	Unit Price USD/unit	Op. Cost USD/t	Op. Cost USD/year
Labour					
Operators	40	#/year	40,000	4.44	1,600,000
Supervisors	10	#/year	60.000	1.67	600,000
Supplies					
Electric Energy	56.0	kWh/t	0.150	8.40	3,024,000
Natural Gas	18.35	m^3/t	0.140	2.57	924,840
Water	1.44	m^3/t	1.50	2.16	777,600
Reagents & Materials					
Grinding balls	1.38	kg/t	2,000	2.75	990,000
Sodium Cyanide	1.80	kg/t	3,000	5.40	1,944,000
Lime	2.30	kg/t	0.20	0.46	165,600
Carbon	0.075	kg/t	6.50	0.49	175,500
Sodium Hydroxide	0.55	kg/t	0.85	0.21	76,500
Hydrogen Peroxide	1.55	kg/t	0.20	0.31	111,600
Hydrochloric Acid	0.30	kg/t	0.35	0.11	37,800
Floculant	0.05	kg/t	3.50	0.18	63,000
Maintenance & Materials					
Crushing & grinding	global	USD/t	6.67	6.67	2,400,000
General Maintenance	global	USD/t	3.33	3.33	1,200,000
Laboratory	global	USD/t	0.83	0.83	300,000
Total CIL Plant Op.				**40.0**	**14,390.440**

21.2.4.1. Heap Leach Plant

Operating costs estimated for the heap leach processing plant are presented in this subsection. These costs were developed for two cases: 5,000 tpd & 10,000 tpd of material being processed. Table 21-13 and Table 21-14 contain the estimate.

Table 21-13: Heap Leach Plant Operating Cost. 5,000 tpd.

	Units per tonne	Unit	Unit Price USD/unit	Op. Cost USD/t	Op. Cost USD/year
Labour					
Operators	24	#/year	40.000	0.53	960,000
Supervisors	8	#/year	60.000	0.27	480,000
Supplies					
Electric Energy	4.40	kWh/t	0.15	0.53	950,400
Water	0.084	m^3/t	1.50	0.13	226,800
Reagents					
Sodium Cyanide	1.0	kg/t	3,000	3.00	5,400,000
Lime	2.0	kg/t	0.20	0.40	720,000
Carbon	0.05	kg/t	6.50	0.32	576,000
C. Processing & Au rec.					
Elution & C.	global	USD/t	0.83	0.83	1,500,000
EW & doré smelting	global	USD/t	0.29	0.29	525,000
Maintenance & Materials					
Crushing	global	USD/t	0.11	0.11	200,000
Heap Leach Irrigation	global	USD/t	0.17	0.17	300,000
General Maintenance	global	USD/t	0.28	0.28	500,000
Laboratory	global	USD/t	0.17	0.17	300,000
Total HL Plant Op.				**7.0**	**12,638,200**

Table 21-14: Heap Leach Plant Operating Cost. 10,000 tpd.

	Units per tonne	Unit	Unit Price USD/unit	Op. Cost USD/t	Op. Cost USD/year.
Labour					
Operators	48	#/year	40.000	0.53	1,920,000
Supervisors	16	#/year	60.000	0.27	960,000
Supplies					
Electric Energy	4.40	kWh/t	0.15	0.53	1,900,800
Water	0.084	m^3/t	1.50	0.13	453,600
Reagents					
Sodium Cyanide	1.0	kg/t	3,000	3.00	10,800,000
Lime	2.0	kg/t	0.20	0.40	1,440,000
Carbon	0.05	kg/t	6.50	0.32	1,152,000
C. Processing & Au rec.					
Elution & C.	global	USD/t	0.83	0.83	3,000,000
EW & doré smelting	global	USD/t	0.29	0.29	1,050,000
Maintenance & Materials					
Crushing	global	USD/t	0.11	0.11	400,000
Heap Leach Irrigation	global	USD/t	0.17	0.17	600,000
General Maintenance	global	USD/t	0.28	0.28	1,000,000
Laboratory	global	USD/t	0.17	0.17	600,000
Total HL Plant Op.				**7.0**	**25,276,400**

21.2.5. Operating Cost Summary

Overall LOM operating costs are provided in Table 21-15 and Table 21-16.

Table 21-15: LOM Operating Costs.

Operating Costs	
Mining cost Open Pit per tonne (Total Material)	3.59
Mining cost Underground per tonne (Total Material)	50.00
Mining cost per tonne (Mineralised Material)	7.53
Processing Cost per Tonne (Mineralised Material)	8.52
Total Cost per tonne treated	17.35

Table 21-16: Total LOM Operating Costs.

Item	Operating Costs	USD
Mine Costs	Calandrias Norte	3,344,102
	Calandrias Sur	92,342,753
	Zorro	5,587,648
	Martinetas HL	1,118,464
	Paloma Trend	13,967,744
	Subtotal	*116,360,711*
Process Plant Costs	Heap Leach (HL)	110,555,583
	Carbon In Leach (CIL)	21,264,187
	Subtotal	*131,819,770*
General and Administrative Costs	G&A	16,227,742
	Subtotal	*16,227,742*
Total Operating Costs		**264,408,224**

21.3. Comments on Section 21

The capital cost estimate for this PEA is the following:

- The underground mine is a Class 3 based on AACE recommendations, and its accuracy is -20% to +30% at the 80% confidence level.
- Leach PAD, with a budget quotation, is a Class 3 based on AACE recommendations and has an accuracy of -20% to +30% at the 80% confidence level.

The operating cost estimate is considered to have a level of accuracy of –20% to +30%.

The Project capital cost estimate is US$56,445,618.

Operating costs over the LOM are estimated at US$264,408,224, and they average US$17.35 per tonne treated over the LOM.

22. ECONOMIC ANALYSIS

22.1. Methodology Used

The Report is partly based on Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorised as Mineral Reserves, and there is no certainty that the preliminary assessment based on these Mineral Resources will be realised.

The economic analysis presented in this report uses a financial model that estimates cash flows on an annual basis over the life of the Project at a level deemed appropriate for a mine operation and scoping study level of engineering and design. Cash flow projections are estimated over the LOM based on the sales revenue, OPEX, CAPEX and other cost estimates. CAPEX is estimated in two categories: sustaining and closure. OPEX estimates include labour, contractor rates, reagents, maintenance, supplies, services and fuel. Other costs, such as royalties, depreciation and taxes, are estimated following the present stage of the Project. The financial model results are presented regarding Net Present Value (NPV). The economic analysis is carried out realistically (i.e., without inflation factors) in US dollars in Quarter 2 of 2024. The financial results are calculated from the start of initial capital expenditures, with taxation calculations considering all prior sunk costs.

22.2. Cautionary Statements

The results of the economic analysis discussed in this section contain statements that constitute "forward-looking information" (collectively, "forward-looking statements") within the meaning of the applicable Canadian securities legislation. These results are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here.

The forward-looking statements include, but are not limited to, the following:

- The recovery rates in the process plants
- Assumed prices for gold
- Cost Inflation
- The proposed mine production plan
- Assumptions regarding mining dilution and mining recovery
- Proposed sustaining and operating costs
- Labour and materials availability
- Labour and materials costs being approximately consistent with the assumptions in the report
- Assumptions regarding closure costs
- Assumptions regarding environmental, social, and licensing risks
- Changes to tax rates
- Unexpected variations in the amount of mineralised material and material grade
- Geotechnical or hydrogeological considerations during mining, which differ from the assumptions

- Ability to maintain a social license to operate
- Unrecognized environmental risks
- Unforeseen reclamation expenses
- Failure of plant, equipment, and processes to operate as anticipated
- The absence of significant disruptions affecting the development and operation of the mines and projects
- The availability of certain consumables and services and the prices for fuel, electricity and other key supplies are approximately consistent with the assumptions in the report

22.3. Financial Model Parameters

22.3.1. Mineral Resources and Mine Life

A subset of the Mineral Resources estimated in Section 14 was used in Section 16 to determine the production schedule.

The characteristics of the production plans are the following:

- Calandrias Norte is considering the operation for this year.
- Calandrias Sur, continue your current operation with a ramp-up for 9 months in 2024 until reaching the full production rate. Steady-state production will then be maintained for four years until it ends in mid-2028.
- Zorro starts on Q3 2024 and finalize on Q2 2025.
- Martinetas Heap Leach stars in 2028, finishes in 2029 and processes the low-grade stockpiled from Zorro in conjunction with other stockpiles.
- Paloma Trend, the underground project, starts in 2026 and finishes in 2029.

The production period is 5 years in total. Table 22-1 summarises the mine plan and process plants.

Table 22-1: Summary of the mine plans.

Mine Plan	
Total Material Mineralised moved (t)	15,409,647
Total waste mined (t)	13,476,186
Total waste-to-mineralised ratio	0.87:1
Average Gold process recovery (%)	52%
Average Silver process recovery (%)	25%
CIL Plant	
Total Mineralised Material	457,071
Average gold grade (g/t)	4.65
Average Silver grade (g/t)	14.61
Average Process Plant CIL throughput (tpd)	209
HL Plant	
Total Mineralised Material	14,785,857
Average gold grade (g/t)	0.91
Average Silver grade (g/t)	12.86
Average Process Plant HL throughput (tpd)	6,752

22.3.2. Metallurgical Recoveries

The recoveries for each of the payable metals over the financial model LOM are included in Table 22-2.

Table 22-2: Metallurgical Recoveries.

Commodity	Process				
	CIL	HL			
		Oxide	Transition	Primary	Stockpiles
Gold	90%	68%	60%	35%	50%
Silver	61%	35%	30%	20%	30%

22.3.3. Metal Production

Gold produced over the Project life is 260,083 oz with an annual average recovery of 52,017 oz over the 5-year LOM. Silver produced is 1,618 koz with an annual average recovery 323.6 koz.

The Table 22-3 shown the summary of production and the gold participation for mining area.

Table 22-3: Production Summary.

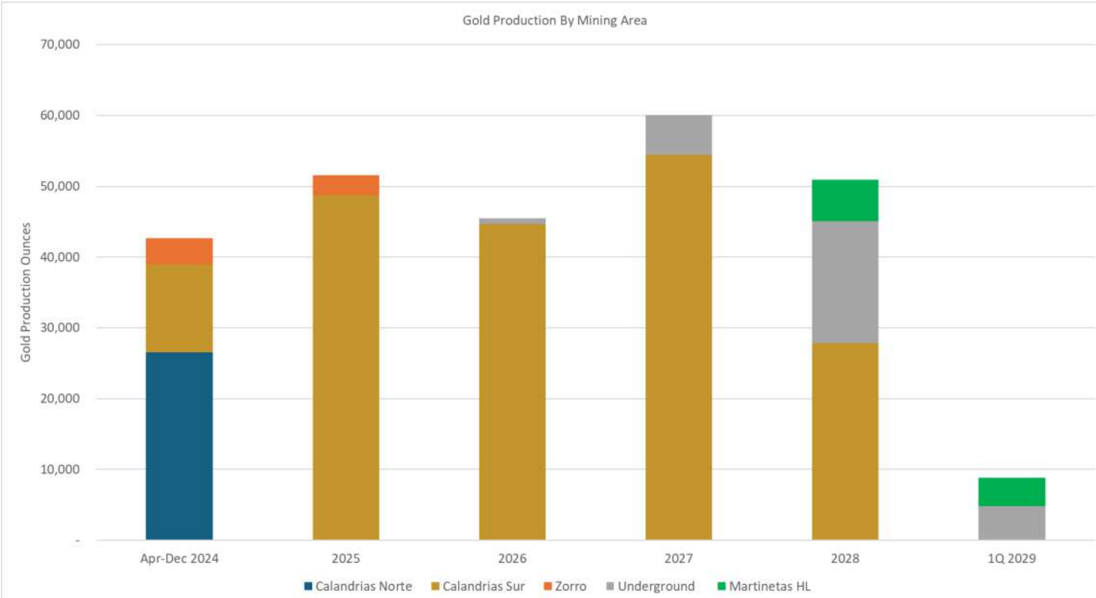
Production	
Total gold production (ounces)	259,509
Total silver production (ounces)	1,588,224
Average annual gold production (ounces)	51,902
Average annual silver production (ounces)	317,645
Average gold grade (grams per tonne)	1.03
Average silver grade (grams per tonne)	12.92
Calandrias Norte Total gold participation (%)	10.2%
Calandrias Sur Total gold participation (%)	72.5%
Martinetas HL Total gold participation (%)	3.8%
Zorro Total gold participation (%)	2.5%
Paloma Trend Total gold participation (%)	11.0%

The metal production is presented on an annual basis in Table 22-4 and in Figure 22.1.

Table 22-4: Metal Production Annual Basis.

	Unit	Total	April – Dec 2024	2025	2026	2027	2028	1Q 2029
Process								
CIL								
Mineralised Material	t	457,071	138,713	39,003	8,658	52,842	157,205	60,650
Gold grade	g/t Au	4.65	7.53	2.45	3.34	3.65	3.80	2.73
Silver grade	g/t Ag	14.61	14.18	11.10	17.28	16.24	16.39	11.41
Gold recovery	%	90%	90%	90%	90%	90%	90%	90%
Silver recovery	%	61%	61%	61%	61%	61%	61%	61%
HL								
Mineralised Material	t	14,785,857	1,065,545	3,600,000	3,600,000	3,600,000	2,461,849	458,464
Gold grade	g/t Au	0.91	0.56	0.69	0.80	1.29	1.08	0.55
Silver Grade	g/t Ag	12.86	6.26	6.83	13.32	20.89	14.05	2.53
Gold recovery	%	46%	65%	61%	48%	37%	39%	50%
Silver recovery	%	24%	34%	32%	25%	21%	21%	30%
Production Gold								
Calandrias Norte	Oz	26,570	26,570					
Calandrias Sur	Oz	188,166	12,435	48,782	44,663	54,481	27,806	
Zorro CIL	Oz	6,434	3,667	2,767				
Martinetas HL	Oz	9,834	-				5,803	4,031
Paloma Trend	Oz	28,504	-		838	5,584	17,292	4,791
Total Gold Production	Oz	**259,509**	**42,672**	**51,549**	**45,500**	**60,065**	**50,901**	**8,822**
Production Silver								
Calandrias Norte	Oz	28,454	28,454					
Calandrias Sur	Oz	1,430,013	72,624	251,168	386,175	498,274	221,771	-
Zorro CIL	Oz	18,616	10,128	8,488				
Martinetas HL	Oz	27,281	-				16,098	11,183
Paloma Trend	Oz	83,861	-		2,935	16,826	50,525	13,575
Total Silver Production	Oz	**1,588,224**	**111,206**	**259,656**	**389,110**	**515,101**	**288,394**	**24,758**

Figure 22.1: Gold Production.



22.3.4. Metal Prices and Exchange Rate

The economic evaluation kept the metal prices constant throughout the mine's life. The prices considered in the economic evaluation of the Project are shown in Table 22-5. The exchange rate considered is ARG/USD: 917.25.

Table 22-5: Metal Price Assumptions.

Items	Unit	Value
Gold Price	US$/ Oz	2,100
Silver Price	US$/ Oz	25

22.3.5. Treatment and Refining Charge Terms

Two end products will be produced: gold and silver. The treatment and refining terms considered in the PEA were based on information provided by Cerrado, as shown in Table 22-6. The sales costs used are summarised in Section 21.

Table 22-6: TC/RC Assumptions.

Items	Unit	Value
Gold	US$/ Oz	1.5
Silver	US$/ Oz	1.5

22.3.6. Sales Costs

The sales costs considered in the PEA were based on information provided by Cerrado, as shown in Table 22-7. The sales costs used are summarised in Section 21.

Table 22-7: Sales Cost Assumptions.

Items	Unit	Value
Transport fixed	US$/Shipment	20,635
Transport variable	US$/kg Production	7.5
Transport variable	% of revenue	15.00%
Trade Operations	US$/Shipment	3,900
Export duties	% of revenue	7.41%

22.3.7. Royalties

Royalty calculations were applied as follows:

- Provincial Mining Royalty (Boca Mina): 2.22% (3.00% after allowable deductions) of total revenue cash flow was applied.

Sandstorm: US$3/oz for Au only was applied to Paloma Trend, Zorro and Stockpiles production.

- Sandstorm NSR: 2% of total revenue, less TC/RC and sales costs, for Au and Ag, was applied to Calandrias Norte y Calandrias Sur.

Royal Gold NSR: 2% of total revenue, less TC/RC and sales costs, for Au and Ag, was applied to Paloma Trend, Zorro and Stockpiles production.

22.3.8. Operating Costs

The LOM mine operating costs are estimated at a total of US$3.59/t of ROM material moved in in the open pit and US$50/t for the underground. Processing costs depend on the processing method applied and range from US$7.20/t for heap leach material to approximately $65/t when treated via the CIL plant. G&A costs are estimated at approximately US$3 million per annum. Operating costs have been benchmarked against the current operating costs and metallurgical performance.

22.3.9. Depreciation

The capital investment in Argentina was allocated to two different capital classes as provided by the special accelerated regime outlined in Mining Investment Law 24.196. The depreciation structure is included in Table 22-8.

Table 22-8: Depreciation Structure defined by Law 24.196.

Capital Cost	Category	Useful Life Estimate (Years)	The factor for Accelerated Depreciation
Equipment And Construction to Provide Infrastructure	1	3	First year: 60% Second year: 20% Third year: 20%
Machinery & Equipment not included above	2	3	First year: 1/3 Second year: 1/3 Third year: 1/3

22.3.10. Government Mining and Corporate Income Taxes

For cashflow calculations, irrespective of time schedules, it has been assumed that 100% of the VAT paid is refunded and that the promotional regime is in place. Accordingly, VAT has not been modelled. The time value of money is assumed to be minimal.

Based on current legislation, a 4.5% government mining tax rate is included.

The corporate income tax rate is based on a progressive rate system (ranging from 25% to 35%), depending on the income band in the relevant fiscal year.

The progressive rates are adjusted annually starting on 1 January 2022 to take account of changes in the consumer price index (CPI) provided by the National Institute of Statistics and Census and inflation. The adjustment will be made by reference to the CPI for the month of October of the year before the adjustment, as compared to the CPI for October of the year before that. The revised rates will apply for financial years that begin after the update. The current progressive rates (2023) are included in Table 22-9.

Table 22-9: Progressive rates (ARS Money).

From	To	Fixed Tax	Additional Tax
--	14,301,209	0	25%
14,301,209.21	143,012,092	3,575,302	30%
143,012,092.08	999,999	42,188,567	35%

22.3.11. Capital Costs

No additional upfront capital costs are anticipated, given that the construction of the heap leaching pad and extraction circuit was completed in 2023, and the pre-stripping of Calandrias Norte was completed in early 2024. Remaining capital expenditures are to be funded from cash flow for the expansion of the crushing circuit at Calandrias Sur, including pad expansions (US$7,168,251), underground development (US$26,278,796 and US$6,500,000 in additional drilling and studies), which began in 2024. Sustaining capital is estimated at US$1,800,000 per year.

22.3.12. Closure Costs and Salvage Value

A closure cost of US$7,048,571 has been estimated beginning in 2030, with major costs in the first three years after closure and ongoing monitoring costs extending for a total period of 10 years after closure.

The salvage value is estimated to be US$2,252,400 for the principal mobile equipment for the underground mine.

22.3.13. Work Capital

No work capital was considered in the economic analysis.

22.3.14. Financing

The economic analysis assumes 100% capital financing and is reported on a 100% project ownership basis.

22.3.15. Inflation

The economic analysis assumes constant prices with no inflationary adjustments. Capital and operating costs are based on Q2 2024 United States dollars.

22.4. Project Economics

The economic results with an after-tax NPV at a 5% discount rate of US$111 million at a flat gold price of US$2,100/oz and an Ag price of US$25/oz. Project economics are based on a potential 5-year mine life, with immediate positive after-tax cash flow commencing as of 1 April 2024. Total cumulative, after-tax free cash flow over the life of the mine is estimated at US$121 million (US$25 million per annum) at a US$2,100/oz gold price. The economic results on an after-tax basis are presented in Table 22-10 and Opex and Capex summary in Table 22-11. Figure 22-1 and Figure 22-2 show the AISC (Sustaining Cost) and Free Cash Flow evolution, respectively.

Table 22-13 to Table 22-15 present the cash flow on an annualised basis.

At Spot prices of US$2,400/oz of gold and US$29/oz of silver, the project results in an after-tax NPV at a 5% discount rate of US$152 million, and average after-tax free cash flow is estimated at US$34 million per annum.

Table 22-10: Economics Summary Table (base case is highlighted).

PEA Base Case[1]	
Average Annual Gold Equivalent Production (oz)	55,683
Mine life (years) – Mine Plan start Date 1 April 2024	5.0
Total Gold Equivalent Production (ounces)	278,417
NPV @ 5% discount rate (million, after-tax)	**US$ 111**
NPV @ 8% discount rate (million, after-tax)	US$ 105
Gold Price (US$/oz)	2,100.0
Silver Price (US$/oz)	25.0
Average Annual EBITDA (million)	US$ 49
Average Annual FCF (million)	US$ 25

Notes:
1. Sprott Streaming Agreement has been excluded from this analysis

Table 22-11: Opex and Capex Summary Table.

Capital Costs	
Total capital expenditure – life of mine	US$ 49.4 M
Total capital expenditure (per gold ounce sold) – life of mine	US$ 217.5
Initial capital expenditure (Initial Capex)	US$ 0.0 M
Sustaining capital expenditures	US$ 9.5 M
Reclamation cost	US$ 7.0 M
Salvage Value	US$ 3.3 M
Operating Costs	
Total cash cost (per ounce sold) [1]	866
Mine-site all-in-sustaining cost (per ounce sold) [2]	1,148
Mining cost Open Pit per tonne (Total Material)	3.59
Mining cost Underground per tonne (Total Material)	50.00
Mining cost per tonne (Material Mineralised)	7.55
Processing Cost per tonne (Material Mineralised)	8.55
Total Cost per tonne treated	17.35

Figure 22.2: Production Profile and AISC.

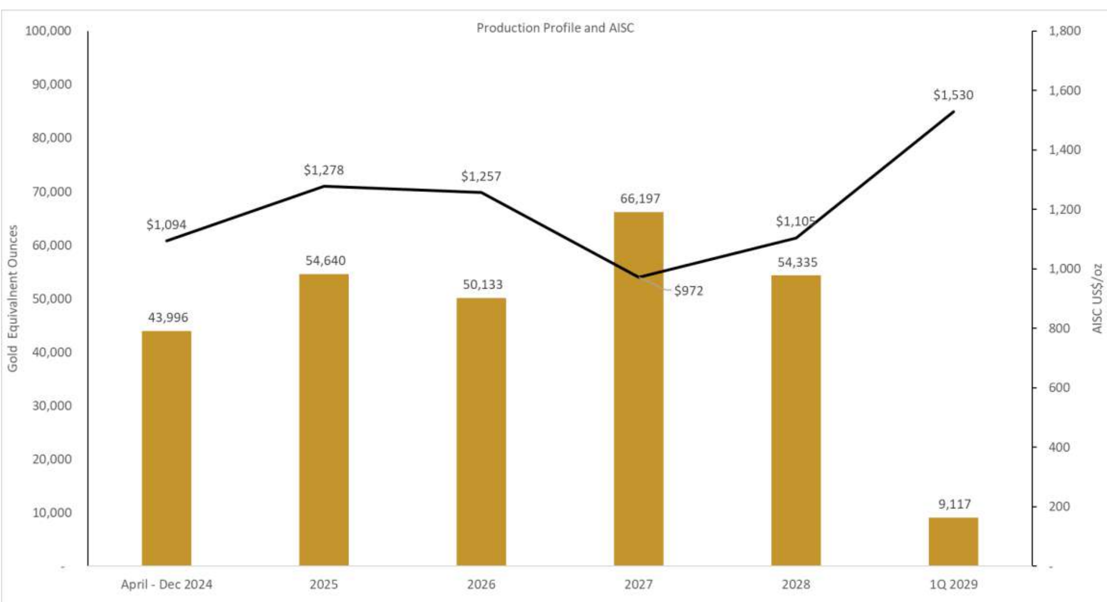
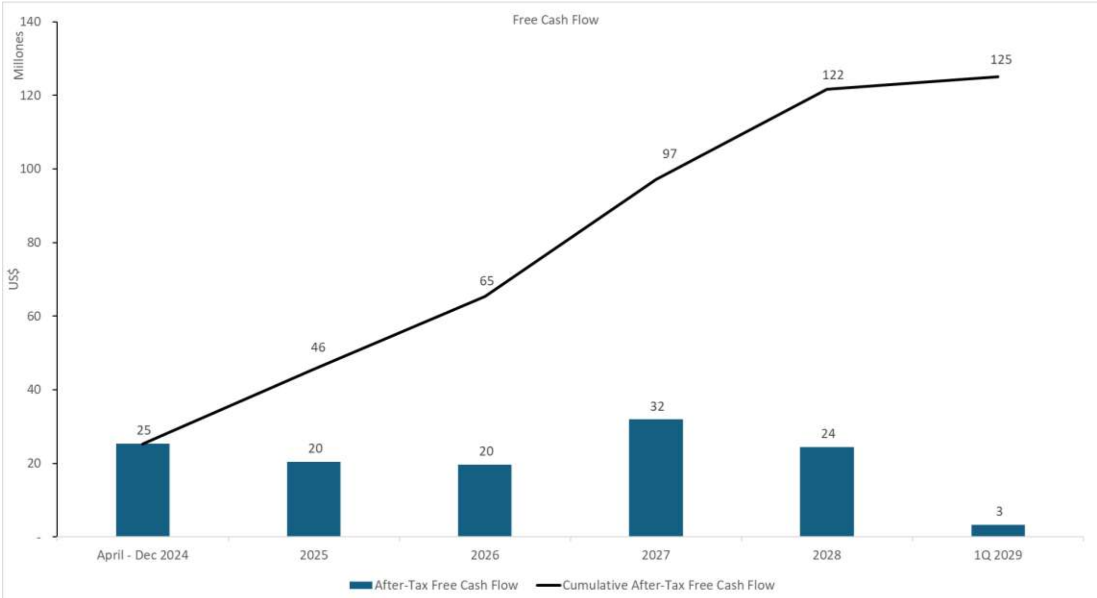


Figure 22.3: Free Cash Flow Evolution.



22.5. Sensitivity Analysis

To assess the impact of such changes on NPV, the values of each parameter were increased and decreased by up to 20%. Figure 22.4 illustrates the sensitivity of NPV@5%, and the after-tax sensitivity results are presented in Table 22-12.

Figure 22.4: NPV@5% Sensitivity.

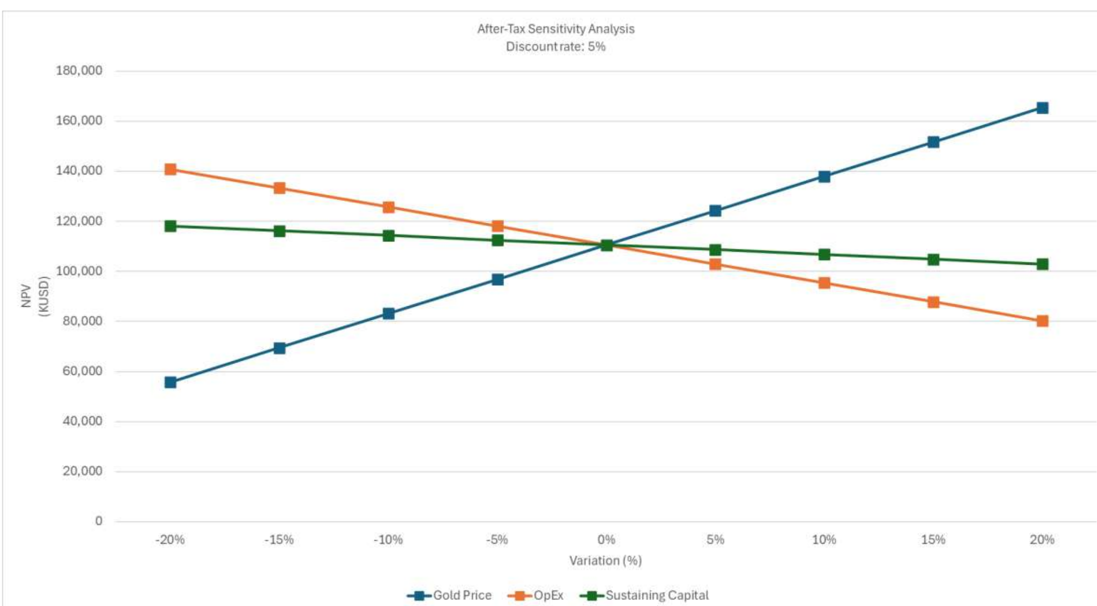


Table 22-12: After-tax sensitivity Analysis.

Variance	After-Tax Results	
	NPV @ 0%	**NPV @ 5%**
Gold Price Sensitivities		
+20%	182,309	165,424
+15%	167,050	151,718
+10%	151,790	138,011
+5%	136,531	124,305
0%	121,272	110,599
-5%	106,013	96,893
-10%	90,753	83,187
-15%	75,494	69,480
-20%	60,235	55,774
Sustaining Capital Sensitivities		
+20%	112,692	103,008
+15%	114,837	104,906
+10%	116,982	106,804
+5%	119,127	108,701
0%	121,272	110,599
-5%	123,417	112,497
-10%	125,562	114,394
-15%	127,706	116,292
-20%	129,851	118,190
Operating Costs Sensitivities		
+20%	87,504	80,287
+15%	95,946	87,865
+10%	104,388	95,443
+5%	112,830	103,021
0%	121,272	110,599
-5%	129,714	118,177
-10%	138,156	125,755
-15%	146,598	133,333
-20%	155,040	140,911

22.6. Comments on Section 22

Under the assumptions discussed in this Report, the Project has a positive NPV.

The NPV@5% is US$110 million after tax.

Table 22-13: Cashflow on an Annualized Basis (Year 2024 to Year 2030).

		April – Dec 2024	2025	2026	2027	2028	1Q 2029	2030
Revenue Gold								
CIL	US$	63,497,874	5,811,205	-	-	-	-	-
HL	US$	26,113,183	102,441,612	93,791,536	114,410,439	70,578,760	8,465,282	-
UG	US$	-	-	1,759,053	11,725,384	36,314,211	10,060,561	-
Revenue Silver								
CIL	US$	964,548	212,188	-	-	-	-	-
HL	US$	1,815,599	6,279,207	9,654,384	12,456,857	5,946,737	279,564	-
UG	US$	-	-	73,365	420,658	1,263,122	339,376	-
Cash Flow								
Total Revenue	US$	92,391,204	114,744,211	105,278,337	139,013,339	114,102,830	19,144,782	-
Gold	US$	89,611,057	108,252,817	95,550,589	126,135,824	106,892,972	18,525,843	-
Silver	US$	2,780,147	6,491,394	9,727,748	12,877,515	7,209,859	618,940	-
TC/RC	US$	(230,817)	(466,807)	(651,915)	(862,748)	(508,944)	(50,369)	-
Gold	US$	(64,008)	(77,323)	(68,250)	(90,097)	(76,352)	(13,233)	-
Silver	US$	(166,809)	(389,484)	(583,665)	(772,651)	(432,592)	(37,136)	-
Sales Costs	US$	(7,460,277)	(9,470,324)	(8,942,152)	(11,620,627)	(9,461,602)	(1,603,898)	-
Transport fixed	US$	(371,430)	(495,240)	(495,240)	(495,240)	(495,240)	(123,810)	-
Transport variable	US$	(49,755)	(89,808)	(117,176)	(155,024)	(96,265)	(10,705)	-
Trade Operations	US$	(70,200)	(93,600)	(93,600)	(93,600)	(93,600)	(23,400)	-
Export duties	US$	(6,843,786)	(8,499,563)	(7,798,388)	(10,297,274)	(8,452,053)	(1,418,131)	-
Tax on Exports	US$	(125,107)	(292,113)	(437,749)	(579,488)	(324,444)	(27,852)	-
Royalties	US$	(3,750,426)	(4,646,067)	(4,241,667)	(5,622,048)	(4,683,570)	(801,847)	-
Provincial Mining Royalties	US$	(2,051,085)	(2,547,321)	(2,337,179)	(3,086,096)	(2,533,083)	(425,014)	-
Sandstorm	US$	(11,000)	(8,302)	(2,513)	(16,751)	(69,287)	(26,465)	-
Sandstorm	US$	(1,547,453)	(1,985,196)	(1,879,954)	(2,306,864)	(1,167,232)	-	-
Royal Gold	US$	(140,889)	(105,248)	(22,021)	(212,337)	(913,969)	(350,367)	-
Net Revenue	**US$**	**80,949,683**	**100,161,013**	**91,442,603**	**120,907,916**	**99,448,715**	**16,688,668**	**-**
Opex	US$	(41,104,125)	(55,814,434)	(52,256,107)	(54,463,798)	(48,356,683)	(12,413,076)	-
Open Pit Mine	US$	(24,049,326)	(25,334,330)	(22,483,294)	(20,338,887)	(9,728,667)	(458,464)	-
Underground Mine	US$	-	-	(432,900)	(2,642,088)	(7,860,254)	(3,032,502)	-
Process	US$	(14,804,798)	(27,480,104)	(26,309,610)	(28,297,878)	(27,217,545)	(7,709,835)	-
G&A	US$	(2,250,000)	(3,000,000)	(3,030,303)	(3,184,946)	(3,550,218)	(1,212,275)	-
EBITDA	**US$**	39,845,559	44,346,579	39,186,496	66,444,118	51,092,032	4,275,592	-
Taxation								

		April – Dec 2024	2025	2026	2027	2028	1Q 2029	2030
Corporate income tax	US$	(8,735,262)	(10,635,780)	(8,088,354)	(20,576,890)	(14,293,357)	-	-
Government mining tax	US$	(1,223,154)	(1,425,700)	(1,082,741)	(2,764,070)	(1,918,119)	-	-
Total tax paid	US$	(9,958,416)	(12,061,480)	(9,171,095)	(23,340,959)	(16,211,476)	-	-
Operating FCF After – Tax	**US$**	**29,887,143**	**32,285,099**	**30,015,401**	**43,103,159**	**34,880,555**	**4,275,592**	**-**
Capital expenditure								
Construction capital	US$	-	-	-	-	-	-	-
Sustaining capital Projects	US$	-	(6,841,824)	(8,602,148)	(9,395,029)	(8,608,045)	-	-
Sustaining capital Fixed	US$	(1,350,000)	(1,800,000)	(1,800,000)	(1,800,000)	(1,800,000)	(900,000)	-
Drilling to convert to M&I	US$	(2,500,000)	(2,500,000)	-	-	-	-	-
Studies for UG	US$	(750,000)	(750,000)	-	-	-	-	-
Closure costs	US$	-	-	-	-	-	(35,909)	(1,847,815)
Total Capex	US$	(4,600,000)	(11,891,824)	(10,402,148)	(11,195,029)	(10,408,045)	(935,909)	(1,847,815)
Salvage	US$	-	-	-	-	-	-	3,270,485
Salvage value – mine	US$	-	-	-	-	-	-	3,270,485
After-Tax Free Cash Flow	**US$**	**25,287,143**	**20,393,275**	**19,613,253**	**31,908,129**	**24,472,510**	**3,339,684**	**1,422,670**
Cumulative After-Tax Free Cash Flow	**US$**	**25,287,143**	**45,680,418**	**65,293,671**	**97,201,800**	**121,674,310**	**125,013,994**	**126,436,663**

Table 22-14: Cashflow on an Annualized Basis (Year 2031 to Year 2037).

		2031	3032	2033	2034	2035	2036	2037
Revenue Gold								
CIL	US$	-	-	-	-	-	-	-
HL	US$	-	-	-	-	-	-	-
UG	US$	-	-	-	-	-	-	-
Revenue Silver								
CIL	US$	-	-	-	-	-	-	-
HL	US$	-	-	-	-	-	-	-
UG	US$	-	-	-	-	-	-	-
Cash Flow								
Total Revenue	US$	-	-	-	-	-	-	-
Gold	US$	-	-	-	-	-	-	-
Silver	US$	-	-	-	-	-	-	-
TC/RC	US$	-	-	-	-	-	-	-
Gold	US$	-	-	-	-	-	-	-
Silver	US$	-	-	-	-	-	-	-
Sales Costs	US$	-	-	-	-	-	-	-
Transport fixed	US$	-	-	-	-	-	-	-
Transport variable	US$	-	-	-	-	-	-	-
Trade Operations	US$	-	-	-	-	-	-	-
Export duties	US$	-	-	-	-	-	-	-
Tax on Exports	US$	-	-	-	-	-	-	-
Royalties	US$	-	-	-	-	-	-	-
Provincial Mining Royalties	US$	-	-	-	-	-	-	-
Sandstorm	US$	-	-	-	-	-	-	-
Sandstorm	US$	-	-	-	-	-	-	-
Royal Gold	US$	-	-	-	-	-	-	-
Net Revenue	**US$**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Opex	US$	-	-	-	-	-	-	-
Mine Open Pit	US$	-	-	-	-	-	-	-
Mine Underground	US$	-	-	-	-	-	-	-
Process	US$	-	-	-	-	-	-	-
G&A	US$	-	-	-	-	-	-	-
EBITDA	**US$**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Taxation								

		2031	3032	2033	2034	2035	2036	2037
Corporate income tax	US$	-	-	-	-	-	-	-
Government mining tax	US$	-	-	-	-	-	-	-
Total tax paid	US$	-	-	-	-	-	-	-
Operating FCF After – Tax	**US$**	-	-	-	-	-	-	-
Capital expenditure								
Construction capital	US$	-	-	-	-	-	-	-
Sustaining capital Projects	US$	-	-	-	-	-	-	-
Sustaining capital Fixed	US$	-	-	-	-	-	-	-
Drilling to convert to M&I	US$	-	-	-	-	-	-	-
Studies for UG	US$	-	-	-	-	-	-	-
Closure costs	US$	(1,632,365)	(1,632,365)	(319,282)	(175,649)	(175,649)	(175,649)	(175,649)
Total Capex	US$	(1,632,365)	(1,632,365)	(319,282)	(175,649)	(175,649)	(175,649)	(175,649)
Salvage	US$	-	-	-	-	-	-	-
Salvage value – mine	US$	-	-	-	-	-	-	-
After-Tax Free Cash Flow	**US$**	**(1,632,365)**	**(1,632,365)**	**(319,282)**	**(175,649)**	**(175,649)**	**(175,649)**	**(175,649)**
Cumulative After-Tax Free Cash Flow	**US$**	**124,804,299**	**123,171,934**	**122,852,653**	**122,677,004**	**122,501,355**	**122,325,707**	**122,150,058**

Table 22-15: Cashflow on an Annualized Basis (Year 2038 to Year 2042).

		2038	3039	2040	2041	2042
Revenue Gold						
CIL	US$	-	-	-	-	-
HL	US$	-	-	-	-	-
UG	US$	-	-	-	-	-
Revenue Silver						
CIL	US$	-	-	-	-	-
HL	US$	-	-	-	-	-
UG	US$	-	-	-	-	-
Cash Flow						
Total Revenue	US$	-	-	-	-	-
Gold	US$	-	-	-	-	-
Silver	US$	-	-	-	-	-
TC/RC	US$	-	-	-	-	-
Gold	US$	-	-	-	-	-
Silver	US$	-	-	-	-	-
Sales Costs	US$	-	-	-	-	-
Transport fixed	US$	-	-	-	-	-
Transport variable	US$	-	-	-	-	-
Trade Operations	US$	-	-	-	-	-
Export duties	US$	-	-	-	-	-
Tax on Exports	US$	-	-	-	-	-
Royalties	US$	-	-	-	-	-
Provincial Mining Royalties	US$	-	-	-	-	-
Sandstorm	US$	-	-	-	-	-
Sandstorm	US$	-	-	-	-	-
Royal Gold	US$	-	-	-	-	-
Net Revenue	**US$**	**-**	**-**	**-**	**-**	**-**
Opex	US$	-	-	-	-	-
Mine Open Pit	US$	-	-	-	-	-
Mine Underground	US$	-	-	-	-	-
Process	US$	-	-	-	-	-
G&A	US$	-	-	-	-	-
EBITDA	**US$**	**-**	**-**	**-**	**-**	**-**
Taxation						

		2038	3039	2040	2041	2042
Corporate income tax	US$	-	-	-	-	-
Government mining tax	US$	-	-	-	-	-
Total tax paid	US$	-	-	-	-	-
Operating FCF After – Tax	**US$**	**-**	**-**	**-**	**-**	**-**
Capital expenditure						
Construction capital	US$	-	-	-	-	-
Sustaining capital Projects	US$	-	-	-	-	-
Sustaining capital Fixed	US$	-	-	-	-	-
Drilling to convert to M&I	US$	-	-	-	-	-
Studies for UG	US$	-	-	-	-	-
Closure costs	US$	(175,649)	(175,649)	(175,649)	(175,649)	(175,649)
Total Capex	US$	(175,649)	(175,649)	(175,649)	(175,649)	(175,649)
Salvage	US$	-	-	-	-	-
Salvage value – mine	US$	-	-	-	-	-
After-Tax Free Cash Flow	**US$**	**(175,649)**	**(175,649)**	**(175,649)**	**(175,649)**	**(175,649)**
Cumulative After-Tax Free Cash Flow	**US$**	**121,974,410**	**121,798,761**	**121,623,113**	**121,447,464**	**121,271,816**

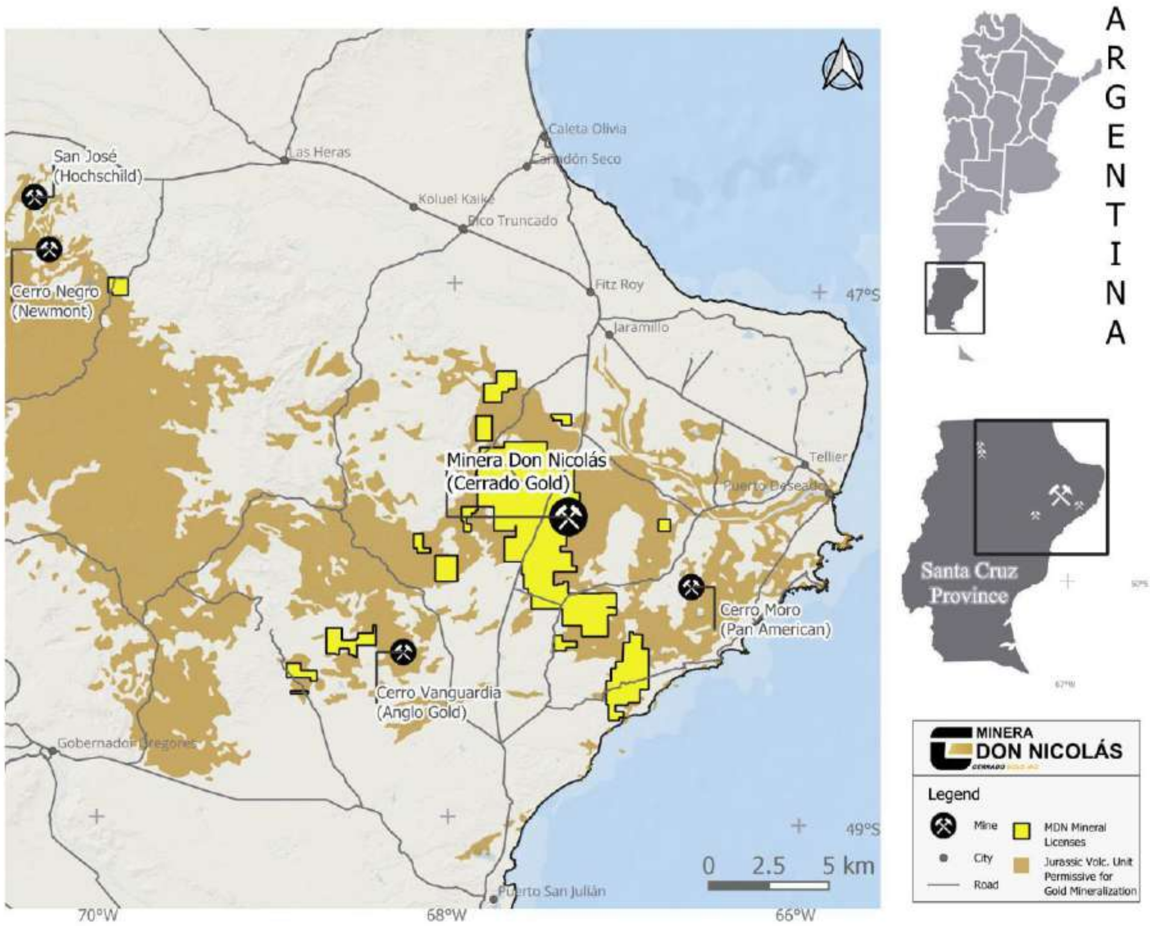
23. ADJACENT PROPERTIES

Producing mines in the adjacency of Mineral Don Nicolas Project include:

- Cerro Moro (Pan American Silver): 60 km to the souteast
- Cerro Vanguardia (Anglo Gold): 60 km to the south
- San Jose (Hochschild): 260 km to the northwest
- Cerro Negro (Newmont): 240 km to the northwest

Additionally, numerous exploration properties cover a substantial surface within the Deseado Massif geological province, as shown in Figure 23.1.

Figure 23.1: Operating Mines adjacent to MDN property.



24. OTHER RELEVANT DATA AND INFORMATION

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

25. INTERPRETATION AND CONCLUSIONS

25.1. Geology and Mineral Resources

The Mineria Don Nicolás Gold Project is underlain predominantly by Jurassic-age volcanic complex sequence. Gold-silver mineralisation is associated with epithermal deposits. The Jurassic Bahia Laura Volcanic Complex (BLVC) is the main host of the widespread epithermal Mineralisation that defined the Deaseado Massif's metallogenic character. The Deseado Massif is a 60,000 km^2 rigid crustal block bounded north by the Río Deseado, south by the Río Chico, east by the Atlantic coast, and west by the Andean Cordillera.

- As prepared by Cerrado and accepted by GeoEstima, the Mineria Don Nicolás Measured and Indicated Resources comprise 13.4 million tonnes at 1.13g/t Au and 15.26g/t Ag for 490 thousand ounces of Au and 6,592 thousand ounces of Ag. The Mineria Don Nicolás Inferred Mineral Resources comprise 3.5 million tonnes at 1.05g/t Au and 3.20g/t Ag for 121 thousand ounces of Au and 370 thousand ounces of Ag.
- Drill core logging, sampling, sample preparation, and analytical procedures meet industry standards, and MDN quality assurance and control (QA/QC) program results suit the mineral resources estimate.
- The drill hole database has been maintained to a reasonable standard and is suitable to support Mineral Resources estimation.
- The Mineral Resources estimate has been completed following standard industry practices and is suitable to support the public disclosure of Mineral Resources.
- Exploration has identified potential upsides for Sulfuro Underground and Zorro targets. Further drilling activities will be required to confirm the occurrence.

25.2. Mining

The PEA mine plan is based on a subset of the Mineral Resource estimates and assumes open pit mining of the Calandrias Norte, Calandrias Sur, and Zorro. The Paloma Trend mine will be followed by sublevel longitudinal stoping, the stockpile rehandling of the existing Martinetas stockpiles, and the low-grade extraction of Zorro.

The open pit will operate for five years. The sublevel longitudinal stoping will operate for 3.25 years. The Don Nicolas Gold Project is expected to operate for five years.

The main conclusions on the mining are as follows:

- The production schedule is based on mining a combined total of mineralised material to ensure a peak of 3.6 Mtpa in the HL process and a peak of 157 ktpa in the CIL process.
- While no additional geotechnical investigations have been conducted since the 2012 feasibility assessment.

- The open pit mining method consists of conventional open pit mining with drilling, blasting, loading, and hauling activities. It reaches a maximum of 7.3 Mtpa in the first year and decreases throughout the mine life.
- The Lerchs & Grossman algorithm generated the final pit limit, and the final pit and phases have a conventional design, including ramps.
- The mine plan was diluted according to the type of mineralisation.
- The mineralised material for the open pit comprises 14.064 Mt at an average diluted grade of 1.00 g/t Au and 13.6 g/t Ag.
- In addition, several historical stockpiles were considered, comprising 0.95 Mt at an average grade of 0.54 g/t Au and 2.05 g/t Ag.
- The mine operation considers the rental of a front-end loader, as well as support and ancillary equipment. Cerrado has its trucks and drill machines.
- Mine equipment selection requires separate loading equipment for ore and waste to achieve the planned production. Drilling will be done using diesel DTH production drills. Loading will be done using a 6.4 m^3 diesel-front end loader for waste and a 4.7 m^3 diesel-front end loader for mineralised material, both with 40 tonnes. This will help improve mining recovery and reduce external dilution.
- A mining contractor will rehandle the stockpile operation.
- The underground mining method that consists of sublevel longitudinal stoping is the most well-suited to this type and geometry of ore body.
- The mine plan requires mineralised material development and production from multiple stopes available in the mine life to achieve the optimal mine-to-mill production target considered in this technical report.
- The underground mine design, including CAPEX and OPEX development, was estimated in a conceptual stage, considering the stope design and infrastructure requirements.
- Mining and development sequence did not include the optimisation for stopes production.
- The mineralised material for the underground comprises 0.28 Mt at an average diluted grade of 3.53 g/t Au and 15.31 g/t Ag.

25.3. Mineral Processing

For current ore processing in the HL processing facilities, several opportunities have been identified to upgrade gold production in this project by processing ore resources not included in the current mining plan. These are described below.

For low-grade oxide resources (ore grades below 1 g/t Au), amenable to be processed by heap leaching, these are the opportunities identified to upgrade gold production in this project:

- Evaluate the potential for higher gold extraction in heap leaching by reducing ore particle size from P80 12.7 mm to P80 6.4 mm in laboratory tests. This type of operation should be linked with incorporating an agglomerating drum downstream of the crushing plant to allow the granulation of the fine crushed ore with cement.
- Evaluate potential satellite deposits whose ore may be processed by heap leaching near the site, pumping pregnant solution to either the existing heap

leach plant or the CIL plant, depending on the distance deposit-processing plant.

25.4. Environmental Considerations

- Cerrado activities, including exploration and exploitation, follow Argentinian environmental laws that include specific EIA by project.
- The economic evaluation in this report includes closure costs of US $ 7 M for the Calandria operation after completion of the projected LOM.

25.5. Capital Costs

The capital cost estimate for this PEA is the following:

- The underground mine is a Class 3 based on AACE recommendations. Its accuracy is -20% to +30% at the 80% confidence level.
- Leach PAD, with a budget quotation, is a Class 3 based on AACE recommendations and has an accuracy of -20% to +30% at the 80% confidence level.

The Project capital cost estimate is US$56,445,618.

25.6. Operating Costs

The operating cost estimate is considered to have a level of accuracy of –20% to +30%.

Operating costs over the LOM are estimated at US$264,408,224, and they average US$17.35 per tonne treated over the LOM.

25.7. Financial Analysis

Under the assumptions in the Report, the Project shows a positive cash flow.

The average annual gold equivalent production over the 5-year mine life is 55,683 oz, with a total gold equivalent production of 278,417 oz.

The total cash cost is US$866 per ounce sold, and the Mine-site all-in-sustaining cost is US$1,148 per ounce sold.

The net present value at a 5% discount rate is estimated at US$111 million at a flat gold price of US$2,100/oz and Ag price of US$25/oz. Project economics are based on a potential 5-year mine life, with immediate positive after-tax cash flow commencing as of 1 April 2024. Total cumulative, after-tax free cash flow over the mine's life is estimated at US$121 million (US$25 million per annum) at a US$2,100/oz gold price.

At Spot prices of US$2,400/oz of gold and US$29/oz of silver, the project results in an after-tax NPV at a 5% discount rate of US$152 million, and average after-tax free cash flow is estimated at US$34 million per annum.

26. RECOMMENDATIONS

26.1. Geology and Mineral Resources

General

- The relationships between mineralisation, structural, and grade distributions should be investigated for future deposits. Although block grades reflected drilled grades at the reasonable drill spacing, some risk may be associated with grades reporting locally to structures.
- Improve the modelling of sub-economic (low-grade shell) bodies to determine better the destination of extracted material (whether to low-grade or high-grade processing). This measure includes the Zorro, Calandrias Sur, and Paloma Trend targets.
- It is recommended an increasing sample insertion rate in the QA/QC protocols, to a faster and more accurate tracking of errors and contamination.
- Model transformed variograms to minimise possible noise caused by the nature of data distribution.
- Invest in underground drilling to explore potential extensions of high-grade bodies in Calandrias Norte, Sulfuro, and Zorro. The bodies show possible continuities at depth, and investigating them through underground or deep drill holes could identify potential upsides for the project.

Calandrias Norte

- Applied Ag capping in Calandrias Norte composites.
- In a potential update, avoid using channel or trench data for resource estimation.

Calandrias Sur

- Substitute zeroes for unsampled intervals.
- Improve the modelling of sub-economic (low-grade shell) bodies to determine better the destination of extracted material (whether to low-grade or high-grade processing). This is applied to Zorro, Calandrias Sur, and Paloma Trend targets.

Zorro

- Separate the Zorro model into two blocks, thus avoiding non-existent anisotropy due to the different preferential directions of the deposit. Model transformed Gaussian variograms to avoid fitting long-second variogram model structures when an apparent zonal anisotropy is observed.
- It is recommended that the Au capping be reviewed and a restricted ellipsoid adopted to control the high-grade values in the estimative process. Also, it is strongly recommended that capping be applied to Ag values.
- Model transformed variograms to minimise possible noise caused by the nature of data distribution.

- Develop an investigation campaign to determine the density at the Zorro target.

La Paloma Trend

- Remove drill hole or channel samples considered unreliable from the active database and place them in a database explicitly dedicated to such records.
- Modify the wireframe construction strategy to use a cut-off grade that more closely reflects each orebody's Mineral Resource cut-off grade. This is anticipated to increase the average grades of the mineralised wireframes by reducing the amount of internal dilution currently included.

26.2. Mining

A two-phase work program is recommended. The first phase consists of several drill and data collection programs. The second phase will use some of the information obtained in the drill program to update engineering designs and supporting assumptions and culminate in sufficient data and data support to allow the completion of a pre-feasibility study (PFS) document for the underground project.

The budget estimates are restricted to technical work. No provision has been made in the estimates for items such as corporate overheads, land acquisition, legal and other consulting fees, additional work or program changes that may be required as a result of interactions with regulatory agencies, community and stakeholder consultations, permit applications and acquisition, management costs from Cerrado, or third-party consultants costs other than technical costs.

Phase 1

The Phase 1 work program comprises data collection and preliminary data evaluation.

Drilling Campaign

Additional geological information should be collected to upgrade the mineral resources confidence category in all mining areas.

Additional geotechnical information is recommended for Paloma Trend in support of future Prea-feasibility study of the underground project, including:

- Core holes to provide additional information to be used in the geotechnical studies described below.
- Drill holes in support of the potential ramp access and portal/exit locations.

Phase 2

Geotechnical Studies

The following should be completed to reduce uncertainty in the geotechnical assumptions to a level that can support the PFS evaluations.

To advance the Project to a PFS level, a sound understanding of rock strength, variability, and discontinuity characteristics, as well as the hydrogeological and in situ stress regimes, will be required.

At Paloma Trend, recommended work for the next phase includes:

- Studies to improve understanding of rock mass strength variability across the site.
- Studies to improve the understanding and viability of the access ramp location.

Studies to provide more detailed fragmentation studies and cave performance parameters.

- Detailed subsidence studies, including numerical modelling, rock reinforcement and ground support estimation based on excavation strategy, in situ stress measurements, and excavation stability.

Mine Design and Production Schedule

Several trade-off studies should be considered in support of optimising the mine design, including consideration of alternatives to:

- Underground extraction options
- Materials handling systems selected and configuration of these systems
- Mine ventilation

Budget Estimate

Table 26-1 summarises the recommendations's costs to complete Phases 1 and 2.

Table 26-1: Recommendation Costs

Program Phase	Area	Estimated Cost (US$)
Phase 1		
	Drilling Campaign	5,000,000
	Subtotal	*5,000,000*
Phase 2		
	Geotechnical Studies	1,200,000
	Mine Design & Production Schedule	300,000
	Subtotal	*1,500,000*
Total		***6,500,000***

26.3. Mineral Processing

For current ore processing in the CIL processing facilities, several opportunities have been identified to upgrade gold production in this project by processing ore resources not included in the current mining plan. These are described below.

For higher grade primary resources (ore grades above 1g/t Au), amenable to be processed in the Martinetas CIL Plant, these are the opportunities identified to upgrade gold production in this project:

- Evaluate potential resources in lab tests that may have higher gold extraction in CIL processing by diminishing ore particle size from 75 µm to 53 or 45 µm.

- Evaluate the processing of deep sulphide ores in a circuit with flotation to obtain a concentrate that POX could process. Flotation tailings could be processed in the existing CIL plant.

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28. DATA AND SIGNATURE PAGE

This report title "TECHNICAL REPORT ON THE PRELIMINARY ECONOMIC ASSESSMENT OF THE MINERA DON NICOLÁS GOLD PROJECT, SANTA CRUZ, ARGENTINA", dated from September 19, 2024, with an effective date of April 1, 2024, was prepared and signed by the following authors:

(Signed and Sealed) Orlando Rojas

Dated at Santiago, Chile
September 19, 2024

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Principal Consultant Geologist - GeoEstima SpA

(Signed and Sealed) Cristian Quezada

Dated at Santiago, Chile
September 19, 2024

Cristian Quezada, Mining Engineer

Mining Engineer - Independent Consultant

(Signed and Sealed) Javier Pizarro

Dated at Santiago, Chile

September 19, 2024

Javier PIzarro,P.Eng.

Senior Consultant Metallurgist - Mineralurgia Ltda.

(Signed and Sealed) Sergio Gelcich

Dated at Toronto, ON - Canada

September 19, 2024

Sergio Gelcich, P.Geo.

Vice President Exploration
Cerrado Gold Inc

29. CERTIFICATE OF QUALIFIED PERSON

ORLANDO ROJAS

I, Orlando Rojas, P. Geo, as the author of this report entitled "Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Gold, Santa Cruz, Argentina" prepared to Cerrado Gold S.A. and dated September 19, 2024, do hereby certify that:

1. I am a Principal Consultant Geologist with GeoEstima SpA of Alonso de Córdova 5320 Oficina 1906, Santiago, Chile.
2. I graduated from the University of Chile with a B.Sc. in Geology and a master's in geostatistics from Ecole des Mines de Paris.
3. I am registered as a professional title in the AIG (Reg.# 5543). I have worked as a geologist for a total of 31 years since my graduation. My relevant experience for this Technical Report is as follows:
    - Resource estimation, geological modelling, and QA/QC experience.
    - Review and report as a consultant on numerous exploration, development, and production mining projects worldwide for due diligence and regulatory requirements.
    - Another relevant experience includes experience in deposit or mine activity.
4. I have read the definition of "qualified person" 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 fulfil the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited the Minera Don Nicolás.
6. I certify that I have supervised and validated the site visited on the Minera Don Nicolás on May 1, 2024, conducted by Talita Cristina de Oliveira Ferreira, a professional qualified registered by the Brazilian Commission of Resources and Reserves (#020078).
7. I am responsible for Sections 11, 14, and 21 to 24 and contributed to Sections 1, 2, 3, 4, 12, 23, 25, 26, and 27.
8. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property subject of the Technical Report.
10. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI43-101 and Form 43-101F1.
11. 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 must be disclosed to make the Technical Report not misleading.

They are dated this 19, September 2024.

(Signed and Sealed) ***"Orlando Rojas"***

Orlando Rojas, P.Geo.

CRISTIAN QUEZADA

I, Cristian Quezada, Mining Engineer, as an author of this report entitled "Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Gold, Santa Cruz, Argentina" prepared to Cerrado Gold S.A. and dated September 19, 2024, do herby certify that:

1. I am a Mining Consultant Engineer as Independent Professional, Santiago, Chile.
2. I am a graduate of the Universidad de Santiago de Chile with a Bachelor of Sciences degree in Civil Mining Engineer in 2005.
3. I am a registered as Mining Engineer in the Chilean Mining Commission (Reg.# 205). I have worked as a mining engineer for a total of 19 years since my graduation. My relevant experience for the purpose of this Technical Report is:
    - Short and long term mine planning in open pit mining operations in Chile.
    - Precious and base metals mining, consulting, and project management in Chile, Argentina, Peru, Brazil, Indonesia, Saudi Arabia, and United States.
    - Develop technical studies for open pit and underground mines and mining projects, including scoping, prefeasibility, and feasibility studies and involved in a several gold projects in Chile, Peru, and Saudi Arabia.
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 have not visited the Minera Don Nicolás.
6. I am responsible for Sections 16, 21.1.1, 21.1.2, 21.1.5, 21.1.8. 21.2.1, 21.2.2, 21.2.5, and 22 and contributed to Sections 1, 3, 25, 26, and 27.
7. I am independent of the Issuer applying the test 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 NI43-101 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 this 19, September 2024.

(Signed and Sealed) ***"Cristian Quezada"***

Cristian Quezada, Mining Engineer

JAVIER PIZARRO

I, Javier Pizarro, P. Eng, as an author of this report entitled “Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Gold, Santa Cruz, Argentina” prepared to Cerrado Gold S.A. and dated September 19, 2024, do herby certify that:

1. I am a Senior Consultant Metallurgist with Mineralurgia Ltda. of San Sebastian 2839 Oficina 310, Las Condes, Santiago, Chile.
2. I am a metallurgical engineer graduate a B.Sc. degree of Universidad de Santiago de Chile.
3. I am registered as a Metallurgical Engineer with specialization in Extractive Metallurgy in the Comisión Calificadora de Competencias en Recursos y Reservas Mineras (Reg.# 403). I have worked as a metallurgist and processing engineer a total of 24 years since my graduation. My relevant experience for the purpose of this Technical Report is:
    - PFS and PEA Cerro Moro; Extorre Resources, Santa Cruz, Argentina
    - Scoping Study and PEA Proyecto Jerónimo; Agua de la Falda, Yamana Gold
    - Scoping Study and PEA Proyecto Cerro Maricunga; Atacama Pacific Gold
    - Operational Support Full Potential Study Cerro Vanguardia; Santa Cruz, Argentina
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 certify that I have the site visited on the Minería Don Nicolás on May 1, 2024,
6. I am responsible for Sections 13 and 17; and contributed to Sections 21.
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 NI43-101 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 this 19, September 2024.

(Signed and Sealed) ***“Javier Pizarro”***

Javier Pizarro

SERGIO GELCICH

To accompany the report entitled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás Gold Project, Santa Cruz, Argentina" filed on September 19, 2024, with an effective date of April 1st, 2024 (the "Technical Report"), prepared for Cerrado Gold Inc. ("Cerrado" or the "Company").

I, Sergio Gelcich, am a member in good standing with the Association of Professional Geoscientists of Ontario, do hereby certify:

1. I am the Vice President, Exploration with Cerrado Gold Inc. located at 200 Bay Street, Suite 3205, Toronto, ON M5J 2J2.
2. I am a graduate of the University of Chile with a B.Sc. (Geology) degree obtained in 1995, the University of Chile with an M.Sc. (Geology) degree obtained in 1994 and the University of Toronto with a Ph.D. (Geology) obtained in 2006.
3. I am a registered member of the Association of Professional Geoscientists of Ontario, member #1852.
4. My relevant experience includes over 25 years working on volcanic arc related deposits including several gold and silver epithermal mineral deposits similar to the deposits found at Minera Don Nicolás in North, Central and South America. My experience includes different stages of mineral exploration (early to advance), project evaluation and resource/reserve evaluation for base metal and precious metal deposits.
5. I have read the definition of "qualified person" set out in the NI 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43 101.
6. I am not independent of the issuer, Cerrado, as defined in Section 1.5 of NI 43-101.
7. I am responsible for the preparation of the Sections 7 (*Geologi*cal Setting and Mineralization) and 9 (*Exploration*), and contributed to Section 14 (*Mineral Resource Estimate -subsection Satellites)* of the Technical Report, and accept professional responsibility for these sections of the Technical Report.
8. I visited the Monte do Carmo Project site in Argentina during the periods of August 2021 and May 2024 on several occasions.
9. I have been directly involved with the Minera Don Nicolas, the property that is the subject of the Technical Report, since May 2021.
10. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Dated this 19 day of September 2024

"Original Signed and Sealed on file"

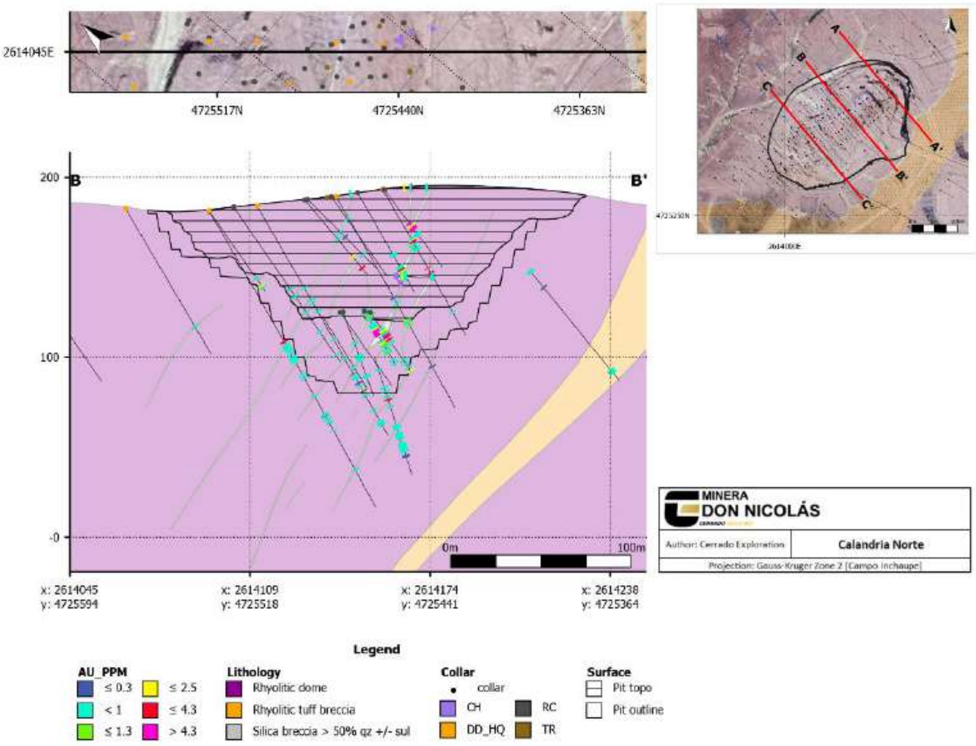
Sergio Gelcich Professional Geoscientists of Ontario, member #1852

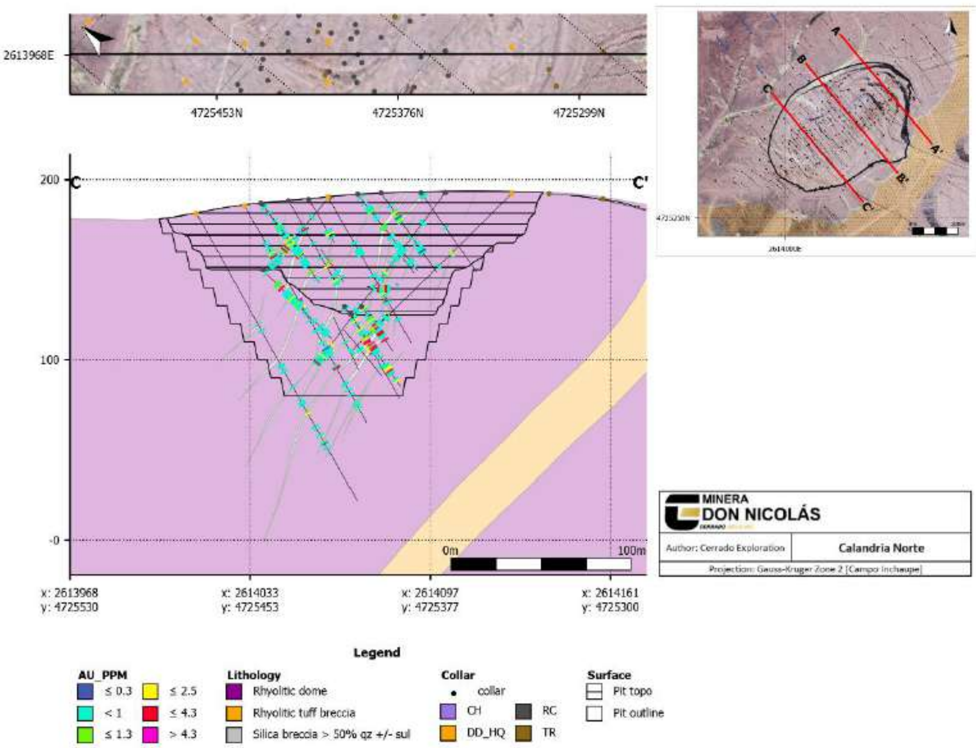
Vice President, Exploration
Cerrado Gold Inc.

APPENDIX I

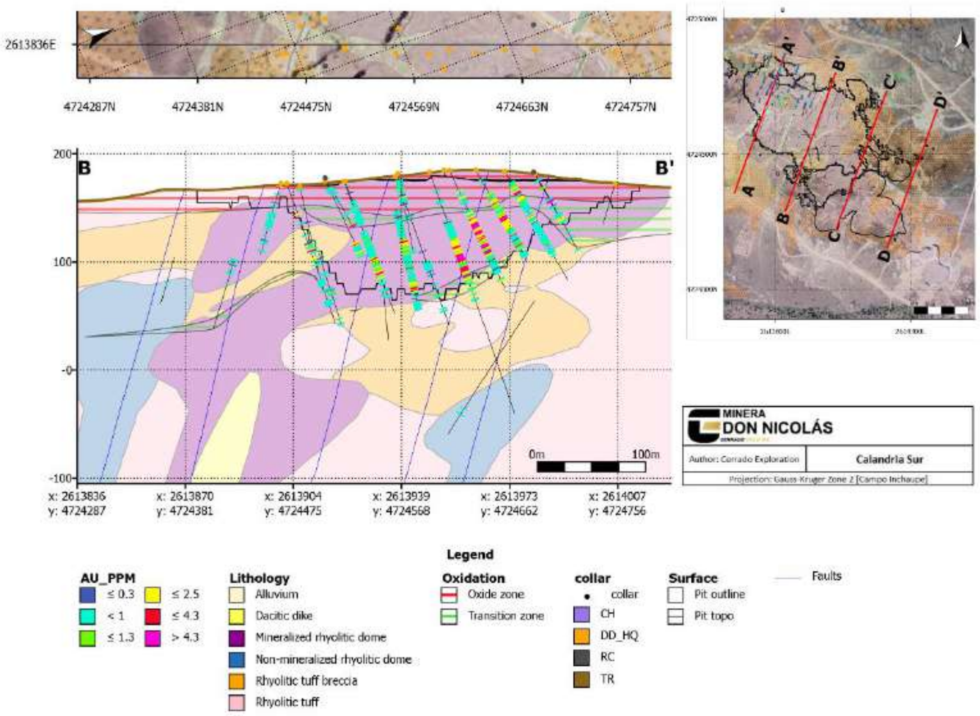
CROSS SECTIONS

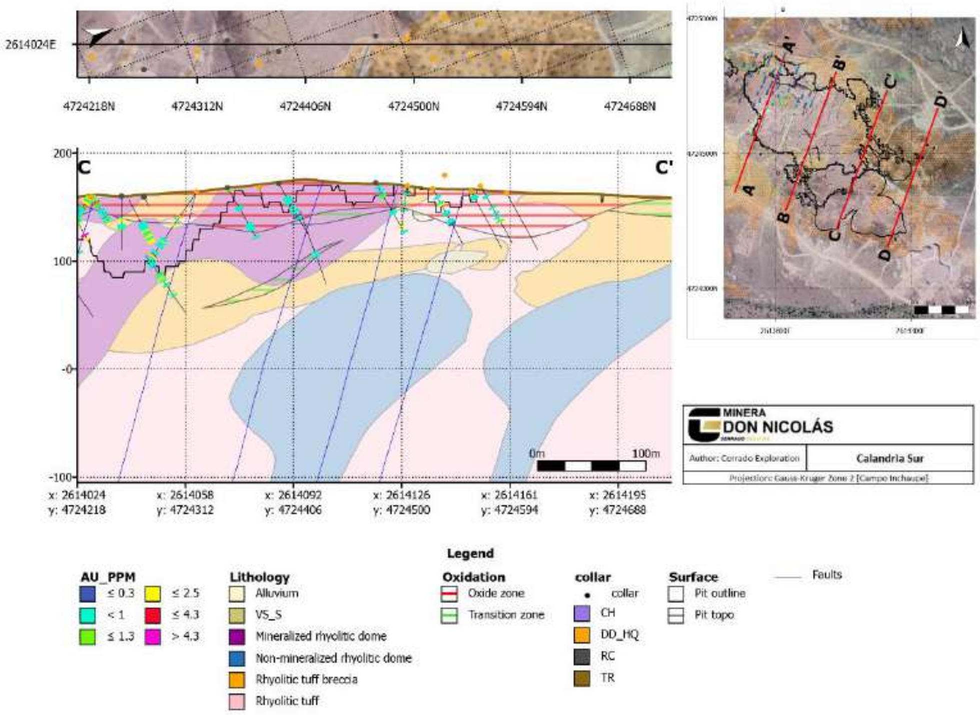
CALANDRIAS NORTE

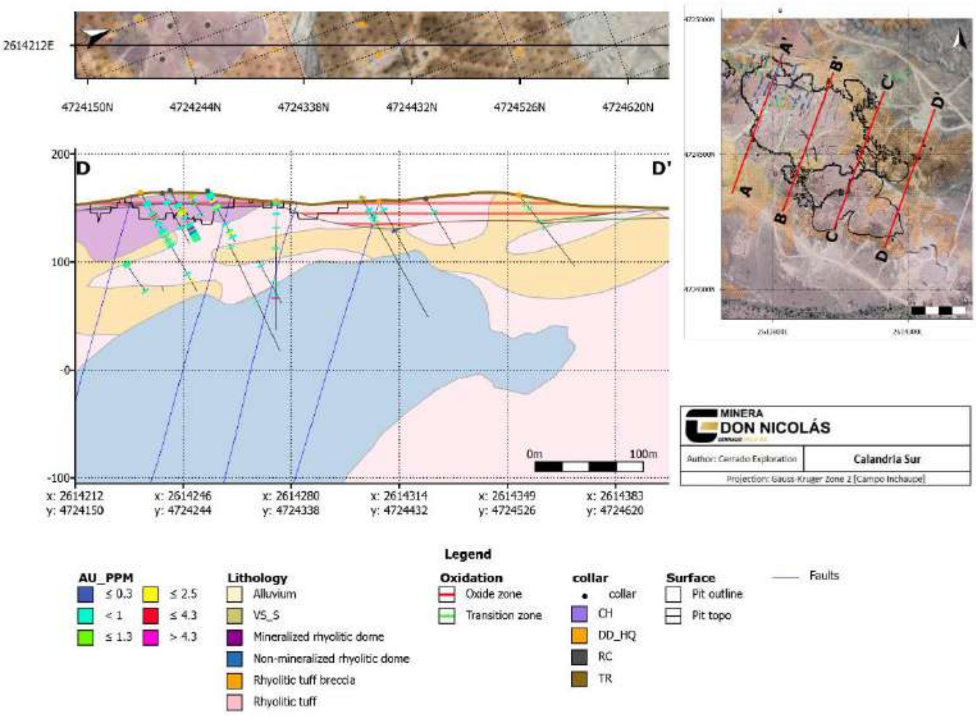




CALANDRIAS SUR

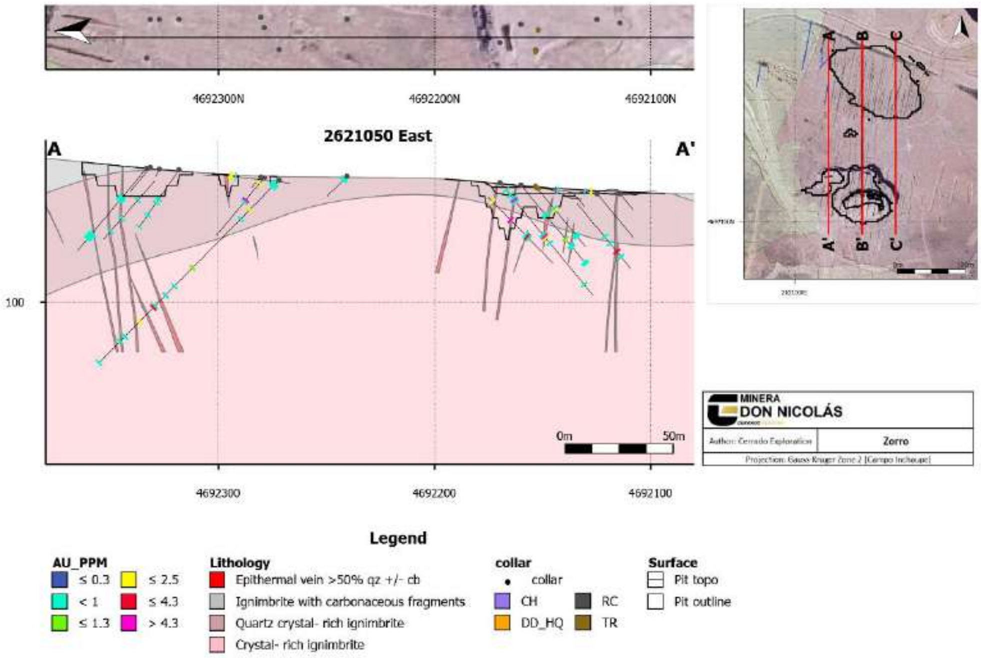


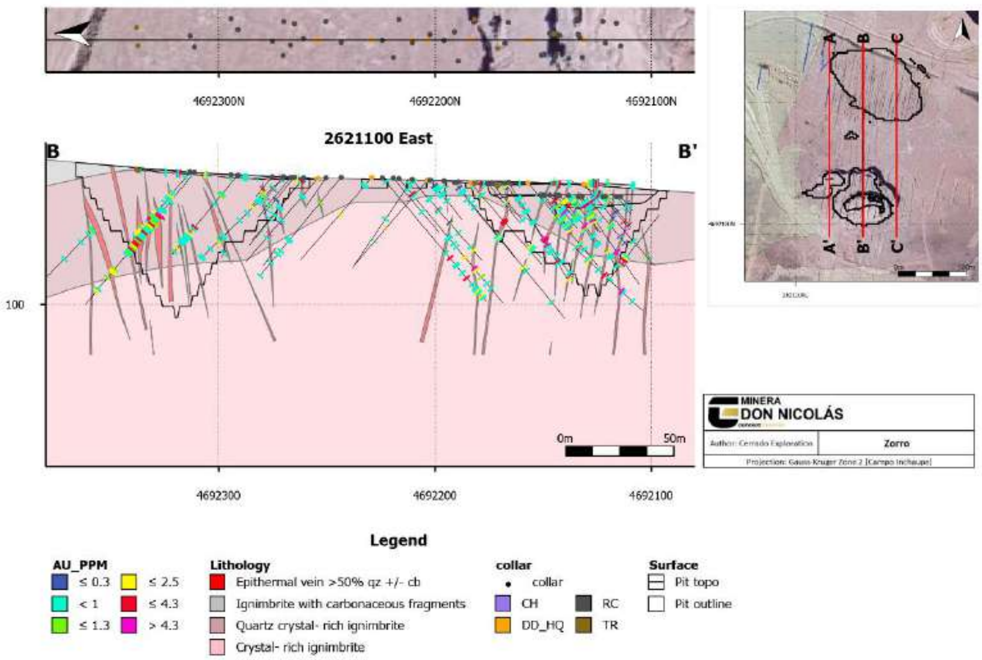




2614212E
4724150N
4724244N
4724338N
4724432N
4724526N
4724620N
D
D'
200
100
0
-100
0m
100m
x: 2614212 y: 4724150
x: 2614246 y: 4724244
x: 2614280 y: 4724338
x: 2614314 y: 4724432
x: 2614349 y: 4724526
x: 2614383 y: 4724620
A
A'
B
B'
C
C'
D
D'
MINERA
DON NICOLÁS
Author: Cerrado Exploration
Calandria Sur
Projection: Gauss-Kruger Zone 2 [Campo Inchaupe]
Legend
AU_PPM
≤ 0.3
< 1
≤ 1.3
≤ 2.5
≤ 4.3
> 4.3
Lithology
Alluvium
VS_S
Mineralized rhyolitic dome
Non-mineralized rhyolitic dome
Rhyolitic tuff breccia
Rhyolitic tuff
Oxidation
Oxide zone
Transition zone
collar
collar
CH
DD_HQ
RC
TR
Surface
Pit outline
Pit topo
Faults

ZORRO


4692300N
4692200N
4692100N
2621050 East
A
A'
100
0m
50m
4692300
4692200
4692100
MINERA
DON NICOLÁS
Zorro
Legend
AU_PPM
≤ 0.3
< 1
≤ 1.3
≤ 2.5
≤ 4.3
> 4.3
Lithology
Epithermal vein >50% qz +/- cb
Ignimbrite with carbonaceous fragments
Quartz crystal- rich ignimbrite
Crystal- rich ignimbrite
collar
collar
CH
DD_HQ
RC
TR
Surface
Pit topo
Pit outline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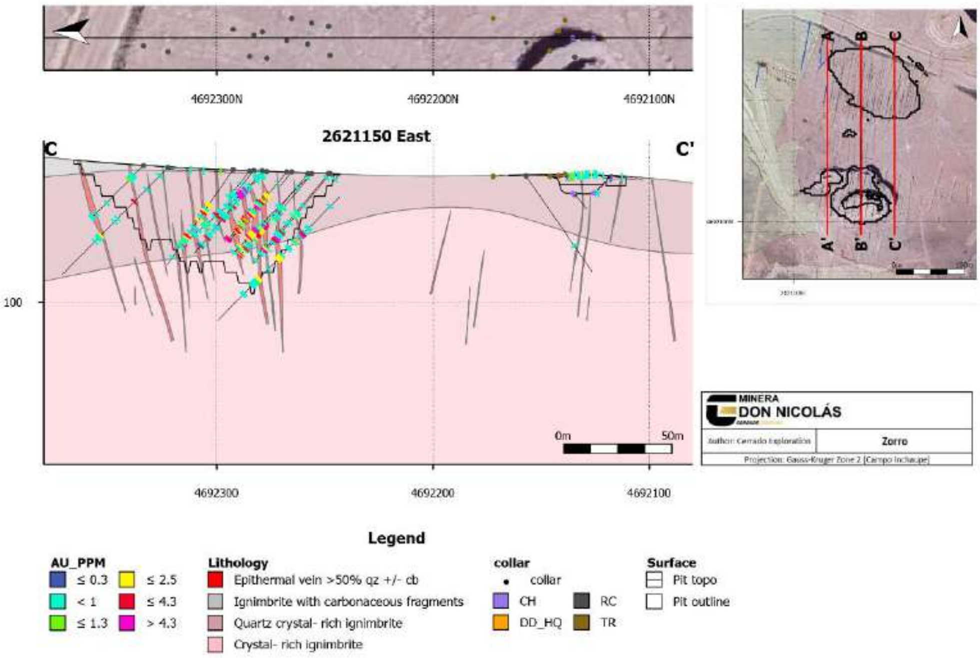
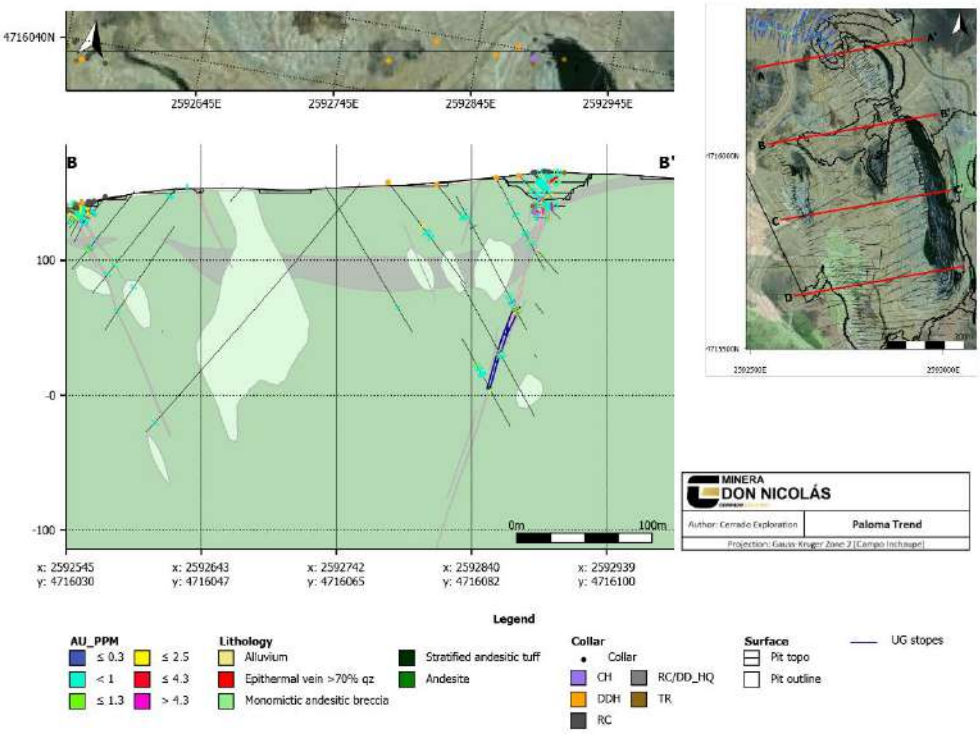
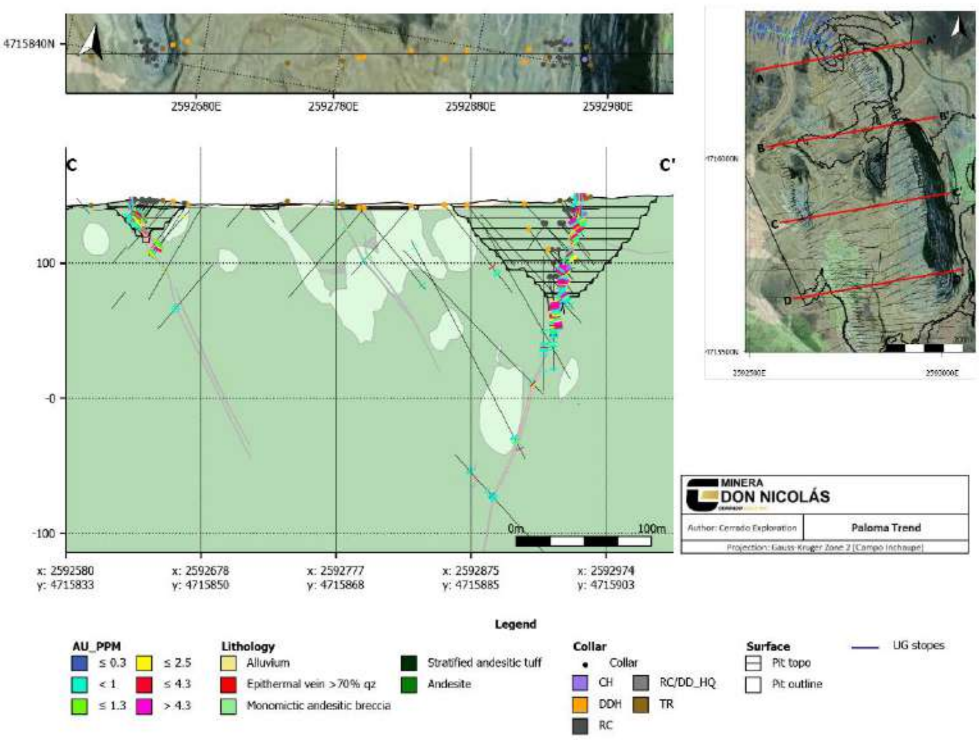
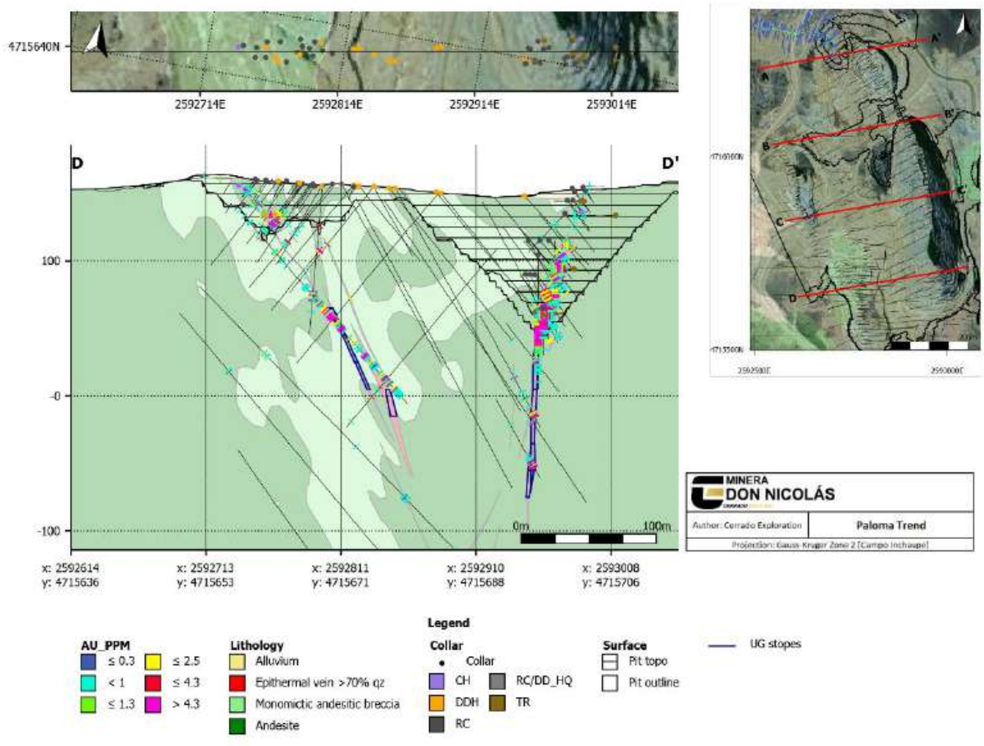
4692200N
4692100N
2621100 East
B
B'
100
0m
50m
4692300
4692200
4692100
MINERA
DON NICOLÁS
Zorro
Legend
AU_PPM
≤ 0.3
< 1
≤ 1.3
≤ 2.5
≤ 4.3
> 4.3
Lithology
Epithermal vein >50% qz +/- cb
Ignimbrite with carbonaceous fragments
Quartz crystal- rich ignimbrite
Crystal- rich ignimbrite
collar
collar
CH
DD_HQ
RC
TR
Surface
Pit topo
Pit outline


4692300N
4692200N
4692100N
2621150 East
C
C'
100
0m
50m
4692300
4692200
4692100
A
B
C
A'
B'
C'
MINERA
DON NICOLÁS
Zorro
Legend
AU_PPM
≤ 0.3
< 1
≤ 1.3
≤ 2.5
≤ 4.3
> 4.3
Lithology
Epithermal vein >50% qz +/- cb
Ignimbrite with carbonaceous fragments
Quartz crystal- rich ignimbrite
Crystal- rich ignimbrite
collar
collar
CH
DD_HQ
RC
TR
Surface
Pit topo
Pit outline

PALOMA TREND






4715640N
2592714E
2592814E
2592914E
2593014E
D
D'
100
0
-100
0m
100m
x: 2592614
y: 4715636
x: 2592713
y: 4715653
x: 2592811
y: 4715671
x: 2592910
y: 4715688
x: 2593008
y: 4715706
MINERA
DON NICOLÁS
Author: Cerrado Exploration
Paloma Trend
Projection: Gauss-Kruger Zone 2 [Campo Inchaupe]
Legend
AU_PPM
≤ 0.3
< 1
≤ 1.3
≤ 2.5
≤ 4.3
> 4.3
Lithology
Alluvium
Epithermal vein >70% qz
Monomictic andesitic breccia
Andesite
Collar
Collar
CH
DDH
RC
RC/DD_HQ
TR
Surface
Pit topo
Pit outline
UG stopes