# S-K 1300 Technical Report Summary

## Almas Project, Tocantins State, Brazil


### Aura Minerals Inc.

Craigmuir Chambers, Road Town, Tortola  VAG1110, British Virgin Islands

Prepared by:

**SLR Consulting (Canada) Ltd.**

55 University Ave., Suite 501, Toronto, ON  M5J 2H7



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# 1.0 Executive Summary

## 1.1 Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by Aura Minerals Inc. (Aura) to prepare an independent Technical Report Summary (TRS) on the Almas Project (Almas or the Project), located in Tocantins State, Brazil. The purpose of this TRS is to support the disclosure of the December 31, 2024 Mineral Resource and Mineral Reserve estimates at Almas and to support a listing on the New York Stock Exchange (NYSE) by Aura. This TRS conforms to United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary. SLR's Qualified Persons (QP) visited the Property from November 4 to 8, 2024.

Aura is a mid-tier gold and copper producer listed on the Toronto Stock Exchange (TSX) under the symbol ORA, the Brazilian Stock Exchange (B3) as AURA33, and the OTC Markets (OTCQX) under ORAAF. Aura operates in Honduras, Brazil, and Mexico. Its exploration projects are located in Brazil, Guatemala, and Colombia.

Aura acquired the Project when Aura entered into a merger with the Project's previous owner, Rio Novo Mineração Ltda. (Rio Novo), in 2018. The Project hosts three gold deposits: Paiol, Cata Funda, and Vira Saia, which are situated along a 15 kilometre (km) corridor of the Almas Greenstone Belt. All three gold deposits are orogenic in nature and are considered amenable to open pit mining. Aura initiated commercial production of the Paiol deposit in 2023. Annual plant production targets two million tonnes per annum (Mtpa) and produces gold doré bars from ore processed through a carbon-in-leach (CIL) process with gold electrowinning and smelting. In 2024, the mine produced 54,003 ounces (oz) of gold from 1,637,574 tonnes (t) of mill feed with an average gold head grade of 1.13 grams per tonne (g/t).

The Project also includes a historical open pit and a spent heap leach stockpile at Paiol that are from when the Paiol deposit was operated by Companhia VALE do Rio Doce (VALE) from 1996 until 2001 as well as several small-scale artisanal gold mining sites, locally termed *garimpos*, whose development preceded the exploration activities of Rio Novo.

Aura's initial NI 43-101 Technical Report for the Property was dated March 10, 2021. All information presented in this TRS is effective as of December 31, 2024, unless explicitly stated otherwise.

### 1.1.1 Conclusions

The SLR QPs offer the following conclusions by area.

#### 1.1.1.1 Geology and Mineral Resources

- The main mineralized deposits at Almas are classified as orogenic, shear-hosted mesothermal gold deposits. These mineralized bodies trend north-south and are shear-hosted in Paleoproterozoic rocks, typically metabasalts and metasediments (greenstones). The shear zone has been mapped to extend 15 km and several mineral occurrences on the property lie within and adjacent to the zone.
- Mineral Resources at Almas have been estimated for three deposits across the property: Paiol, Vira Saia, and Cata Funda. The Paiol Mineral Resources represent the largest proportion of the estimate and were updated in 2024. Vira Saia and Cata Funda are

unchanged since 2020 apart from a classification update at Vira Saia. Estimates were completed by Aura and have been audited and adopted by SLR.

- Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300.
- The Mineral Resource estimation for the Paiol deposit is acceptable and represents a reasonable estimate of the economic potential of the mineral deposit. Improvements are warranted, however, and with adjustments to the estimation approach it may be possible to better reflect the deposit characteristics locally.
- The Mineral Resource estimates for the Vira Saia and Cata Funda deposits are also acceptable and represent a reasonable estimate of the economic potential of the mineral deposits. Prior to production consideration, both deposits will require an update to incorporate data from planned and completed drill programs.
- Open pit Mineral Resources exclusive of Mineral Reserves, as at December 31, 2024, and above gold grade thresholds ranging from 0.31 g/t to 0.34 g/t have been estimated as follows:
  - Measured and Indicated (M&I) Mineral Resources are estimated to total 12,866 thousand tonnes (kt) averaging 0.67 g/t Au and containing 279 thousand ounces (koz) Au.
  - Inferred Mineral Resources are estimated to total 3,562 kt averaging 0.88 g/t Au and containing 100 koz Au.
- Sample preparation, security, and analysis adhere to industry standards, ensuring high data quality and integrity. Quality assurance and quality control (QA/QC) results confirm the accuracy and precision of assay data, supporting reliable Mineral Resource estimates.
- No significant sample bias was identified in the review of drill data and assays, ensuring the adequacy of the database for Mineral Resource estimation.
- Exploration to date has focused on near surface prospects, and the potential for discovery of deeper, underground gold targets with vertical extent is high.

#### 1.1.1.2 Mining and Mineral Reserves

- The Almas Project is host to an open pit mining operation composed of three main gold deposits, including Paiol, Cata Funda, and Vira Saia. The Paiol deposit is currently being mined, with Cata Funda and Vira Saia to complement production in later years.
- Almas has consistently met production targets since production commenced in 2023.
- Mineral Reserves are estimated using a cut-off grade of 0.38 g/t Au for Paiol, 0.40 g/t Au for Vira Saia, and 0.42 g/t Au for Cata Funda.
- The current Mineral Reserve estimates, prepared by SLR, have been classified in accordance with the definitions for Mineral Reserves in S-K 1300. Mineral Reserves as of December 31, 2024, total 19,709 kt grading 1.07 g/t Au and containing 674 koz Au.
- Mineral Reserves are estimated by qualified professionals using modern mine planning software in a manner consistent with industry practice.
- The estimated Mineral Reserves support a life of mine (LOM) plan that extends approximately 10 years to 2034, at a rate of 2.0 Mtpa of ore fed into the plant.

- Measured Mineral Resources and stockpiles were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. Inferred Mineral Resources were not converted to Mineral Reserves and are not included in the LOM plan.
- Dilution and ore losses (mining recovery) are applied before reporting Mineral Reserves.

#### 1.1.1.3 Mineral Processing

- Process plant throughput has not yet reached the design capacity of 2.0 Mtpa, or 5,479 tonnes per day (tpd). In 2024, the average throughput was 4,300 tpd.
- The recovery to date is 2% below the process design value.
- Aura anticipates achieving a 92% gold recovery in 2025.

#### 1.1.1.4 Infrastructure

- The Project has operated since 2021 and has developed the necessary infrastructure to support current and planned mining activities. Key components include power supply, water management systems, waste handling facilities, operational support buildings, and access roads.
- The Project is connected to the national power grid, which supplies the site's energy needs. No power generator sets are present at the site.
- Process water is sourced by direct pumping from local rivers, which provide reliable flows year-round.
- Potable water is available at the site via 20-litre (L) gallons.
- Support facilities include warehouses, maintenance workshops, an assay laboratory, and administrative offices.
- Almas does not have on-site housing. The company maintains a camp in the city of Almas for visitors and temporary needs.
- The site is accessible via paved highways and gravel roads, ensuring year-round access for materials, equipment, and personnel.
- The Project maintains radio, telephone, and internet services, ensuring effective coordination across operational areas. Cell phone services are also available at the site.
- The Project’s infrastructure has been progressively maintained and adapted to meet operational requirements while ensuring environmental and regulatory standards compliance.

#### 1.1.1.5 Environmental and Social Aspects

- In the SLR QP’s opinion, the environmental and social risks at Almas are manageable, and Aura has in place adequate plans and systems to manage these risks and to maintain compliance with applicable environmental legal requirements.
- Aura reports that all permits required for current operations are in good standing. The Cata Funda and Vira Saia deposits are currently the subjects of licensing processes, and Aura has submitted the necessary information for the development of both pits. Licences are expected to be issued in 2025 and 2026.

- Testing of ore, waste rock, and tailings samples indicates low potential for the generation of acid rock drainage (ARD) or metal leaching (ML).
- As designed and permitted, the tailing storage facility (TSF) has an ultimate capacity of 15 million cubic metres ($Mm^3$) of tailings in storage. Should additional capacity be required, Aura plans to utilize in-pit tailings disposal in the mined-out Vira Saia pit, providing capacity for additional storage of approximately six million cubic metres of tailings.
- Aura has continued with community engagement activities since initiating construction at Paiol, including updating the stakeholder map and communications plan, implementing a socioeconomic diagnostic exercise, and initiating a community investment program focused principally on the town of Almas.
- The mine closure plan is dated November 2022 and includes a closure cost estimate of US$9.8 million. SLR notes that for the economic analysis, closure costs have been inflated to the 2024 value, which corresponds to US$14.1 million. The SLR QP considers the higher closure and reclamation costs to reflect a more realistic approach than the closure estimate from November 2022, given costs have been escalated to 2024 US dollars and have been adjusted to consider closure costs for the three deposits.

#### 1.1.1.6 Capital and Operating Costs and Economics

- The Almas Project capital and operating cost estimates were prepared based on 2024 actual costs and the current operating budget for 2025. The SLR QP has reviewed the capital and operating costs and considers them appropriate for the remaining mine life.
- The LOM production schedule is based on the December 31, 2024 Mineral Reserves.
- The economic analysis using the production, revenue, and costs estimates presented in this TRS confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves for a 10 year mine life. At the CIBC Analysts Consensus Commodity Price, with a long term price of US$2,212/oz gold, the Project's Base Case undiscounted pre-tax net cash flow is approximately US$590 million, and the undiscounted after-tax net cash flow is approximately US$510 million. The pre-tax net present value (NPV) at a 5% discount rate is approximately US$452 million and the after-tax NPV at a 5% discount rate is approximately US$393 million.
- The SLR QP confirms that SLR completed the economic analysis using reserve metal prices. The analysis demonstrates that Almas's Mineral Reserves are also economically viable at these prices.

### 1.1.2 Recommendations

The SLR QPs offer the following recommendations by area.

#### 1.1.2.1 Geology and Mineral Resources

1 While the estimated Mineral Resources are acceptable, the following process changes are suggested to be tested at the Project:

   a) Develop and execute a standard protocol for the treatment of missing intervals and analytical values with consideration of the underlying reasons and their impact. Industry standard practice is to assign a low (detection limit or zero) value to unsampled intervals because they were deemed uneconomical by the logging

geologist during core processing. Apply the protocol during the compositing routine, and composite intervals to a multiple of the common sample length.

b) Support grade restriction approaches using a combination of statistical and visual tools, including probability plots, histograms, percentiles, and a spatial review of high-grade sample location and continuity. Evaluate whether higher gold caps can be combined with a high yield restriction to limit metal loss and preserve high grades locally.

c) Develop an interpolation plan which limits visual and statistical grade artifacts.

d) Evaluate the impact of combining long-term and short-term data during estimation. Consider restricting the influence of production data to local blocks (two benches) and develop a process which allows reconciliation of the resource to grade control model to be undertaken without influence of production data on the resource model.

#### 1.1.2.2 Mining and Mineral Reserves

1 Improve material (especially ore) tracking system for long-term/low-grade stockpiles.

2 Undertake close follow-up in the infill program for Cata Funda and Vira Saia to ensure relevant data will be available during 2026 and 2027, not causing delay on commissioning these pits.

3 Close follow-up in the Cata Funda and Vira Saia operating licence and mining concession (only Vira Saia).

4 In consideration of the increase of approximately 30% to the cut-off grade since Aura's previous Technical Report (2021) due to production costs, the following strategic actions are suggested for the Project:

a) Review the future expansion projects to check their viability in a potentially reduced mineral inventory scenario.

b) Continue to track operating costs closely and assess the main cost levelers to investigate possible opportunities to avoid an additional cut-off grade raise.

#### 1.1.2.3 Mineral Processing

1 Process plant is not achieving design throughput. Review operating ore characteristics to determine if the grinding circuit, which is a converted single-stage semi-autogenous grinding (SAG) mill, is a bottleneck to mineral processing.

2 Review primary grind size data to understand why the tails grade is increasing, resulting in lower gold recovery.

3 Conduct mineralogical analysis of the plant feed and tails to troubleshoot lower gold recoveries.

#### 1.1.2.4 Infrastructure

1 Regularly review the required infrastructure on the site, in consideration of future expansion projects.

2 Monitor the Brazilian energy market, as costs are forecasted to increase.

3 Advance the study of the TSF to the detailed design phase.





#### 1.1.2.5 Environmental and Social Aspects

1 Continue with permitting of the Cata Funda and Vira Saia pits, and apply for an amendment to the permitted water discharge rate as appropriate.

2 Formalize management systems for the environmental and social aspects of the Project to incorporate a full “Plan-Do-Check-Act” cycle, common to international management system standards.

3 Continue active community engagement to address any concerns that arise due to the close proximity of Cata Funda to the community of Almas.

#### 1.1.2.6 Capital and Operating Costs

1 Enhance cost tracking and financial planning by monitoring real-time expenditures, periodic cost benchmarking against peer operations, and updating sensitivity analyses for gold price scenarios to ensure economic resilience.

2 Ensure capital and operating expenditures remain aligned with the size of the operation and reserve numbers, avoiding overcapitalization.

## 1.2 Economic Analysis

The economic analysis contained in this TRS is based on the Almas Mineral Reserves, economic assumptions, and capital and operating costs provided by the Aura technical team and reviewed by SLR. All costs are expressed in Q4 2024 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest.

A summary of the key criteria is provided below.

### 1.2.1 Economic Criteria

#### 1.2.1.1 Production Physicals

- Mine life: 10 years (2025 to 2034).
- Open pit peak mining rate: 23,000 ktpa between years 2029 and 2032
- LOM Ore feed to process: 19,709 kt ore at 1.07 g/t Au
- Processing plant peak processing throughput: 2,000 ktpa
- LOM Contained Metal: 680 koz Au
- Weighted average LOM Process Gold Recovery: 90%
- LOM Recovered Metal: 612 koz Au

#### 1.2.1.2 Revenue

- Exchange rate US$1.00 = BRL$5.84.
- Revenue is estimated based on metal prices provided to SLR by Aura, which sourced them from CIBC Analysts Consensus Commodity Price Forecasts from March 2025. The CIBC analyst consensus metal price forecast is presented in Table 1-1:

**Table 1-1: Almas Cash Flow Metal Prices**

| Metal Prices | 2025 | 2026 | 2027 | 2028 | 2029 - Long Term |
|---|---|---|---|---|---|
| Gold (US$/oz) | 2,668 | 2,621 | 2,490 | 2,363 | 2,212 |

- Payable metals are estimated at 99.9% for gold. This rate is based on actual agreement figures.
- Transportation and Refining charges include the following:
  - Gold refining: US$0.30/oz of payable Au
- The Almas property is subject to the following royalties (see further details in 1.2.1.5):
  - Paiol at 1.95% Net Smelter Return (NSR)
  - Cata Funda at 3.25% NSR
  - Vira Saia at 3.25% NSR
- Almas is subject to a Mining Tax over Sales at 1.8% NSR (treated as a royalty)
- LOM net revenue is US$1,367 million (after Selling Charges and Royalties).
- Revenue is recognized at the time of production.

#### 1.2.1.3 Capital Costs

- Expansion capital costs: US$4.8 million
- Mine life sustaining capital totals US$75 million.
- Mine closure and reclamation costs in year 2034 total US$14.1 million based on Aura's latest estimate from year 2024.

#### 1.2.1.4 Operating Costs

- Average operating cost over the mine life is US$34.51/t milled.
  - Open pit mining costs: US$23.34/t milled, or US$2.48/t mined
  - Mine capitalized stripping costs: -US$2.54/t milled
  - Mine stockpile reclaiming costs: US$0.10/t milled
  - Stockpile Change in Inventory Cost: US$0.71/t milled
  - Processing costs: US$9.42/t milled
  - General and administration (G&A) and overhead costs: US$3.48/t milled or US$6.8 million per year
- LOM site operating costs of $680 million.
- Corporate G&A allocation costs of US$500,000 per year over the LOM.

#### 1.2.1.5 Taxation and Royalties

- The property is subject to different third-party royalties NSR for each deposit:

  - Paiol at 1.95% NSR: 1.20% NSR mining rights and 0.75% surface royalties (50% of Financial Compensation for the Exploitation of Mineral Resources [CFEM]),
  - Cata Funda at 3.25% NSR: 2.50% mining rights and 0.75% surface royalties (50% of CFEM).
  - Vira Saia at 3.25% NSR: 2.50% mining rights and 0.75% surface royalties (50% of CFEM).
- The Brazilian Corporate Income Tax is set at 34% but Aura is currently benefiting from the tax incentives provided by Superintendência do Desenvolvimento da Amazônia (SUDAM), which grants a reduced corporate income tax rate of 15%
- Almas is subject to a Mining Tax over Sales at 1.8% NSR (treated as a royalty): 1.5% of CFEM and 0.3% FDE (Tocantins Economic Development Fund).
- Total taxes estimated: US$79.3 million.
- SLR has relied on Aura's assumptions and calculations for royalties and taxes applicable to the cash flow.

### 1.2.2 Cash Flow Analysis

SLR prepared a LOM unlevered after-tax cash flow model to confirm the economics of the Project over the LOM (between 2025 and 2034). Economics have been evaluated using the discounted cash flow method by considering LOM production on a 100% basis, annual processed tonnages, and gold grades. The associated gold recoveries, gold price, operating costs, treatment and refining charges, expansion and sustaining capital costs, reclamation and closure costs, and income tax and royalties were also considered.

The base discount rate assumed in this TRS is 5% as per Aura's corporate guidance for the Project. Discounted present values of annual cash flows are summed to arrive at the Almas Project Base Case NPV. For this cash flow analysis, the internal rate of return (IRR) and payback are not applicable given Almas is already an operating mine; therefore, there is no initial investment to be recovered.

To support the disclosure of Mineral Reserves, the economic analysis demonstrates that Almas's Mineral Reserves are economically viable at the CIBC Analysts Consensus Commodity Price, with a long term price of US$2,212/oz gold. The Project's Base Case undiscounted pre-tax net cash flow is approximately US$590 million, and the undiscounted after-tax net cash flow is approximately US$510 million. The pre-tax NPV at a 5% discount rate is approximately US$452 million and the after-tax NPV at a 5% discount rate is approximately US$393 million.

The SLR QP confirms that SLR has also run the economic analysis using flat reserve metal prices of gold US$2,000/oz. The analysis demonstrates that Almas's Mineral Reserves are also economically viable at these prices.

The World Gold Council Adjusted Operating Cost (AOC) is US$1,163/oz Au produced. The mine life sustaining capital cost is US$153/oz Au, for an All in Sustaining Costs (AISC) of US$1,316/oz Au produced. Mine average annual gold production during the LOM is approximately 61,248 oz Au per year between 2025 and 2034.

Almas will add average annual sales over its 10-year mine life of 61,186 oz Au per year.

All costs are in Q4 2024 US dollars with no allowance for inflation. An after-tax cash flow summary is presented in Table 1-2.





**Table 1-2: After-Tax Cash Flow Summary**

| Description | Units | Value |
|---|---|---|
| LOM | Years | 10 |
| **Production** | | |
| OP Ore Production | '000 tonnes | 17,340 |
| Waste | '000 tonnes | 168,394 |
| Stockpile to Mill | '000 tonnes | 1,205 |
| HL to Mill | '000 tonnes | 1,164 |
| Mill Feed | '000 tonnes | 19,709 |
| Au Grade | g/t | 1.07 |
| Contained Gold | koz | 680 |
| Gold Recovery | % | 90.0% |
| Recovered Gold | koz | 612 |
| **Revenue** | | |
| **Payable Metal** | | |
| Au (koz) | **koz** | **611.9** |
| **Long Term Consensus Prices** | | |
| **Au ($/oz)** | **US$/oz** | **2,212** |
| **Total Gross Revenue** | **US$ million** | **1,425** |
| **Operating Costs** | | |
| OP Mining Cost | US$ million | (460) |
| Mine Capitalized Stripping Costs | US$ million | 50 |
| Stockpile Reclaiming Costs | US$ million | (2) |
| Stockpile Change in Inventory Costs | US$ million | (14) |
| Processing Cost | US$ million | (186) |
| Site Support and G&A Cost | US$ million | (68) |
| Sales / TC / RC Charges | US$ million | (0.2) |
| Production Tax | US$ million | (26) |
| Third Party Royalties | US$ million | (32) |
| **Operating Margin** | **US$ million** | **687** |
| Off-site Admin costs | US$ million | (5) |
| **EBITDA** | **US$ million** | **682** |
| **Capital Costs** | | |
| Expansion Capital | US$ million | (5) |
| Sustaining Capital | US$ million | (75) |

| Description | Units | Value |
|---|---|---|
| Working Capital | US$ million | 2 |
| Closure/Reclamation Capital | US$ million | (14) |
| **Total Capital** | **US$ million** | **(92)** |
| **Project Economics** | | |
| **Pre-tax Free Cash Flow** | **US$ million** | **590** |
| **Pre-tax NPV @ 5%** | **US$ million** | **452** |
| Corporate Income Tax | US$ million | (79) |
| **After-tax Free Cash Flow** | **US$ million** | **510** |
| **After-tax NPV @ 5%** | **US$ million** | **393** |

### 1.2.3 Sensitivity Analysis

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

- Gold price
- Gold head grades
- Gold metallurgical recoveries
- Operating costs
- Capital costs (sustaining and closure)

After-tax NPV 5% sensitivities over the Almas Project Base Case have been calculated for -20% to +20% (for head grade), -5% to +5% (for metallurgical recovery), -20% to +20% (for metal prices), and -10% to +15% (for operating costs and capital costs) variations, to determine the most sensitive parameter for the Mine.

The sensitivity analysis at Almas shows that the after-tax NPV at an 5% base discount rate is most sensitive to metal prices, head grade, and metallurgical recovery, followed by operating costs and capital costs. The SLR QP notes that a 10% reduction in metal prices reduces the after-tax NPV 5% by 23% for the Almas Project Base Case.

## 1.3 Technical Summary

### 1.3.1 Property Description

The Almas Project area lies south of Almas, a small town approximately 300 km southeast of Palmas, the Tocantins State Capitol, and 45 km west of Dianópolis, a regional commercial centre.

The Almas Project focuses on the Paiol, Cata Funda, and Vira Saia gold deposits that are distributed along a 15 km long segment of the Almas Greenstone Belt, south of the town of Almas. The Paiol deposit is currently being mined, with Cata Funda and Vira Saia to complement production in later years.





### 1.3.2 Land Tenure

The Project comprises a total of 57 mineral rights holdings granted by the Agência Nacional de Mineração (ANM) covering a total area of 233,742.80 ha including two mining concessions, two mining concession applications, and 53 exploration authorizations (220,122.1 ha). The mining concessions and mining concession applications covering the three mineral deposits that are the subject of this TRS are as follows:

- Paiol: Mining concession (ANM number 860.128/1983). Mined in the past by VALE, and currently in production; 5,175 ha.
- Cata Funda: Mining concession (ANM number 862.224/1980). Undeveloped property; 3,962 ha.
- Vira Saia: Mining concession applications (ANM numbers 864.083/2006 and 860.373/1988). Undeveloped property; 4483.75 ha.

### 1.3.3 History

Exploration at the Almas Project dates back to 1977 when VALE identified prospective terrain in the greenstone belts around Almas. Workers in the area have used a combination of geophysics, geochemistry, and geologic mapping to discover numerous gold anomalies. The Paiol deposit was discovered in 1987. The Paiol discovery was significant in that the deposit did not outcrop, and the discovery was based on a weak soil anomaly and geophysics.

The Project was formerly operated by VALE from 1996 until 2001 and produced 86,000 oz of gold. In January 2013, both the Paiol and Cata Funda received approval from the ANM authorizing the renewal of mining activities. Previously they had status of “Suspended Operation” with the ANM. The process is well documented by ANM and is defined as a request to actively mine again (Requerimento para Retomada de Lavra) under Section 20.2.3 of the Regulatory Norms for Mining (Normas Reguladoras de Mineração “NRM” Suspensão, Fechamento de Mina e Retomada das Operações Mineiras).

To operate the Project at the Paiol deposit, Rio Novo was required to obtain a new environmental licence under the standards set forth by NATURATINS. The environmental authority accepted the EA for the Paiol mine area and granted LI No. 5437/2011 on December 2, 2011, which has expired. Based on this permitting process, other licences were issued in 2017, such as LP No. 286/2017 and LI No. 297/2017. Two exploration licences (Process Nos. 864.083/2006 and 860.373/1988) assigned to Rio Novo per the terms of an Option Agreement cover the Vira Saia deposit. The ANM must accept the operator's final exploration report and a Preliminary Economic Assessment (PEA) report before granting a Mining Decree to an operator.

NATURATINS required another EA for the permitting the Cata Funda and Vira Saia deposits since illegal artisanal mining (“*Garimpo*”) had already degraded the areas over the years, and the potential for negative impacts is low.

In 2018, Rio Novo was fully acquired through a merger and is now owned by Aura. In February 2021, Aura began construction activities at the Paiol mine.

The operation licence for the Paiol deposit was granted in early 2023, and production began in Q4 2023.

### 1.3.4 Geology, Mineralization, and Deposit

The Almas Project area is situated within the Almas-Dianopolis Greenstone Belt (AGB) of Archean to Paleoproterozoic age. The greenstone belt lies within the Almas-Conceicao Terrane on the western block of the Goias Massif.

The Paleoproterozoic granite-greenstone terrane is composed of gneissic granite domes with folded, narrow domains of metabasic and metasedimentary rocks including tholeiitic metabasalts and calc-alkaline metatonalites that have been subjected to strong regional metamorphism. The metamorphism resulted in deep-seated, shear-hosted, mesothermal, gold deposits which can be considered as orogenic gold deposits. The gold-mineralized zone occurs in the core of hydrothermal alteration zones, generally associated with variable amounts of quartz, carbonate, albite, sericite, and sulphide minerals.

The main Paiol mineralized body extends approximately 650 m down dip, 1,250 m along strike, and has an average thickness of 30 m. The Cata Funda deposit extends approximately 240 m down dip, 230 m along strike, with an average thickness of 10 m. The Vira Saia deposit extends approximately 200 m down dip, 350 m along strike, and averages 15 m in thickness.

At Paiol and Cata Funda, mineralization is associated with hydrothermal shear zones within basic to intermediate volcanic rocks. In contrast, at Vira Saia, gold is directly linked to sulphides and quartz-sericite mylonite, which formed in shear zones within granodiorite. Gold at Vira Saia is particularly concentrated in ultra-mylonitic, sulphide-bearing, quartz-sericite-rich zones at the core of these shear structures. The intensity of hydrothermal alteration correlates with the degree of progressive deformation within the shear zone.

### 1.3.5 Exploration

Since the acquisition of Rio Novo in 2018, exploration work has been conducted by Aura on its mining rights along the AGB. Gold occurrences, surface sampling results, and historical drilling suggest great potential to discover new deposits in the medium to long term, including deposits with higher grades.

Since 2020, exploration efforts on the Property have primarily focused on surface drilling programs to further delineate the Paiol deposit. In contrast, Cata Funda and Vira Saia remain underexplored, presenting opportunities to expand mineral resources along strike and at depth before scheduled extraction. The deeper, covered areas of the district have yet to be explored. Due to the region's generally flat terrain and thick soil or saprolite cover, only a small portion of the district has been adequately assessed. None of the three deposits have been fully drilled, leaving significant potential for extensions along strike and down dip beyond their current footprints. Regional exploration focused on several targets from 2021 to 2024. The Morro do Carneiro target presents a good opportunity as high grade vein mineralization has been encountered15 km north of the Paiol mine.  The Nova Prata target exhibits similar hydrothermally altered mineralization to Paiol, located 10 km from the mine. The Espinheiro target is located within the same greenstone belt as the Nova Prata target, approximately 12 km from the Paiol mine. The Lagartixa target is shear vein hosted and more distally located, however, it exhibits similar mineralization styles to Vira Saia.

### 1.3.6 Mineral Resource Estimates

Mineral Resources at the Almas Project consists of three gold deposits: Paiol, Vira Saia, and Cata Funda.

Mineralization domains for all deposits were generated based on known geologic controls, including structure, alteration, and lithology, and refined with consideration of economic threshold values for gold and mineable width. Block model estimates were completed using a multi-pass interpolation approach using capped and composited samples and classified in accordance with the definitions for Mineral Resources in S-K 1300. Mineral Resources were constrained within an optimized pit shell using a gold price of US$2,500/oz.

A summary of the open pit Mineral Resources, exclusive of Mineral Reserves, is presented in Table 1-3.

**Table 1-3: Summary of Almas Project Mineral Resources EXCLUSIVE of Mineral Reserves – December 31, 2024**

| Deposit | Category | Tonnage | Grade | Contained Metal |
|---|---|---|---|---|
| | | (000 t) | (g/t Au) | (000 oz Au) |
| Paiol | Measured | 2,948 | 0.51 | 49 |
| | Indicated | 6,591 | 0.68 | 144 |
| | M&I | **9,539** | **0.63** | **193** |
| | Inferred | 2,606 | 0.77 | 65 |
| Vira Saia | Measured | 501 | 0.86 | 14 |
| | Indicated | 2,306 | 0.68 | 50 |
| | M&I | **2,806** | **0.71** | **64** |
| | Inferred | 357 | 0.91 | 10 |
| Cata Funda | Measured | 228 | 1.47 | 11 |
| | Indicated | 293 | 1.22 | 11 |
| | M&I | **520** | **1.33** | **22** |
| | Inferred | 599 | 1.30 | 25 |
| Total | Measured | 3,677 | 0.62 | 73 |
| | Indicated | 9,189 | 0.70 | 206 |
| | M&I | **12,866** | **0.67** | **279** |
| | Inferred | 3,562 | 0.88 | 100 |

Notes:

1. Mineral Resources are reported exclusive of Mineral Reserves.
2. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
3. Mineral Resources are reported from optimized pit shells.
4. Mineral Resources are estimated at a cut-off grade of 0.31 g/t Au for Paiol, 0.34 g/t Au for Cata Funda, and 0.32 g/t Au for Vira Saia.
5. Mineral Resources are estimated using a long-term gold price of US$2,500 per ounce.
6. A minimum mining width of five metres was used.
7. Bulk density is 2.75 t/m$^3$ for Paiol, 2.71 t/m$^3$ for Cata Funda, and 2.63 t/m$^3$ for Vira Saia.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Metallurgical recovery is 92% for high-grade (Au≥0.90 g/t) material, 90% for medium-grade (0.70≤Au<0.89 g/t), and 86% for low-grade (0.34≤Au<0.69 g/t).
10. Numbers may not add due to rounding.

The SLR QP is of the opinion that, with the consideration of the recommendations summarized in Sections 1 and 23 of this TRS, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

### 1.3.7 Mineral Reserve Estimates

The current Mineral Reserve estimates, as prepared by SLR and reported as of December 31, 2024, are summarized in Table 1-4.

**Table 1-4: Summary of Almas Project Mineral Reserves – December 31, 2024**

| Deposit | Category | Tonnage (000 t) | Grade (g/t Au) | Contained Metal (000 oz Au) |
|---|---|---|---|---|
| Paiol | Proven | 5,950 | 1.04 | 198 |
| | Probable | 7,514 | 1.20 | 290 |
| | Total Proven + Probable | 13,464 | 1.13 | 488 |
| Vira Saia | Proven | 1,133 | 1.16 | 42 |
| | Probable | 2,019 | 0.95 | 61 |
| | Total Proven + Probable | 3,152 | 1.02 | 104 |
| Cata Funda | Proven | 456 | 1.80 | 26 |
| | Probable | 267 | 1.41 | 12 |
| | Total Proven + Probable | 723 | 1.66 | 38 |
| SUB-TOTAL | | 17,339 | 1.13 | 630 |
| Stockpiles | Proven | 2,369 | 0.58 | 44 |
| | Probable | | | |
| | Total Proven + Probable | 2,369 | 0.58 | 44 |
| **TOTAL** | | **19,709** | **1.07** | **674** |

Notes:

1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves.
2. Mineral Reserves are 100% attributable to Aura.
3. Bulk density is 2.75 t/m$^3$ for Paiol, 2.64 t/m$^3$ for Vira Saia and 2.67 t/m$^3$ for Cata Funda.
4. Mineral Reserves are reported on an in situ basis after applying dilution and mining recovery.
5. Mineral Reserves are estimated using a cut-off grade of 0.38 g/t Au for Paiol, 0.40 g/t Au for Vira Saia and 0.42 g/t Au for Cata Funda.
6. Metallurgical recovery is 92% for high-grade material, 90% for medium-grade, and 86% for low-grade and stockpiles.
7. Low-grade material: 0.34≤Au<0.69; medium-grade: 0.70≤Au<0.89; high-grade: Au≥0.90. All grades in g/t.
8. Mineral Reserves are estimated using an average long-term price of $2,000/oz Au.
9. Totals may not add due to rounding.

The SLR QP is not aware of any risk factors associated with, or changes to, any aspects of the modifying factors such as mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

Measured Mineral Resources and stockpiles were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. Inferred Mineral Resources were not converted to Mineral Reserves and are not included in the LOM plan.

The Mineral Resource block model provided by the Aura Almas Geology department forms the basis for estimating Mineral Reserves. SLR defined Mineral Reserve estimates using Deswik software.

The conversion of Mineral Resources to Mineral Reserves is based on modifying factors applied to Lerchs-Grossmann (LG) pit optimization, detailed pit design, scheduling, and associated modifying parameters. Dilution was added in the process of reblocking to a selective mining unit of 5 m x 5 m x 6 m, and an additional contact dilution of 10% was applied. Ore losses were incurred where blocks fell below cut-off grade as a result of reblocking, and an additional loss factor of 5% was applied to high and medium grade blocks.

### 1.3.8 Mining Method

The open pit mining operations utilize a combination of 4.5 m³ hydraulic excavators, front-end loaders (FEL), and 35 t haul trucks as the primary equipment, which are operated by contractors.

The planned annual average run-of-mine (ROM) production rate is 2.0 Mt, which will exhaust the reserves in 10 years.

The processing plant is 0.7 km from the final Paiol pit, and the tailings dam is approximately 2.0 km from the pit. A new TSF will be required to meet the LOM tailings generation and is scheduled to be operational in 2030.

Mining is carried out on 10 m and 20 m high benches. To improve selectivity along the ore/waste contacts, however, mining in some areas will use five metre benches. The material from low-grade piles is rehandled and hauled to the processing plant following a blending strategy. Accesses and ramps are 15 m wide with a double lane and a 10% maximum gradient.

The average haulage distance for ore and waste during the LOM varies from 2.4 km to 3.4 km for Paiol, from 1.2 km to 3.2 km for Cata Funda, and from 1.4 km to 2.3 km for Vira Saia.

### 1.3.9 Processing and Recovery Methods

The Almas plant has a nominal processing capacity of 5,479 tpd, or two million tonnes per annum. Since its inception, the Almas plant has been achieving annual overall recoveries between 88% and 92% design capacity, averaging 90%. The process flowsheet includes primary crushing, ball mill grinding, gravity circuit, thickening, cyanide leaching, CIL, carbon elution, gold electrowinning, and smelting. The tailings are conveyed by gravity to a detoxification unit for cyanide destruction and then are pumped to the TSF.

### 1.3.10 Infrastructure

The Almas Project includes the Almas plant and tailings disposal area. Electrical power is obtained from the national grid. Ancillary buildings located near the mine entrance include the gatehouse with a reception area and waiting room, administration building, maintenance shops, cafeteria, warehouse, change room, first aid room, and compressor room.

The explosives warehouse is located 1.2 km from the Almas Project, in compliance with the Brazilian Army's regulations. There is no camp at the Almas site.

Additional ancillary buildings are located near the Almas plant and include an office building, a laboratory, warehousing, and a small maintenance shop.

### 1.3.11 Market Studies

Gold is freely traded on global markets. Gold sales from the Project do not rely on specific sales agreements or long-term contracts, allowing Aura to capitalize on prevailing market conditions.

- The Mineral Reserve estimates are based on a long-term gold price of US$2,000/oz, reflecting market trends. The Mineral Resource estimates are based on a long-term gold price of US$2,500/oz.
- The price assumptions align with consensus forecasts for gold in the medium and long terms.
- The metal prices used in this TRS for the economic analysis are based on CIBC Analyst Market Consensus Commodity Forecasts from March 2025, with a gold long term price of: US$2,212/oz Au.
- Almas does not engage in hedging or forward sales contracts, ensuring exposure to spot market prices for gold.
- Almas has established agreements with contractors and suppliers to support its operational needs, including Mining Services (drill, blast, loading and haulage) and Energy.

### 1.3.12 Environmental Studies, Permitting, and Plans, Negotiations, or Agreements with Local Individuals or Groups

The Paiol site is approximately 400 metres above sea level (MASL), approximately 17 km south of the population centre of Almas, in the state of Tocantins. Overland travel time from the state capital of Palmas to Almas is three to four hours via paved highways and Paiol is accessed via unpaved road from Almas. The Vira Saia and Cata Funda sites are north of Paiol, approximately 10 km and five kilometres south of Almas, respectively. Dianópolis, a regional commercial hub where many mine employees reside, is approximately 45 km east of Almas along state highway TO-040. The three deposits are in the catchment of the Manuel Alves River.

The climate is tropical with a mean annual air temperature of between 22ºC and 26ºC and little variation from month to month. The climate is characterized by distinct wet and dry seasons, with the wet season extending from October to March and the dry season from April to September. Average annual rainfall is approximately 1,700 mm. Operations can take place year round.

The Project area lies wholly within the Cerrado biome, a predominantly savanna ecosystem. In much of Tocantins including the Almas area, agriculture is the predominant land use, and deforestation due to agricultural expansion—including for soybean farming, cattle ranching, and the cultivation of sugarcane—is a significant cause of habitat loss and environmental degradation. Agricultural development is extensive in the area between the community of Almas and the Project site. Locally, the impacts of past mining and ongoing artisanal mining (*garimpos*) activity are evident, with little natural habitat remaining.

Geochemical studies concluded that the risk of development of ARD/ML is low at Almas. SLR's observations during the site visit in November 2024 are consistent with this conclusion. In addition, the SLR QP notes that the water quality in the Paiol pit lake prior to it being drained was good and that the lake supported fish.

Slurried process plant tailings are discharged to an engineered TSF for permanent storage. The TSF is located approximately 2.5 km southeast of the process plant. As designed and permitted, the TSF has an ultimate capacity of 15 $Mm^3$ of tailings in storage. Should additional capacity be

required, Aura plans to utilize in-pit tailings disposal in the mined-out Vira Saia pit, which will provide capacity for additional storage of approximately six million cubic metres of tailings.

The engineer of record (EOR) for the TSF is consultancy GeoSafe Engenharia (GeoSafe). The most recent inspection report concluded that the facility is in good operating condition and that the stability conditions satisfy the criteria established in applicable Brazilian regulations. The SLR QP relies on the conclusions of GeoSafe monitoring report and provides no conclusions or opinions regarding the stability of the TSF.

The process plant operates in closed circuit with the TSF, with inputs to the facility in the form of tailings supernatant and rainfall approximately balancing losses in the form of evaporation (from ponded water and saturated tailings beaches) and water taken up into permanent storage in the pores of the tailings solids. The process plant draws fresh makeup water from the Manuel Aves River under permit. Excess water accumulating in the open pit is monitored and discharged under permit to the receiving environment. At times, the volume of excess water to be discharged has exceeded the permit limit and a permit amendment may be required.

Community engagement activities date back to 2010 when consultancy Mediação Social e Sustentabilidade collected socioeconomic baseline data, carried out socioeconomic assessments and stakeholder mapping, and developed a social communication plan. Aura has continued with community engagement activities since initiating construction at Paiol, including updating the stakeholder map and communications plan, implementing a socioeconomic diagnostic exercise, and initiating a community investment program focused principally on the town of Almas. The SLR QP understands that there are no formal impact-benefit agreements (IBAs) in place with Almas or other local communities.

Aura has made a concerted effort to recruit women to the Almas operations and informed SLR during the site visit that the workforce is currently 30% female.

The most recent mine closure plan (MCP) for the Almas Project is dated November 2022, and was prepared on behalf of Aura by consultancy Mineral Engenharia e Meio Ambiente in accordance with applicable legal requirements. The MCP considers a nine year process including one year pre-closure, two years of active closure, and six years of post-closure monitoring and maintenance.

The MCP adopts a conventional approach to mine closure and specifies that disturbed areas will be revegetated to limit erosion and promote physical stability, and that native plants will be planted in “nuclei” to promote generating a Cerrado-like environment.

The undiscounted closure cost estimate provided in the MCP is approximately US$9.8 million, incorporating the Paiol and Cata Funda sites but not Vira Saia.

### 1.3.13 Capital and Operating Cost Estimates

The Almas Project started commercial production in Q3 2023; therefore, capital and operating cost estimates were prepared based on actuals for 2024 and the current operating budget for 2025. Aura’s technical team supplied these costs to SLR. The SLR QP reviewed these costs and considers them reasonable for the planned production schedule. All capital and operating costs are expressed in Q4 2024 US dollars and are based on an exchange rate of R$5.84 per US$1.00.

The capital costs required to achieve the Almas Mineral Reserve LOM production were estimated by Aura and reviewed by SLR. Since Paiol is an operating pit, there are no pre-production capital costs. Capital costs for the Paiol, Cata Funda, and Vira Saia pits are categorized as expansion capital and sustaining capital. Based on the SLR QP’s review, the

capital costs are estimated to the equivalent of an Association for the Advancement of Cost Engineering (AACE) Class 3 estimate with an accuracy range of -15% to +20%.

The expansion capital costs are for plant expansion phase 2 in year 2025 and total US$4.8 million

Total LOM sustaining capital costs are estimated to be US$74.9 million between years 2025 and 2034. The sustaining capital costs include:

- Mine Sustaining
- Mine capitalized waste stripping
- Plant Sustaining
- Tailing dams
- Other sustaining

Mine closure and concurrent reclamation costs for the LOM scenario presented in this TRS are based on Aura's environmental reclamation estimate for the Almas Project, escalated to year 2024, and totalling US$14.1 million. SLR notes that this closure cost estimate is higher than the cost estimate dated November 2022 included in subsection 1.3.12. The SLR QP considers the higher closure and reclamation costs included in this section and in the LOM cashflow to reflect a more realistic approach than the closure estimate from November 2022, given costs have been escalated to 2024 US dollars and have been adjusted to consider costs for the three deposits.

The Almas operating costs were estimated by Aura and reviewed by SLR.

The site operating costs total US$680 million over the LOM, averaging US$70 million per year (considering years between 2025 and 2033, which are years at full production.

The unit operating cost over the mine life is US$34.51/t milled:

- Open pit mining costs: US$23.34/t milled, or US$2.48/t mined
- Mine capitalized stripping costs: -US$2.54/t milled
- Mine stockpile reclaiming costs: US$0.10/t milled
- Stockpile Change in Inventory Cost: US$0.71/t milled
- Processing costs: US$9.42/t milled
- General and administration (G&A) and overhead costs: US$3.48/t milled or US$6.8 million per year

The mining costs include all labour, materials and supplies, mining contractors, and technical support costs to complete open pit mining related activities such as drilling, blasting, loading, and hauling. The processing costs include all labour, operating and maintenance activities, power, reagents, and services to complete processing related activities. The administrative expense includes all labour and support services to complete administrative, finance, human resources, environmental, safety, supply chain, security, site services, camp and kitchen, and travel related activities.





# 2.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by Aura Minerals Inc. (Aura) to prepare an independent Technical Report Summary (TRS) on the Almas Project (Almas or the Project), located in Tocantins State, Brazil. The purpose of this TRS is to support the disclosure of the December 31, 2024 Mineral Resource and Mineral Reserve estimates at Almas and to support a listing on the New York Stock Exchange (NYSE) by Aura. This TRS conforms to United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

Aura is a mid-tier gold and copper producer listed on the Toronto Stock Exchange (TSX) under the symbol ORA, the Brazilian Stock Exchange (B3) as AURA33, and the OTC Markets (OTCQX) under ORAAF. Aura operates in Honduras, Brazil, and Mexico. Its exploration projects are located in Brazil, Guatemala, and Colombia.

Aura acquired the Project when Aura entered into a merger with the Project's previous owner, Rio Novo Mineração Ltda. (Rio Novo), in 2018. The Project hosts three gold deposits: Paiol, Cata Funda, and Vira Saia, which are situated along a 15 kilometre (km) corridor of the Almas Greenstone Belt. All three gold deposits are orogenic in nature and are considered amenable to open pit mining. Aura initiated commercial production of the Paiol deposit in 2023. Annual plant production targets two million tonnes per annum (Mtpa) and produces gold doré bars from ore processed through a carbon-in-leach (CIL) process with gold electrowinning and smelting. In 2024, the mine produced 54,003 ounces (oz) of gold from 1,637,574 tonnes (t) of mill feed with an average gold head grade of 1.13 grams per tonne (g/t).

The Project also includes a historical open pit and a spent heap leach stockpile at Paiol that are from when the Paiol deposit was operated by Companhia VALE do Rio Doce (VALE) from 1996 until 2001 as well as several small-scale artisanal gold mining sites, locally termed *garimpos*, whose development preceded the exploration activities of Rio Novo.

## 2.1 Site Visits

The SLR Qualified Persons (QP) visited the Project from November 4 to 8, 2024. The purpose of the visit was to validate the data, observe mining operations, and assess the current state of the Project to ensure the accuracy of this TRS.

- SLR's geology QP toured operational areas, project offices, process plant and mine laboratory; inspected various parts of the property geology and drilling sites to check coordinates; inspected the core handling facility; reviewed the sampling procedures; and interviewed key personnel involved in the collection, interpretation, and processing of geological data and preparation of the Mineral Resource estimates. Additionally, the QP checked the logs of seven drill holes and visually verified that assays from the database are consistent with the metal content in the same intervals.
- SLR's mining QP reviewed mining operations, equipment utilization, and open pit layouts. The SLR QP also observed drilling, blasting, loading, and hauling activities in active pits and reviewed the crushing station and metallurgical plant. The QP also verified slope stability measures and other operational safety protocols.

- SLR's environmental and social issues specialist assessed environmental compliance, social programs, and community interactions and inspected mineral residue management practices and the water management program.

The findings from this visit have been incorporated into the report to ensure that they reflect the Almas Project's current operational and environmental conditions.

## 2.2 Sources of Information

During the preparation of this TRS, discussions were held with Aura personnel listed below.

- Farshid Ghazanfari, Director of Geology and Resources, Aura - Corporate
- Weydster Douglas Viana Pereira, Process Engineer, Almas Project
- Bruno Silveira Conceição, Specialist Tech. Services – Aura
- Belisário Ascarza Flores, Mine Planning Specialist, Almas Project
- Gleidson D. Santos, Database Manager, Aura
- Tainan P. S. Moreira, Environmental Engineer, Almas Project
- Augusto Fonseca, Exploration Coordinator, Almas Project
- Carolina Rocha, HR Coordinator, Almas Project
- João Paulo Silva de Freitas, Geotechnical Specialist, Almas Project
- Wanderlucio Gomes Martins, Operations Manager, Almas Project
- Debora Ellen Santos Ribeiro, Geoscience Coordinator, Almas Project
- Julliana Maisy Pinto da Silva, Geoscience Engineer, Almas Project
- Marina Del Mestre, Process Engineer, Almas Project
- Handerson Alves Silva, Process Engineer, Almas Project
- Thiago Rocha Souza, Plant Operation Coordinator, Almas Project

This initial TRS updates the NI 43-101 Technical Report prepared and filed by Aura in Canada on SEDAR for the Almas Project with an effective date of December 31, 2020 (Ghazanfari et al. 2021). The previous report was prepared in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Key updates include:

- Update the economic figures, including commodity price, costs, and exchange rate.
- Update of the Paiol and Vira Saia block models.
- Revision of Mineral Reserve and Mineral Resource estimates.
- Assessment of environmental and social developments impacting the Project's operational framework.
- Modifications to mine plans reflecting geological and operational updates.

The documentation reviewed, and other sources of information, are listed at the end of this TRS in Section 24.0 References.

## 2.3 List of Abbreviations

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

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

# 3.0 Property Description

## 3.1 Location

The Project is located in the municipality of Almas, in Tocantins State, Brazil (Figure 3-1). The Project area lies south of Almas, a small town approximately 300 km southeast of Palmas, the Tocantins state capital, and 45 km west of Dianópolis, a regional commercial centre.

The Almas Project includes the Paiol, Cata Funda, and Vira Saia gold deposits that are distributed along a 15 km long segment of the Almas Greenstone Belt, south of the town of Almas. This segment of the belt contains numerous small-scale artisanal gold mining sites, locally termed *garimpos*, whose development preceded Rio Novo's exploration activities. The historical *garimpos* are associated with metabasic rocks, similar to the Paiol and Cata Funda deposits, while the Vira Saia deposit is hosted in mylonitic granodiorite west of the metabasic rocks.

The approximate centres of the three deposits are given below in coordinates referenced to the South American Datum (1969), UTM Zone 23:

- Paiol: 265025.3 m East, 8705719.1 m North
- Cata Funda: 264579.4 m East, 8719215.5 m North
- Vira Saia: 264792.7 m East, 8710681.9 m North

The Almas Project includes a historical heap leach pile, which was created during VALE's operation from 1996 until 2001.

**Figure 3-1: Project Location**




*Source: SLR 2024.*

## 3.2 Land Tenure

The Project comprises a total of 57 mineral rights holdings covering an area of 233,742.80 ha granted by the Agência Nacional de Mineração (ANM), including two mining concessions, two mining concession applications, and 53 exploration authorizations. The four mining concessions issued for the three mineral deposits that are the subject of this TRS are as follows:

- Paiol: Mining concession (ANM number 860.128/1983). Mined in the past by VALE, and currently in production
- Cata Funda: Mining concession (ANM number 862.224/1980). Undeveloped property.
- Vira Saia: Mining concession applications (ANM numbers 864.083/2006 and 860.373/1988).

Figure 3-2 shows all of the mineral rights including the mining concessions, mining concession applications, and exploration authorizations. The status of Aura's exploration authorizations, mining concession applications, and mining concessions as of December 31, 2024, is summarized in Table 3-1.

The Almas Project concessions are in good standing with regard to Aura's obligations under the Brazilian Mining Code.

**Table 3-1: Claim Status, December 31, 2024**

| ANM No. | Area (ha) | Status | Comments |
|---|---|---|---|
| 864.162/2022 | 999.76 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed-07/31/2024 |
| 864.004/2022 | 4,782.79 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed-07/31/2024 |
| 864.307/2021 | 184.98 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.306/2021 | 990.5 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.305/2021 | 2,083.18 | Exploration Authorization | Extension Requested- ANM Evaluating-9/18/2024 |
| 864.304/2021 | 9,714.38 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.303/2021 | 839.72 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.302/2021 | 5,016.67 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.301/2021 | 4,479.84 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.300/2021 | 9,609.03 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.299/2021 | 7,890.31 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.298/2021 | 638.41 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.297/2021 | 856.74 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.267/2021 | 3,398.63 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.266/2021 | 2,418.9 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.265/2021 | 4,559.75 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |





| ANM No. | Area (ha) | Status | Comments |
|---|---|---|---|
| 864.263/2021 | 8,653.8 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.261/2021 | 4,492.32 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.260/2021 | 1,752.17 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.259/2021 | 1,149.57 | Exploration Authorization | Extension Requested- ANM Evaluating-08/20/2024 |
| 864.258/2021 | 1,181.68 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.257/2021 | 9,790.32 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.256/2021 | 3,171.69 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.255/2021 | 488.31 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.254/2021 | 4,029.43 | Exploration Authorization | Extension Requested- ANM Evaluating-08/19/2024 |
| 864.253/2021 | 7,050.32 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.252/2021 | 1,924.99 | Exploration Authorization | Final Exploration Report- Protocol Registered-10/21/2024 |
| 864.036/2018 | 9,027.88 | Exploration Authorization | 3-Year Extension – Officially Published |
| 864.011/2018 | 8,654.92 | Exploration Authorization | 3-Year Extension – Officially Published |
| 864.010/2018 | 8,146.21 | Exploration Authorization | 3-Year Extension – Officially Published |
| 864.008/2018 | 2,678.78 | Exploration Authorization | 3-Year Extension– Officially Published |
| 864.005/2018 | 6,604.67 | Exploration Authorization | Extension Requested- ANM Evaluating- 07/03/2023 |
| 864.004/2018 | 6,784.71 | Exploration Authorization | Extension Requested- ANM Evaluating- 03/06/2023 |
| 864.003/2018 | 1,700.24 | Exploration Authorization | Extension Requested- ANM Evaluating- 03/06/2023 |
| 864.002/2018 | 178.62 | Exploration Authorization | Extension Requested- ANM Evaluating- 03/06/2023 |
| 864.027/2017 | 49.55 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.299/2016 | 980.59 | Exploration Authorization | 3-Year Extension of Permit – Officially Published-02/03/2025 |
| 864.246/2016 | 5,298.31 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.019/2016 | 6691.32 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.011/2016 | 361.14 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.008/2016 | 445.47 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.004/2016 | 630.53 | Exploration Authorization | Extension Requested- ANM Evaluating- 06/20/2022 |
| 864.226/2015 | 4,402.21 | Exploration Authorization | Expiry Date Extended due to Covid-19- 10/01/2021 |
| 864.026/2015 | 8,927.47 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed-04/12/2019 |
| 864.041/2013 | 8,919.92 | Exploration Authorization | Fine Debt Instalment- Payment Completed-10/04/2019 |





| ANM No. | Area (ha) | Status | Comments |
|---|---|---|---|
| 864.015/2013 | 6,376.66 | Exploration Authorization | Fine Debt Instalment- Payment Completed- 10/04/2019 |
| 864.014/2013 | 7,717.38 | Exploration Authorization | Fine Debt Instalment- Payment Completed- 10/04/2019 |
| 864.110/2012 | 4,701.64 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed 04/12/2019 |
| 864.417/2011 | 508.87 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed 04/12/2019 |
| 864.416/2011 | 1,458.22 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed 04/12/2019 |
| 864.415/2011 | 2,991.38 | Exploration Authorization | Annual Mining Fee (TAH)- Payment Completed 04/12/2019 |
| 864.143/2011 | 7,550.37 | Exploration Authorization | Request Extension of Deadline to Comply with Requirement- 10/23/2024 |
| 864.083/2006 | 1,759.29 | Application for Mining Concession (1) | Environmental License – Protocol Registered with the Regulatory Agency- 10/23/2024 |
| 864.613/1994 | 6,186.8 | Exploration Authorization | Reconsideration Request- 12/20/2024 |
| 860.373/1988 | 2,724.46 | Application for Mining Concession (1) | Officially Published Requirement with Deadline- 03/25/2025 |
| 860.128/1983 | 5,175 | Mining Concession (2) | Annual Mining Report (RAL) for Base Year Submitted- |
| 862.224/1980 | 3,962 | Mining Concession (3) | Annual Mining Report (RAL) for Base Year Submitted- |
| Total | 233,742.8 | | |

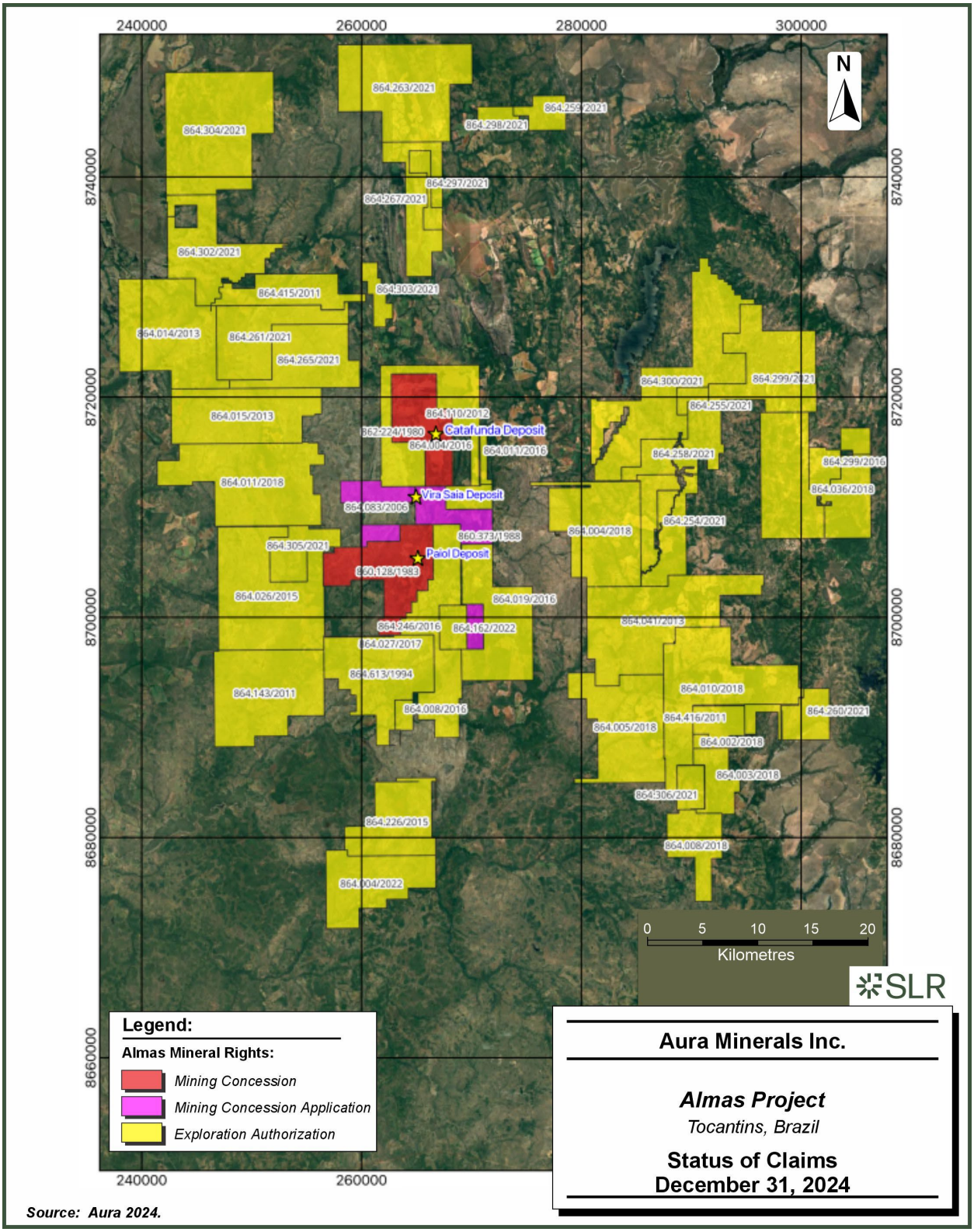
Notes:

(1) Vira Saia
(2) Paiol
(3) Cata Funda
(4) Exploration Authorizations are valid for a maximum of three years, with a maximum extension equal to the initial period, issued at the discretion of the Brazilian National Mining Agency (Agência Nacional de Mineração, or ANM).
(5) Mining concessions are granted by the Brazilian Ministry of Mines and Energy, are renewable annually, and have no set expiry date.





**Figure 3-2: Status of Claims, December 31, 2024**




*Source: Aura 2024.*

### 3.2.1 Mineral and Surface Rights in Brazil

In Brazil, the ANM issues all mining leases (*Portarias de Lavra*) and exploration permits (*Autorizações de Pesquisa*). Mining leases are renewable annually and have no set expiry date. Each year, lease holders are required to provide information to ANM summarizing mine production statistics to maintain the mining leases and exploration concessions in good standing.

Exploration permits are granted for a period of three years. Once a company has applied for an exploration permit, the applicant holds a priority right to the concession area if there is no previous ownership. The owner of the permit can apply to have the exploration permit renewed for a one time extension period up to three years. The fee for holding the permits during this initial three year phase is Brazilian Reais (R$)4.09/ha, to be paid annually. The fee for holding the permits during the second phase is R$6.13/ha, to be paid annually. Renewal is at the sole discretion of ANM. Granted exploration permits are published in the Official Gazette of the Republic (*Diário Oficial da União* [DOU]), which lists individual concessions and their change in status. The exploration permit grants the owner the sub-surface mineral rights. Surface rights can be applied for if the land is not owned by a third party.

The owner of an exploration concession is guaranteed, by law, access to perform exploration field work, provided adequate compensation is paid to third party landowners and the owner accepts all environmental liabilities resulting from the exploration work. The exploration permits are subject to annual fees based on the size of the concession.

In instances where third party landowners have denied surface access to an exploration concession, the owner maintains full title to the concession until such time as the issue of access is negotiated or legally enforced by the courts. Access is guaranteed under law, and the owner of an exploration permit will eventually gain easements to access the concession.

Once access is obtained, the owner has three years (or six years after a renewal) to submit an Exploration Report (ER) on the concession. The owner of an exploration concession is obligated to explore the mineral potential of the concession and submit an ER to ANM summarizing the results of the fieldwork and providing conclusions as to the economic viability of the mineralization. The content and structure of the report is dictated by ANM, and a person with suitable professional qualifications must prepare the report.

ANM will review the ER for the concessions and will either:

- Approve the report, provided that ANM concurs with its conclusions regarding the potential to exploit the mineralization.
- Dismiss the report if it does not address all the requirements, in which case the owner is given a deadline to correct any identified deficiencies.
- Postpone a decision on the report should if it is determined that exploitation of the deposits is temporarily non-economic.

Approval, dismissal, or postponement of the ER is at the discretion of the ANM. There is no set time limit for the ANM to complete the review of the ER. The owner is notified of the ANM's decision on the ER and the decision ID is published in the DOU.

On ANM approval of the ER, the owner of an exploration concession has one year to apply for a mining lease. The application must include a detailed Development Plan (DP) outlining how the deposit will be mined.





ANM reviews the DP and decides whether or not to grant the application. The decision is at the discretion of ANM, but approval is virtually assured unless development of the project is considered harmful to the public or the development of the project compromises interests more relevant than industrial exploitation. Should the application for a mining lease be denied for exploration concessions for which the ER has been approved, the owner is entitled to government compensation.

On approval of the DP, ANM grants the mining licence, which remains in force until the depletion of the mineral resource. Mining concessions remain in good standing subject to submission of annual production reports and payments of royalties to the federal government.

## 3.3 Encumbrances

The Almas Project operates in compliance with the mining and environmental laws and regulations at the federal and state levels. Mining activities in Brazil are governed by the Brazilian Federal Constitution of 1988 (the Brazilian Federal Constitution), the Brazilian Mining Code (Federal Decree-Law No. 227/1967), and various other decrees, laws, ordinances, and regulations such as the Decree No. 9.406/2018 which renews the regulation of the Brazilian Mining Code and associated environmental regulations. Almas holds all necessary permits for mining, processing, and associated activities, supported by approved Environmental Impact Assessments (EIAs) and environmental licences. Key licences to operate and environmental and other permits relating to the Almas Project are discussed in Section 17.3 of this TRS.

## 3.4 Royalties and Exploitation Taxes

Almas is subject to a Mining Tax over Sales at 1.8% Net Smelter Return (NSR; treated as a royalty). This tax on sales is comprised of:

- The ANM imposes a 1.5% royalty on any proposed gold production, referred to as the Financial Compensation for the Exploitation of Mineral Resources (CFEM). This royalty is distributed among the municipality, the state, and the federal government.
- A 0.3% FDE (Tocantins Economic Development Fund) is also applied, totaling a 1.8% tax on sales.

Additionally, a 1.2% royalty on revenue from the sale of any mineral production, minus refining charges, transportation and insurance costs, taxes, and sales charges, must be paid by Rio Novo to Mineração Santa Elina Indústria e Comércio S.A. (Santa Elina) for production from tenements transferred from Santa Elina to Rio Novo at the time of the initial public offering (IPO). For the purposes of this TRS, this will apply to production from the Paiol and Cata Funda deposits.

For the use of the properties, Aura will be responsible for paying Companhia de Mineração do Tocantins (Mineratins) the landowner's share of the mining results, under the terms of Article 11, paragraph “b” of the Mining Code, corresponding to 50% of the total amount owed by Aura by way of CFEM arising from the mining of gold and other minerals, which applies to mining lease no. 860.128/1983, referring to the ore(s) actually mined and extracted from the Project, as specified in the contract between Aura and Mineratins.

Production from the Vira Saia deposit will be subject to a 2.5% NSR royalty payable to Mineradora Santo Expedito Ltda. and Terra Goyana Mineradora Ltda.

Based on the above, Almas property is subject to the following royalties:

- Paiol at 1.95% NSR - 1.20% NSR mining rights and 0.75% surface royalties (50% of CFEM),
- Cata Funda at 3.25% NSR - 2.50% mining rights and 0.75% surface royalties (50% of CFEM).
- Vira Saia at 3.25% NSR - 2.50% mining rights and 0.75% surface royalties (50% of CFEM).

Additionally, the Brazilian Corporate Income Tax is set at 34% but Aura is currently benefiting from the tax incentives provided by Superintendência do Desenvolvimento da Amazônia (SUDAM), which grants a reduced corporate income tax rate of 15% for eligible projects located within the Legal Amazon region, including Almas. Given that the Project continues to meet the criteria established by SUDAM and the Company has maintained compliance with program requirements, it is reasonable to assume the continuation of the 15% income tax rate throughout the Life of Mine (LOM) as forecasted in this TRS.

## 3.5 Other Significant Factors and Risks

The SLR QP is not aware of any environmental liabilities on the property, aside from those described in the context of closure liabilities in the Mine Closure Plan (Section 17.4). Aura has all required permits to conduct the proposed work on the property and is in the process of obtaining environmental approvals for the mining of the Cata Funda and Vira Saia deposits. The SLR QP is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

# 4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

## 4.1 Accessibility

The Paiol mine is situated in southeastern Tocantins State in the municipality of Almas, 17 km south of the city of Almas (population 7,000) in central Brazil. The Vira Saia and Cata Funda sites are north of Paiol, approximately 10 km and five kilometres south of Almas, respectively The Almas town site is accessed by state highways TO-010, TO-070, and TO-050 from the state capital of Palmas, via Porto Nacional to Natividade, a trip of approximately 300 km and three to four hours by car.

Palmas (population 306,000) has facilities for industrial support as well as state governmental agencies. Palmas supports a regional airport with scheduled commercial service to Brasilia and São Paulo. The principal commercial centre in the Almas region is Dianópolis, 40 km east of the Almas town site.

Barreiras (population 156,000) and Luiz Eduardo Magalhães (population 90,000) are located east of Almas, at distances of 280 km and 190 km, respectively. Along the BR-242 and TO-040 highways are cities with good infrastructure, service companies, commerce, and industries.

There are commercial flight options from Barreiras airport, with flights to Brasília, Belo Horizonte, and Salvador. Barreiras is approximately four hours travel by car to Almas. From the town of Almas, the three deposits may be reached by all-weather gravel roads, well maintained by the local government. The 17 km distance from Almas to the Paiol mine is traversed by light vehicle in approximately 20 minutes.

Almas may also be reached by chartered aircraft as the local government maintains a small gravel airstrip south of the town site.

At present, there is no rail service to the Almas area.

## 4.2 Climate

The climate in the Almas region is characterized by two seasons with relatively constant temperatures but varying degrees of precipitation. The Project area is tropical with average monthly temperatures varying from 26°C in the dry season to 22°C in the wet season. September is the hottest month, with an average monthly temperature of 28°C. July is typically the coolest month, with an average monthly temperature of 25.4°C.

The historical average annual rainfall is approximately 1,700 mm, most of which falls in the rainy season, October to March, which is followed by the winter dry season, April to September. Climate information comes from Instituto Nacional de Meteorologia (INMET), which is the national meteorological organization of Brazil. Operation and exploration can take place year round at Almas.

## 4.3 Local Resources and Infrastructure

The Project area is sparsely populated largely owing to the agricultural nature of the area. Ranch houses from dispersed cattle ranching operations are built in the Project area.

The town of Almas has few industrial services, primarily small mechanical, machine, and repair shops. Commercial services include small grocery and department stores, as well as

restaurants and small hotels. Public services include a clinic, churches, schools, and local government offices. The principal agricultural products of the region include rice, millet, soy, manioc, and cattle.

Industrial water for the Project is supplied from the Rio Manuel Alves, a westward flowing tributary of the Rio Tocantins and the largest stream in the Project area. Water is drawn at a point south of the tailings storage facility (TSF). River water is pumped to the TSF where it is combined with reclaimed water and pumped to the reclaim water pond located adjacent to the processing plant.

Power supply to the Project is available from the regional electrical utility company, ENERGISA. Locally, power is generated by several hydroelectric plants. A demand in the order of 10 MW is estimated at full milling capacity. Power is supplied by ENERGISA from the Almas substation, located approximately 18 km from Paiol, via a 138 kV overhead power line to a local substation at the plant site, then distributed to the mill and mine facilities by a local network.

## 4.4 Physiography

The Almas Project area lies wholly within the Cerrado ecoregion, a vast woodland savanna in the plateau country of the Central Brazilian Highlands, which extends over large parts of Goiás, Minas Gerais, and Tocantins states. The Cerrado supports diverse tropical fauna and flora. After the Amazonian ecoregion, the Cerrado is the largest of Brazil's major habitats, accounting for approximately 21% of the Brazil's land area.

The Almas Project extends over a landscape that is dominated by agricultural activities. Locally, the impacts of past mining and ongoing *garimpos* activity are evident. Currently the Cerrado savannas are under pressure as more land is converted to agricultural use due to low land prices and increased potential for irrigation from improvements in soil management and irrigation techniques.

The Central Brazilian Highlands comprise an extensive plateau region which forms the divide between Brazil's largest river systems. Elevation of the plateau varies between 750 MASL and 900 MASL with the Paiol site located at approximately 400 MASL. The Project area lies within the major Araguaia-Tocantins river basin, which drains portions of Goiás, Tocantins, Maranhão, and Pará states by flowing northward into Amazonia before reaching the Atlantic Ocean. The rivers in the region are generally not navigable except for short distances.

Tropical forests occur as "islands" in the Cerrado or as riparian forests in the southern part of the Project area where they border small perennial to intermittent streams.

# 5.0 History

Gold mining in the Almas area began in the 1700s during colonial times, when slave labour was used to extract gold from near-surface oxide zones. In more recent times, *garimpeiros* (artisanal miners) expanded earlier excavations.

In 1977, the exploration arm of VALE identified some potentially prospective volcano-sedimentary sequences of Archean age in the region. Further exploration by VALE in the mid- to late-1980s led to discoveries at Cata Funda and Paiol. In 1996, VALE commenced mining at the Paiol deposit.

## 5.1 Prior Ownership

- Project ownership began in 1985 with a joint venture between VALE and Metais de Goiás (METAGO), a mineral exploration company of Goiás state.
- In 1989, exploration work was interrupted when the state of Tocantins was created by dividing Goiás state, preventing METAGO from continuing as a partner in the exploration venture. Work resumed after an agreement was signed between VALE, METAGO, and the state of Tocantins.
- In 2006, VALE transferred the mineral rights, mining license, and environmental permits to Mineração Apu., the predecessor to Rio Novo.
- In 2018, Aura acquired Rio Novo. Mining and processing operations began in 2022 at Paiol.

Table 5-1 summarizes the chronology of ownership.

**Table 5-1: Summary of Ownership of Almas Project**

| Ownership | Period |
|---|---|
| VALE S.A. (CVRD) | 1985 to 2006 |
| Mineração Apuã Ltda. | 2006 to 2010 |
| Rio Novo Ltda. | 2010 to 2018 |
| Aura Minerals Inc. | 2018 to present |

## 5.2 Exploration and Development History

Gold has been the primary target of exploration in the Project area. Discoveries thus far have been made by a combination of mapping and soil sampling followed by drilling. To date, exploration has primarily targeted near-surface gold anomalies and is therefore still in the early stages.

The following material has been slightly modified from Ghazanfari et al. (2021).

Exploration within the Almas Gold Project dates to 1977 when VALE identified prospective terrain in the greenstone belts around Almas. Initially, VALE conducted airborne geophysical surveys and ground based geochemical surveys. During the early 1990s, an airborne geophysical HEM, MAG-GAMA survey was performed by Geomag/Fugro using a helicopter with 250 m line spacing and altitudes of 30 m, 45 m and 60 m. The results of this work were helpful

in identifying areas underlain by basic volcanic rocks, and radiometry helped define hydrothermal alteration zones.

Shortly thereafter, an induced polarization (IP)/resistivity geophysical survey was carried out in two stages. In the first stage, Geomag used the Gradient IP method to cover the entire Almas Belt. The second stage was carried out by Quantec and consisted of TDIP (Real Section) geophysics covering the Paiol deposit and part of the Arroz deposit. This technique yielded data from greater depths (between 300 m and 600 m). The results of the geophysical survey show that the mineralized zone is represented by intermediate values of chargeability (10 mV/V and 25 mV/V) and high values of apparent resistivity (>3,000 ohm/m).

VALE conducted geochemical surveys and geological mapping over the bulk of the area now covering the Almas Gold Project. These surveys were conducted at various intervals, depending on prospectively. Generally large-spaced orientation lines were completed on 500 m to 1,000 m intervals, then in-filled. Then most prospective areas were covered at nominally 25 m to 50 m.

The combination of geophysics, geochemistry and geologic mapping led to the discovery of numerous gold anomalies and nine holes were drilled in the Arroz target. The Paiol deposit was discovered in 1987. The Paiol discovery was significant in that the deposit did not crop out, and the discovery was based on a weak soil anomaly and geophysics.

The geological, geochemical, and geophysical surveys conducted by VALE have been passed on to Rio Novo and then to Aura. The data were collected in a professional and meticulous manner such that the quality is valid for continued use. Rio Novo typically conducted verification surveys on the geochemical data, and often completed infill geochemical surveys to improve on the data.

Rio Novo continued to conduct geological, geochemical, and geophysical surveys during exploration of areas adjacent to the known deposits. These surveys led to the discovery of the Vira Saia deposit in 2011 as well as a few other prospects still in the exploration stage. Rio Novo generally identified prospective areas using a combination of the existing database, plus stream sediment sampling surveys and widely spaced (500+m) orientation lines of geological mapping and sampling. Once identified, a prospective target is mapped in detail (1:500 or 1:1,000 scales) and geochemical soil and rock chip samples are taken. Further exploration will include trenching and possibly drilling.

The major exploration milestones include:

- 1985: VALE and METAGO, agreed to jointly explore the area.
- 1985 to 1987: Several targets were identified: Paiol, Cata Funda, Vira Saia, Morro do Carneiro, Refresco, Vieira, Ijuí, Mateus Lopes, and Cemitério.
- 1986: Initial drilling and discovery of the Cata Funda deposit.
- 1987: Discovery of Paiol deposit.
- 1996: VALE reports initial resource estimates for the Paiol deposit.
- 1996 to 2001: VALE conducts mining of the Paiol deposit.
- 2006 – Mineração Apuã Ltda. (Mineração Apuã) commences exploration.
- 2008 to 2010: Rio Novo conducts confirmation drilling for Almas deposits, resulting in a Mineral Resource estimate, reported in an NI 43- 401 Technical Report, in February 2010.

- 2010 to 2011: Core drilling initiated by Rio Novo for confirmation and expansion of the Paiol and Cata Funda resource areas as well as exploration of nearby targets.
- 2011: Discovery of the Vira Saia deposit five kilometres north of Paiol.
- 2011 to 2012: Infill drilling and Mineral Resource modelling at Vira Saia brought additional Mineral Resources and enhanced the overall Almas Project, leading to completion of a Preliminary Economic Assessment (PEA) in March 2012.
- 2013 and 2016: Runge Pincock Minarco (RPM) completed two feasibility study level reports (NI 43-101) (RPM 2016).
- 2018: Aura acquired the Almas Project through the acquisition of Rio Novo.

## 5.3 Past Production

From 1996 to 2001, VALE operated an open pit and heap leach operation at Paiol. The VALE production history and closure of the Paiol mine is summarized as follows:

- June 1996 – The Paiol mine began operation, producing 32.5 koz at 2.42 g/t Au at an Au recovery of 66.41%.
- March 2001 – Operations at Paiol were suspended due to the low gold price of US$279/oz and the mine closed after four years and nine months of operation. During the production period, 161.03 koz of gold were mined, and 86.77 koz Au were produced for sale. Final production figures are presented in Table 5-2.
- 2001 – All installations were dismantled and disposed of, and the site was reclaimed in compliance with the requirements of the state environmental authority
- 2001 to 2003 – VALE changed the mining licence status with DNPM to one of “indefinite suspension,” which allows resumption of operations at short notice.
- 2006 – VALE transferred the mineral rights, mining licence, and environmental permits to Mineração Apuã, the predecessor of Rio Novo.

**Table 5-2: Paiol Historical Mine Production - 1996 to 2001**

| Description | Unit | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total |
|---|---|---|---|---|---|---|---|---|
| Ore Processed by Heap Leach | t | 418,248 | 455,892 | 417,240 | 383,508 | 344,736 | 15,027 | 2,034,651 |
| Au Grade | g/t | 2.42 | 2.21 | 2.74 | 2.62 | 2.28 | 2.52 | 2.4 |
| Gold Content | g | 1,012,160 | 1,007,521 | 1,143,238 | 1,004,791 | 785,998 | 37,868 | 4,991,576 |
| Recovered Gold | g | 672,175 | 589,268 | 510,949 | 497,256 | 410,551 | 19,260 | 2,699,459 |
| Recovered Gold | oz | 21,613 | 18,948 | 16,429 | 15,989 | 13,201 | 619 | 86,799 |
| Metallurgical Recovery of Gold | % | 66.41 | 58.49 | 44.69 | 49.49 | 52.23 | 50.86 | 54.08 |
| Silver Production | g | 45,863 | 51,060 | 43,947 | 37,930 | 33,917 | 387 | 213,101 |
| Gold Left in Heap Leach | g | 399,985 | 418,253 | 632,289 | 507,535 | 375,447 | 18,608 | 2,352,117 |
| Grade of Gold in Heap Leach | g/t | 0.96 | 0.92 | 1.52 | 1.32 | 1.09 | 1.24 | 1.13 |

| Description | Unit | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total |
|---|---|---|---|---|---|---|---|---|
| Gold Left in Heap Leach | oz | 12,861 | 13,449 | 20,331 | 16,319 | 12,072 | 598 | 75,630 |

Aura began production in 2023 and produced 18,758 ounces of gold in 2023. In 2024, the mine produced 54,003 oz of gold from 1,637,574 t of mill feed with an average gold head grade of 1.13 g/t.

# 6.0 Geological Setting, Mineralization, and Deposit

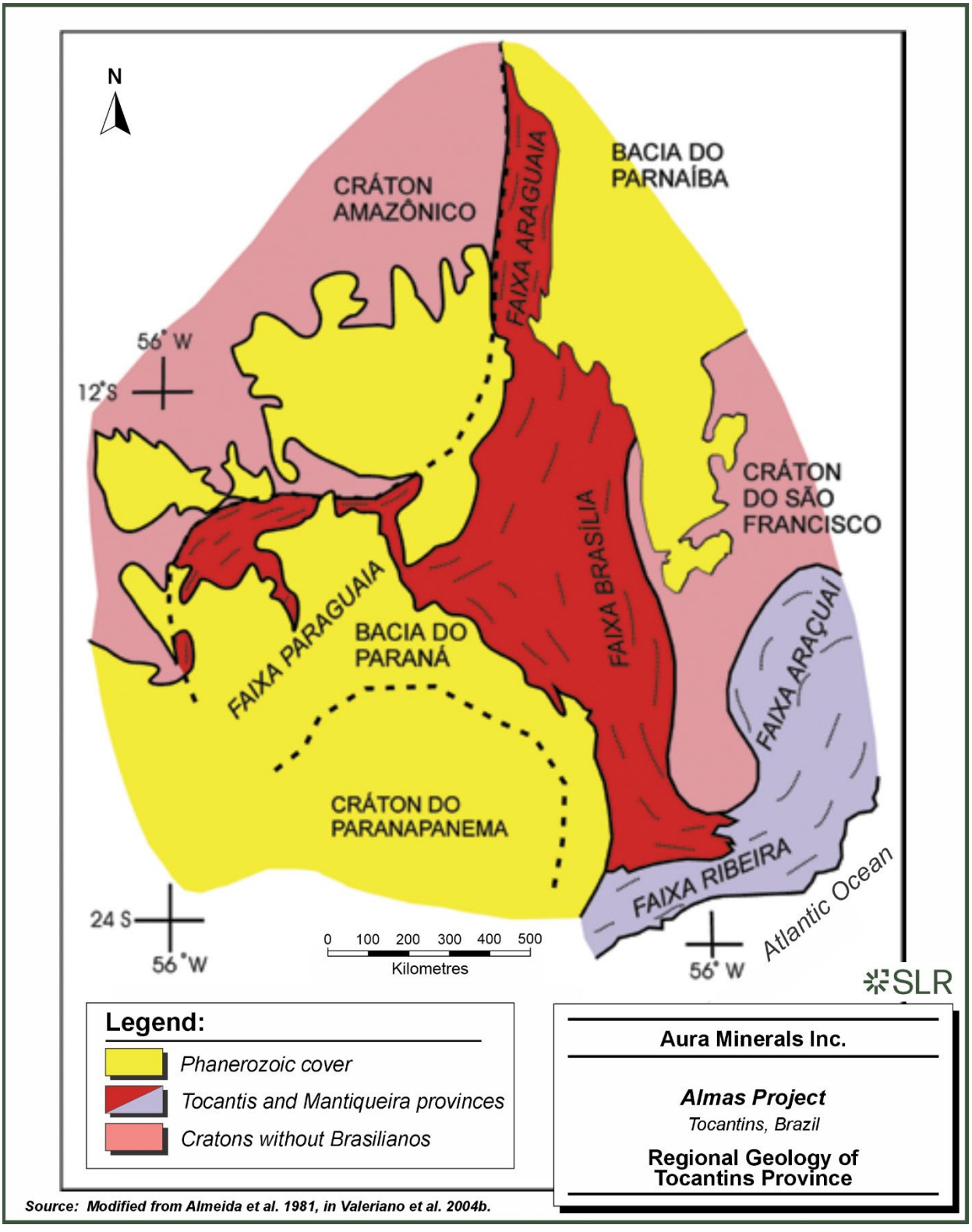
## 6.1 Regional Geology

### 6.1.1 Geological Setting

The Almas region is located within the Tocantins Province (Brasília Belt), which was initially formed through a phase of taphrogenesis, called Tonian Taphrogenesis. This phase was responsible for the rifting and dispersal of the crustal blocks that made up the Rodinia Supercontinent (Brito Neves et al. 1999; Almeida et al. 2000). Subsequently, successive collisional events occurred in a diachronic manner, forming several orogenic belts (e.g., Tocantins and Mantiqueira provinces), consolidating the agglutination of the Gondwana Supercontinent approximately 520 Ma (Trompette, 1994; Unrug, 1996).

The Tocantins Province (Figure 6-1) was formed through a collision between the paleocontinental blocks of the Amazonian, São Francisco-Congo, and Paranapanema, with the latter covered by the Paraná Basin and inferred through gravimetric data (Mantovani and Brito Neves, 2005). The province branches into three orogenic belts: Brasília, which surrounds the entire western and southern limits of the São Francisco Craton, and Araguaia and Paraguay, which border the Amazonian Craton (Almeida 1967; Almeida et al. 1981).

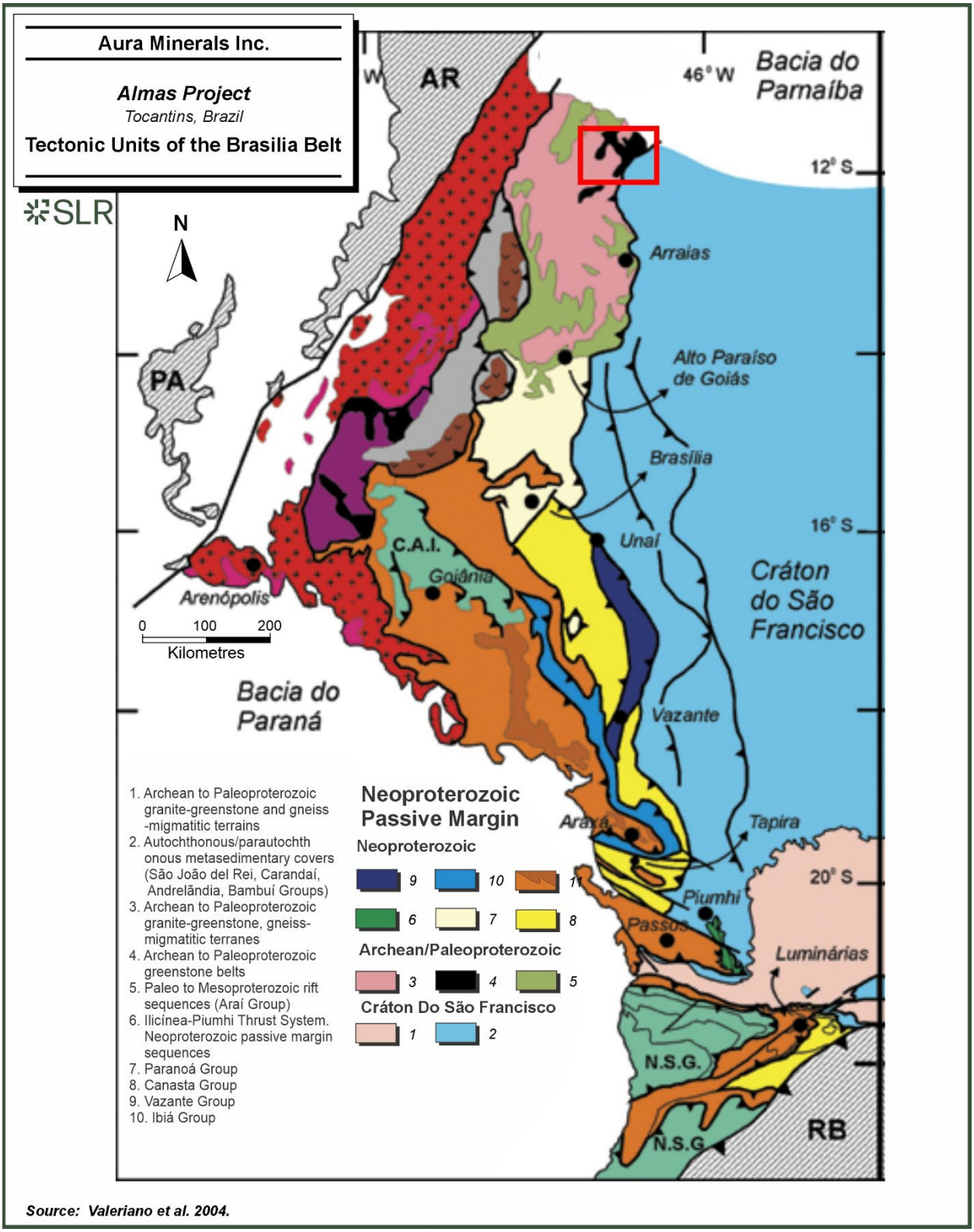
**Figure 6-1: Regional Geology of Tocantins Province**



The Brasília Belt is defined by a set of folded terranes and thrust sheets that converged towards the São Francisco Craton from west to east (Almeida, 1977; Fuck et al. 1993, 1994; Dardenne, 2000; Valeriano et al. 2004). It can be divided into two distinct tectonic segments, due to their differing stratigraphic, structural, tectonic, and metallogenetic frameworks (Fonseca 1996). These segments are the Southern Brasília Belt and the Northern Brasília Belt, both trending northwest-southeast, separated by the Pireneus Megaflexure along the 17°S parallel More precisely, the Almas region is located at the northernmost portion of the northern Brasília Belt and its external domain, in a region where Archean to Paleoproterozoic granite-gneiss terranes and greenstone belts occur, forming the basement of the Brasília Belt, as illustrated in Figure 6-2. The area of study is indicated in the red rectangle.

The Sialic Basement domain of the Brasília Belt consists of two main formations: the Almas-Dianópolis Terrane in southeastern Tocantins (where the Project is located) and northeastern Goiás and the Anápolis-Itauçu Complex in central Goiás (Pimentel et al. 2000). The Almas-Dianópolis Terrane comprises Paleoproterozoic basement, orthogneisses, granitoids, and supracrustal sequences. These rocks represent the sialic basement upon which the Neoproterozoic sedimentary rocks of the Bambuí and Paranoá Groups, as well as the Paleoproterozoic volcanic and sedimentary rocks of the Araí and Natividade Groups, overlie discordantly.

**Figure 6-2: Tectonic Units of the Brasilia Belt**




*Source: Valeriano et al. 2004.*

### 6.1.2 Structural Geology

The Almas region exhibits a geometry similar to that of domes and ridges, with elliptical tonalite-trondhjemite-granodiorite (TTG) domes surrounded by greenstone belts, forming curved contacts. These contacts are often obliterated by directional shear zones (Cruz and Kuyumjian 1999). Borges (1993) attempted to relate these structures to a single tectonic event, however, as noted by some of these shear zones crosscut younger cover rocks, while others are confined to the basement. Pioneering work in the region revealed two phases of deformation: the first phase, a ductile contractional shear event occurring before the Brasiliano orogeny, and a second contractional phase characterized by pure shear with Brasiliano age.

Subsequent studies identified a third, late-stage deformation phase characterized by extensional strain, described as purely ruptile by Ferrari and Choudhuri (2000) and as ductile-ruptile by Kuyumjian and Araújo Filho (2005). This phase is known in both studies for affecting the structures that host mineralization, often with fracturing or boudinage. According to Ferrari and Choudhuri (2004), the first deformational phase (Dn or D1) is ductile, generating foliation marked by the preferential alignment of amphiboles, pyroxenes, and plagioclases with an attitude of 040°-060°/50°-70°, contained within oblique shear zones at medium to high angles. Within the plane of foliation (Sn), a sub-horizontal to oblique low-angle stretching lineation (Ln) is observed. The event Dn+1 (or D2) is nearly coaxial with the previous event and frequently obliterates the Sn foliation. It is characterized by a ductile-ruptile regime, generating transcurrent shear zones with preferred directions of N20°-40°E, and subsidiary directions of N-10°E and N10°-30°W, with sub-horizontal Ln lineation and prominent mylonitic foliation. Dn+1 is identified as the most strongly associated event with gold mineralization in the region (Kuyumjian and Araújo Filho 2005; Ferrari and Choudhuri 2004). The last event, Dn+2 (or D3), generates ruptile quartz vein swarms, locally sheared, sterile, and truncated by joints (Kuyumjian et al. 2012), with metre-scale faults where slickensides occur, trending NE or NNE, with dips of 80° (Ferrari and Choudhuri 2004).

According to Cruz and Kuyumjian (1998), the oldest structures, formed during event Dn, show a subvertical schistosity in the greenstones, with local shear features. This schistosity tends to be parallel to the contact between the greenstones and the granitoid complexes, with tight vertical folds and sub-horizontal mineral lineation. Apophyses of granitoids from the granitoid complexes intrude along the schistosity planes (Sn).

Younger structures include directional shear zones (Dn+1) with dextral movement in a principal direction of N20°-30°E and subsidiary directions of N0°-10°E and N10°-20°W. These Dn+1 shear zones have been considered to be related to the evolution of the TAD (Almas-Dianópolis Terranes) (Borges et al. 1991, Cruz 1993, Borges 1993). Dn+1 shear zones were not observed in the rocks of the Bambuí and Natividade groups in the region (Cruz 1993).

### 6.1.3 Metamorphism

The regional metamorphic parageneses M1 range from amphibolite facies to greenschist facies, with the main regional paragenesis in the metabasalts consisting of amphibole + plagioclase ± chlorite ± epidote. Paragenesis M2 is composed of amphibole + albite + epidote ± white mica ± chlorite, and is present in greenstones, granitoid-gneiss complexes, and basic-ultrabasic intrusions (Alvarez 2007). The composition of the amphibole in M1 parageneses varies from ferric actinolite to tshermakitic hornblende, while the plagioclase varies from albite (An-9) to andesine (An 41-48). According to Cruz and Kuyumjian (1998), the change in amphibole composition was controlled by the tshermakite and edenite exchange vectors, which are dominant in metamorphic terranes with a high T/P ratio, as in low-pressure metamorphic series. Pressure and temperature calculations using the THERMOCAL thermodynamic database





yielded temperatures of 576 ± 46°C and 632 ± 60°C, and pressures of 3.9 ± 2 kbars and 4.4 ± 2.3 kbars, respectively (Cruz and Kuyumjian 1998).

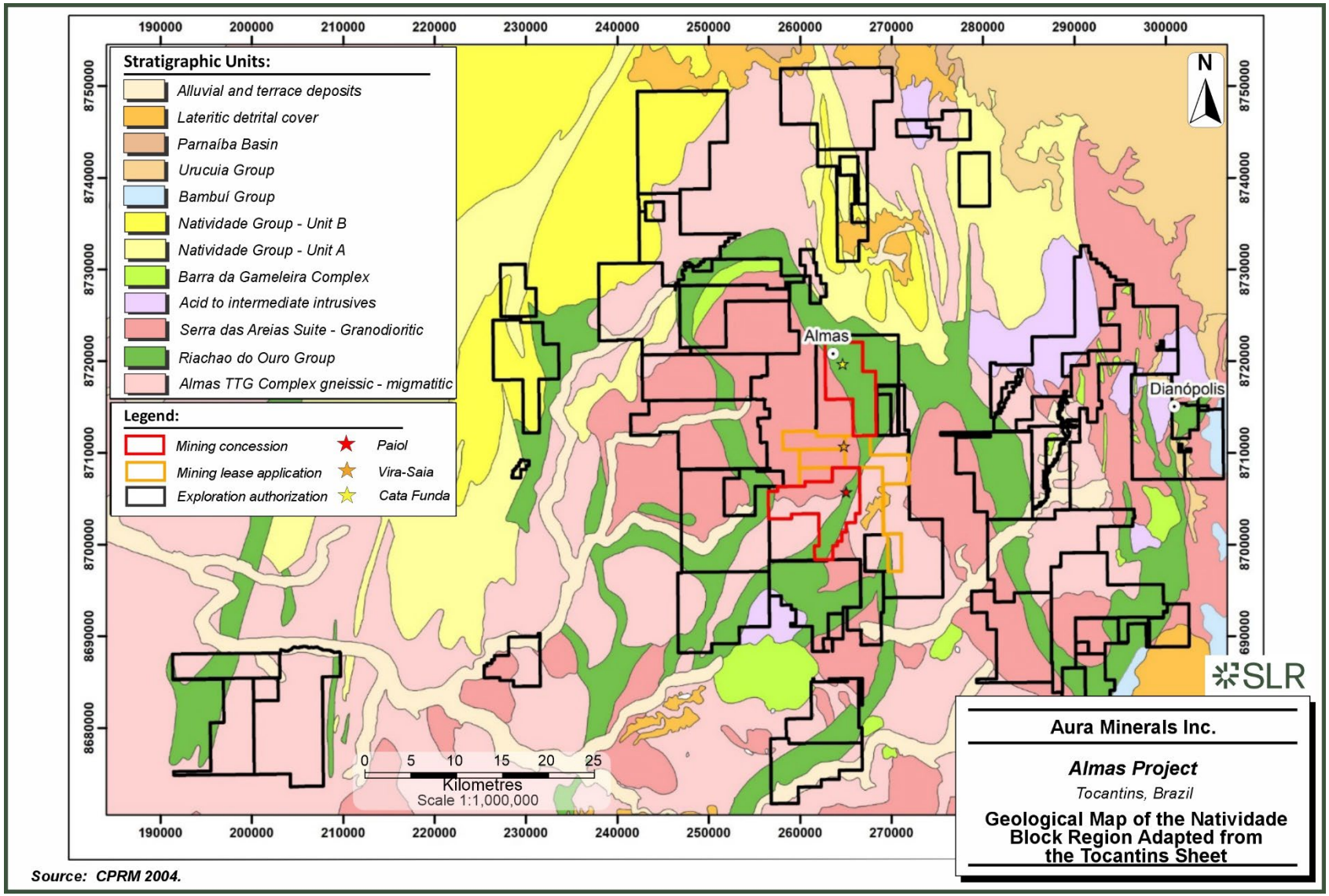
The calculations made for M2 parageneses yielded a more restricted range of pressure and temperature, between 485 ± 18°C and 539 ± 65°C, and 4.0 ± 0.2 kbars and 4.4 ± 0.5 kbars, respectively, indicating metamorphic conditions of the epidote-amphibolite facies. The presence of granitic apophyses along the Sn planes suggests that lateral facies variations during M1 and the high T/P metamorphic regime may be a consequence of granitoid intrusions during the Dn event (Cruz and Kuyumjian 1998).

The events that generated shear zones are identified by Cruz and Kuyumjian (1998) and Ferrari and Choudhuri (2000) as being responsible for the hydrothermal alteration that mineralized the region, as the mineralized bodies are embedded within these zones. Sulphur isotopic data from sulphides in the Paiol deposit indicated a magmatic source for the sulphur (Ferrari and Choudhuri 2004), however, broader results obtained by Cruz (2001) did not allow for the interpretation of a specific source, suggesting the possibility of mixed magmatic and metamorphic sources for the hydrothermal mineralizing fluids, or even multiple fluid phases. Fluid inclusion studies at the Paiol deposit (Ferrari and Choudhuri 2004; Kuyumjian et al. 2012) concluded that the main source of the mineralizing fluids was the metamorphic devolatilization process that occurred during Dn+1 or M2, generating aqueous-carbonic fluids responsible for the significant carbonation alteration in the studied rocks (Kuyumjian et al. 2012). Late low-temperature fluids from likely mantle sources were detected in some inclusions, however, and may have been responsible for the remobilization or reconcentration of the mineralization (Ferrari and Choudhuri 2004). Kuyumjian et al. (2012) concluded that these secondary fluids underwent intense homogenization with the host rock, which likely caused the mobilization of elements.

## 6.2 Local Geology

The Almas Project mineral concessions are located within the Dianópolis sheet, at a scale of 1:250,000, from the Basic Geological Survey of Brazil Program by Companhia de Pesquisa de Recursos Minerais (CPRM) (Sabóia and Meneghini 2019). The following stratigraphic units are present: Almas-Cavalcante Complex, Riachão do Ouro Group, Acidic and Basic Intrusives, Natividade Group, Bambuí Group, and Urucuia Group, along with Cenozoic Covers. These units can be visualized on the geological map in Figure 6-3, adapted from the Tocantins sheet (CPRM 2004).

**Figure 6-3: Geological Map of the Natividade Block Region Adapted from the Tocantins Sheet**




*Source: CPRM 2004.*

### 6.2.1 Almas Complex

The Almas-Dianópolis Terrane consists of greenstone belts of varying thickness, which surround elliptical domes of gneisses and migmatites, predominantly tonalitic in composition, and locally granodioritic and trondhjemitic (TTG domes). The presence of a basement preceding the greenstones is uncertain and not well supported in the literature, with the gneissic-migmatitic complex being a possible candidate for the basement (Borges 1993).

The Almas-Cavalcante Complex (granitoid-gneiss domes and other associated units) was characterized in the works of Borges (1993); Costa et al. (1976); Cruz (1993); Cruz et al. (2003); and Kuyumjian et al. (2012). The granitoid-gneiss complexes consist of isotropic to weakly foliated granitoid plutons, grouped into two suites (Cruz 1993): Suite 1, which includes tonalite, trondhjemite, granodiorite, quartz-monzodiorite, and quartz-diorite rich in amphibole, and Suite 2, which includes tonalite, trondhjemite, granodiorite, and monzogranite, in which biotite is the main mafic mineral. Xenoliths of amphibole-bearing granitoids from Suite 1 are found in the granitoids of Suite 2. The Ribeirão das Areias Complex was distinguished from Suite 2 as it is older than the other plutons included in Suite 1. According to Cruz and Kuyumjian (1998), these complexes represent multiphase batholiths composed of various granitoid bodies. Available Rb-Sr and K-Ar isotopic data indicate an Archaean to Paleoproterozoic age for the granitoid-gneiss rocks, with partial isotopic rejuvenation during the Brasiliano Cycle (Hasui et al. 1980).

### 6.2.2 Riachão do Ouro Group

The Riachão do Ouro Group consists of a Paleoproterozoic greenstone belt sequence with a Y-shaped geometry, surrounding the granitoid-gneiss complexes of the Almas-Cavalcante Complex. The Riachão do Ouro Group is composed, at its base, of the Córrego Paiol Formation and, at its top, the Morro do Carneiro Formation (Cruz and Kuyumjian 1998). The Córrego Paiol Formation consists of mafic volcanic rocks, with rare occurrences of ultramafic volcanic rocks. The mafic volcanic rocks are divided into a dominant group of high-Fe metabasalts and another group of high-Mg metabasalts (Cruz and Kuyumjian 1993). The Morro do Carneiro Formation comprises a monotonous sequence of sericitic phyllite with intercalations of banded iron formation, quartzite, metachert, conglomerate, and felsic metavolcanic rocks (Cruz and Kuyumjian 1998).

Several gold occurrences and deposits are associated with the metamorphic-deformational context of the Almas-Cavalcante Complex and the Riachão do Ouro Group (Cruz et al., 2006; Kuyumjian et al., 2012).

### 6.2.3 Basic-Ultramafic Intrusions

The Barra do Gameleira, Marta-Tamboril, and Cerqueira Santaninha massifs, historically grouped under the name 'Caraíbas Mafic-Ultramafic Suite,' were later distinguished as the Marginal Gabbro-Peridotite and Central Gabbro-Granulite units. The term 'Gameleira-type Mafic-Ultramafic Intrusions' was introduced by Danni and Teixeira (1981), who described a semicircular, layered intrusion in the Barra do Gameleira massif, near Dianópolis. This intrusion consists of mafic and ultramafic rocks enclosed in diatexite and metatexite granitoids, associated with the Almas-Cavalcante Complex.

### 6.2.4 Acidic to Intermediate Intrusions

These are characterized by peraluminous granitic magmas intruding the Ticunzal Formation. The suite is subdivided into six facies, including syn-, late-, and post-tectonic granitic rocks. This suite was characterized and mapped in the Arraias sheet (SD-23-V-A), south of the Almas

Project. The granitic and pegmatitic body of the Xobó Suite was recognized and described in the works of Cordeiro de Sousa (2015), etc., and the Príncipe granitic batholith and its associated gold mineralization were studied by Cordeiro de Sousa (2015), etc.

### 6.2.5 Natividade Group

The metasediments were initially recognized by Moore (1963) in the Natividade region. Later, this unit was classified as the Natividade Group by Costa et al. (1976). The Natividade Group is considered the northern extension of the Araí Group rift basin, both of which are part of the rifting processes of the Estaterian Taphrogenesis between 1.8 Ga and 1.6 Ga (Dardenne 2000). The detailed lithostratigraphic succession of this unit is the result of the work by Hasui et al. (1990) and others.

### 6.2.6 Bambuí Group

In the southeastern portion of the Dianópolis sheet, Neoproterozoic marine epicontinental covers of the Serra de Santa Helena and Lagoa do Jacaré formations, associated with the Bambuí Group, were recorded (Dardenne 1978). This cratonic sedimentation exhibits contacts through thrust faults with the granitoids of the Almas-Cavalcante Complex, with vergence to the east as a result of the Brasiliano Orogeny (Sabóia and Meleghini 2019).

### 6.2.7 Urucuia Group

In the east/northeast portion of the area, sediments from the São Francisco Craton (Urucuia Formation) were deposited in hemi-graben systems controlled by the reactivation of NE/SW fault systems, associated with structures that also deformed the Bambuí Group. Campos and Dardenne (1997) summarized the neotectonic evolutionary process of this Meso- to Neo-cretaceous sedimentation, resulting from the inversion of the São-Franciscana Basin. According to the authors, the evolution of this basin corresponds to the transition from a rift (extensional) phase to a post-rift (compressional) phase, accompanied by increased flexural subsidence in the center and uplift along the basin's edges, which was responsible for the formation of the depression where the Urucuia Group sediments were deposited.

## 6.3 Property Geology

The lithologies found in the Almas region are organized into distinct stratigraphic units based on regional geology (Borges 1993; Cruz and Kuyumjian, 1998; Valeriano et al. 2004). Additionally, the entire structural framework observed within these lithologies will be reported, along with its relation to the tectonic evolution of this crustal portion.

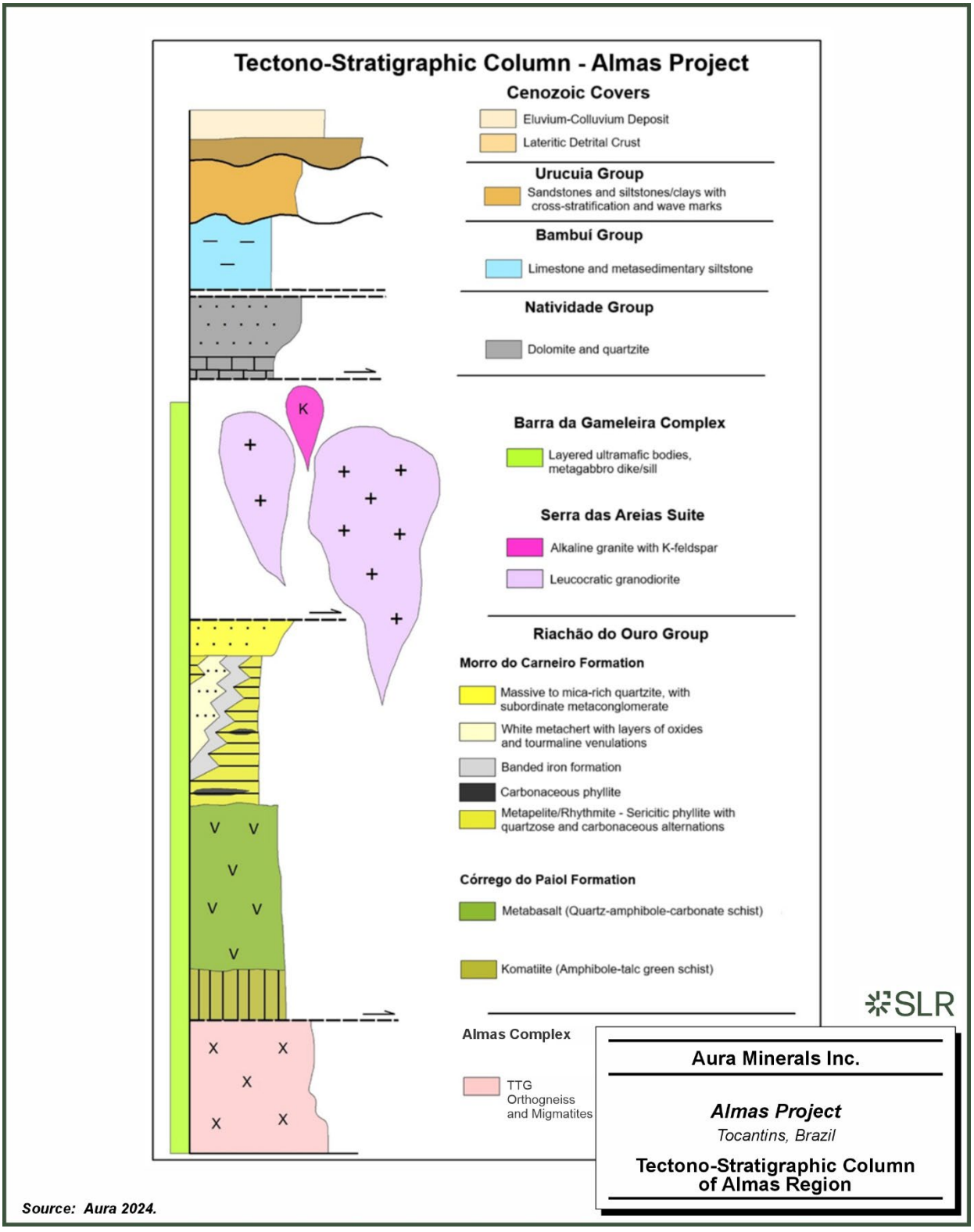
Seven stratigraphic units were identified, listed from bottom to top as follows:

- **Almas Complex**: crystalline basement of the Brasilia Belt comprising of TTG-type gneisses.,
- **Riachão do Ouro Group:**
  - **Córrego do Paiol**: basal portion comprised of basic metavolcanic rocks.
  - **Morro do Carneiro**: upper portion comprised of a thick sequence of interdigitated metasedimentary rocks.
- **Serra das Areias Suite**: granodiorites and alkaline granites.
- **Serra do Boqueirão Suite**: peraluminous granitoid characterized by garnet grains.

- **Barra da Gameleira Complex**: swarm of basic and ultramafic units (dykes).
- **Natividade Group**: massive to micaceous quartzites.
- **Cenozoic Coverings**: detrital-lateritic crust and eluvial-colluvial deposits.

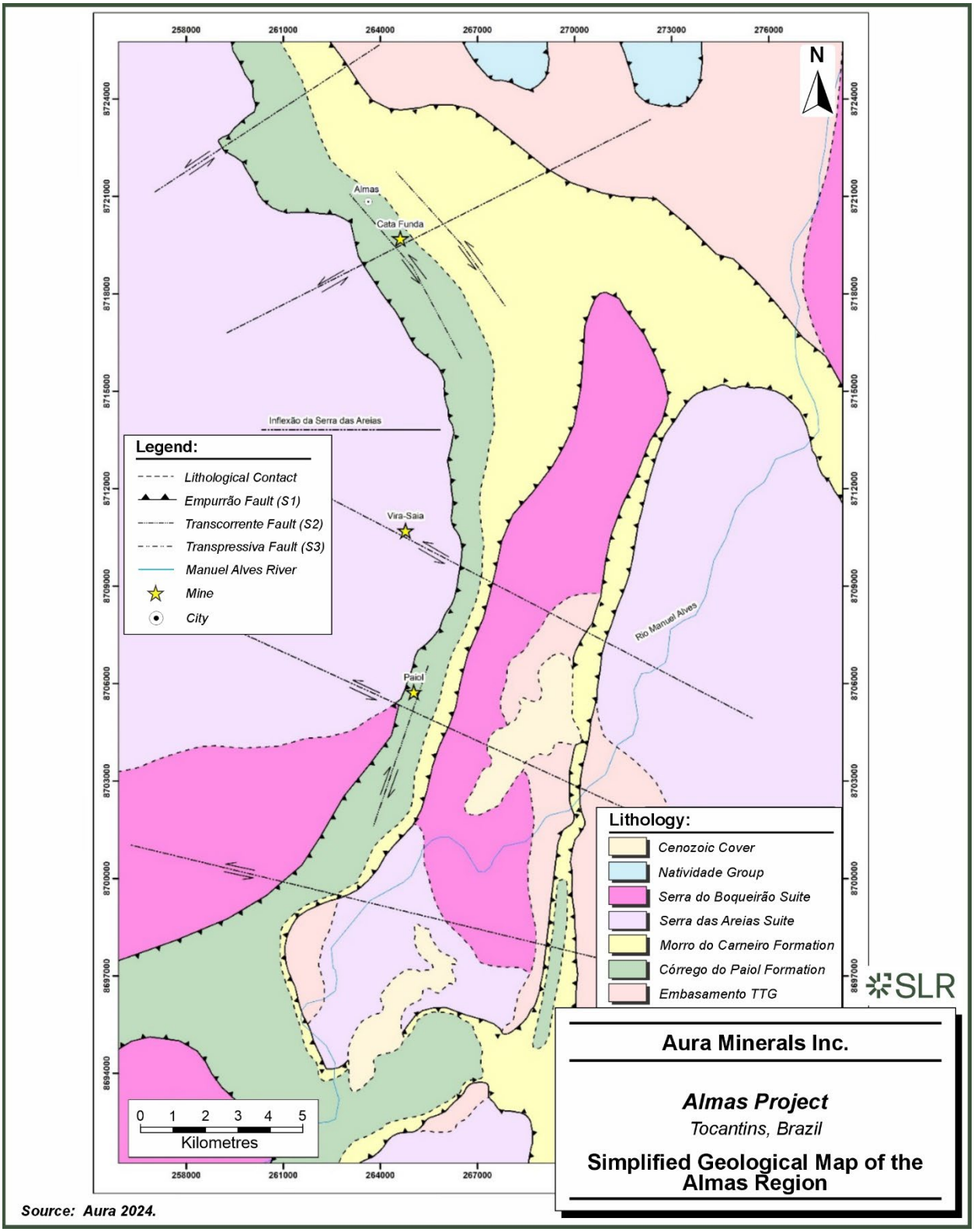
These units are shown in the stratigraphic column in Figure 6-4 as well as in the geological map (Figure 6-5), which illustrates the geographic extent of these units in the Almas area.

**Figure 6-4: Tectono-Stratigraphic Column of Almas Region**




*Source: Aura 2024.*

**Figure 6-5: Simplified Geological Map of the Almas Region**




*Source: Aura 2024.*

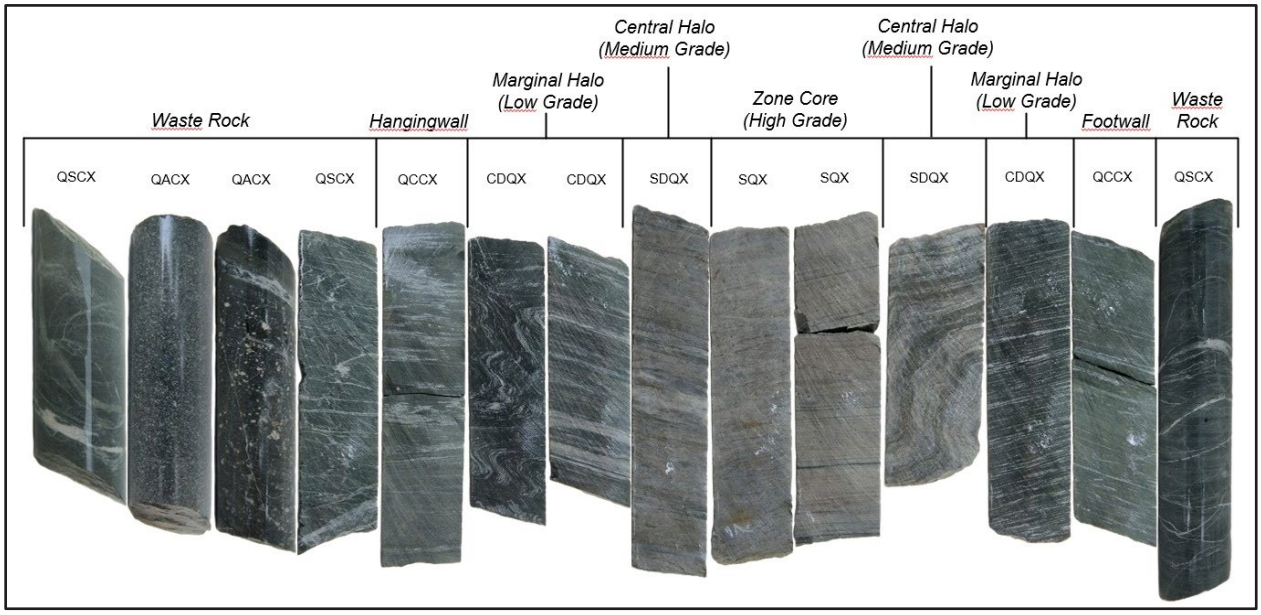
### 6.3.1 Paiol Mine

The Paiol mine is situated at the extreme north of the Brasília Fold Belt, at the base of the Riachão do Ouro Greenstone, which consists of oceanic volcanic rocks. These rocks were subjected to metamorphism, deformation, and hydrothermalism during the Paleoproterozoic collisional event, which provided migration of fluids mineralized in gold.

The main Paiol mineralized body extends approximately 650 m down dip, 1,250 m along strike, and has an average thickness of 30 m.

The orogenic mineralization is within a dextral transgressive fault marked by strong hydrothermal alteration. The alteration halos (Figure 6-6) from the margin to the center of the fault are summarized as follows: (i) Epidote zone (quartz-amphibole-chlorite schist and quartz-albite-chlorite schist with pyrrhotite + chalcopyrite, waste rock); (ii) Chlorite zone (quartz-calcite-chlorite schist with thick euhedral pyrite hanging and footwall); (iii) Ankerite zone (Chlorite-ankerite-quartz schist with disseminated fine pyrite + pyrrhotite, marginal halo, low grade); (iv) Sericite zone (sericite-ankerite-quartz schist with fine pyrite + pyrrhotite + arsenopyrite, central halo, medium grade); (v) Quartz zone (sericite-quartz schist with intense pyrite + pyrrhotite + arsenopyrite sulphidation, zone core, high grade).

**Figure 6-6: Hydrothermal Alteration Halos of Paiol Mine**




Source: Aura 2024.

### 6.3.2 Vira Saia

The following material has been slightly modified from Ghazanfari et al. (2021).

The Vira Saia deposit is hosted in the granitic gneiss complex. These complexes are composed of isotropic to weakly foliated granitoid plutons which have been variably classified as tonalites, trondhjemites, granodiorites, quartz monzonites, amphibole-quartz diorite, and monzogranites. A second granitoid suite, composed of the same lithologies but containing biotite as the primary mafic mineral, is recognized in the region.

At Vira Saia, a shear zone (N45°W) developed in granodiorite controls brecciation, alteration and gold mineralization.

The main Vira-Saia deposit body has overall dimensions of approximately 200 m in the down dip direction, 350 m along strike and averages 15 m in thickness. Exploration has also identified three smaller zones designated: East Body, NW Body, and NW Extension Body.

Hydrothermal alteration is well developed, and its intensity is proportional to the intensity of deformation in the granitic host rock. The outermost alteration zone is foliated and characterized by the appearance of muscovite, albite, and epidote. In an intermediate alteration zone, muscovite and albite still occur but are now associated with calcite and sulphide minerals, up to 1% by volume. Interfoliated quartz and recrystalized quartz veins with strong sericite on vein selvages occur in the core of the alteration zone. Sulphide mineralization is more intense in the central part of the alteration zone where very fine-grained pyrite occurs as inclusions in quartz and muscovite grains.

### 6.3.3 Cata Funda

The following material has been slightly modified from Ghazanfari et al. (2021).

The Cata Funda deposit is situated in the northern portion of the Almas Greenstone Belt, immediately southeast of the Almas town site. The deposit is hosted in metabasic and metasedimentary rocks that display hydrothermal alteration processes such as sericitization, carbonization, albitization and silicification. Host rocks are in contact with siliceous breccias and quartz-carbonate schists to the west and with tourmaline-bearing quartzites and metapelites of the Morro do Carneiro Formation to the northeast.

The gold mineralization occurs primarily in the central portion of the structure which displays zoned alteration assemblages like that previously described for the Paiol deposit.

The Cata Funda deposit has overall dimensions of approximately 240 m in the down dip direction, 230 m along strike and averages 10 m in thickness.

Bedrock is typically overlain by 2 m to 6 m of red, argillaceous soil, weakly magnetic, with low percentages of quartz fragments and pisolites. Beneath the soil horizon is 8 m to 30 m of red to yellow saprolite, locally sericitic and mottled containing Fe-Mn-oxides on relict foliations and fractures. The saprolite overlies 2 m to 6 m of weathered and partially decomposed bedrock within which decimetre-sized fragments of fresh rock are preserved.

The strongest gold mineralization at Cata Funda is associated with the schistose, sericite-ankerite- quartz (SDQX) alteration assemblage. The geological cross-sections show the significant thickness and grade continuity of the mineralized body at depth.

## 6.4 Mineralization

The following material has been slightly modified from Ghazanfari et al. (2021).

Gold in the Almas Greenstone Belt occurs in three different associations:

- Gold associated with hydrothermally altered shear zones in basic to intermediate volcanic rocks.
- Gold associated with hydrothermally altered banded iron formation.
- Gold associated with smoky quartz veins in sheared granite gneiss.

Gold mineralization is closely associated with mylonitic banding in shear zones that cut mafic-to-intermediate volcanic rocks, schists, and granite-gneiss, the latter being noted at the Vira Saia deposit. Gold occurs as free gold and as gold inclusions within sulphide minerals. Stronger gold mineralization is associated with faults and shear zones (Paiol and Cata Funda).

At Paiol and Cata Funda, individual mineralized shoots are shaped as lenses and/or anastomosing bodies within the shear zone. The mineralization shoots are typically steeply dipping and plunging lenses. Gold mineralization typically occurs in the centre of the alteration zone, associated with albite-quartz-ankerite (calcite) and the sulphide minerals, pyrite, chalcopyrite, and pyrrhotite. Some coarser grained gold has been observed at Cata Funda where it occurs primarily in quartz-carbonate veins within albite-sericite-pyrrhotite alteration envelopes developed in mafic to intermediate metavolcanic host rocks.

At Vira Saia, gold is closely associated with sulphide-bearing, quartz-sericite-rich ultramylonites formed in the core of shear zones developed in granodiorite. Chalcopyrite and galena are very rare. The intensity of the hydrothermal alteration is proportional to the progressive deformation in the shear zone. Quartz veins typically have saccharoidal (sugary) textures, believed to have formed by dynamic crystallization in shear zones, suggesting a syntectonic timing of vein formation. The Vira Saia deposit belongs to the lode gold, orogenic deposit type, with predominant quartz-sericite-carbonate alteration surrounding quartz veins with low iron sulphide content (<2%).

## 6.5 Deposit Types

The following material has been slightly modified from Ghazanfari et al. (2021).

The known gold occurrences in the Almas area are classified as orogenic, shear-hosted mesothermal gold deposits. Minor occurrences of lateritic or even placer gold are also found in the area but are typically small and not the target of current exploration.

Mesothermal gold deposits are a distinctive type of gold deposits which are typified by many consistent features in space and time. The most typical characteristic of the deposits is their consistent association with deformed metamorphic terranes of all ages. Observations from the world's preserved Archaean greenstone belts and most recently active Phanerozoic metamorphic belts indicate a strong association of gold and greenschist facies rocks, however, some significant deposits occur in higher metamorphic grade Archaean terranes or in lower metamorphic grade domains within the metamorphic belts of a variety of geological ages. Pre-metamorphic protoliths for the auriferous Archaean greenstone belts are predominantly volcano-plutonic terranes of oceanic back-arc basalt and felsic to mafic arc rocks. Clastic marine sedimentary rock-dominant terranes that were metamorphosed to graywacke, argillite, schist, and phyllite host younger mineralization and are important in some Archaean terranes.

These deposits are typified by quartz-dominant vein systems with less than or equal to 3% to 5% sulphide minerals, mainly Fe-sulfides, and less than 5% to 15% carbonate minerals. Albite, white mica or fuchsite, chlorite, scheelite, and tourmaline are also common gangue phases in veins in greenschist-facies host rocks. Vein systems may be continuous along a vertical extent of one to two kilometres with little change in mineralogy or gold grade. Mineral zoning does occur, however, in some deposits. Au/Ag ratios range from 10 (normal) to 1 (less common), with mineralization in places being in the veins and elsewhere in sulphurized wallrocks.

Deposits exhibit strong lateral zonation of alteration phases from proximal to distal assemblages on scales of metres. Mineralogical assemblages within the alteration zones and the width of these zones generally vary with wallrock type and crustal level. Most commonly, carbonates include ankerite, dolomite, or calcite; sulfides include pyrite, pyrrhotite, or arsenopyrite; alkali

metasomatism involves sericitization or, less commonly, formation of fuchsite, biotite, or K-feldspar and albitization and mafic minerals are highly chloritized. Amphibole or diopside occur at progressively deeper crustal levels and carbonate minerals are less abundant. Sulphidation is extreme in banded iron formation and Fe-rich mafic host rocks.

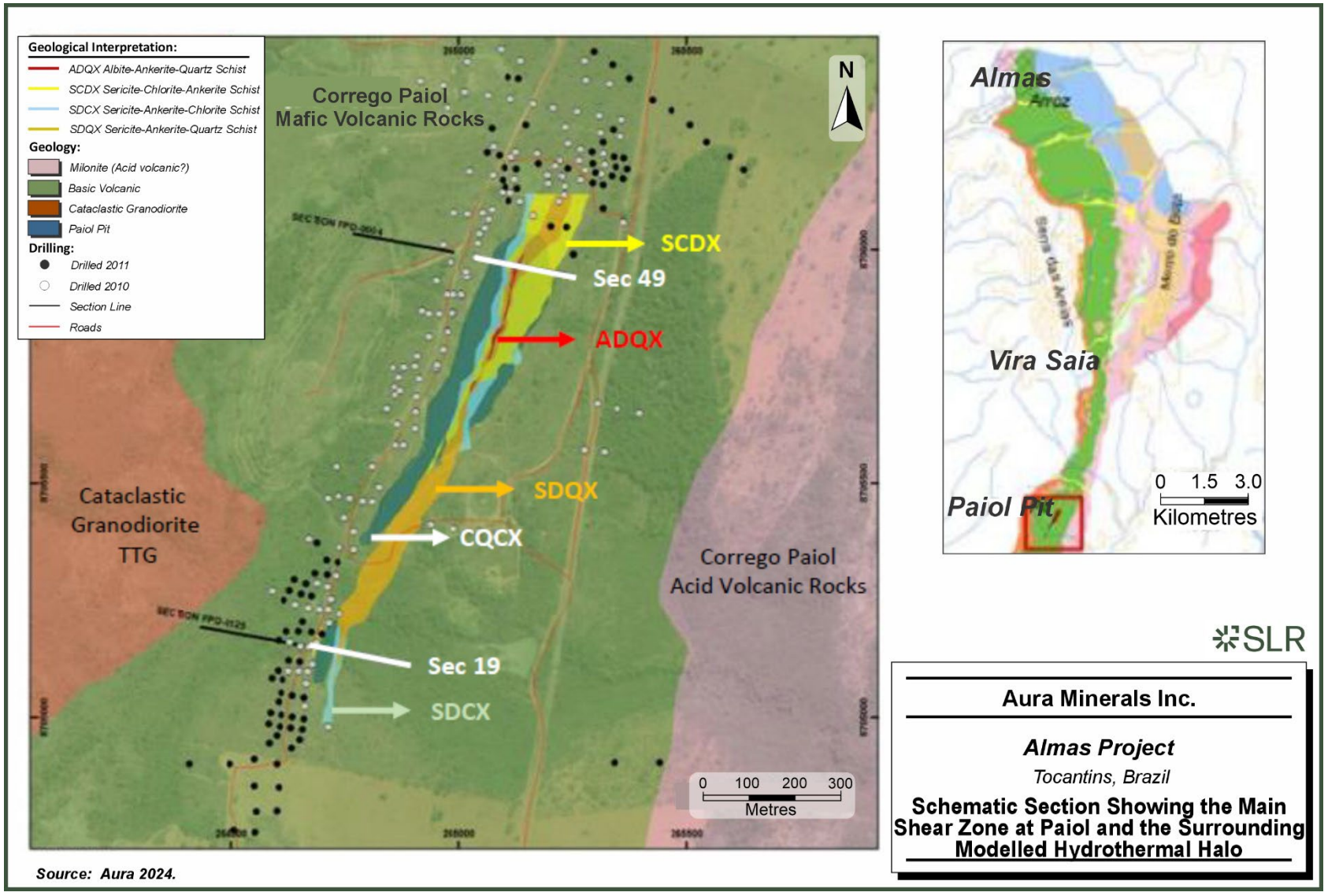
The orogenic gold deposits targeted in current exploration in the Almas Project are hosted in Paleoproterozoic rocks, typically metabasalts and metasediments (commonly called greenstones). Exploration has also identified gold mineralization in granitic intrusives or granitoids, as in the case of the Vira Saia deposit. In all cases, the rocks have been metamorphosed to greenschist or lower amphibolite facies. Mineralization invariably forms along faults or shear zones; typically, the larger mineralized areas correlate with the larger shear zones. As well, flexures and intersection zones, where faults or shears cross, generally correspond to prime sites for these deposits.

The shear zones hosting gold mineralization typically show strong brecciation and mylonitization of the host rocks (Figure 6-7). Alteration of the host rocks is generally localized along the structural zones and is mainly silicification along with widespread carbonatization, potassic alteration, sericite alteration, and pyritization. Gold occurs in association with sulphides in quartz veins and veinlets. Sulphides are primarily pyrite with trace amounts of arsenopyrite, galena, and chalcopyrite. Gold is primarily free gold with an estimated 10% to 40% attached to sulphides, depending on location. Gold is primarily micron sized, though visible gold is locally present.

Exploration methods in the district typically start with magnetic surveys to identify major structures and magnetic alteration, followed by field mapping and soil sampling. IP surveys are often employed to further identify structures or resistive bodies. Trenching and drilling are used in the final phases.

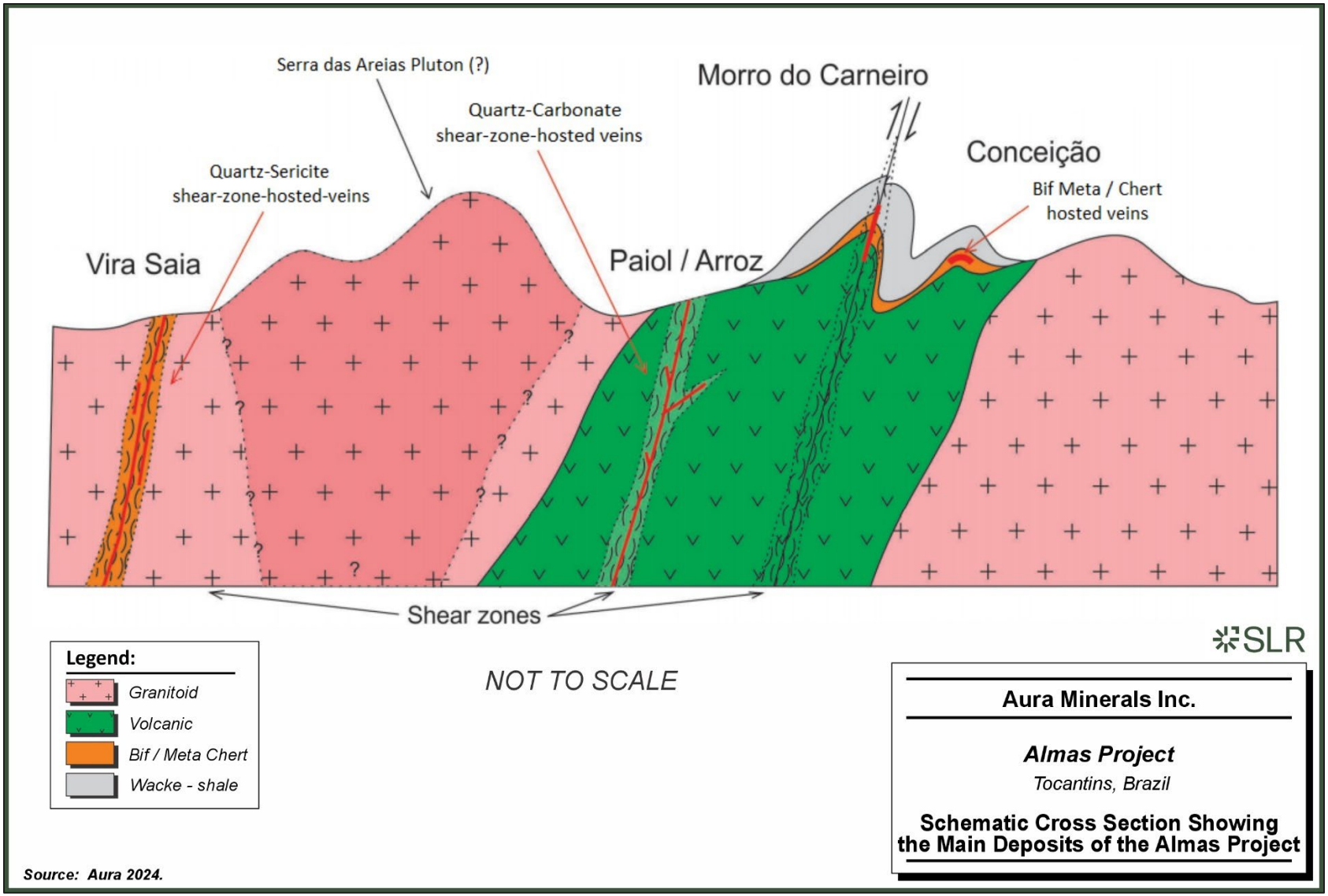
Figure 6-8 shows a typical schematic cross section through the various deposits of the Project.

**Figure 6-7: Schematic Section Showing the Main Shear Zone at Paiol and the Surrounding Modelled Hydrothermal Halo**




*Source: Aura 2024.*

**Figure 6-8: Schematic Cross Section Showing the Main Deposits of the Almas Project**



# 7.0 Exploration

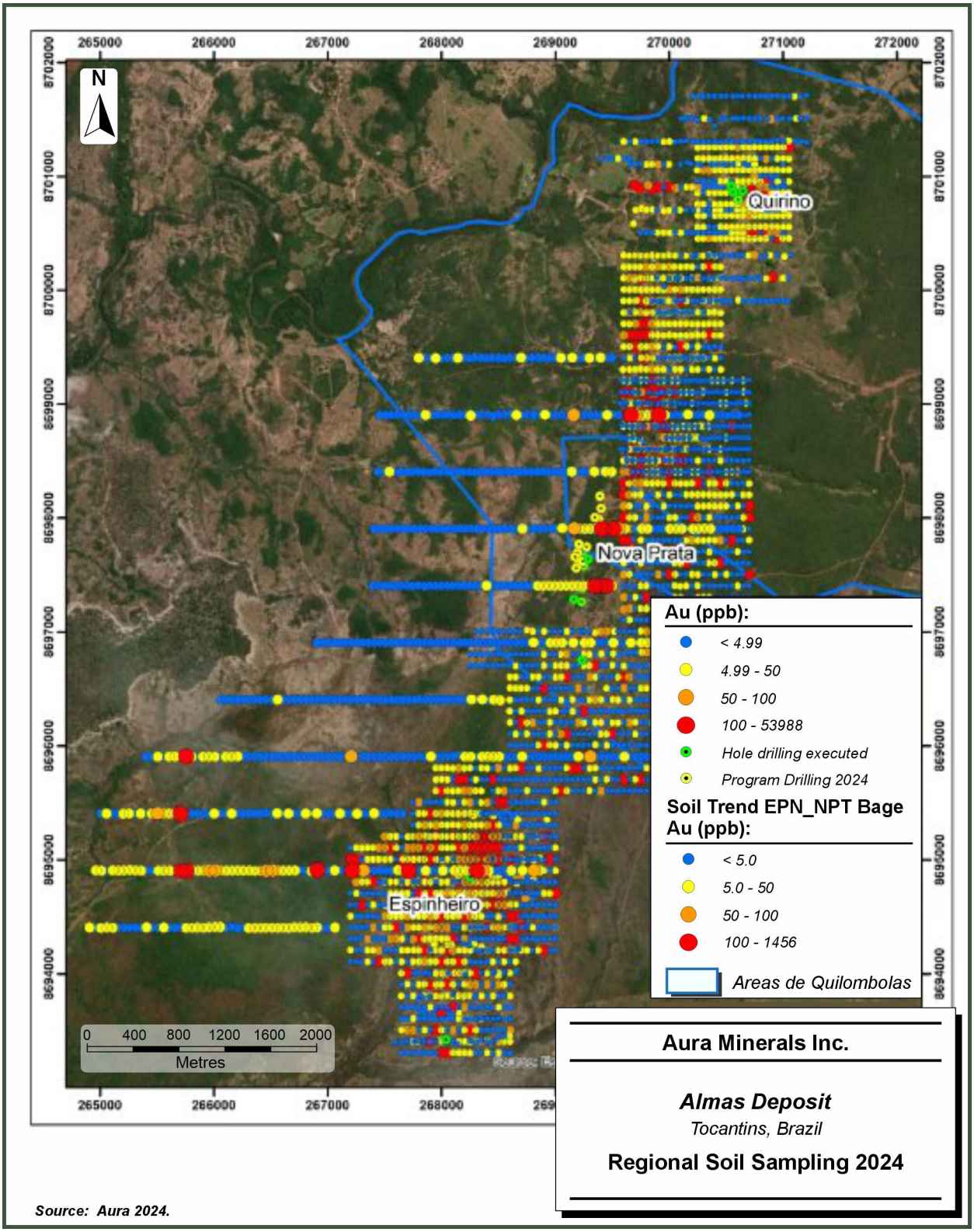
## 7.1 Exploration

Aura did not complete any exploration activities between 2018 and 2023 except drilling, the results of which are discussed in Section 10 Drilling. The soil sampling and geological mapping procedures were updated in 2023. Soil sampling procedures continue on the property using a robust sampling grid technique. Samples of 0.5 kg to 2 kg focus on in situ soil as this is the product of the alteration of the underlying rocks (parent rock) and provide specific information about the material immediately beneath the sample.

Figure 7-1 outlines regional soil sampling results in relation to some exploration drill targets. Through geological mapping the Aura team continues to record information about the lithology, texture, mineralogy, degree of alteration, and structures. The main objective is to observe, survey, and analyze attributes that make up the geological physical environment through fieldwork.

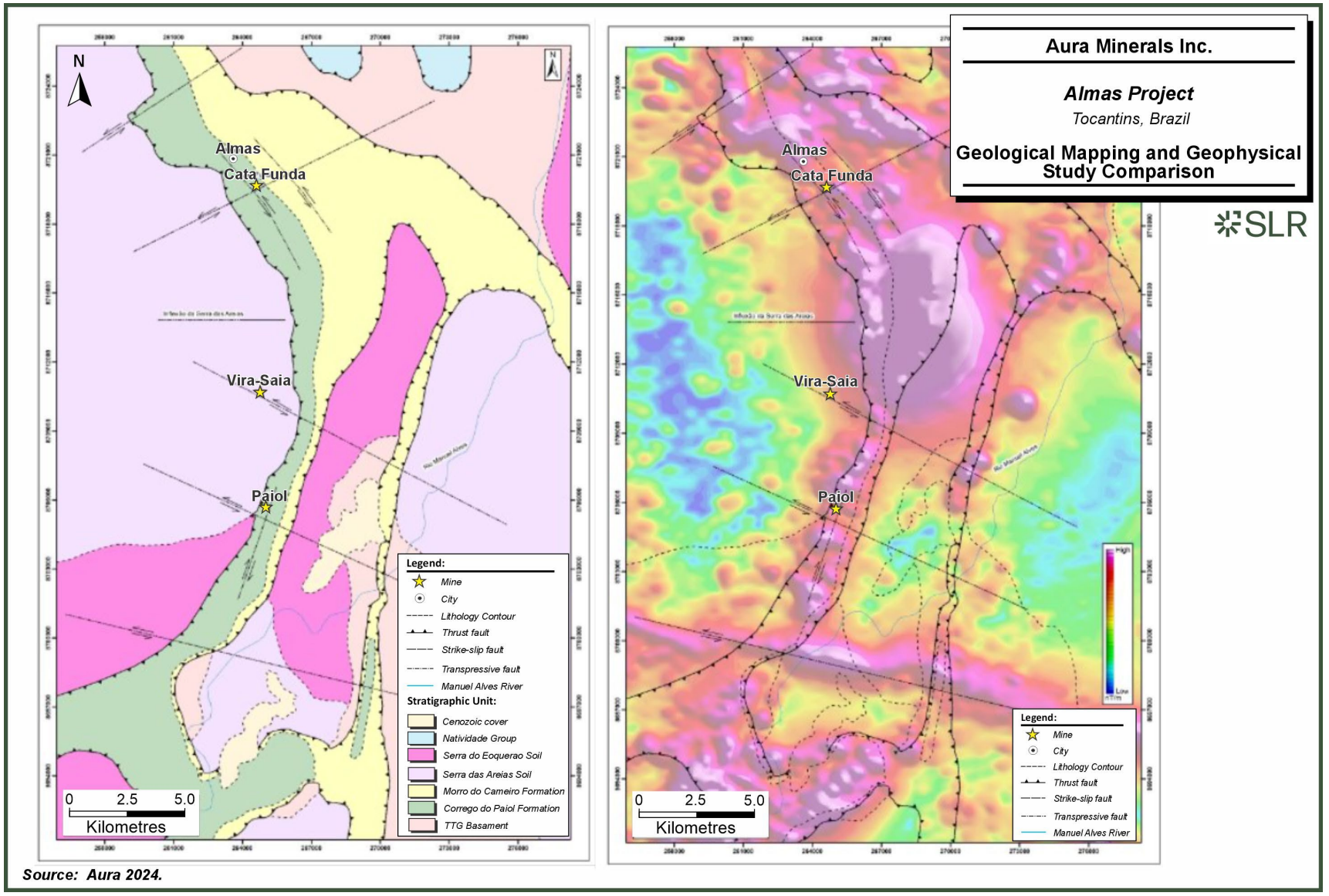
Figure 7-2 compares results from a regional geologic mapping program with a geophysical survey. Along with mapping, field or chip samples of approximately one kilogram are collected at points of interest. Together with soil sampling, geological mapping drives target generation for future drill programs.

**Figure 7-1: Regional Soil Sampling 2024**




*Source: Aura 2024.*

**Figure 7-2: Geological Mapping and Geophysical Study Comparison**




*Source: Aura 2024.*

The SLR QP notes that exploration thus far has been primarily designed to identify near-surface prospects. The deeper, covered areas of the Project area have yet to be explored. Due to the generally flat terrain and thick soil or saprolite cover, only a small portion of the Project area has been adequately covered by exploration. Greenstone gold deposits typically have a large vertical extent and the potential for underground targets is high.

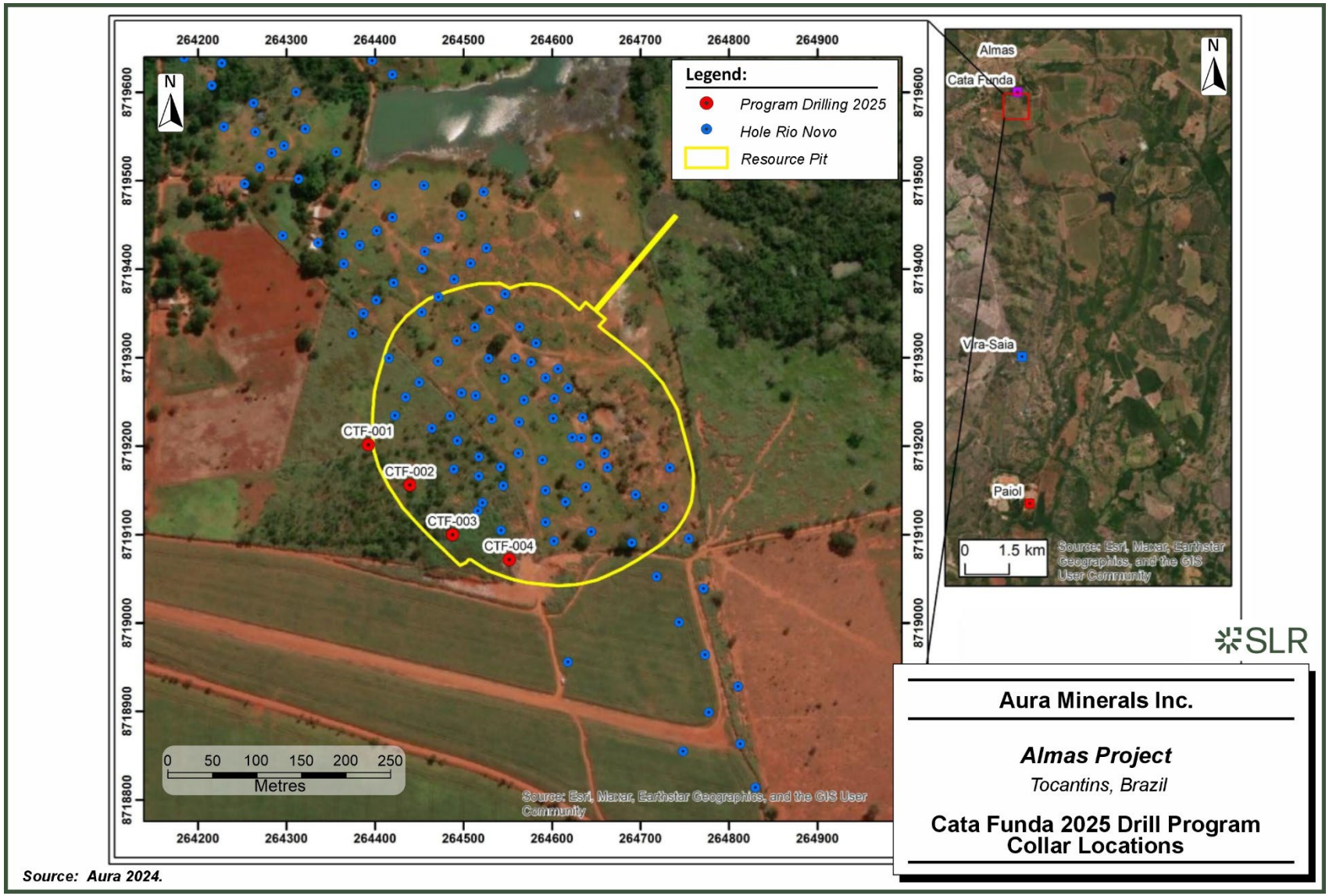
### 7.1.1 Planned Exploration

Aura has a robust exploration plan for 2025 through 2027 aimed at expansion of current resources, conversion of resources to reserves, and an increase of confidence of grade continuity regionally and near mine targets outlining critical and strategic scenarios for exploration drill programs. Critical scenarios refer to short/medium term LOM focused on upgrading and extending existing resources at Paiol, Vira Saua, and Cata Funda, and long term LOM including regional target generation, drilling of ready targets, and delineation drilling. The strategic scenario refers to a more flexible results driven initiative including special projects and follow-up to significantly positive results from critical scenarios. For 2025, Aura plans to complete approximately 31,000 m of drilling with a proposed exploration budget of US$6.5 million focusing on Cata Funda, Paiol, and Visa Saia, as well as Nova Prata, a satellite target under exploration by Aura in the region. Figure 7-3 to Figure 7-5 depict the proposed collar locations for the three main Almas deposits.



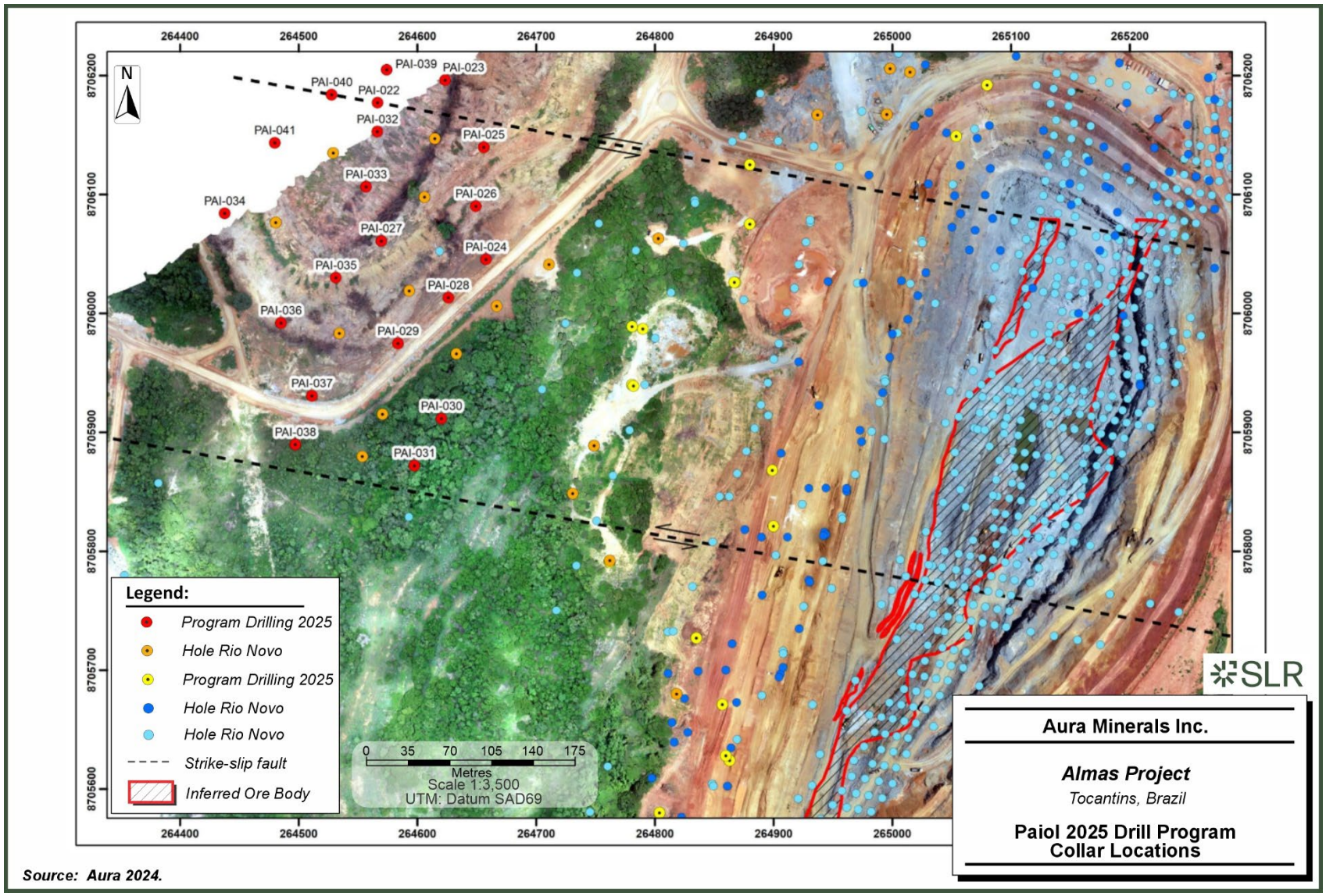


**Figure 7-3: Cata Funda 2025 Drill Program Collar Locations**



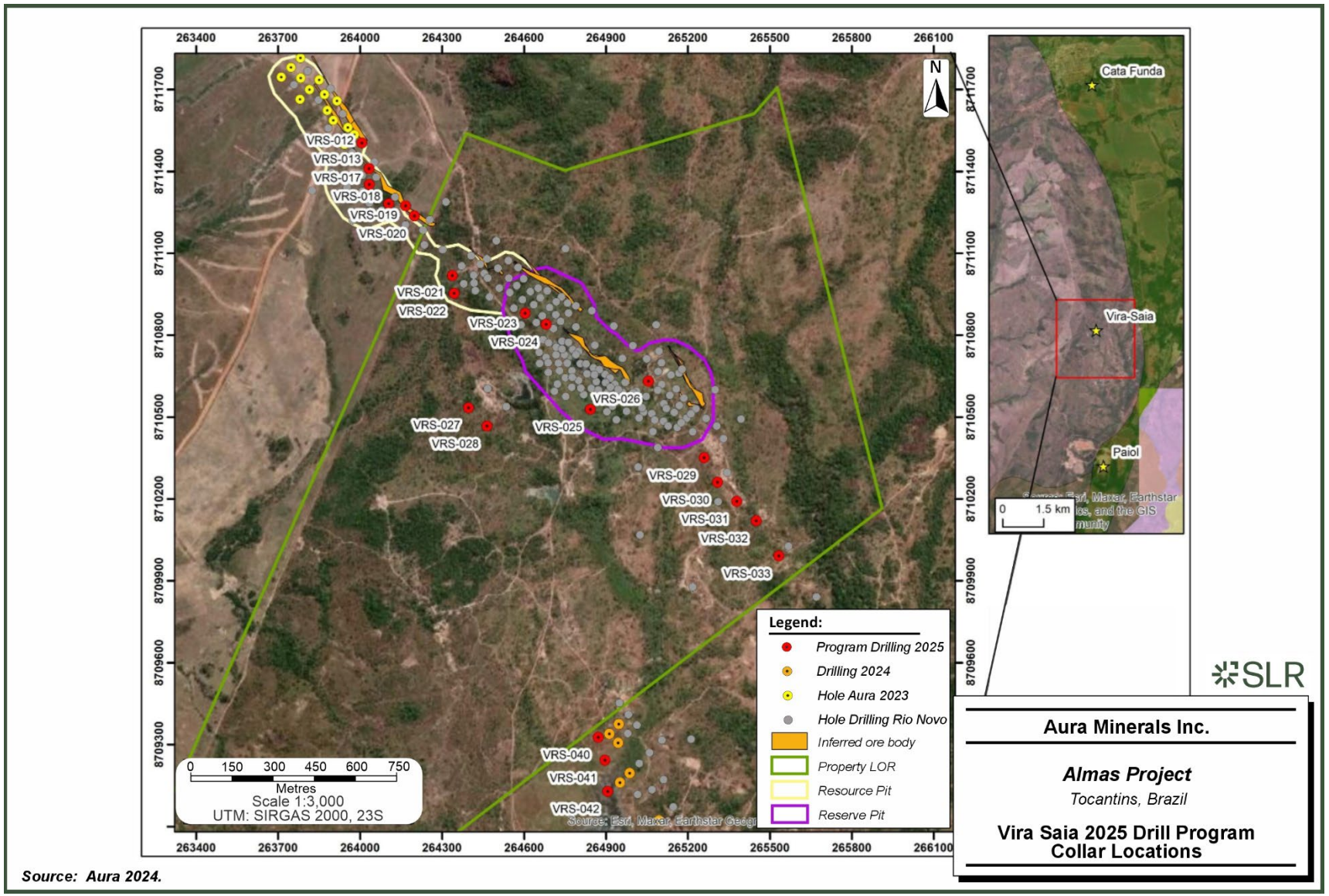

*Source: Aura 2024.*

**Figure 7-4: Paiol 2025 Drill Program Collar Locations**




*Source: Aura 2024.*

**Figure 7-5: Vira Saia 2025 Drill Program Collar Locations**




*Source: Aura 2024.*

## 7.2 Drilling

### 7.2.1 Summary

Drilling on the Project has been conducted in phases by several companies since 1982. Total drilling at the deposits with Mineral Resources, Paio, Vira Saia, and Cata Funda, consists of 890 diamond drill holes (DDH) totalling 134,792 m and 1,831 RC drilling totalling 76,105 m. Approximately 64% of the meterage is from DDH with the remaining 36% being from RC holes Since 2021, drilling at the other prospects on the property consists of 81 DDH totalling 19,011 m.

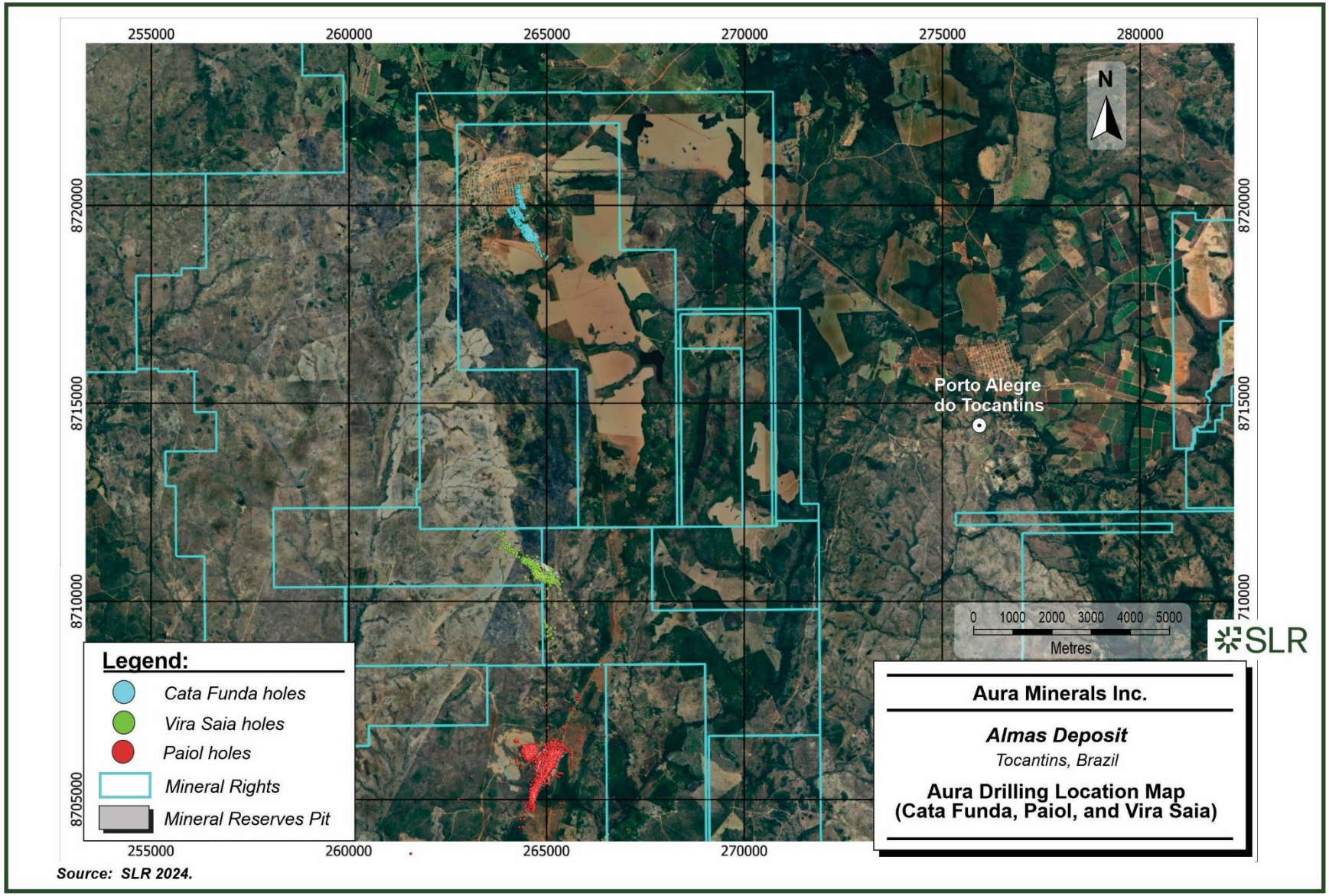
A drilling summary by deposit up to and including all drilling information available at August 22, 2024, is presented in Table 10-1 and illustrated in Figure 7-6a and b.

## Table 7-1: Summary of Almas Drilling at the Deposits with Mineral Resources

| Area | | Time | CN | | DDH | | PF | | RC | | TC | | TRADO | | Total | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Period | No. | Depth | No. | Depth | No. | Depth | No. | Depth | No. | Depth | No. | Depth | No. | Depth |
| | | | Holes | (m) | Holes | (m) | Holes | (m) | Holes | (m) | Holes | (m) | Holes | (m) | Holes | (m) |
| **Historical drilling** | | | | | | | | | | | | | | | | |
| Cata Funda | | 1982-2010 | | | 138 | 17,101.73 | | | 168 | 9,048.57 | | | | | 306 | 26,150.30 |
| Paiol | *Long term* | 1986 - 2010 | | | 356 | 59,723.83 | | | 417 | 20,205.50 | | | | | 773 | 79,929.33 |
| | *Heap Leach* | 2010 | | | | | | | 59 | 728.00 | | | 166 | 1,215.15 | 225 | 1,943.15 |
| Total Historical | | | | | 494 | 76,825.56 | | | 644 | 29,982.07 | | | 166 | 1,215.15 | 1304 | 108,022.78 |
| | | | | | | | | | | | | | | | | |
| **Aura drilling** | | | | | | | | | | | | | | | | |
| Cata Funda | | 2011 | | | 36 | 3,233.35 | | | | | | | | | 36 | 3,233.35 |
| Paiol | *Long term* | 2011-2024 | | | 162 | 27,831.50 | | | | | | | 8 | 41.75 | 170 | 27,873.25 |
| | *Short term* | 2022-2024 | 6 | 140.49 | | | 50 | 441.50 | 996 | 43,266.00 | 61 | 986.71 | | | 1113 | 44,834.70 |
| | *Heap Leach* | 2022-2024 | | | | | | | 191 | 2,857.00 | | | | | 191 | 2,857.00 |
| Vira Saia | | 2011-2012 | | | 198 | 26,901.85 | | | | | | | | | 198 | 26,901.85 |
| Total Aura | | | 6 | 140.49 | 396 | 57,966.70 | 50 | 441.50 | 1,187 | 46,123.00 | 61 | 986.71 | 8 | 41.75 | 1708 | 105,700.15 |
| | | | | | | | | | | | | | | | | |
| Total | | | 6 | 140.49 | 890 | 134,792.26 | 50 | 441.50 | 1,831 | 76,105.07 | 61 | 986.71 | 174 | 1,256.90 | 3012 | 213,722.93 |

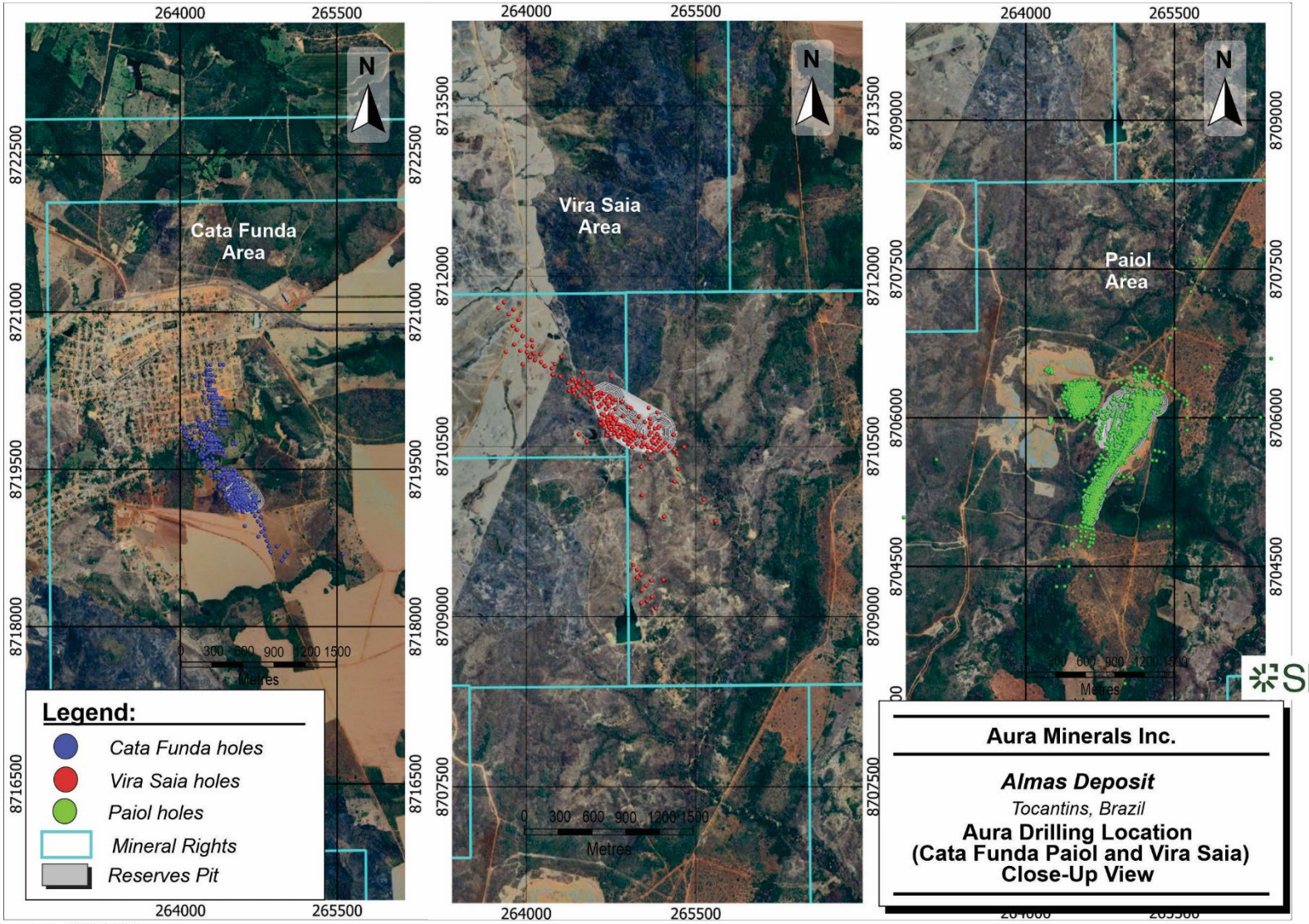
Notes:
CN: Channel
DDH: Diamond drilling
PF: Blasthole
RC: Reverse circulation
TC: Trenches
TRADO: Auger holes

**Figure 7-6a: Aura Drilling Location Map (Cata Funda, Paiol, and Vira Saia)**




*Source: SLR 2024.*

**Figure 7-6b: Aura Drilling Location Map (Cata Funda, Paiol, and Vira Saia) – Close-Up View**




*Source: SLR 2024.*

Drilling programs from 2021 onwards have been focused on:

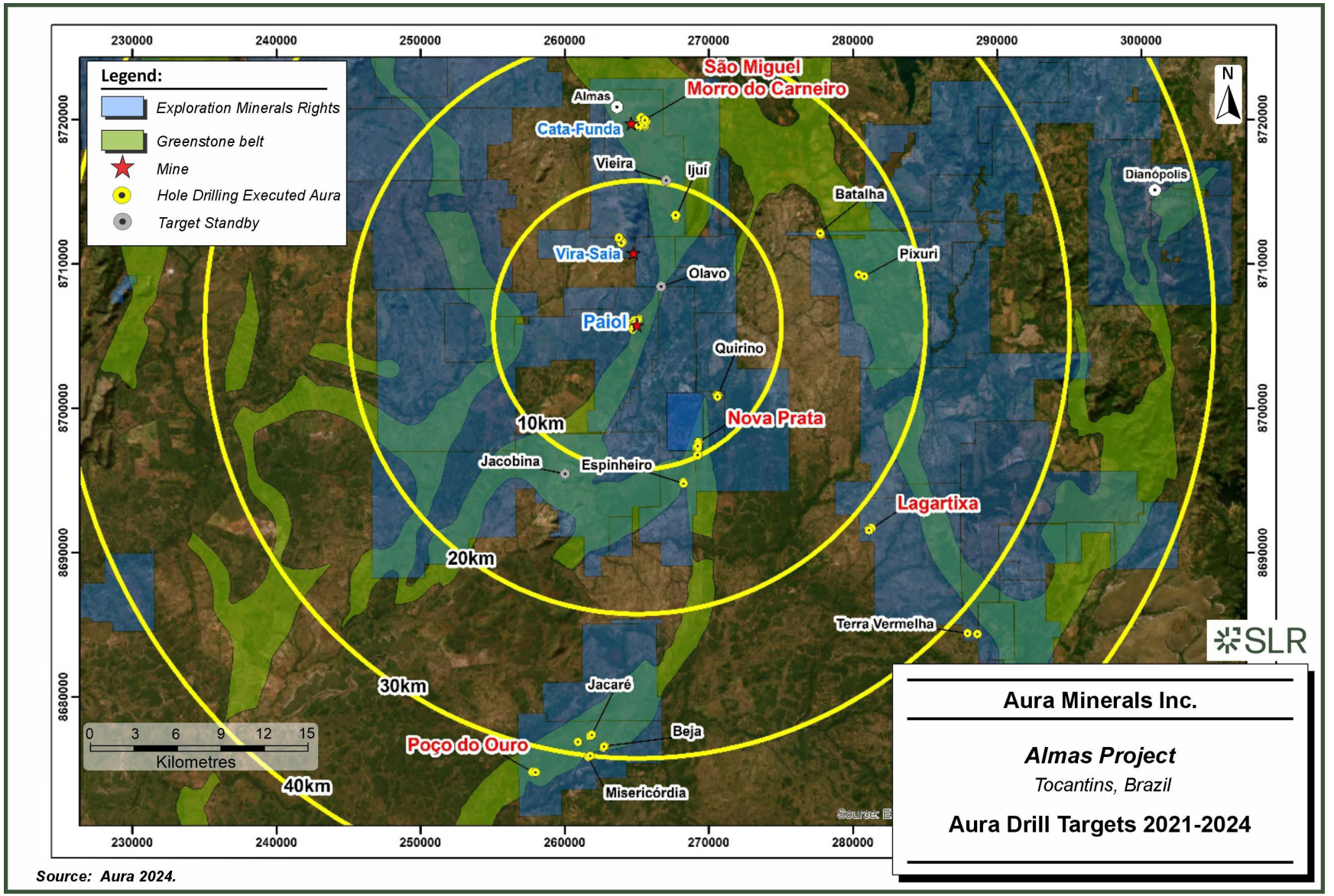
- Infill drilling at Paiol to further define known resources,
- Expansion drilling at Vira Saia and Cata Funda to test continuity of current resource along strike and down dip and,
- Regional exploration targets with favourable geology.

Table 7-2 outlines all exploration drilling at the other prospects completed by Aura from 2021 to the end of 2024 and is separated by target. The SLR QP notes that not all of these targets are fully developed, can be considered regional targets. Figure 7-7 depicts regional drill targets with relation to the town of Almas and the Almas deposits (Paiol, Vira Saia, and Cata Funda).

**Table 7-2: Summary of Almas Exploration Drilling at other Prospects from 2021-2024 by Target**

| Target | Time Period | Number of Holes | Length (m) |
|---|---|---|---|
| Morro do Carneiro | June 2021-October 2022 | 20 | 4,952 |
| Batalha | July 2023- August 2023 | 3 | 739 |
| Beja | June 2023 | 3 | 705 |
| Espinheiro | May 2023- August 2024 | 4 | 868 |
| Ijuí | August 2022 | 4 | 1,289 |
| Jacaré | June 2023 | 3 | 610 |
| Largatixa | October 2022-July 2023 | 5 | 1,979 |
| Misericórdia | September 2023-June 2024 | 3 | 633 |
| Nova Prata | September 2022-July 2024 | 13 | 3,068 |
| Pixuri | July 2023- August 2023 | 2 | 479 |
| Poço do Ouro | September 2023- June 2024 | 5 | 1,021 |
| Quirino | May 2023 | 3 | 362 |
| São Miguel | August 2023- May 2024 | 9 | 1,858 |
| Terra Vermelha | July 2023 | 2 | 151 |
| Umburana | July 2024 | 2 | 297 |
| **Total** | **June 2021- October 2024** | **81** | **19,011** |

**Figure 7-7: Aura Drilling by Exploration Targets 2021-2024**




*Source: Aura 2024.*

### 7.2.2 Deposit Drilling (2021 to 2024)

#### 7.2.2.1 Paiol Mine

In the first half of 2024, 34 diamond drill (DD) holes were completed, totalling 12,989.50 m (Figure 7-8), aimed to convert the Inferred Resource between pits P2 (reserve) and P3 (resource). The drilling intercepted the zone of hydrothermal alteration in the metabasalt marked by silicification and pyrite + pyrrhotite + arsenopyrite association. In the second half of 2024, the main drilling target was a panel below the resource shell. The purpose of this program was to test the continuity of the high-grade mineralization at a greater depth. Eight holes were drilled that covered the strike of the central body of the Paiol mine, totalling 5,217.90 m. Figure 7-9 outlines the location of the second program. Favourable results were returned confirming the existence of high-grade continuity at depth, however, due to the cut off date, the data from this program was not included in the 2024 estimate. Table 7-3 shows some significant intercepts returned from the 2024 drill programs. Figure 7-10 outlines key lithological units associated with mineralization in relation to some recent (2023 onwards) drill holes and the location of some planned drill holes for future exploration programs.

**Figure 7-8: Location of Infill Drill Holes for Paiol Mine – Q1 and Q2 2024**

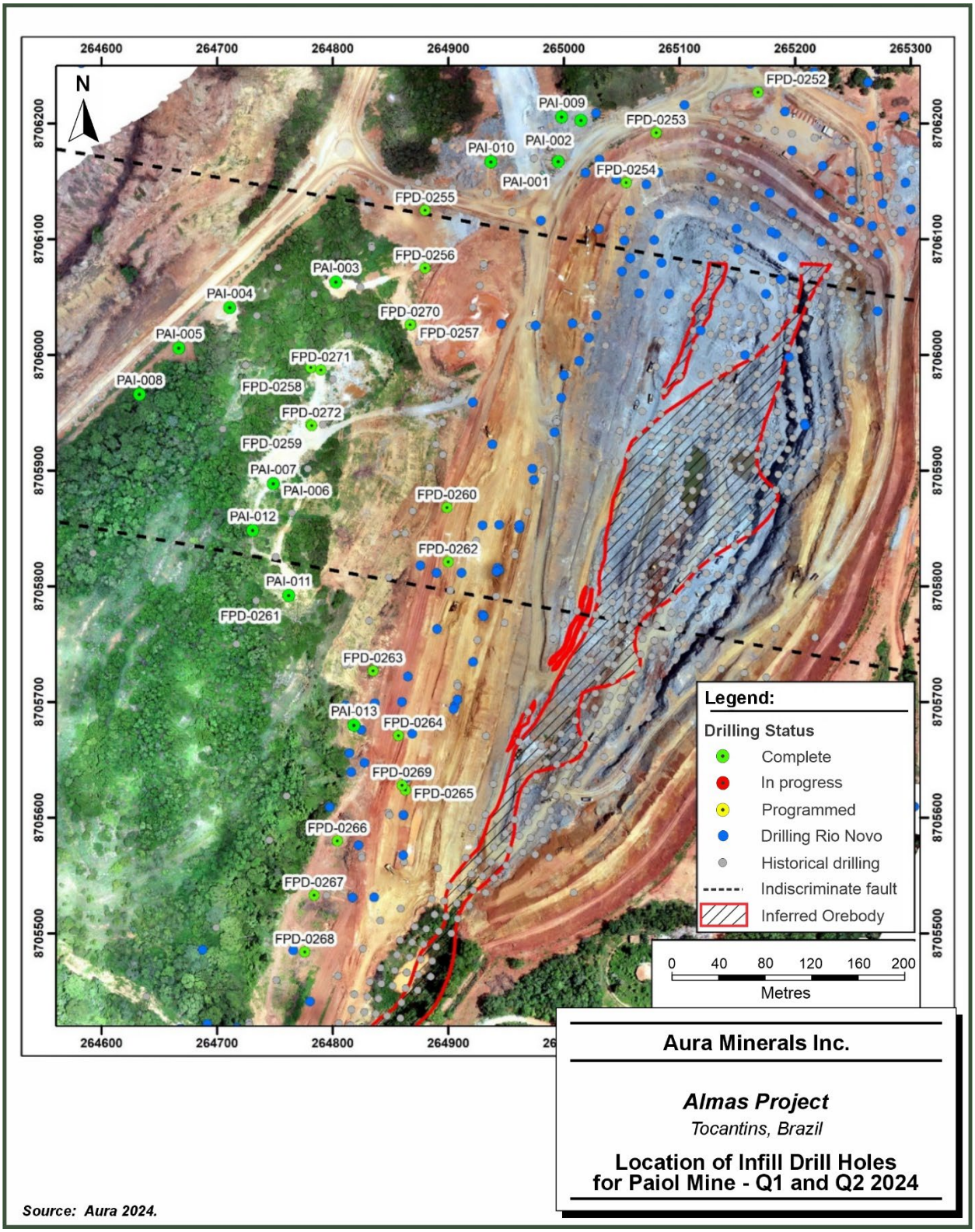
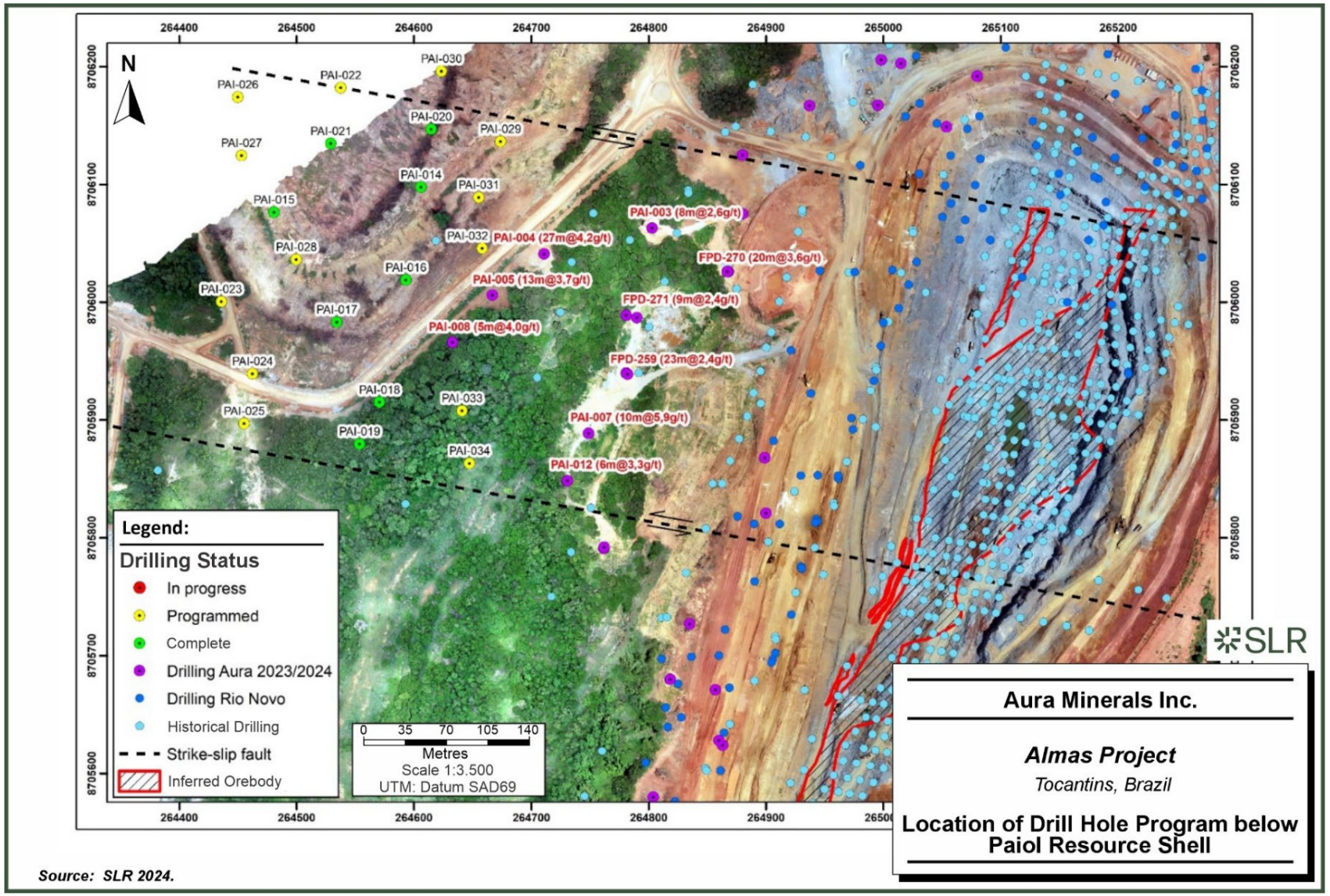


**Figure 7-9: Location of Drill Hole Program below Paiol Resource Shell**

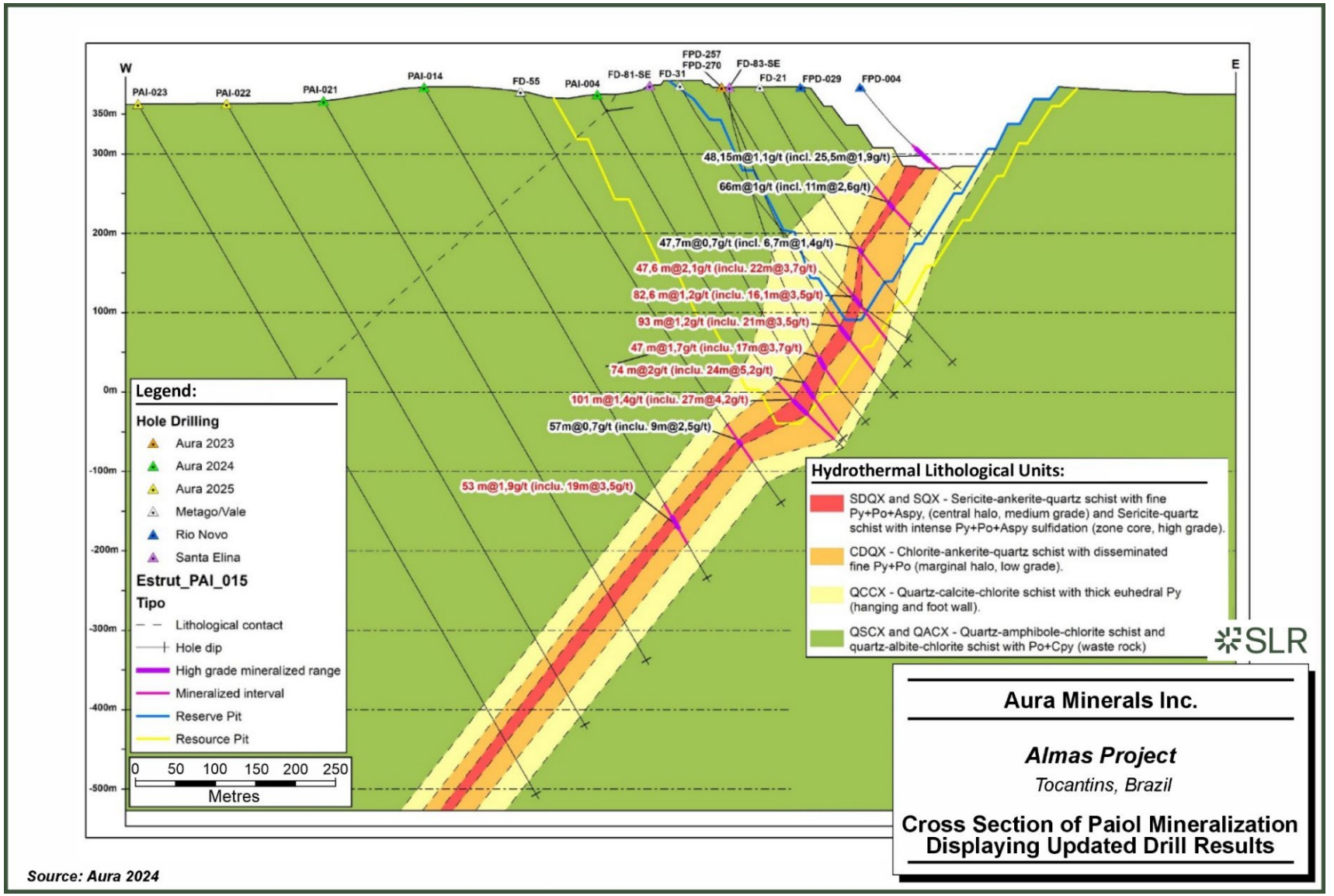



*Source: SLR 2024.*

**Table 7-3: Significant Intercepts from Paiol Exploration 2024 Drill Program**

| Hole | From (m) | To (m) | Length (m) | Au (g/t) |
|---|---|---|---|---|
| FPD-0257 | 299.00 | 379.60 | 80.60 | 1.20 |
| | 308.85 | 324.95 | 16.10 | 3.55 |
| FPD-0259 | 346.40 | 380.10 | 33.70 | 1.83 |
| | 371.10 | 377.10 | 6.00 | 7.49 |
| FPD-0260 | 214.70 | 276.70 | 62.00 | 1.19 |
| | 229.30 | 244.70 | 15.40 | 3.37 |
| FPD-0265 | 134.90 | 166.75 | 31.85 | 1.00 |
| | 159.00 | 164.75 | 5.75 | 3.43 |
| FPD-0270 | 320.40 | 402.40 | 82.00 | 1.42 |
| | 337.40 | 358.75 | 21.35 | 3.51 |
| FPD-0271 | 376.15 | 428.30 | 52.15 | 0.68 |
| | 392.45 | 402.00 | 9.55 | 2.40 |
| FPD-0272 | 369.70 | 404.80 | 35.10 | 1.00 |
| | 398.80 | 401.80 | 3.00 | 6.18 |
| PAI-001 | 259.75 | 306.00 | 46.25 | 0,6 |
| | 289.00 | 293.00 | 4.00 | 3.40 |
| | 325.55 | 329.35 | 3.80 | 3.20 |
| PAI-003 | 402.85 | 459.55 | 56.70 | 1.00 |
| | 419.60 | 427.60 | 8.00 | 2.60 |
| PAI-004 | 429.20 | 530.30 | 101.10 | 1.40 |
| | 456.55 | 483.20 | 26.65 | 4.20 |
| | 472.20 | 479.20 | 7.00 | 11.20 |
| PAI-005 | 470.20 | 519.25 | 49.05 | 1.30 |
| | 480.90 | 493.95 | 13.05 | 3.70 |
| PAI-007 | 370.90 | 407.00 | 36.10 | 2.00 |
| | 395.90 | 406.00 | 10.10 | 5.90 |
| PAI-008 | 466.50 | 508.50 | 42.00 | 0.80 |
| | 488.50 | 493.50 | 5.00 | 4.00 |
| PAI-012 | 380.15 | 414.95 | 34.80 | 1,00 |
| | 403.15 | 409.95 | 6.80 | 3.30 |
| PAI-014 | 562.25 | 606.20 | 43.95 | 1.60 |
| | 574.20 | 593.20 | 19.00 | 2.80 |
| | 574.20 | 577.05 | 2.85 | 8.20 |
| | 588.15 | 593.20 | 5.05 | 4.70 |
| *Widths are apparent | | | | |

**Figure 7-10: Cross Section of Paiol Mineralization Displaying Updated Drill Results 2023-2024**



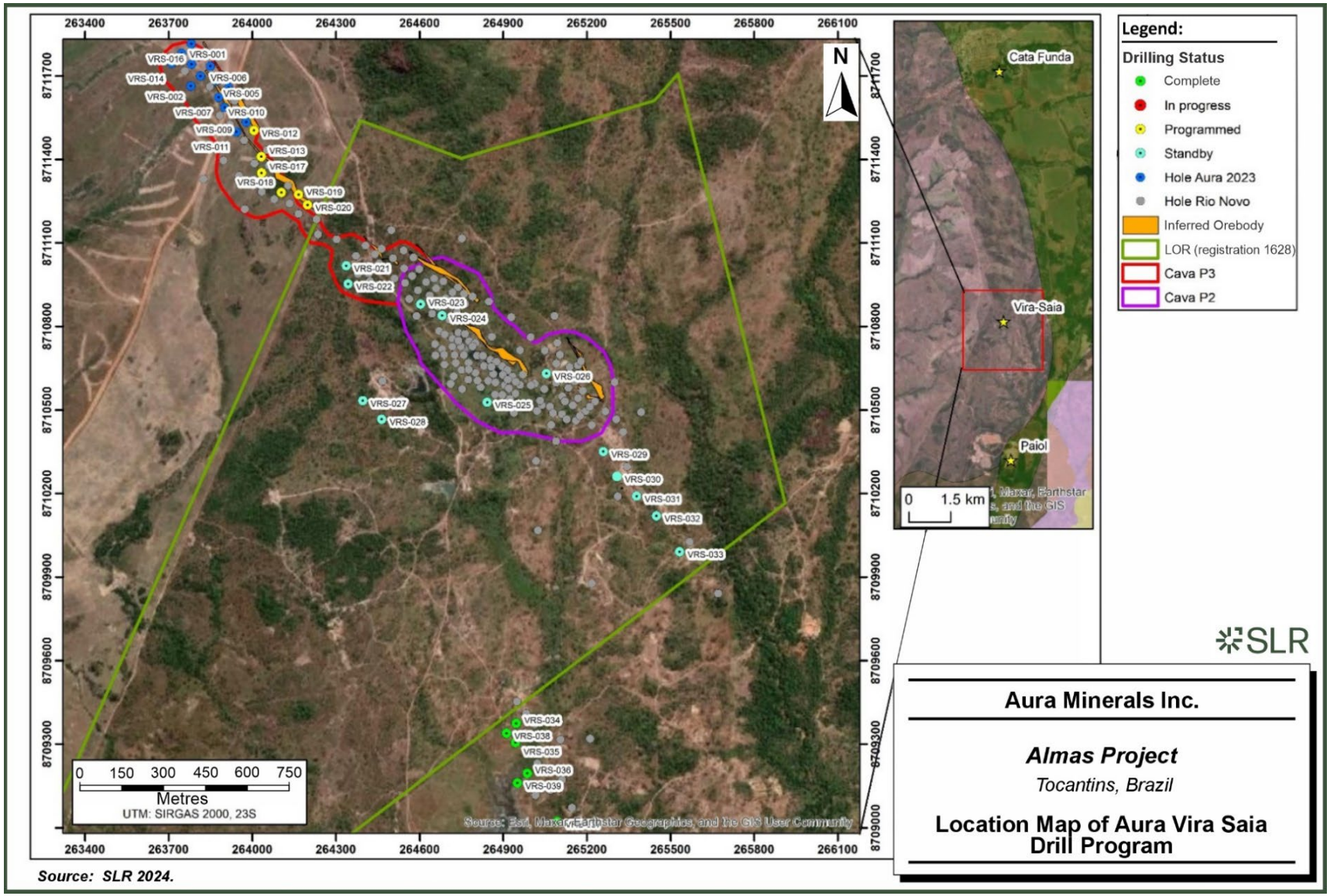

*Source: Aura 2024*

#### 7.2.2.2 Vira Saia

Located approximately five kilometres from the Paiol mine (Figure 7-11), the Vira Saia deposit is situated within a granodioritic dome of the Serra das Areias Suite, associated with a shear zone (strike-slip fault) discordant to the trend of the Riachão do Ouro greenstone belt.

A total of 20 diamond drilling holes were carried out in 2024, totalling 2,614.00 m drilled. The objective of this drilling was to upgrade Inferred Resources to Indicated Resources. It is still necessary, however, to tighten the infill drilling grid to cover some gaps to complete this resource upgrade. Table 7-4 summarizes some of the results from this program.

**Figure 7-11: Location Map of Aura Vira Saia Drill Program 2024**




*Source: SLR 2024.*

**Table 7-4: Significant Intercepts from Vira Saia Exploration**

| Hole | From (m) | To (m) | Length (m) | Au (g/t) |
|---|---|---|---|---|
| VRS-002 | 52.30 | 63.00 | 10.70 | 0.34 |
| | 52.30 | 53.30 | 1.00 | 1.34 |
| VRS-003 | 17.60 | 38.15 | 20.55 | 1.17 |
| | 24.50 | 34.50 | 10.00 | 2.37 |
| VRS-004 | 1.85 | 2.85 | 1.00 | 0.30 |
| | 34.10 | 35.10 | 1.00 | 0.30 |
| VRS-006 | 9.10 | 15.10 | 6.00 | 0.35 |
| | 13.10 | 14.10 | 1.00 | 1.08 |
| VRS-007 | - | - | - | NEGATIVE |
| VRS-008 | 4.25 | 6.25 | 2.00 | 3.20 |
| | 12.25 | 19.00 | 6.75 | 1.00 |
| | 12.25 | 13.25 | 1.00 | 5.00 |
| | 53.30 | 55.00 | 1.70 | 1.90 |
| | 53.30 | 54.30 | 1.00 | 3.20 |
| VRS-009 | - | - | - | NEGATIVE |
| VRS-011 | 28.20 | 51.35 | 23.15 | 0.40 |
| | 50.35 | 51.35 | 1.00 | 2.65 |
| VRS-014 | - | - | - | NEGATIVE |
| VRS-034 | 42.70 | 48.70 | 6.00 | 4.80 |
| VRS-035 | 126.80 | 129.80 | 3.00 | 1.20 |
| VRS-036 | 76.20 | 77.70 | 1.50 | 1.00 |
| | 83.70 | 87.70 | 4.00 | 1.40 |
| VRS-038 | 124.20 | 130.20 | 6.00 | 0.60 |
| | 128.20 | 130.20 | 2.00 | 1.20 |
| VRS-039 | 160.35 | 168.40 | 8.05 | 0.50 |
| | 164.05 | 166.05 | 2.00 | 1.40 |
| | 176.55 | 177.55 | 1.00 | 1.60 |
| *Widths are apparent, not true widths. | | | | |

## 7.2.3 Regional Target Drilling (2021 to 2024)

### 7.2.3.1 Morro do Carneiro Target

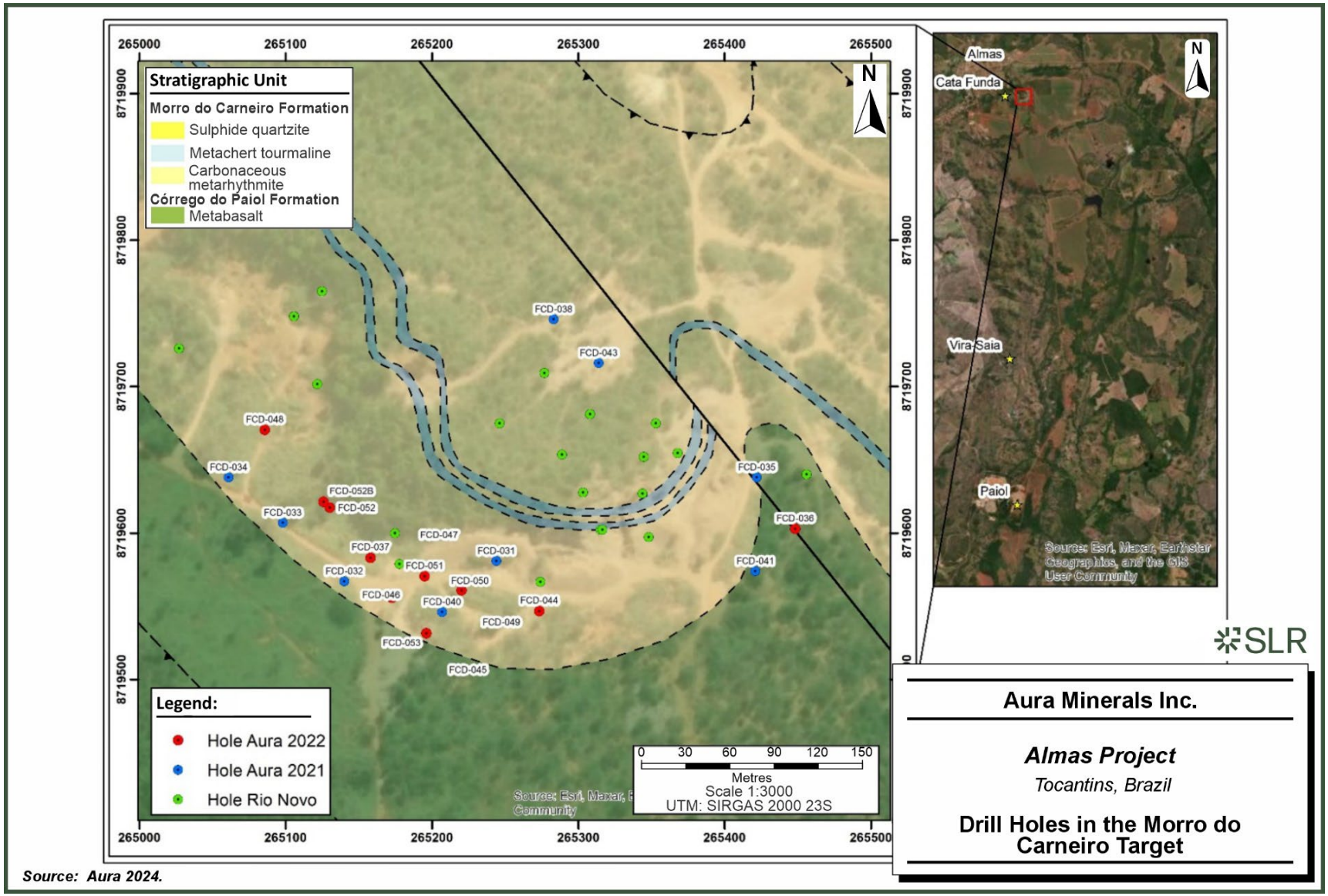
The Morro do Caneiro target is located near the city of Almas and approximately 15 km north of the Paiol mine (Figure 7-12). It is situated within the metavolcano-sedimentary rocks at the top

of the Riachão do Ouro greenstone belt (Morro do Carneiro Formation). The gold mineralization is primarily hosted in metachert tourmaline (guide layer), with intercalations of felsic metavolcanic rocks, embedded in carbonaceous metaritmites. Overlying these metavolcano-sedimentary rocks are layers of metabasalts from the Córrego do Paiol Formation, suggesting that the area lies on the inverted flank of a major fold (anticline/syncline?).

Under Rio Novo, thirty exploration drill holes were completed, which subsequently guided Aura's drilling program initiated in 2021. During that year, nineteen diamond drill holes were drilled, totalling 4,852.75 m.

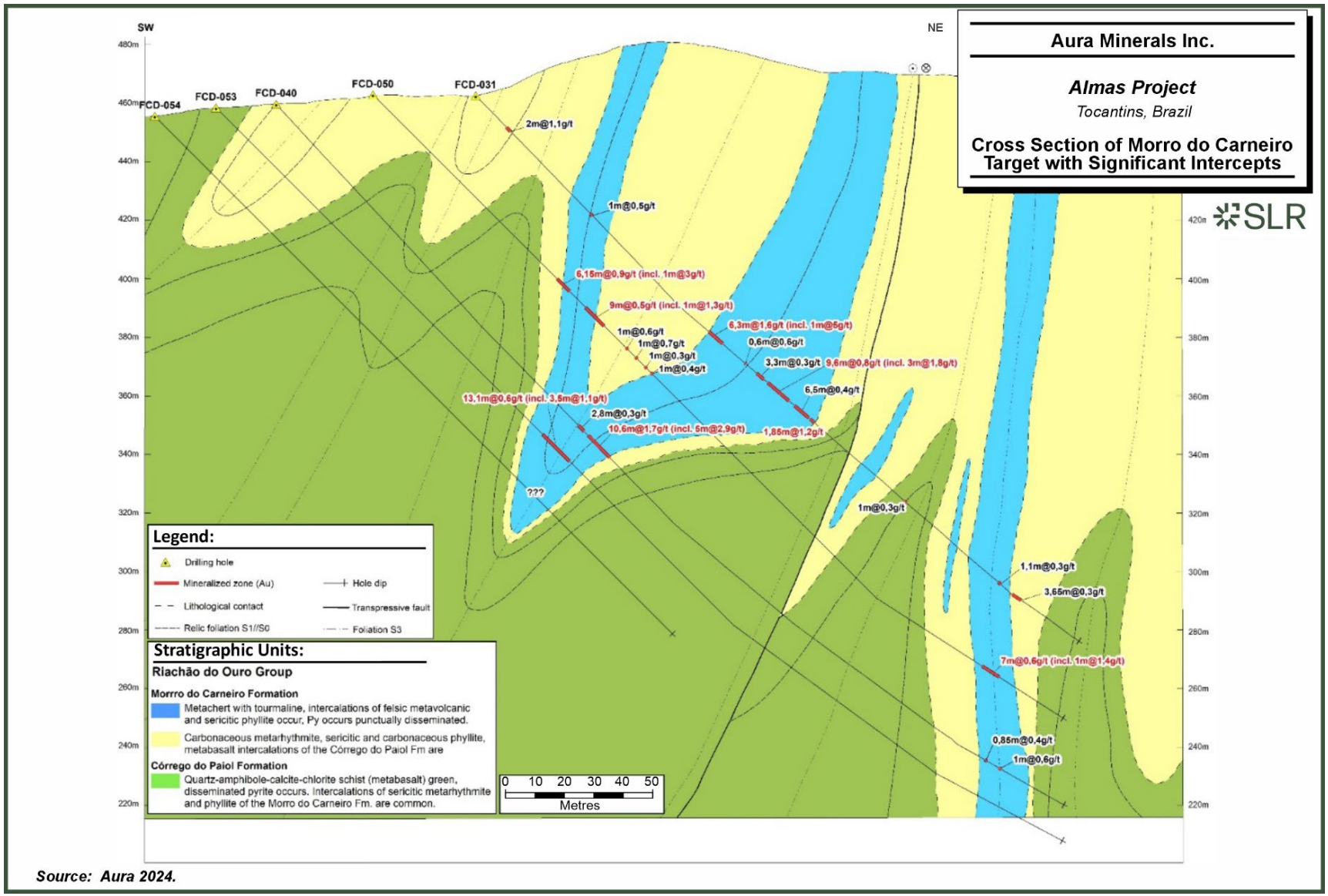
Several positive results were obtained, with high-grade intercepts (>1 g/t Au) encountered, however, high-grade intercepts are always intercalated with lower-grade intervals, indicating the geological complexity of the target. The area is characterized by numerous lithological intercalations, as well as a structural arrangement indicating an overlapping fold system (Figure 7-13). Additionally, there is potential to extend the mineralization along the northwest strike and further drilling is required to test the extents and continuity of the mineralization. Some positive results from the drill program are outlined in Table 7-5.

**Figure 7-12: Drill Holes in the Morro do Carneiro Target**




*Source: Aura 2024.*

**Figure 7-13: Cross Section of Morro do Carneiro Target with Significant Intercepts**




*Source: Aura 2024.*

**Table 7-5: Significant Intercepts from Morro do Carneiro Exploration**

| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| FCD-031 | 15.00 | 17.00 | 2.00 | 1.10 |
| | 113.20 | 119.50 | 6.30 | 1.51 |
| | 115.20 | 116.20 | 1.00 | 5.00 |
| | 140.00 | 161.00 | 21.00 | 0.60 |
| | 140.80 | 143.55 | 2.75 | 1.80 |
| | 159.15 | 160.00 | 0.85 | 1.90 |
| FCD-032 | 78.35 | 79.60 | 1.25 | 1.10 |
| | 128.20 | 129.35 | 1.15 | 1.90 |
| FCD-034 | 136.20 | 151.35 | 15.15 | 0.38 |
| | 142.40 | 143.35 | 0.95 | 1.14 |
| | 173.00 | 174.05 | 1.05 | 1.20 |
| FCD-037 | 42.00 | 46.15 | 4.15 | 1.18 |
| | 42.00 | 43.00 | 1.00 | 2.70 |
| | 82.25 | 84.95 | 2.70 | 0.88 |
| | 82.25 | 83.25 | 1.00 | 1.20 |
| FCD-038 | 120.55 | 121.90 | 1.35 | 3.20 |
| | 282.30 | 283.75 | 1.45 | 1.23 |
| FCD-040 | 155.50 | 166.10 | 10.60 | 1.58 |
| | 159.30 | 164.30 | 5.00 | 2.93 |
| FCD-041 | 152.85 | 153.85 | 1.00 | 5.30 |
| FCD-043 | 89.25 | 94.25 | 5.00 | 0.94 |
| | 91.25 | 93.25 | 2.00 | 1.70 |
| | 137.00 | 137.60 | 0.60 | 1.52 |
| | 254.15 | 256.15 | 2.00 | 1.15 |
| | 265.30 | 268.65 | 3.35 | 0.83 |
| | 267.30 | 268.65 | 1.35 | 1.22 |
| FCD-046 | 136.60 | 137.60 | 1.00 | 1.40 |
| | 193.65 | 198.00 | 4.35 | 0.82 |
| | 197.00 | 198.00 | 1.00 | 1.82 |
| FCD-048 | 93.70 | 95.40 | 1.70 | 1.35 |
| | 100.70 | 101.40 | 0.70 | 1.26 |
| | 121.10 | 124.15 | 3.05 | 0.80 |

| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| FCD-050 | 88.85 | 95.00 | 6.15 | 0.89 |
| | 93.85 | 95.00 | 1.15 | 3.07 |
| | 102.65 | 122.65 | 20.00 | 0.33 |
| | 109.65 | 110.65 | 1.00 | 1.30 |
| | 286.80 | 293.80 | 7.00 | 0.58 |
| | 290.80 | 291.80 | 1.00 | 1.48 |
| FCD-051 | 101.50 | 102.50 | 1.00 | 1.40 |
| | 189.80 | 190.80 | 1.00 | 10.90 |
| FCD-053 | 157.70 | 170.80 | 13.10 | 0.57 |
| | 161.70 | 166.25 | 4.55 | 1.20 |

#### 7.2.3.2 Nova Prata Target

Located approximately 10 km southeast of the Paiol mine, the Nova Prata target is found in the upper portion of the Córrego do Paiol Formation, characterized by intercalations of mafic rocks (metabasalts) with intermediate rocks.

Drilling began in 2022, with three drill holes completed. In 2023, an additional four holes were drilled, followed by six more in 2024, resulting in a total of thirteen drill holes and 3,057.75 m of diamond drilling. The location of the drilling is shown on the map in Figure 7-14. These results suggest the presence of mineralization with associated hydrothermal alteration similar to that observed at the Paiol mine, where mineralization is associated with a chlorite-ankerite-quartz schist (metabasalt) layer, characterized by pervasive mylonitic foliation and intense sulphidation, with oxidized to fresh pyrite. Significant results from the drilling are presented in Table 7-6 and are depicted in Figure 7-15.

**Table 7-6: Significant Results from Nova Prata Exploration**

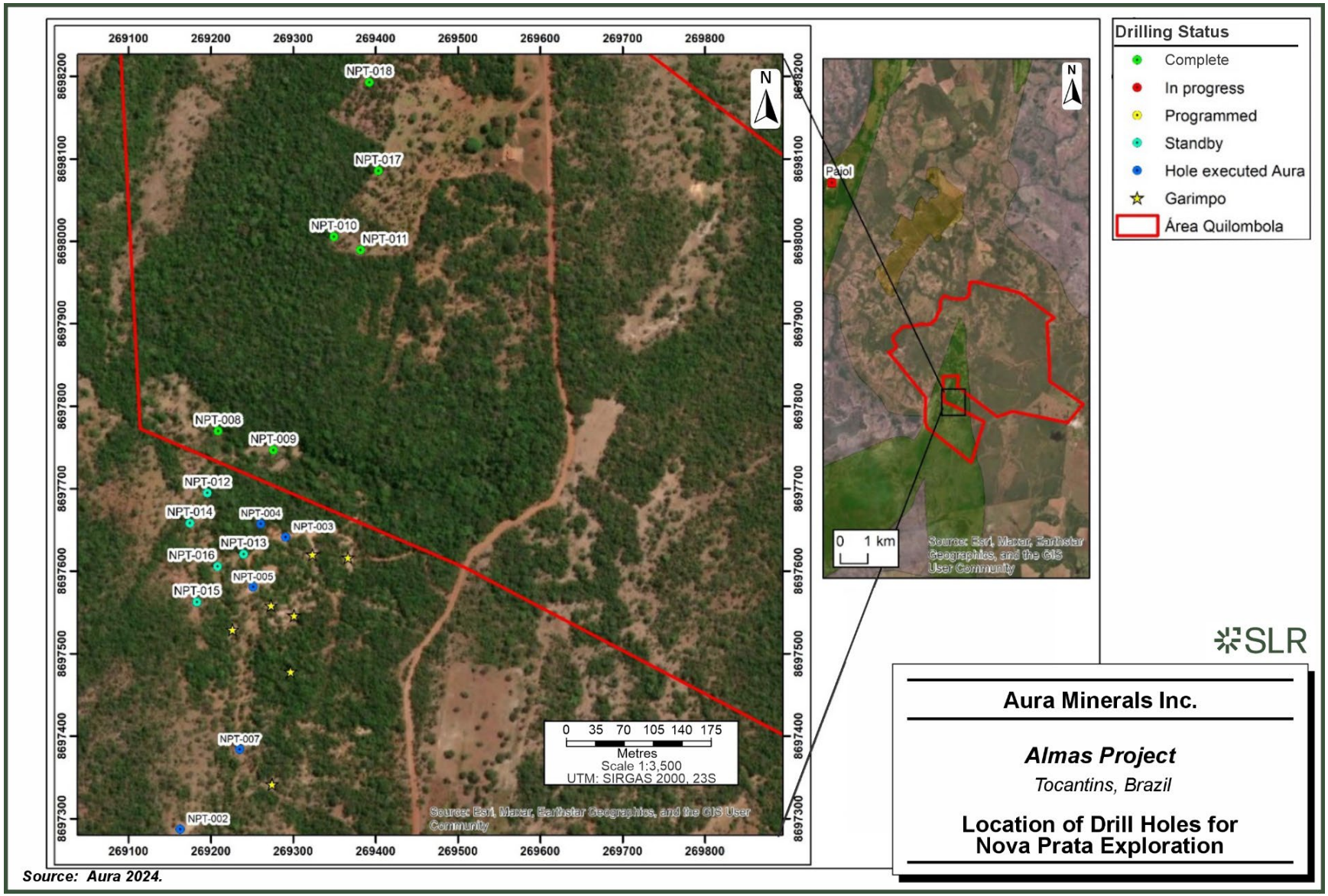
| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| NPT-002 | 199.50 | 200.80 | 1.30 | 1.08 |
| | 225.80 | 226.80 | 1.00 | 1.17 |
| | 251.10 | 254.10 | 3.00 | 0.87 |
| | 253.10 | 254.10 | 1.00 | 1.57 |
| | 263.10 | 264.10 | 1.00 | 1.48 |
| NPT-003 | 0.00 | 39.40 | 39.40 | 0.30 |
| | 30.90 | 34.40 | 3.50 | 1.20 |
| | 53.25 | 54.25 | 1.00 | 1.20 |
| | 72.90 | 80.85 | 7.95 | 0.37 |
| NPT-004 | 19.00 | 20.00 | 1.00 | 1.50 |

| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| | 40.00 | 89.20 | 49.20 | 0.66 |
| | 66.00 | 86.20 | 20.20 | 1.13 |
| | 127.00 | 141.00 | 14.00 | 0.34 |
| | 128.00 | 129.00 | 1.00 | 1.50 |
| | 171.00 | 172.00 | 1.00 | 1.18 |
| NPT-005 | 34.85 | 42.85 | 8.00 | 0.30 |
| | 41.85 | 42.85 | 1.00 | 1.20 |
| | 52.85 | 53.85 | 1.00 | 1.20 |
| | 64.85 | 66.85 | 2.00 | 0.54 |
| NPT-006 | 54.90 | 58.90 | 4.00 | 0.66 |
| | 54.90 | 55.90 | 1.00 | 2.18 |
| NPT-007 | 41.10 | 42.10 | 1.00 | 0.81 |
| | 118.85 | 119.85 | 1.00 | 0.46 |
| | 194.45 | 195.45 | 1.00 | 0.43 |
| | 208.45 | 209.45 | 1.00 | 2.00 |
| NPT-008 | 6.00 | 7.00 | 1.00 | 3.1 |
| | 143.60 | 152.60 | 9.00 | 0.3 |
| | 145.60 | 146.60 | 1.00 | 1.3 |
| | 159.60 | 161.60 | 2.00 | 0.4 |
| NPT-009 | 55.80 | 56.80 | 1.00 | 1.8 |
| | 70.60 | 73.60 | 3.00 | 0.7 |
| | 79.60 | 108.60 | 29.00 | 0.4 |
| | 85.60 | 89.60 | 4.00 | 1.1 |
| | 140.60 | 143.60 | 3.00 | 1 |
| NPT-011 | 110.35 | 111.35 | 1.00 | 0.8 |
| | 120.40 | 121.40 | 1.00 | 1.3 |
| NPT-017 | 105.70 | 110.70 | 5.00 | 0.3 |
| | 105.70 | 106.70 | 1.00 | 0.9 |



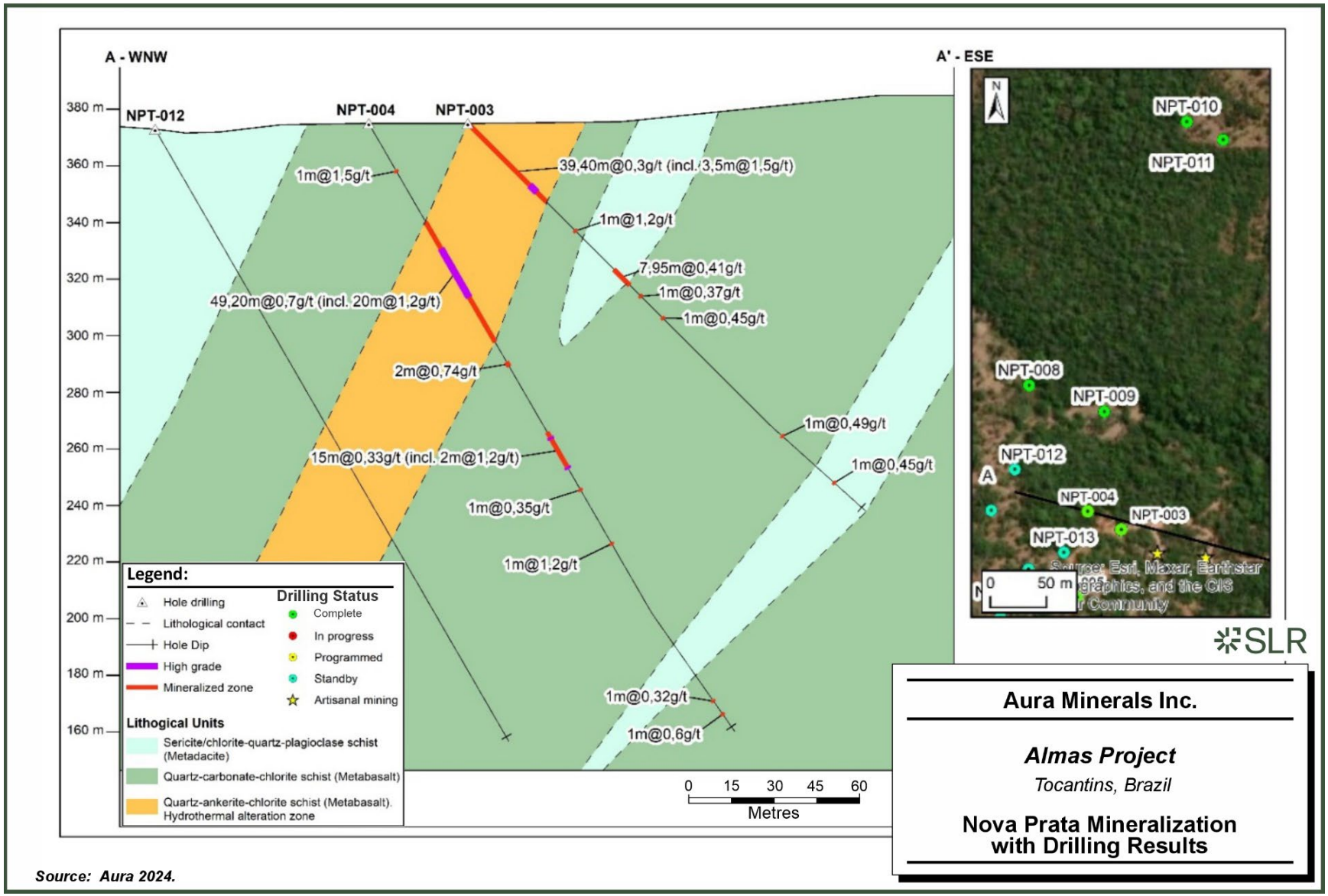


**Figure 7-14: Location of Drill Holes for Nova Prata Exploration**




*Source: Aura 2024.*

**Figure 7-15: Nova Prata Mineralization with Drilling Results**




***Source: Aura 2024.***

#### 7.2.3.3 Lagartixa Target

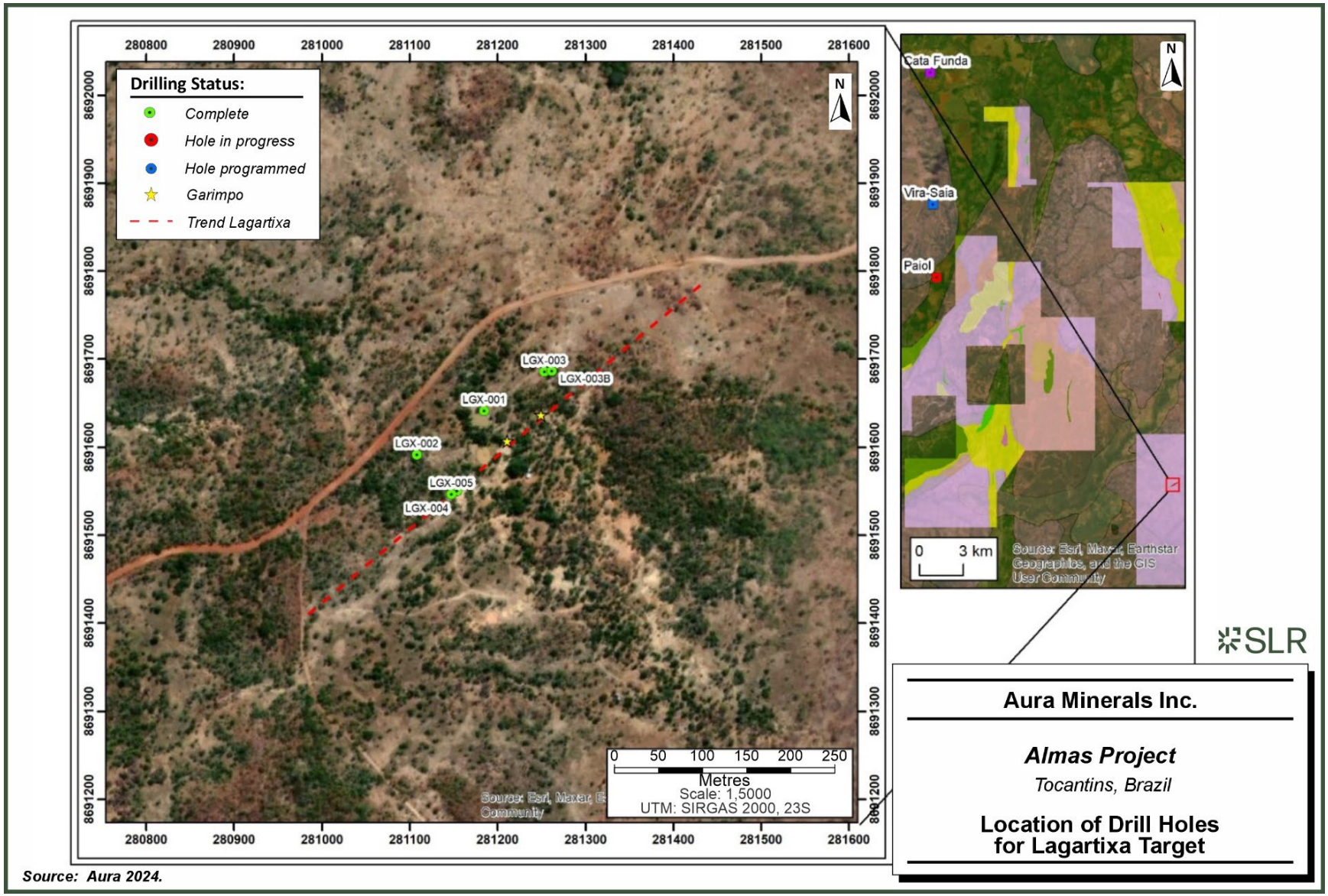
The Lagartixa target is located within the same geological context as the Vira Saia deposit, specifically within a granodioritic dome of the Serra das Areias Suite, where shear zones are discordant to the trend of the Riachão do Ouro greenstone belt. The map in Figure 7-16 illustrates the location of the Lagartixa target in relation to the Paiol mine, as well as the locations of the completed drill holes.

A total of five drill holes have been completed by Aura in 2022 and 2023, totalling 771.10 m of drilling. Notable intersections indicate the presence of mineralization with characteristics similar to those observed at Vira Saia. This includes a mylonitized granodiorite with oxidized to fresh pyrite sulphidation, and the presence of free gold associated with quartz veins (Figure 7-17). Significant intercepts from the drilling are shown in Table 7-7.

**Table 7-7: Significant Results from Lagartixa Target Exploration Program**

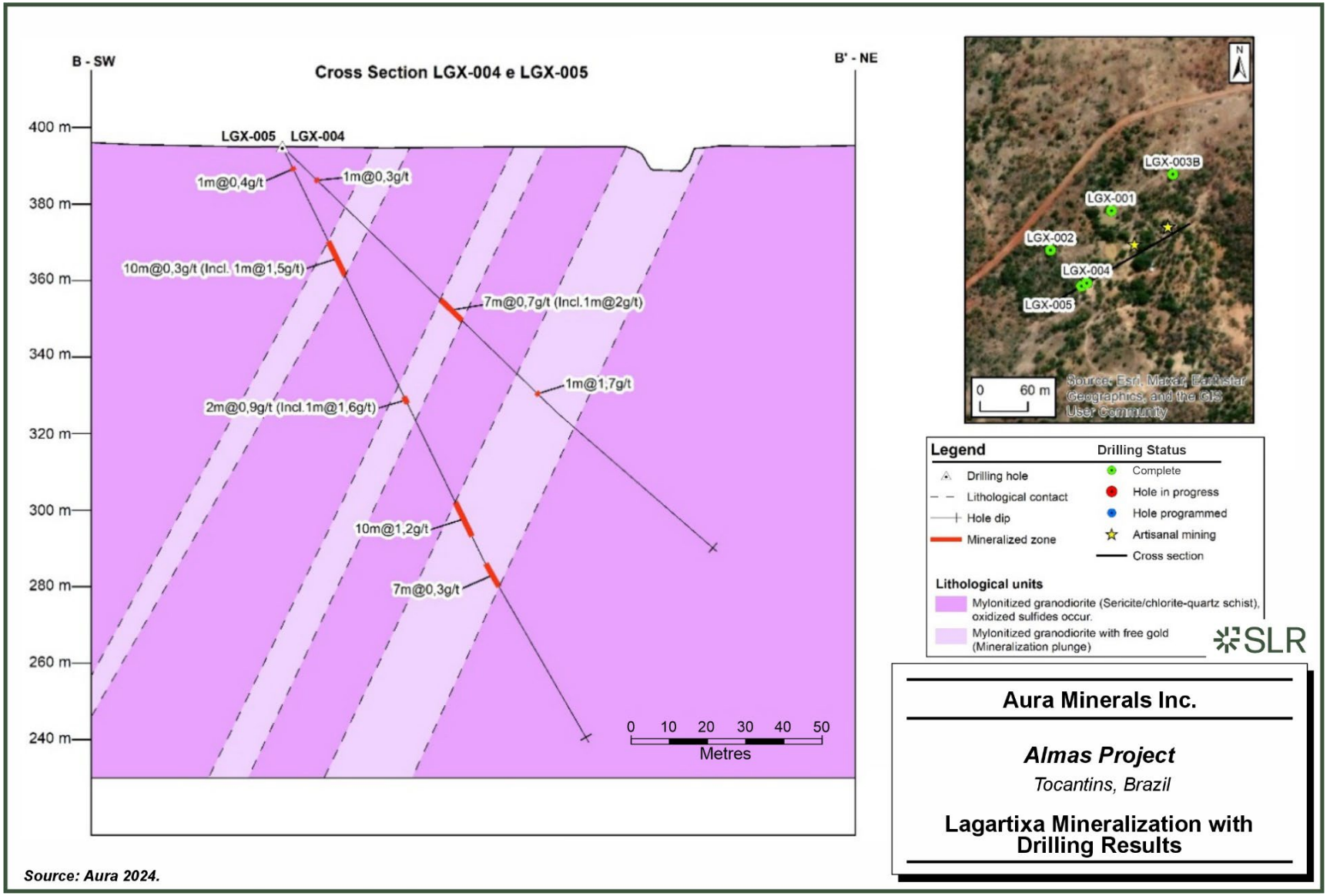
| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| LGX-001 | 25.40 | 26.40 | 1.00 | 6.90 |
| LGX-002 | 98.80 | 100.80 | 2.00 | 9.74 |
| | 99.80 | 100.80 | 1.00 | 18.10 |
| LGX-003B | 128.20 | 129.20 | 1.00 | 0.44 |
| LGX-004 | 58.50 | 65.50 | 7.00 | 0.65 |
| | 64.50 | 65.50 | 1.00 | 2.00 |
| | 92.50 | 93.50 | 1.00 | 1.70 |
| LGX-005 | 27.55 | 37.55 | 10.00 | 0.36 |
| | 30.55 | 31.55 | 1.00 | 1.59 |
| | 73.70 | 74.70 | 1.00 | 1.60 |
| | 103.35 | 113.35 | 10.00 | 1.21 |
| | 103.35 | 106.35 | 3.00 | 1.96 |

**Figure 7-16: Location of Drill Holes for Lagartixa Target**




*Source: Aura 2024.*

**Figure 7-17: Lagartixa Mineralization with Drilling Results**




*Source: Aura 2024.*

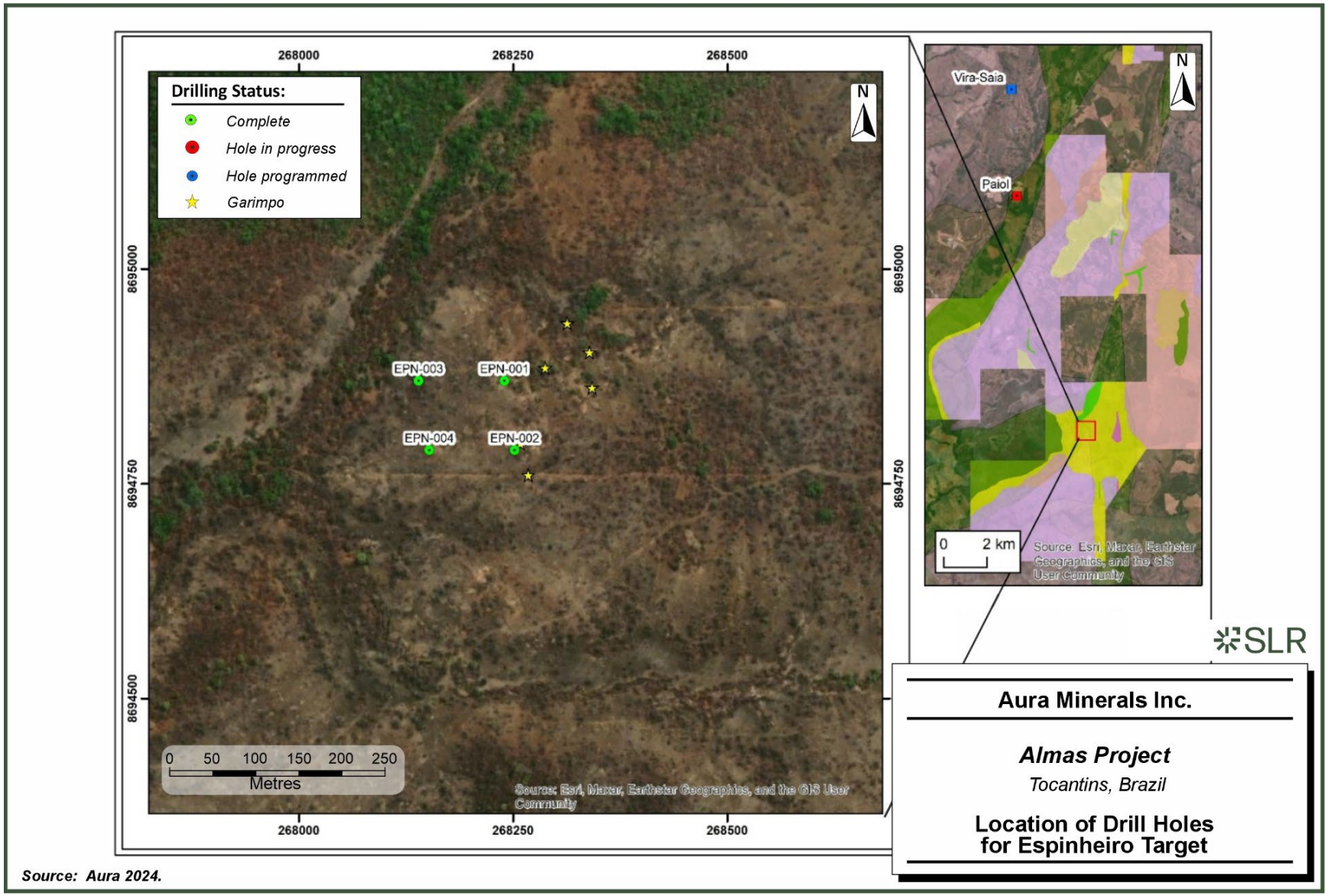
#### 7.2.3.4 Espinheiro Target

The Espinheiro target is located within the same greenstone belt as the Nova Prata target, approximately 12 km from the Paiol mine (Figure 7-18). The geological context of the gold mineralization is characterized by intercalations of mafic rocks (metabasalt) with intermediate rocks (metadacite), indicating a higher portion of the Córrego do Paiol Formation. Four diamond drill holes have been completed by Aura in 2023-2024, totalling 867.90 m, with several high-grade intervals intercepted (Table 7-8).

**Table 7-8: Significant Intercepts from Espinheiro Target Exploration**

| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| EPN-001 | 41.25 | 42.25 | 1.00 | 6.20 |
| | 117.45 | 118.45 | 1.00 | 0.72 |
| EPN-002 | 13.40 | 18.40 | 5.00 | 0.82 |
| | 17.40 | 18.40 | 1.00 | 3.73 |
| | 66.25 | 67.25 | 1.00 | 0.35 |
| EPN-003 | 85.10 | 86.10 | 1.00 | 0.64 |
| EPN-004 | 61.90 | 62.90 | 1.00 | 0.50 |
| | 70.60 | 77.50 | 6.90 | 0.66 |
| | 74.75 | 77.20 | 2.45 | 1.50 |
| | 147.75 | 148.75 | 1.00 | 6.50 |

**Figure 7-18: Location of Drill Holes for Espinheiro Target**




*Source: Aura 2024.*

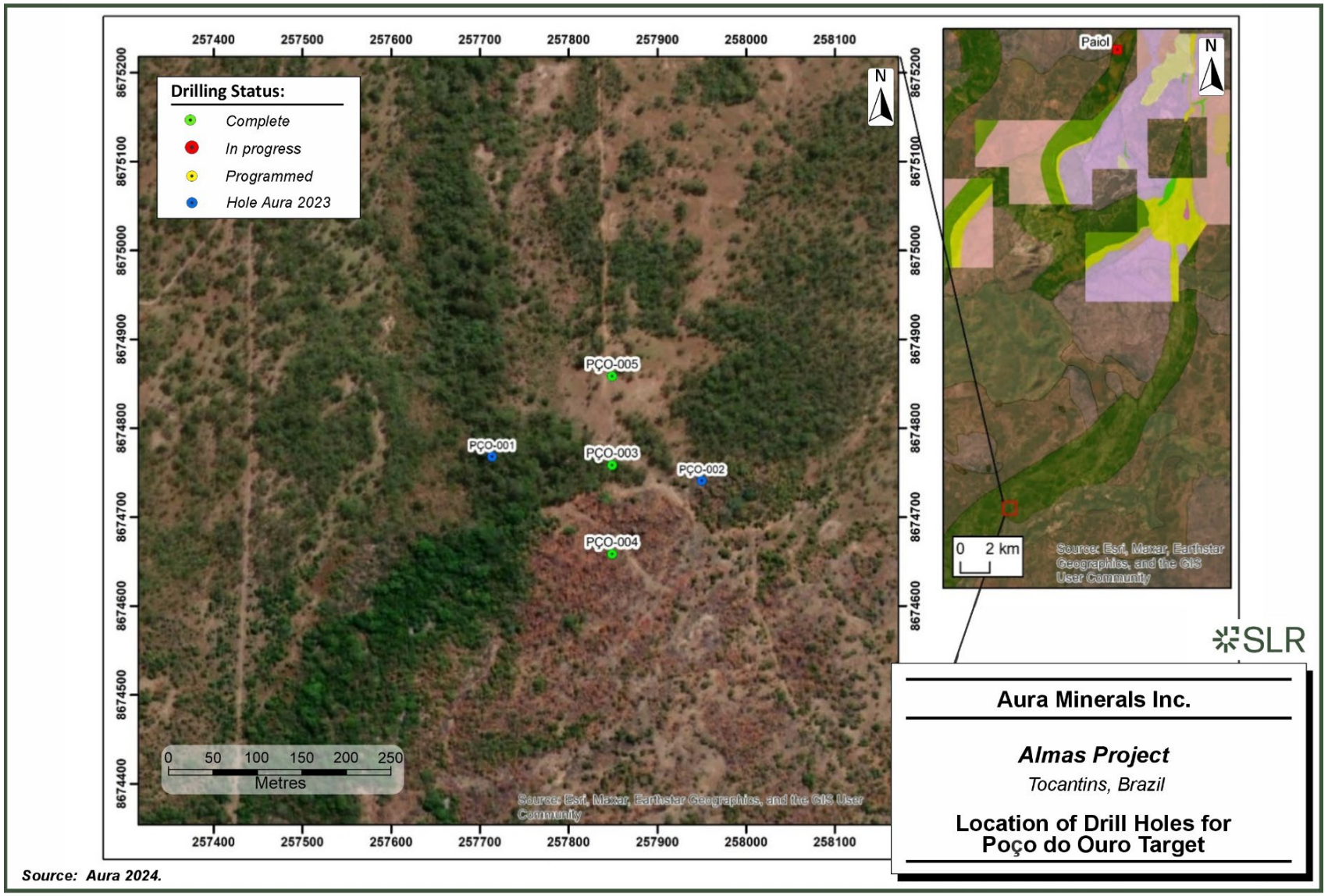
#### 7.2.3.5 Poço do Ouro Target

The Poço do Ouro target is located approximately 30 km south of the Paiol mine. Similar to the Nova Prata and Espinheiro targets, the mineralization is associated with the upper portion of the Córrego do Paiol Formation, where intercalations of metabasalt and metadacite occur. However, a unique feature of the Poço do Ouro target is that the intercepted mineralized zone is also associated with possible metarhyolites, exhibiting pyrite + chalcopyrite sulphidation, along with tourmaline veining. A total of five drill holes were completed by Aura in 2023-2024 for 1,021.85 m of drilling (Figure 7-19). Some program highlights are shown in Table 7-9.

**Table 7-9: Significant Intercepts from Poço do Ouro Exploration**

| Hole | From | To | Length | Au (g/t) |
|---|---|---|---|---|
| PÇO-001 | 164.00 | 171.95 | 7.95 | 0.36 |
| | 178.95 | 180.50 | 1.55 | 0.68 |
| | 178.95 | 179.95 | 1.00 | 1.04 |
| | 206.00 | 207.00 | 1.00 | 0.47 |
| PÇO-002 | 24.40 | 38.60 | 14.20 | 0.45 |
| | 34.60 | 37.60 | 3.00 | 1.20 |
| PÇO-003 | 74.15 | 75.15 | 1.00 | 4.50 |
| | 96.75 | 103.75 | 7.00 | 1.10 |
| | 100.75 | 101.75 | 1.00 | 3.40 |
| PÇO-004 | 26.70 | 28.70 | 2.00 | 1.10 |
| | 26.70 | 27.70 | 1.00 | 1.90 |
| | 39.65 | 40.60 | 0.95 | 0.30 |
| PÇO-005 | 128.20 | 129.20 | 1.00 | 2.00 |
| | 168.75 | 169.75 | 1.00 | 0.60 |
| | 179.50 | 180.50 | 1.00 | 0.80 |

**Figure 7-19: Location of Drill Holes for Poço do Ouro Target**




*Source: Aura 2024.*

### 7.2.4 Drilling Procedures

Drilling on the Almas Project has been completed in various campaigns since 1985 by the VALE – METAGO joint venture, Santa Elina, Mineração Apuã, Rio Novo, and Aura. The main drilling methods included diamond core and reverse circulation (RC) drilling. Drilling collars were surveyed with SAD 1969 datum. Early holes were located by GPS and were re-surveyed by Total Station.

Downhole survey was carried out using GyroMaster, Stockholm Precision Tools.

Historically, core drilling used was a combination of HQ size (63.5 mm diameter) and NQ size (47.6 mm diameter). Drilling employed standard wireline methods and generally used split core tubes. Oriented core was taken where possible to allow accurate structural measurements. Drilling angles were in the range of 45° to 70° to intersect the structure and gold zones as near-perpendicular as possible. Aura completed downhole surveys on all the core holes using Maxibor instrumentation, a standard international tool. Downhole surveys completed by Rio Novo, VALE, and Mineração Apuã were also available for their core drilling programs.

The RC drilling sampling has been carried out each metre; each advanced metre is homogenized and collected. One half of each sample is sent to the laboratory, the other half is maintained in the core shed.

The auger drilling sampling has been carried out every metre; each advanced metre is homogenized and collected. Half of each sample is sent to the laboratory; the other half is maintained in the core shed.

The blasthole sampling has been carried out every one metre or 2.5 m, depending on the sampling method used.

Further details are provided in the following subsections that describe the drilling, logging, and sampling procedures used by Rio Nova and Aura.

#### 7.2.4.1 Previous Work (2010 – 2012)

The protocols described below have been compiled from information provided in Ghazanfari et al. (2021). This report incorporates data from RPM (2016).

Rio Novo utilized data exclusively from diamond core drilling for resource estimation in RPM (2016), therefore, the following discussion pertains primarily to diamond core sampling procedures. Between 2010 and 2012, diamond core drilling was conducted by SGS Geosol Drilling Ltda. (Geosol) under contract with Rio Novo. Geosol drilling crews were responsible for extracting the core, placing it into wooden core boxes, and sealing the boxes with tape or straps before transport. The core was transported by truck to Rio Novo's core processing facility located at the former Paiol mine.

Upon arrival at the core processing facility, the core was laid out, washed, and photographed. Logging and sample interval marking were carried out by Rio Novo geologists. Sample intervals were typically one metre in length but could vary based on specific sampling requirements or geological features, with maximum intervals of 1.5 m and minimum intervals of 0.5 m. Core logging included lithological, alteration, mineralization zone, structural, and geotechnical data. Structural and geotechnical observations included foliation, fractures, vein orientation, and faults. Wherever possible, oriented core samples were collected to improve structural accuracy. Core recovery and Rock Quality Designation (RQD) were measured and calculated for all drill intervals.

Core cutting was performed under the supervision of Rio Novo geologists by Geosol personnel using diamond-impregnated cutting saws, an industry standard. To the extent possible, the core was cut perpendicular to major vein orientations. Geosol bagged the samples according to Rio Novo's protocols, placing them in plastic bags marked with both electronic barcodes and handwritten labels. Each sample bag included one barcode tag inside and one outside the bag. Sample numbers were electronically entered into the database along with the corresponding sample intervals, generating an electronic sample submittal form.

The contractual relationship between Geosol and Rio Novo was strictly for the provision of drilling and analytical services during Rio Novo's exploration programs.

#### 7.2.4.2 Current Work (2022 – 2024)

Aura used data from diamond core, RC, and blasthole drilling for the current resource estimation.

**Diamond Drill Core Samples**

For diamond drill core samples, Aura continues to employ the same methods previously applied by Rio Novo.

**RC Samples**

For vertical RC drilling, sampling is conducted at one metre intervals. The collected material must pass through a cyclone and splitter attached to the drill rig to ensure proper homogenization. The equipment must be properly levelled to prevent segregation caused by density differences.

Each sample is labelled following a standardized naming convention, where each metre of depth corresponds to one sample (e.g., 0.00–1.00). It is the responsibility of the on-duty technician to verify the correct identification of samples and the completion of the sampling log based on the collected samples.

Samples are collected in polyethylene plastic bags. Three aliquots are prepared for each interval:

- The first aliquot (15%) is sent to the laboratory for analysis.
- The second aliquot (15%) is designated for metallurgical testing.
- The third aliquot (15%) is reserved for duplicate analysis as specified in the sampling plan. If no duplicates are needed, the third aliquot is retained for future use.

The sample aliquots to be sent to the laboratory are packed in polyethylene bags, clearly labelled with a tag and permanent marker or printed label following a standardized format. Bags are securely tied with cotton string. All three aliquots are weighed immediately after sampling, with weights recorded on a weight log specific to the drill hole. No data from multiple drill holes are recorded on the same log.

Recovery calculations are performed at the end of each hole and to ensure recovery greater than 75%. If recovery is less than 75%, a twin hole may be requested by Aura. Recovery calculations use assumed densities: 1.54 t/m³ for soil, 2.35 t/m³ for saprolite, and 2.78 t/m³ for fresh rock. The degree of weathering is determined from the geological description.

At each advance, a chip sample is collected and stored in a designated plastic tray. This tray holds two aliquots: one unaltered and the other sieved and washed to reveal rock fragments.





For highly weathered samples, the second aliquot is sieved, but not washed. These samples are preferably collected from rejected material.

After every maneuver, the hole, hoses, cyclone, and splitter are cleaned using compressed air. For wet or damp samples, cleaning is done with pressurized water. Wet samples are noted in the sampling log.

At the conclusion of drilling, the geology team confirms that all planned holes and samples have been completed. This verification process includes at least two team members to reduce errors. Once completed, samples are placed in the sample yard for dispatch. At the end of each shift, generated samples are transported to the shed for preparation (labeling) and insertion of quality assurance and quality control (QA/QC) samples (see Section 8.4 for QA/QC details) before delivery to the laboratory.

**Blasthole Samples**

Drill holes are identified according to a pre-determined sampling plan provided by the geologist or geology technician. The drilled holes are cross-checked with a printed version of the plan and those that have been sampled are marked on the printed form. This procedure ensures accuracy and traceability throughout the process.

Samples are collected using the dust collector attached to the drill rig, based on the Type 1 or Type 2 sampling method determined by the geology team. For Type 1 sampling, material is collected every 2.5”m, either in a clean bag or on a plastic sheet placed under the dust collector. After collection, the sample is quartered using the plastic sheet, homogenized, and formed into a cone. The cone is then split into equal portions using the fishbone method. Leftover material is used for duplicates, if required, or discarded. For Type 2 sampling, material is collected every one metre, stored in a clean bag or on a plastic sheet, and no duplicates are taken.

A permanent marker is used to label a sequential number on a clean sample bag, following the sampling plan. This method ensures there are no duplicate samples. After the sample is collected, a printed tag is placed inside the bag to ensure proper laboratory control.

Only dry holes with no water are sampled by blasthole. A safety distance of at least 20 m from operating drill rigs is maintained. During night operations, artificial lighting, visible identification, proper signaling, and equipment shutdown procedures are followed when necessary. Sampling tools are cleaned using compressed air instead of water to avoid material contamination.

Personnel are required to adhere to the following safety measures:

- Do not approach or interact with the machine while it is operating. Inform the operator before approaching and wait for confirmation.
- Sampling should only occur when the machine is fully locked and stationary.
- Never hold sample bags directly under the dust collector with your hands during operation.

Once field collection is complete, the samples are transported to a controlled area, such as the geology shed, to insert QA/QC samples (see Section 8.4 for QA/QC details). Subsequently, samples must be grouped into batches of 74 units and dispatched to the laboratory for analysis. Lastly, sampled holes are registered by the survey team, with guidance from the geology team, as soon as possible.





The SLR QP is of the opinion that there are no drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results and that the results are suitable for use in Mineral Resource estimation.

## 7.3 Hydrogeology Data

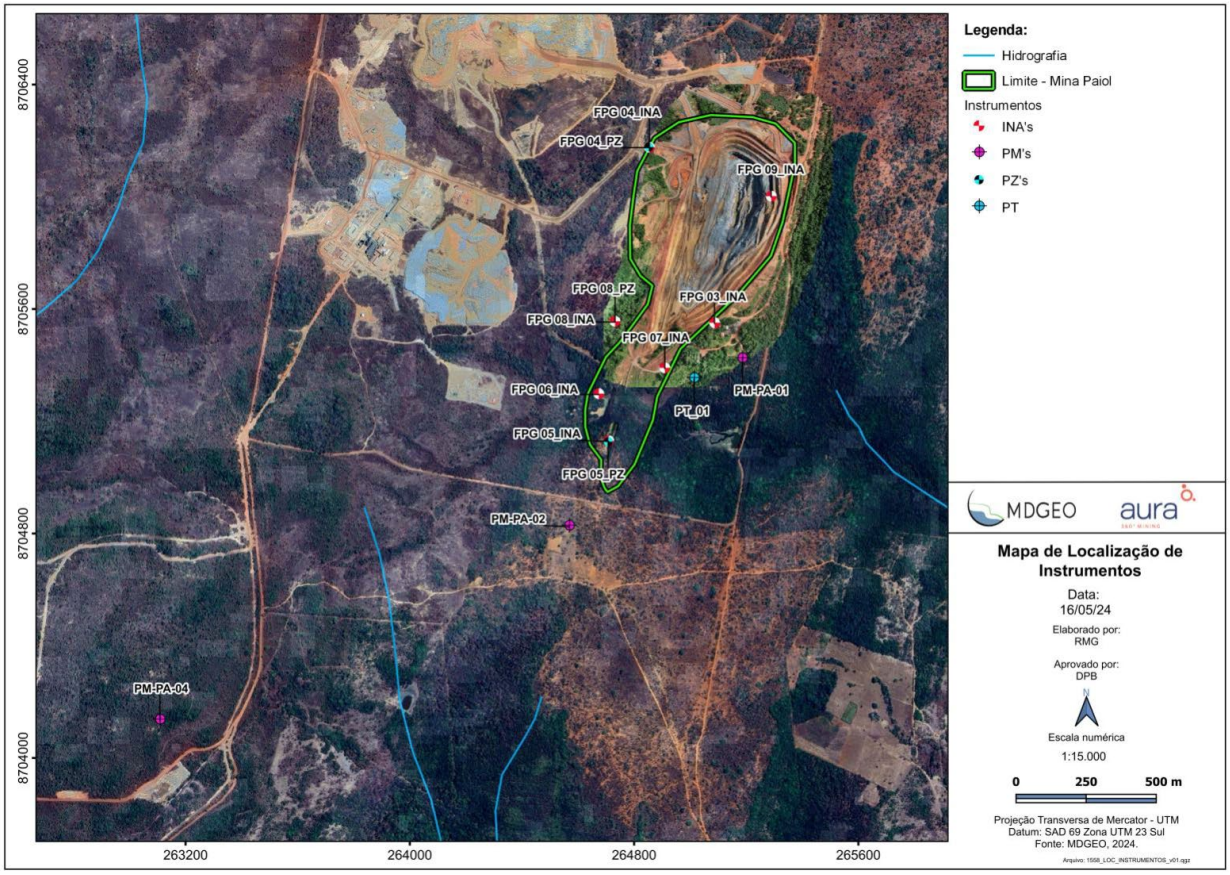
Hydrogeological data for the Paiol Mine and Almas deposit has been collected through dedicated hydrogeological drilling, piezometer installations, and pump tests conducted across the property. These data sources have been used to assess groundwater conditions, permeability, and dewatering requirements, supporting mine planning and geotechnical stability evaluations.

### 7.3.1 Hydrogeological Study of Paiol Mine Area

In June 2024 MDGEO was tasked with generating a geological study on the influence of water dynamics on the extraction of Paiol mine. The work involved the consolidation, analysis, and interpretation of geological, hydrogeological, and hydrological data. The preparation of the technical report aimed to present the obtained results clearly and in detail, proposing improvements and conclusions regarding the influence on the subterranean water dynamics of the study area.

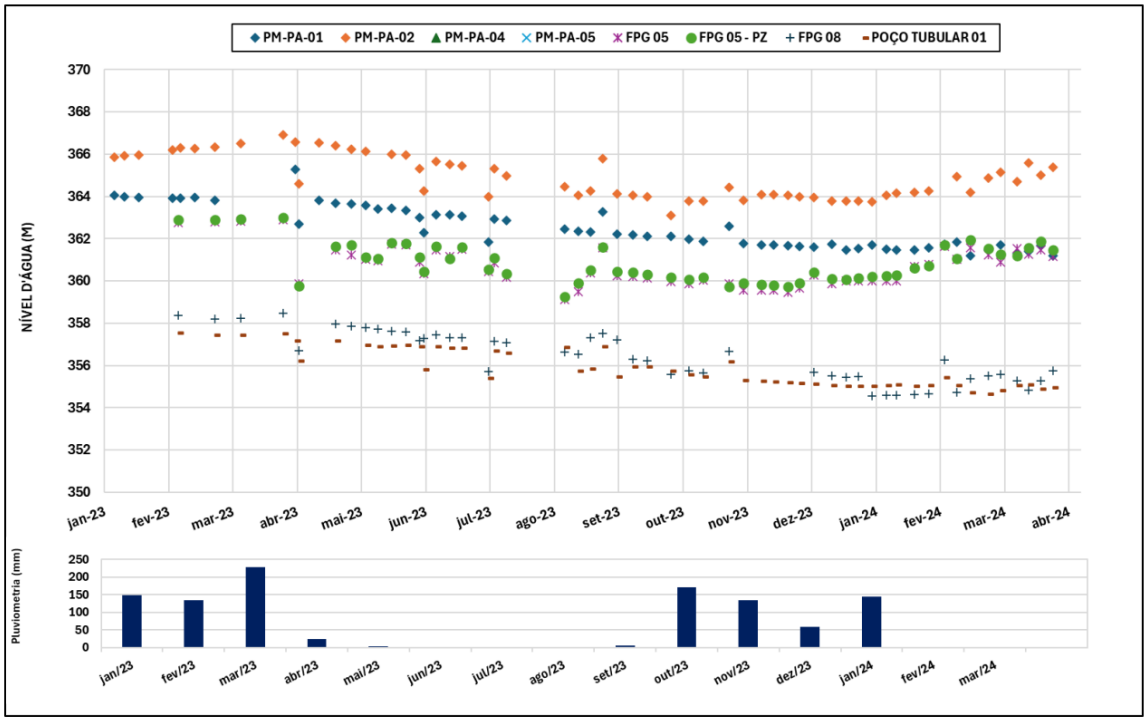
The monitoring of the groundwater level was carried out through various monitoring wells and piezometers. A map of with the location of the wells with relation to the Paiol mine is depicted in Figure 7-20 and the evolution of the water level in the wells is shown in Figure 7-21 from January 2023 to March 2024.

## Figure 7-20: Location of Monitoring Wells and Piezometers in Paiol Area




Source: Aura 2024.

**Figure 7-21: Evolution of Water in Paiol Mine Wells 2023-2024**



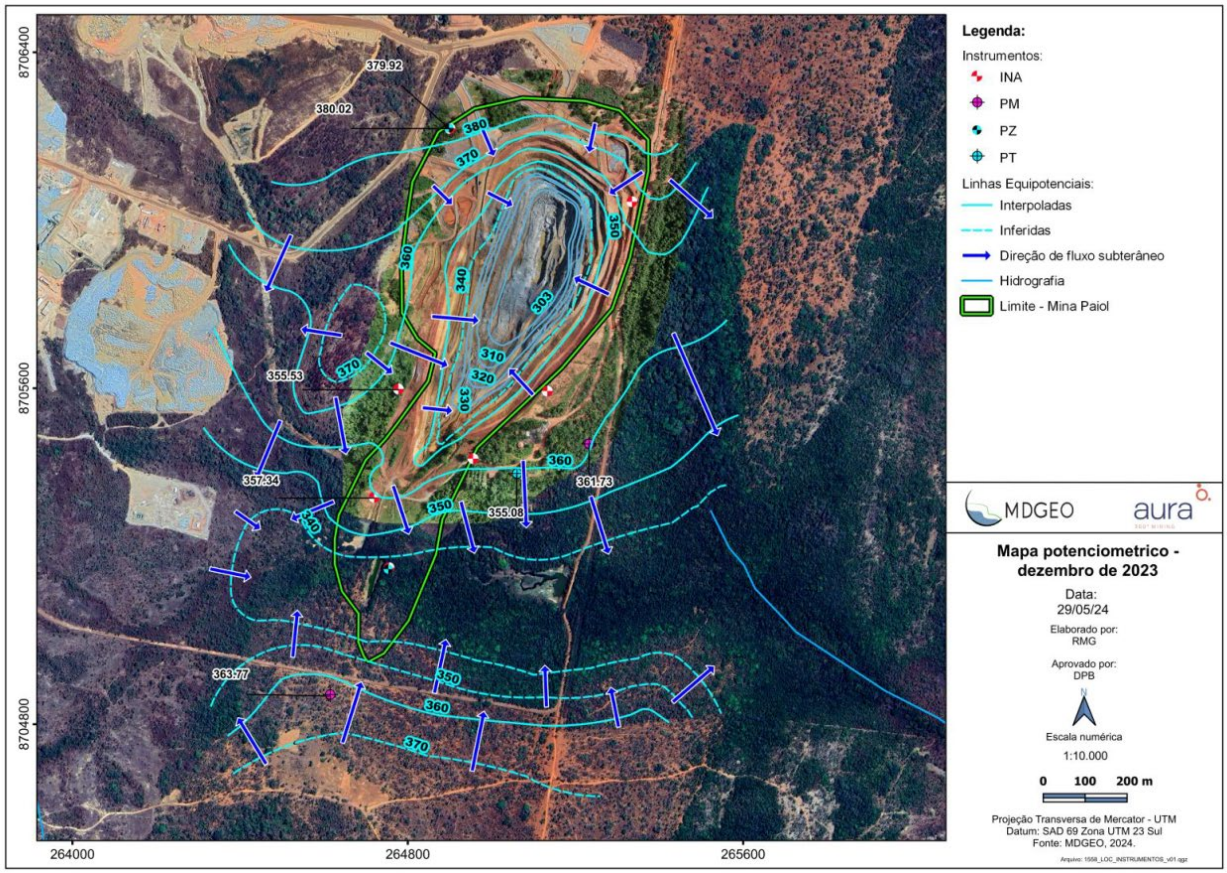

Source: Aura 2024.

From the information gathered in Figure 7-21 MDGEO concluded that there were minor fluctuations in the water levels throughout the monitored periods, with low-amplitude oscillations in the level, probably related to rainfall periods.

Based on the groundwater level data from the instruments a flow map was created from data collected in December of 2023. This map indicates that the original flow of groundwater occurs in the NE/SW direction, coinciding with the regional structure. The flow in the northern part converges into the pit, while in the southern part, the flow directs towards the drainage channel in the area of the future southern pit. The areas of convergence of the groundwater flow tend to remain with high moisture, small flooding, and associated springs Figure 7-22. The local geology and rainfall consistency were analyzed as well to validate the data captured.

The conclusions from the study included that the current monitoring at Paiol may be experiencing communication failures as it has been recording less rainfall than the regional consistency analysis. The northern region of the mine pit will experience significantly less flow than to the southern region due to the large drainage area planned for the southern part of the mine. MDGEO recommended a series of sumps and pumps to be placed in the southern part of the mine to mitigate the and financial and geotechnical risk of the expected precipitation volumes as the extraction of Paiol mine continues (MDGEO,2024).

**Figure 7-22: Flow Map of Paiol Mine Area with Groundwater Level Data from December 2023**




## 7.4 Geotechnical Data

During the 2010 to 2012 exploration period, diamond core drilling was conducted by Geosol, under contract with Rio Novo. Drilling cores were extracted and placed into sealed wooden core boxes for transport to the processing facility at the former Paiol mine. Upon arrival, cores were washed, photographed, and logged, with sample intervals generally set at one metre, ranging between 0.5 m to 1.5 m for special cases. Core logging included lithology, alteration, mineral zones, and structural and geotechnical logging. Specific details included foliation, fractures, vein orientation, and faulting. Table 7-10 and Table 7-11 show the campaign details for Vira Saia and Cata Funda, respectively.

Geosol performed the core cutting using diamond-impregnated saws under Rio Novo's supervision. Cores were cut perpendicular to major vein orientations, where possible, and samples were bagged, tagged with bar codes, and electronically entered in a centralized database, ensuring an efficient tracking and sampling process. These protocols meet industry standards for maintaining sample integrity and ensuring reliable assay results.

Laboratory testing for all three pits comprised:

- Uniaxial Compressive Strength (UCS): Measured intact rock strength.
- Shear Strength Parameters: Cohesion and friction angle for stability calculations.

- Hydraulic Conductivity: Used to evaluate aquifer properties and groundwater inflow potential.

Key parameters derived from geotechnical investigations included:

- Cohesion (c) and Friction Angle (φ) for different lithologies.
- Rock Mass Rating (RMR) classifications ranging from Class V (very poor) in saprolitic soils to Class II-I (good to very good) in fresh rock.
- RQD values, which show an increase with depth supporting steeper slopes in deeper zones.

**Table 7-10: Geotechnical Investigation for Vira Saia**

| Drilling Type | Company | Holes | Amount (m) | Samples | Average Depth (m) | Series |
|---|---|---|---|---|---|---|
| Oriented Holes | Rio Novo | 2 | 288.15 | 0 | 144.07 | FVSE-0001 to 0002 |
| Geotechnical Hole | Rio Novo | 2 | 100.75 | 0 | 50.37 | FVSG 0001 to 0002 |
| Total Drilling | - | 4 | 388.90 | 0 | 97.22 | - |

**Table 7-11: Geotechnical Investigation for Cata Funda**

| Type | Company | Holes | Amount (m) | Samples | Average Depth (m) | Series |
|---|---|---|---|---|---|---|
| Oriented Holes | Rio Novo | 3 | 492.65 | 0 | 164.22 | FAE-0001 to 0003 |
| Geotechnical Hole | Rio Novo | 2 | 124.25 | 0 | 62.12 | FAG 0001 to 0002 |
| Total Drilling | - | 5 | 616.90 | 0 | 123.38 | - |

# 8.0 Sample Preparation, Analyses, and Security

This section outlines the historical exploration and technical work conducted by Rio Novo between 2010 and 2012, as well as the sample preparation, analysis, security, and quality control/quality assurance (QA/QC) activities carried out by Aura since acquiring the property in 2018. No drilling data is available for the period between 2013 and 2021.

The sample preparation procedures used at site prior to dispatch to the laboratory are described in Section 7.2.4.

## 8.1 Sample Security

Core boxes were transported daily to the core shed by personnel from the drilling company. Samples were transported by a contractor supervised by company personnel. Core boxes and samples were stored in safe, controlled areas.

Chain-of-custody procedures were followed whenever samples were moved between locations and to and from the laboratory, by the completion of sample submittal forms from the laboratories.

## 8.2 Sample Preparation and Analysis

The Almas Project engaged multiple laboratories for sample analysis, with EPP-LI (Apoena Internal Laboratory), SGS-LI (Internal SGS Geosol Laboratory at Almas), and SGS-LE (External SGS Geosol Laboratory located in Vespasiano, Minas Gerais State, Brazil) serving as the primary laboratories.

SGS - Geosol Laboratórios LTDA (SGS Geosol ) is an independent commercial laboratory, a joint venture between SGS do Brasil and Geosol Geologia e Sondagens, certified under ISO 9001, ensuring adherence to strict quality management standards. Additionally, it holds ISO 14001 certification for environmental management and ISO/IEC 17025 accreditation, demonstrating its competence in analytical testing and calibration. Sample preparation and analysis at SGS consisted of:

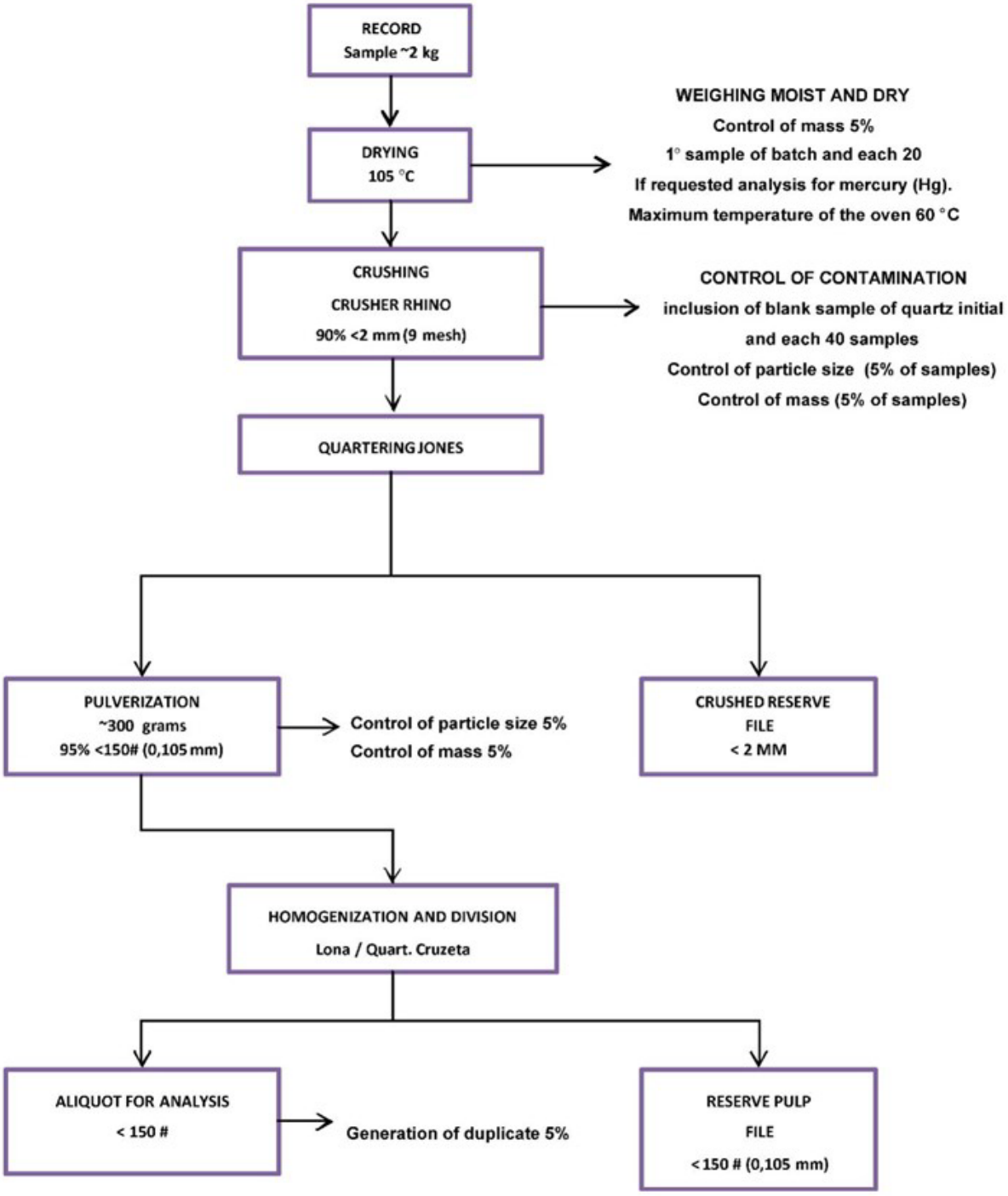
- Drying at 105ºC and weighed
- Crushing to +90% passing 2 mm (9 mesh)
- Splitting with a quartering Jones
- Pulverizing to 95% passing 0.105 mm (150 mesh)
- 50 g pulp analyzed by fire assay (FA) with atomic absorption (AA) (Au-AA24)
- If >10 ppb Au, re-assayed by FA with metallic screen test (MET-150)
- A total of 34 other elements were determined using a multielement inductively coupled plasma – atomic emission spectroscopy (ICP-AES) instrument and in aqua regia or in four-acids methods.

Since November 2011, all samples from the mineralized zone of the Vira Saia target have been analyzed using the metallic screen assay method. This method enhances the accuracy and precision of gold assays, particularly for samples with coarse gold grains. In this procedure, a larger sample is pulverized and sieved through a 150-mesh screen. The coarse fraction (>150 mesh), which may contain coarse gold particles, and the fine fraction (<150 mesh) are assayed separately. The entire coarse fraction is analyzed while a 50 g (2 Assay Tons) sub-sample is

used for the fine fraction. The final gold concentration for the total sample is calculated as the weighted average of the two fractions, ensuring representative and reliable results.

Figure 8-1 summarizes the analytical procedures employed by SGS Geosol laboratory for sample analysis at the Almas Project.

**Figure 8-1: Sample Preparation Process Workflow for SGS Geosol Laboratory**




Source: Ghazanfari et al. 2021.

ALS Chemex (ALS), Belo Horizonte, Minas Gerais, Brazil, an independent third-party laboratory, was utilized as the external laboratory to perform independent check assays. ALS laboratories hold accreditation under ISO/IEC 17025:2005 for specific analytical procedures, ensuring precision and reliability.

Both SGS and ALS function as independent laboratories, maintaining complete autonomy from Aura. Analytical results from both laboratories were delivered digitally to the database manager. Certificates of Analysis were provided separately, with both digital files and certificates archived in Almas' digital database to support data validation processes.

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

## 8.3 Density Determinations

Full details are available in Ghazanfari et al. (2021). The information below is derived from this report and represents a summary of its contents.

Bulk densities of geological materials in drill core were critical for determining mass during mineral resource estimation. Density data had to accurately represent the deposit lithologies and were determined using replicate samples. Rio Novo employed different methodologies depending on the material type—fresh rock, weathered rock, or saprolite.

- **Fresh Rock:** The Archimedes method was used, which involved weighing the sample in air and water. The bulk density was calculated using a mathematical equation based on these weights. Quality control was maintained by inserting a standard sample with a known density for every 20 measurements, ensuring the accuracy of procedures and equipment.
- **Saprolite and Weathered Rock:** Saprolite, a clay-rich material formed by tropical weathering, and oxidized, weathered rocks were processed using a different approach. Samples were collected, preserved in plastic envelopes, and weighed to determine wet weight. Displaced water volume was measured by submerging the sample in a water-filled basin and collecting the overflow. After drying the sample in an oven, the wet and dry weights, along with the displaced water volume, were recorded and used to calculate the bulk density.

## 8.4 Quality Assurance and Quality Control

The Project has implemented rigorous quality assurance (QA) and quality control (QC) protocols since 2010 to ensure data integrity and reliability in sample management. The QA program includes the application of standardized operating procedures (SOPs) and robust data management and transfer systems. The QC program ensures the quality and performance of sampling, sample preparation, and analytical processes through routine monitoring. QC data are regularly analyzed to assess the reliability of assay results and provide confidence in the data used for Mineral Resource estimation.

For the current Mineral Resource estimate, SLR reviewed QA/QC data collected between 2010 and August 22, 2024, the cut-off date for the resource database.

The Almas QA/QC program mandates the insertion of control samples within each batch submitted for analysis, as outlined below:

- **Certified Reference Materials (CRMs):** One high-grade and one low- or medium-grade CRM are included with an insertion rate of 5% to monitor accuracy. Standards are

inserted within mineralized zones, with grades close to the expected values for each zone.

- **Blank Samples:** Blank samples represent 5% of the total samples and are primarily inserted after mineralized intervals or lithological contacts to detect contamination.
- **Duplicate Samples:** Duplicates also represent 5% of the total samples, including field duplicates (quarter core) and pulp duplicates (splits of pulverized material), to verify precision. Duplicates are preferably inserted along mineralized zones.
- **Check Assays:** No tertiary check assays were conducted for primary or secondary laboratories.

The acceptance criteria and protocols for failures are presented as follows:

- **CRMs:** A batch fails automatically if any CRM assay result exceeds three standard deviations (SD) from the CRM's certified mean. The entire batch must be re-assayed. CRM trend analysis is performed to monitor bias. If trends indicate possible bias, the laboratory is contacted to resolve the issue.
- **Blanks:** If blank assays exceed three times the detection limit, ten samples surrounding the blank are automatically re-assayed.
- **Duplicates:** Field duplicates are not used to determine failure of assay certificates, instead they are reviewed to monitor precision and variability. If the data significantly exceed the failure criteria limits, it is essential to review whether the sampling and sample analysis protocols are being properly followed or if they require revision.

The insertion rate and failure criteria applied in the Almas Project are presented in Table 8-1.

**Table 8-1: Almas Control Sample Insertion Rate and Failure Criteria**

| Control Sample | Type | Insertion Rate | Failure Criteria | Expected/Allowed % Failures |
|---|---|---|---|---|
| Blanks | Coarse | 5% | >3 x detection limit | <5% |
| CRMs | High/Medium | 5% | >3 SD | <10% |
| | Low | | | |
| Duplicates | Field | 5% | >±30% HARD error | <10% |
| | Pulp | 5% | >±10% HARD error | <10% |

QC samples at the Project account for approximately 8% of the total samples submitted, encompassing all prospects, including Paiol, Vira Saia, and Cata-Funda. Table 8-2 presents a summary of the Project's QC submittals and Table 8-3 shows the submittals by prospect.

**Table 8-2: Almas QC Submittals: 2010 to 2024**

| Year | Hole Type | Primary Samples | Blank | % | CRM | % | Field Duplicate (FD) | % | Pulp Duplicate (PD) | % | Check Assay | % | Insertion Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | DD | 34,530 | 456 | 1% | 1,182 | 3% | 511 | 1% | - | - | 489 | 1% | 7% |
| | RC | 878 | 22 | 2% | 45 | 5% | 24 | 0% | - | - | - | - | 9% |

| Year | Hole Type | Primary Samples | Blank | % | CRM | % | Field Duplicate (FD) | % | Pulp Duplicate (PD) | % | Check Assay | % | Insertion Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TR | 1,222 | - | - | - | 0% | 33 | 0% | - | - | - | - | 3% |
| 2011 | DD | 31,346 | 821 | 2% | 1,831 | 5% | 890 | 1% | - | - | 160 | 0% | 11% |
| | TR | 43 | - | 0% | - | 0% | - | 0% | - | - | - | - | 0% |
| | CN | - | 97 | 100% | | 0% | - | 0% | - | - | - | - | - |
| 2012 | DD | 8,175 | 221 | 2% | 565 | 6% | 302 | 0% | - | - | - | - | 12% |
| | CN | - | 67 | - | - | 0% | - | 0% | - | - | - | - | - |
| | TC | - | 11 | - | - | 0% | - | 0% | - | - | - | - | - |
| 2022 | CN | 7 | - | 0% | - | 0% | - | 0% | - | - | - | - | 0% |
| | RC | 2,524 | 16 | 1% | 16 | 1% | 13 | 1% | 11 | 0% | - | - | 2% |
| 2023 | CN | 148 | 4 | 3% | 3 | 2% | - | 0% | 1 | 1% | - | - | 5% |
| | DD | 4,000 | 94 | 2% | 99 | 2% | - | 0% | - | - | - | - | 5% |
| | PF | 92 | 4 | 4% | 2 | 2% | - | 0% | - | - | - | - | 6% |
| | RC | 22,593 | 345 | 1% | 313 | 1% | 249 | 1% | 281 | 1% | - | - | 5% |
| | TC | 226 | 6 | 3% | 5 | 2% | - | 0% | 2 | 1% | - | - | 5% |
| 2024 | DD | 3,006 | 192 | 6% | 176 | 5% | - | 0% | - | - | - | - | 11% |
| | PF | 203 | 5 | 2% | 2 | 1% | - | 0% | 2 | 1% | - | - | 4% |
| | RC | 20,860 | 287 | 1% | 285 | 1% | 481 | 2% | 282 | 1% | - | - | 6% |
| Grand Total | | 129,853 | 2,648 | 2% | 4,524 | 3% | 2,503 | 1% | 579 | 0% | 649 | - | 8% |

Notes: DD (Diamond Drill), RC (Reverse Circulation), TR (Auger), CN (Channel), TC (Trench)

**Table 8-3: Almas QC Submittal by Prospect: 2010 to 2024**

| Year | Blanks | | | Duplicates | | | | CRM | | | Check Assay | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cata Funda | Paiol | Vira Saia | Cata Funda | Paiol | Paiol (HL) | Vira Saia | Cata Funda | Paiol | Vira Saia | Cata Funda | Paiol | Paiol (HL) | Vira Saia | |
| 2010 | 178 | 300 | - | 190 | 325 | 53 | - | 460 | 767 | | 131 | 354 | 4 | - | 2,762 |
| 2011 | 211 | 357 | 350 | 192 | 332 | - | 366 | 348 | 744 | 739 | 30 | 74 | - | 56 | 3,799 |
| 2012 | - | 12 | 287 | - | 16 | - | 286 | - | 33 | 532 | - | - | - | - | 1,166 |
| 2022 | - | 16 | - | - | 24 | - | - | - | 16 | - | - | - | - | - | 56 |
| 2023 | - | 453 | - | - | 533 | - | - | - | 422 | - | - | - | - | - | 1,408 |
| 2024 | - | 439 | 45 | - | 765 | - | - | - | 425 | 38 | - | - | - | - | 1,712 |
| Grand Total | 389 | 1,577 | 682 | 382 | 1,995 | 53 | 652 | 808 | 2,407 | 1,309 | 161 | 428 | 4 | 56 | 10,903 |

Notes: HL (Heap Leach)

Aura's QA/QC program aligns with industry best practices, ensuring that appropriate procedures are followed, including routine insertion of CRMs, blanks, and duplicates. The QC insertion rate, however, is below the levels defined in the protocols, and the SLR QP recommends that the



insertion of QC samples be increased to meet the expected rates. These controls monitor the sampling, sample preparation, and analytical processes, maintaining data reliability for resource and reserve estimation.

### 8.4.1 Certified Reference Material

Results of the regular submission of CRMs are used to identify potential issues with specific sample batches and long-term biases associated with the primary assay laboratory.

A total of 20 different CRM types have been used throughout the Project since 2010, when the insertion of these quality controls began in the sample stream. These include three CRMs provided by Geostats Pty Ltd., seven commercial CRMs manufactured by Instituto de Tecnologia August Kekulé (ITAK) and SGS, and 10 CRMs prepared by CDN Resource Laboratories Ltd. (CDN). Table 8-4 presents the performance of these CRMs.

Starting in June 2011, the CRMs ITAK 530 and ITAK 531, representing low and high grades, respectively, were introduced. These CRMs were prepared from coarse reject material generated during Rio Novo's drilling program, with initial processing carried out by ITAK. A group of accredited laboratories was engaged to perform round robin assays, the results of which were used to determine the accepted mean values and standard deviations. The coefficients of variation for ITAK 530 and ITAK 531 are 9% and 5%, respectively, confirming their stability and suitability for use as CRMs. In 2022, the Project transitioned to using commercial CRMs from CDN.

Specific pass/fail criteria were used based on setting the CRM acceptance limits at the expected value ±3SD as a failure limit threshold.

**Table 8-4: Almas Certified Reference Material Performances**

| Lab | Period Range | CRM | Num Samples | Bias (%) | Mean | Expected Value | SD | Num Outliers | Percentage Outliers (%) |
|---|---|---|---|---|---|---|---|---|---|
| SGS | 2010-2011 | ITAK 505 | 412 | -3.59 | 0.22 | 0.23 | 0.02 | 6 | 1.46 |
| | 2010-2011 | ITAK 516 | 268 | -1.85 | 0.99 | 1.01 | 0.07 | 2 | 0.75 |
| | 2010-2011 | ITAK 509 | 198 | -1.85 | 3.49 | 3.56 | 0.13 | 6 | 3.03 |
| | 2010-2011 | G901-1 | 210 | -1.75 | 2.53 | 2.58 | 0.13 | 4 | 1.90 |
| | 2010-2010 | G904-6 | 153 | -7.29 | 0.33 | 0.36 | 0.02 | 1 | 0.65 |
| | 2010-2010 | G997-6 | 148 | -4.51 | 1.60 | 1.68 | 0.08 | 0 | 0.00 |
| | 2011-2011 | ITAK 518 | 376 | 0.31 | 0.55 | 0.55 | 0.02 | 6 | 1.60 |
| | 2011-2011 | ITAK 506 | 367 | -0.53 | 8.82 | 8.87 | 0.27 | 3 | 0.82 |
| | 2011-2012 | ITAK 530 | 743 | 1.25 | 0.31 | 0.31 | 0.03 | 14 | 1.88 |
| | 2011-2012 | ITAK 531 | 748 | -0.12 | 2.71 | 2.71 | 0.13 | 21 | 2.81 |
| EPP | 2022-2022 | CDN-GS-4N | 6 | -2.84 | 3.77 | 3.88 | 0.14 | 0 | 0.00 |
| | 2022-2022 | CDN-GS-6G | 5 | 1.40 | 6.39 | 6.30 | 0.15 | 3 | 60.00 |
| | 2022-2022 | CDN-GS-P5H | 5 | 2.62 | 0.51 | 0.50 | 0.03 | 0 | 0.00 |



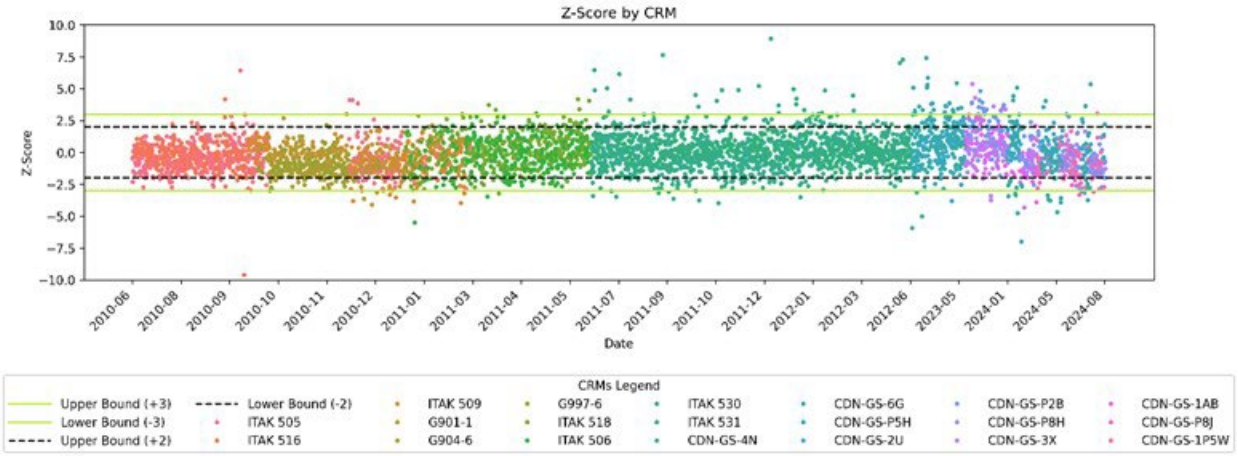


| Lab | Period Range | CRM | Num Samples | Bias (%) | Mean | Expected Value | SD | Num Outliers | Percentage Outliers (%) |
|---|---|---|---|---|---|---|---|---|---|
| SGS | 2023-2024 | CDN-GS-4N | 137 | 0.46 | 3.77 | 3.88 | 0.14 | 11 | 8.03 |
| | 2023-2024 | CDN-GS-6G | 131 | 1.78 | 6.39 | 6.30 | 0.15 | 25 | 19.08 |
| | 2023-2024 | CDN-GS-P5H | 139 | 2.38 | 0.51 | 0.50 | 0.03 | 5 | 3.60 |
| | 2023-2023 | CDN-GS-2U | 1 | -11.70 | 1.87 | 2.12 | 0.07 | 1 | 100.00 |
| | 2023-2024 | CDN-GS-P2B | 125 | 1.37 | 0.44 | 0.43 | 0.01 | 16 | 12.80 |
| | 2023-2024 | CDN-GS-P8H | 113 | -1.09 | 0.82 | 0.83 | 0.04 | 1 | 0.88 |
| | 2023-2024 | CDN-GS-3X | 68 | -0.63 | 3.21 | 3.23 | 0.10 | 8 | 11.76 |
| | 2023-2024 | CDN-GS-1AB | 66 | 0.52 | 1.48 | 1.48 | 0.04 | 1 | 1.52 |
| | 2024-2024 | CDN-GS-P8J | 54 | -2.43 | 0.77 | 0.79 | 0.02 | 4 | 7.41 |
| | 2024-2024 | CDN-GS-1P5W | 51 | -4.20 | 1.52 | 1.59 | 0.07 | 0 | 0.00 |

Note:
1. SD - standard deviation

The Z-Score chart in Figure 8-2 indicates that, despite isolated instances of slight negative bias in 2010, and outliers related to ITAK 530 and ITAK 531 in 2011, 8% of CRM samples failed in the 2022 to 2024 dataset. These outliers should be reviewed for potential inconsistencies, however, the overall control charts reflect acceptable levels of dispersion and accuracy, with bias remaining below 5% for most CRMs at the SGS Geosol laboratory.

**Figure 8-2: Z-Score for all CRMs in Almas Project**




### 8.4.1.1 2010 to 2012

The database recorded 74,051 DD core samples, including 3,578 standards, and 878 RC samples with 45 standards, representing a submission rate of 5% for both DD and RC samples from 2010 to 2012.

Despite outliers identified in CRMs ITAK 530 and ITAK 531, as shown in Figure 8-3 and Figure 8-4, the overall accuracy levels were deemed acceptable. Most CRM failures occurred in batches where other samples of the same CRM returned results within acceptable limits.

Of the 3,623 CRM analyses performed during this period, only 63 samples failed, accounting for less than 2% of the total.

**Figure 8-3: Almas Control Chart for CRM ITAK 530 at SGS: 2011 - 2012**

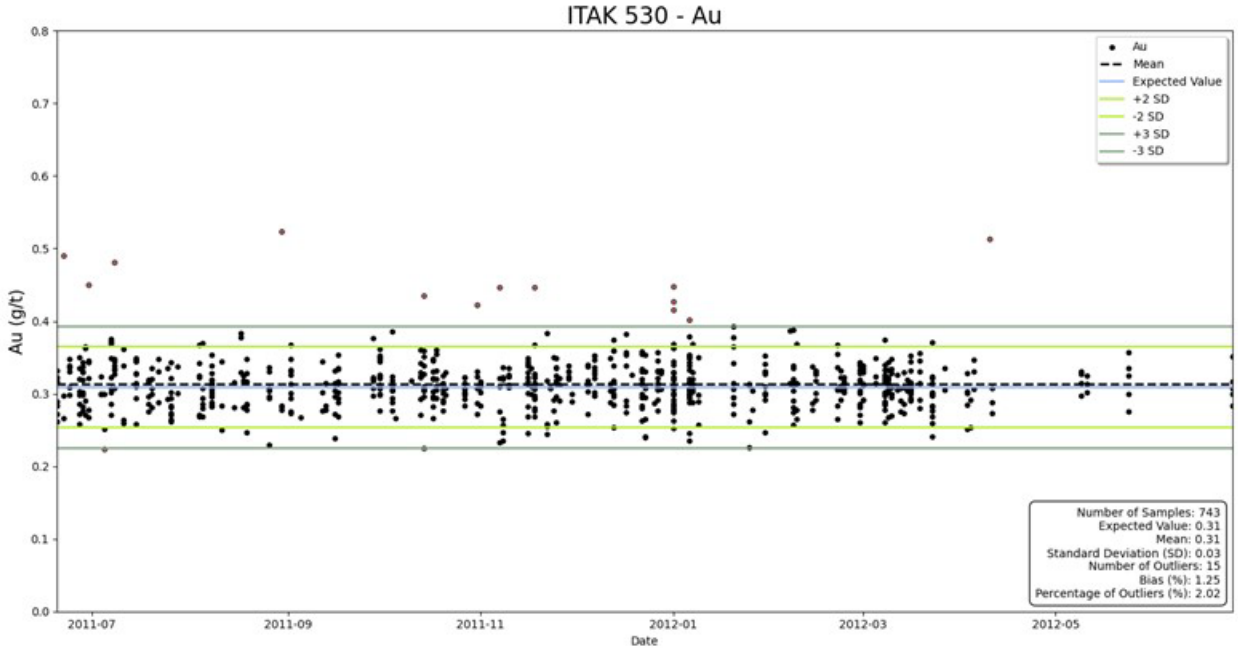
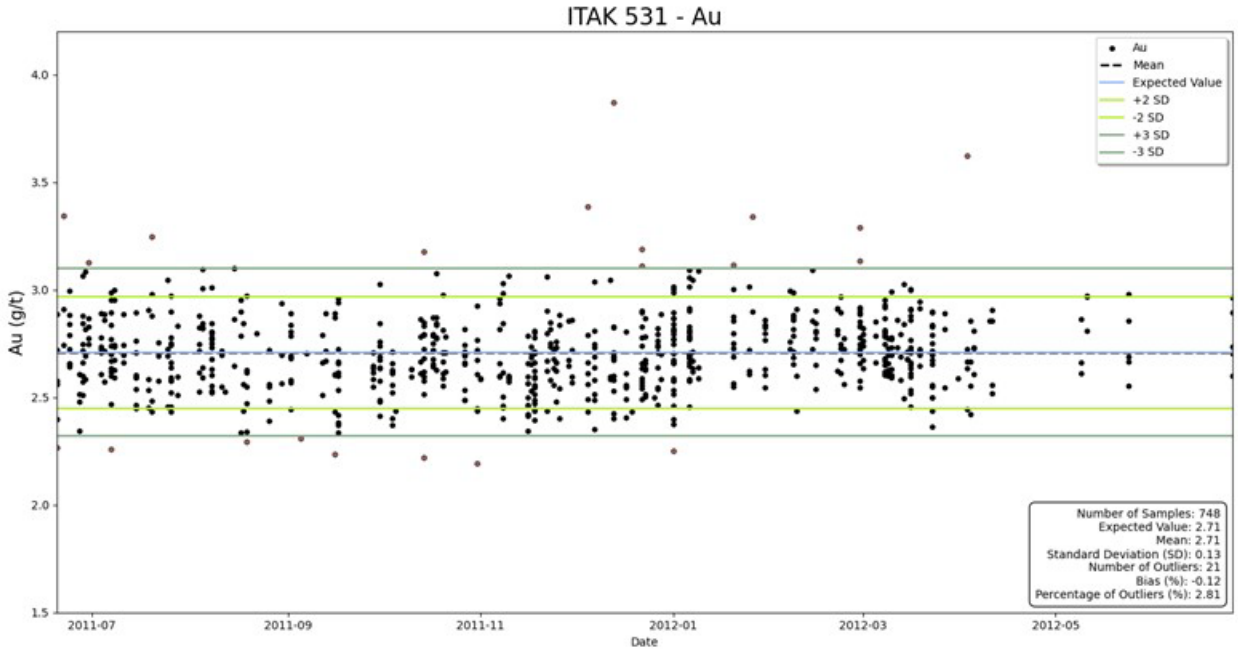



**Figure 8-4: Almas Control Chart for CRM ITAK 531 at SGS: 2011 – 2012**



#### 8.4.1.2 2022 to 2024

A total of ten different CRMs were employed for accuracy monitoring purposes. These included high-, moderate-, and low-grade standards.

The control charts indicate acceptable levels of dispersion and accuracy at the SGS laboratory. Out of 901 samples analyzed between 2022 and 2024, 75 failures were recorded, representing a failure rate of 8%.

SLR selected three distinct CRMs for an in-depth review, representing the low-, average-, and high-grade ranges. Figure 8-5 to Figure 8-7 illustrate the CRM performance from SGS, indicating good accuracy with biases ranging from -4.2% to 1.3%. Despite the acceptable data dispersion and bias within acceptable limits, a significant number of outliers were identified for the CRM CDN-GS-6G and CDN-GS-P2B. The SLR QP recommends that these outliers be reviewed to confirm whether they are mislabeled or if there are any issues with the CRM used.

CRMs cover a broad range of gold grades analyzed by the FA-atomic absorption spectroscopy (AAS) method. SLR noted, however, that in 2023 and 2024, multiple CRMs with overlapping grade ranges were introduced. The SLR QP recommends consolidating the selection to three CRM types—high-grade, medium-grade, and low-grade—to effectively monitor laboratory performance while simplifying the identification of emerging biases or systematic errors over time.

In the SLR QP's opinion, recent improvements have minimized biases, and the assays meet industry standards for inclusion in the resource estimation.

**Figure 8-5: Almas Control Chart for CRM CDN-GS-6G at SGS: 2023 – 2024**

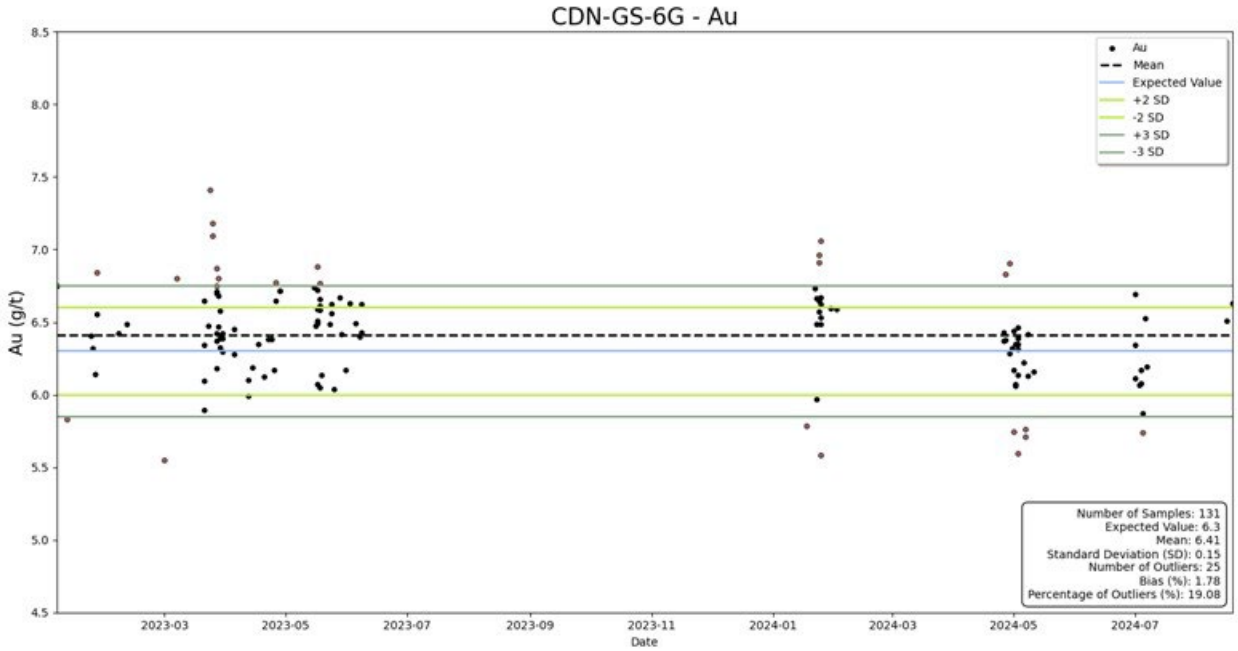


**Figure 8-6: Almas Control Chart for CRM CDN-GS-1P5W at SGS: 2024**

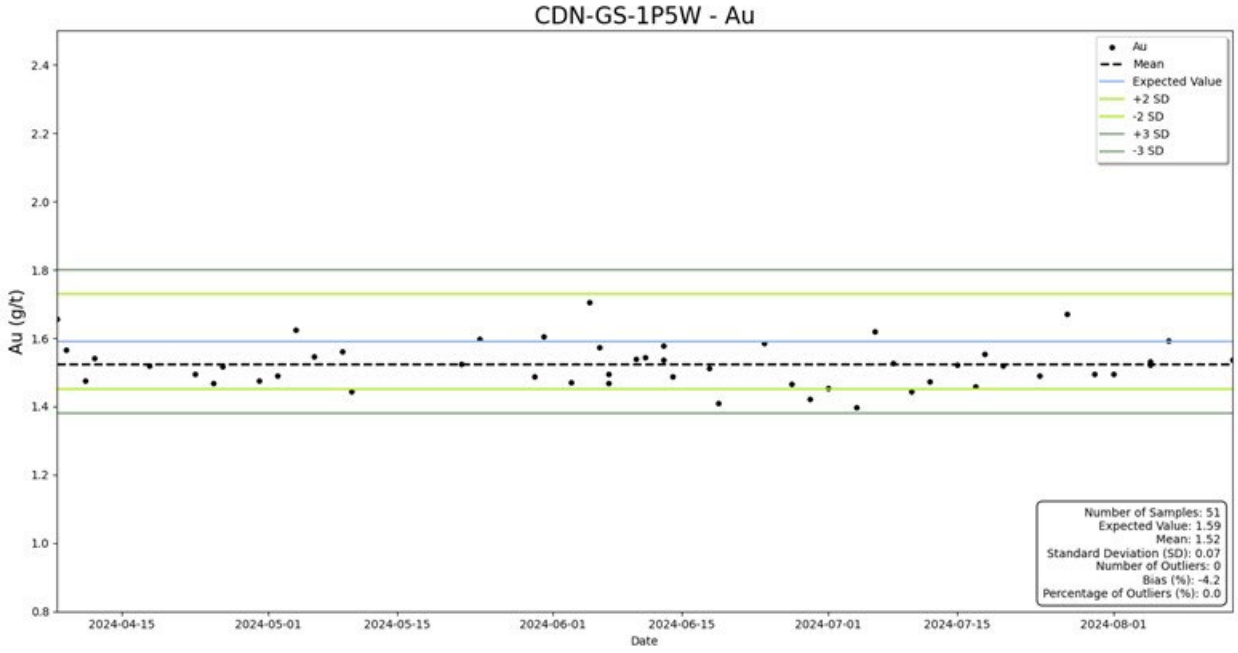
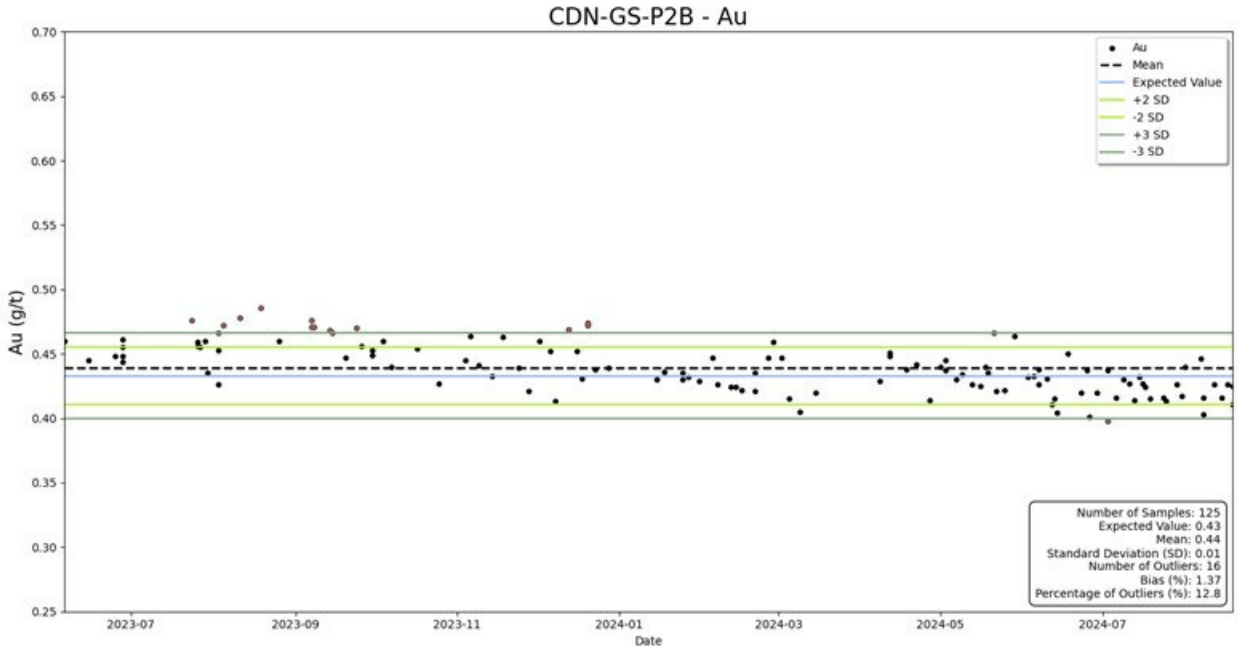



**Figure 8-7: Almas Control Chart for CRM CDN-GS-P2B at SGS: 2023 – 2024**



### 8.4.2 Blank Material

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors. Field blank samples are composed of barren material that have grades below the detection limit.

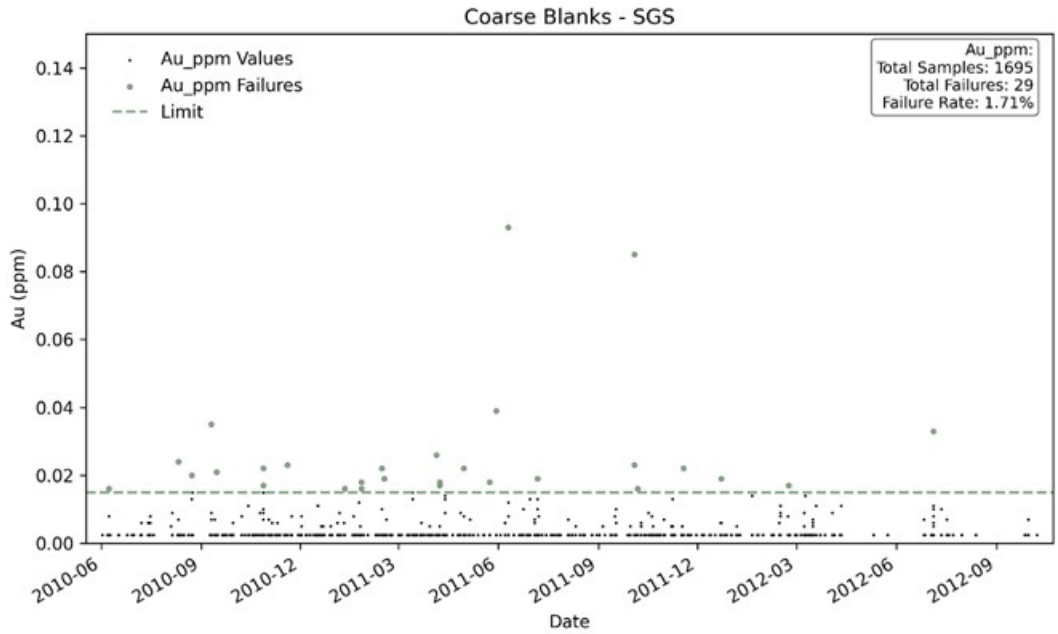
#### 8.4.2.1 2010 to 2012

Between 2010 and 2012, a total of 1,695 coarse blanks were inserted into the sample stream, consisting of 1,498 blanks in 74,051 primary DD samples (2%), 22 blanks in 878 primary RC samples (2%), and the remaining blanks distributed across channels and surface trenches (ST).

A review of the blanks indicates that no significant contamination was detected, as illustrated in Figure 8-8. The detection limit for gold using FA with an AA finish was established at 0.005 g/t Au. Control thresholds for blank samples were defined, with the warning limit set at two times the detection limit (0.010 g/t Au) and the failure limit at three times the detection limit (0.015 g/t Au).

Of the 1,695 blank samples analyzed, 29 samples exceeded the threshold, representing a failure rate of less than 2%. In 16 instances where blank failures occurred, adjacent samples were re-assayed to assess potential cross-contamination. A comparison of re-assayed values with original assays yielded a correlation coefficient of 0.999, indicating high analytical reproducibility. The remaining failed samples were in low-grade zones, and re-assaying of adjacent samples was deemed unnecessary due to their low contamination risk.

**Figure 8-8: Coarse Blank SGS: 2010 to 2012**

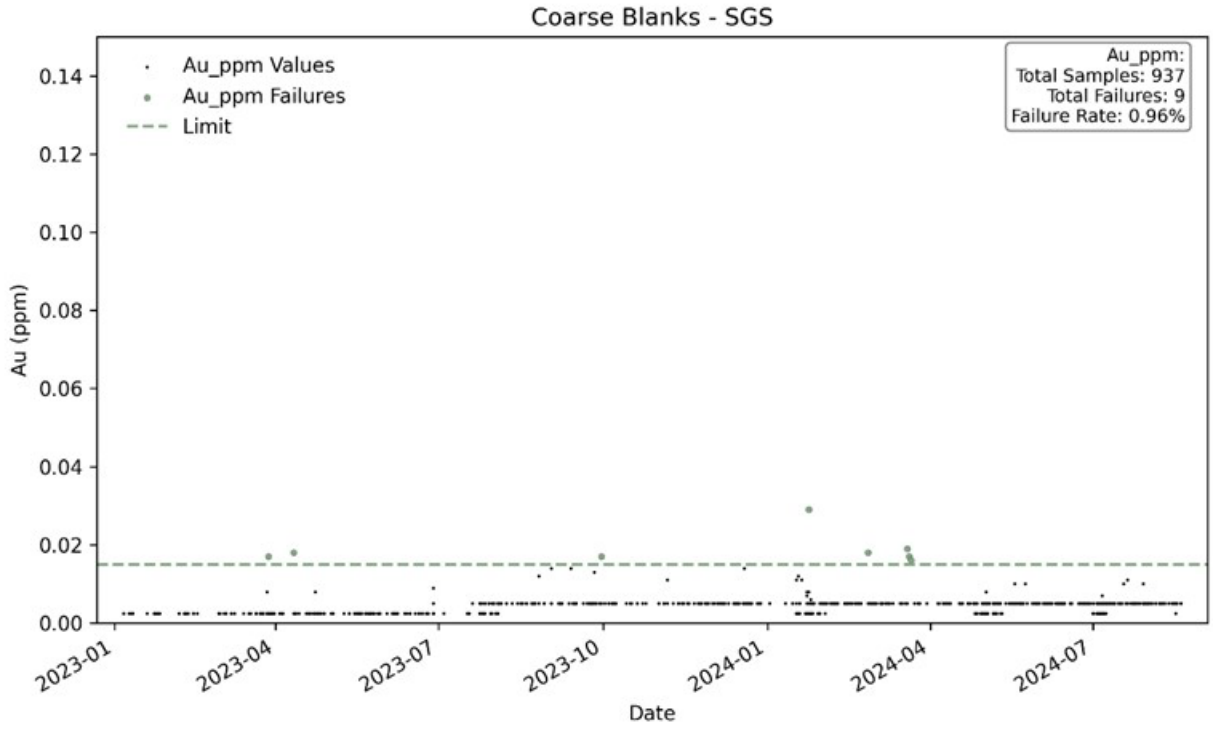


#### 8.4.2.2 2022 to 2024

Between November 2022 and August 2024, a total of 953 coarse blanks were inserted into the sample stream. This included 286 blanks in 7,066 primary DD samples (4%), 648 in 45,977 primary RC drilling samples (1%), and 19 blanks distributed across types of samples (channel and trench) not used in the estimation.

Sixteen of these RC blanks were analyzed by the EPP-LI laboratory, with all results below the detection limit. Blanks analyzed at SGS showed no significant contamination during preparation and analysis, with only nine out of 937 samples reporting values above the detection limit, representing a failure rate of less than 1% (Figure 8-9). Furthermore, most of these values were only slightly above the threshold or located within non-mineralized zones, negating the need for resampling around the failure blanks.

**Figure 8-9: Coarse Blank SGS: 2023 to 2024**




### 8.4.3 Duplicates

Duplicates help assess the natural local scale grade variance, or nugget effect, and are also useful for detecting sample numbering mix-ups. The field (core) duplicates help monitor the grade variability as a function of both sample homogeneity and laboratory error.

The precision of sampling and analytical results can be quantified by re-analyzing the same sample using the same methodology. The variance between the measured results will indicate their precision. Precision is affected by mineralogical factors such as grain size, distribution, and inconsistencies in the sample preparation and analysis processes. There are different duplicate sample types, which can be used to determine the precision of the entire sampling, sample preparation, and analytical process.

Field duplicate samples were collected by designating the third aliquot from the RC drilling interval as the duplicate. This aliquot, with a fixed volume of 15%, is used specifically for duplicate analysis when required by the sampling plan. In DD, duplicate samples are obtained by collecting a quarter-core sample from the same collection point as the original sample.

Pulp duplicates are the second type of duplicate sample and are obtained from splitting the pulverized material during sample preparation. These samples are analyzed at the same laboratory that assayed the original pulp.

Individual failure criteria were set for pulp and field duplicates. The evaluation criteria require that 90% of the pulp duplicates (PD) must have a half absolute relative difference (HARD) below the 10% threshold, while field duplicates (FD) must remain below the 30% threshold. Table 8-5 presents the performance of each type of duplicate for the different hole types during the periods 2010 to 2012 and 2022 to 2024.

**Table 8-5: Summary of Duplicate Data Performance**

| Laboratory | Duplicate Type | Hole Type | Year Range | Correlation | Count | Failures (HARD) | HARD Failure Rate (%) |
|---|---|---|---|---|---|---|---|
| SGS | FD | RC | 2010 - 2010 | 0.94 | 24 | 3 | 12.50 |
| | FD | TR | 2010 - 2010 | 0.37 | 33 | 3 | 9.09 |
| | FD | DD | 2010 - 2012 | 0.63 | 1703 | 473 | 27.77 |
| EPP-LI | FD | RC | 2022 - 2022 | 0.65 | 13 | 3 | 23.08 |
| | PD | RC | 2022 - 2022 | 0.72 | 11 | 2 | 18.18 |
| SGS-LE | FD | RC | 2023 - 2023 | 0.94 | 118 | 18 | 15.25 |
| | PD | CN | 2023 - 2023 | | 1 | 0 | 0.00 |
| | PD | RC | 2023 - 2023 | 1.00 | 150 | 21 | 14.00 |
| | PD | TC | 2023 - 2023 | 1.00 | 2 | 0 | 0.00 |
| SGS-LI | FD | RC | 2023 - 2024 | 0.91 | 612 | 114 | 18.63 |
| | PD | PF | 2024 - 2024 | 1.00 | 2 | 0 | 0.00 |
| | PD | RC | 2023 - 2024 | 1.00 | 413 | 79 | 19.13 |

#### 8.4.3.1 2010 to 2012

A total of 1,760 sample pairs analyzed by SGS were reviewed, comprising 1,703 DD samples, 24 RC samples, and 33 auger (TR) samples. As part of the QA/QC procedures, SLR conducted a reassessment of the duplicate sample data using the HARD analysis to evaluate analytical precision.

A 10% failure rate was established as the threshold for triggering corrective actions on a group of samples.

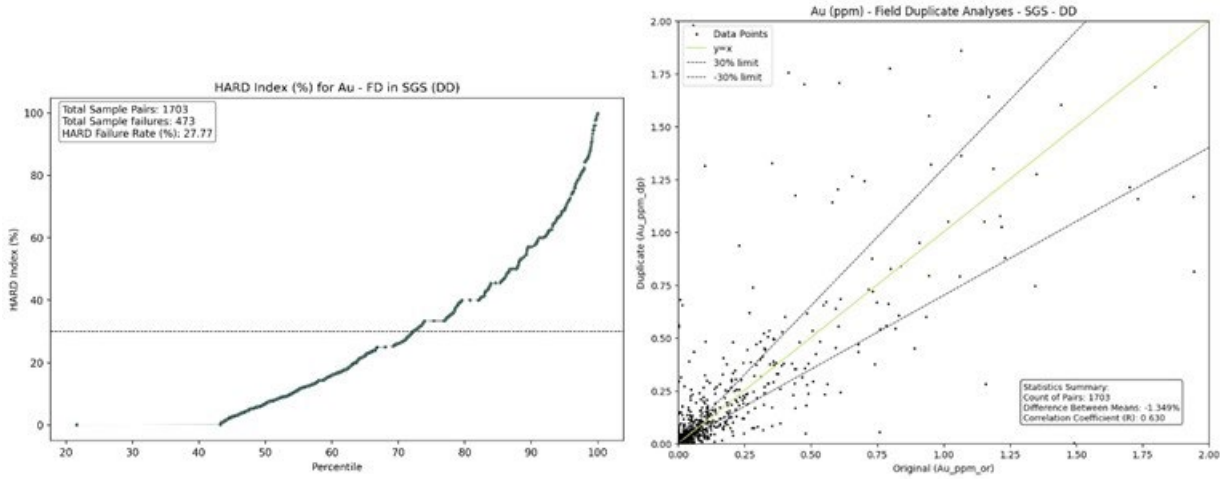
Both TR and RC datasets exhibited HARD failure rates close to the 10% threshold for acceptable precision.

Drill core field duplicates demonstrate high dispersion and low correlation with a coefficient of determination correlation (R = 0.63). The HARD analysis reveals a failure rate of approximately 30% (Figure 8-10), exceeding acceptable limits for precision. Even after applying a filter to

exclude low-grade samples (<0.1 ppm Au), only 70% of the duplicates meet the 30% HARD threshold.

This dispersion, showed in the data and the assay variability across the dataset, is hypothesized to be related to the nugget effect, a common characteristic of this type of deposit.

**Figure 8-10: DD Field Duplicate HARD Plots and Scatter Plot in SGS: 2010 – 2012**

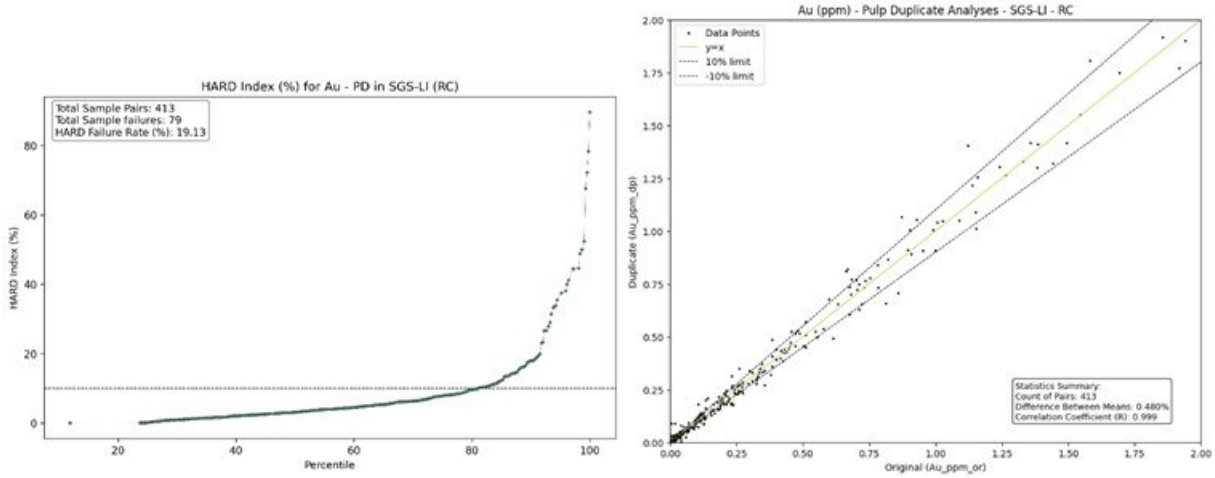



## 8.4.3.2 2022 to 2024

A total of 574 RC pulp duplicates and 743 RC field duplicates were inserted during the 2022 to 2024 campaigns.

Overall, the pulp duplicate analyses were satisfactory. The data analyzed by SGS-LI during this period showed that 81% of the sample population was below the 10% HARD limit, however, many of the samples classified as failures had grades below 0.1 ppm Au. When filtered at 0.1 ppm Au, 92% of the analyzed samples fall below the threshold limit. Additionally, the data demonstrates a strong correlation between duplicate sample results (0.999), indicating overall consistency in assay performance, as shown in Figure 8-11.

**Figure 8-11: RC Pulp Duplicate HARD Plots and Scatter Plot in SGS-LI: 2022 – 2024**

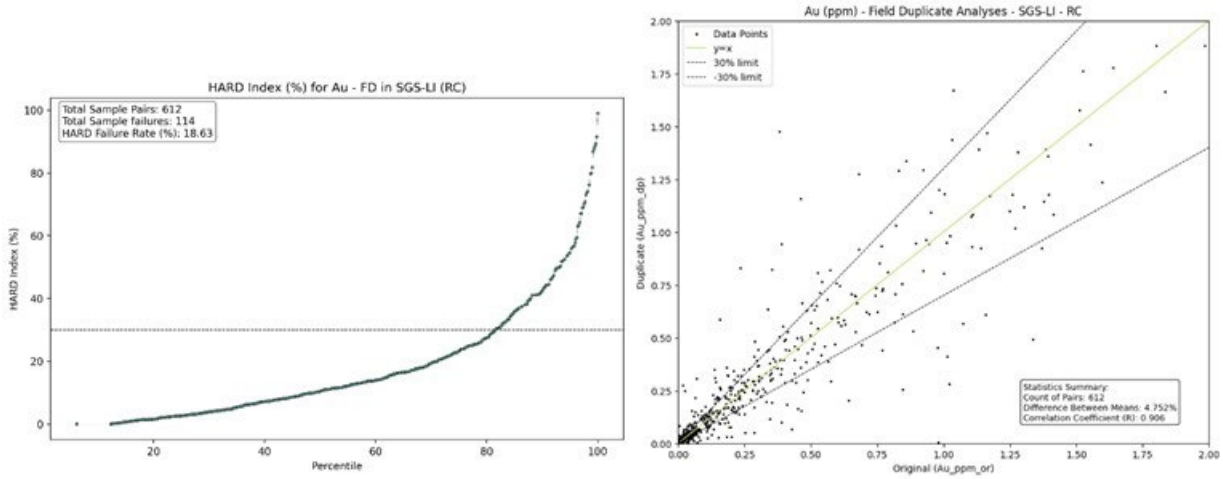


In general, the RC field duplicates analyzed at the SGS-LE laboratory showed good correlation (0.94) and HARD failure around 15%. The field duplicate analysis of RC samples at the SGS-LI laboratory demonstrates that 81% of the sample population falls within the 30% HARD limit, with a correlation coefficient (R) of 0.906, as showed in Figure 8-12, however, a significant portion of the samples classified as outliers exhibited gold (Au) grades below 0.1 ppm. After applying a 0.1 ppm Au cut off, approximately 89% of the samples meet the HARD threshold, providing a more accurate reflection of performance at relevant grade intervals.

Nonetheless, there is still noticeable data dispersion which is attributed to the nugget effect commonly associated with this type of deposit.

Overall, the results are considered acceptable, however, the SLR QP recommends generating duplicates primarily in mineralized zones to enhance data reliability.

**Figure 8-12: RC Field Duplicate HARD Plots and Scatter Plot in SGS-LI: 2022 – 2024**



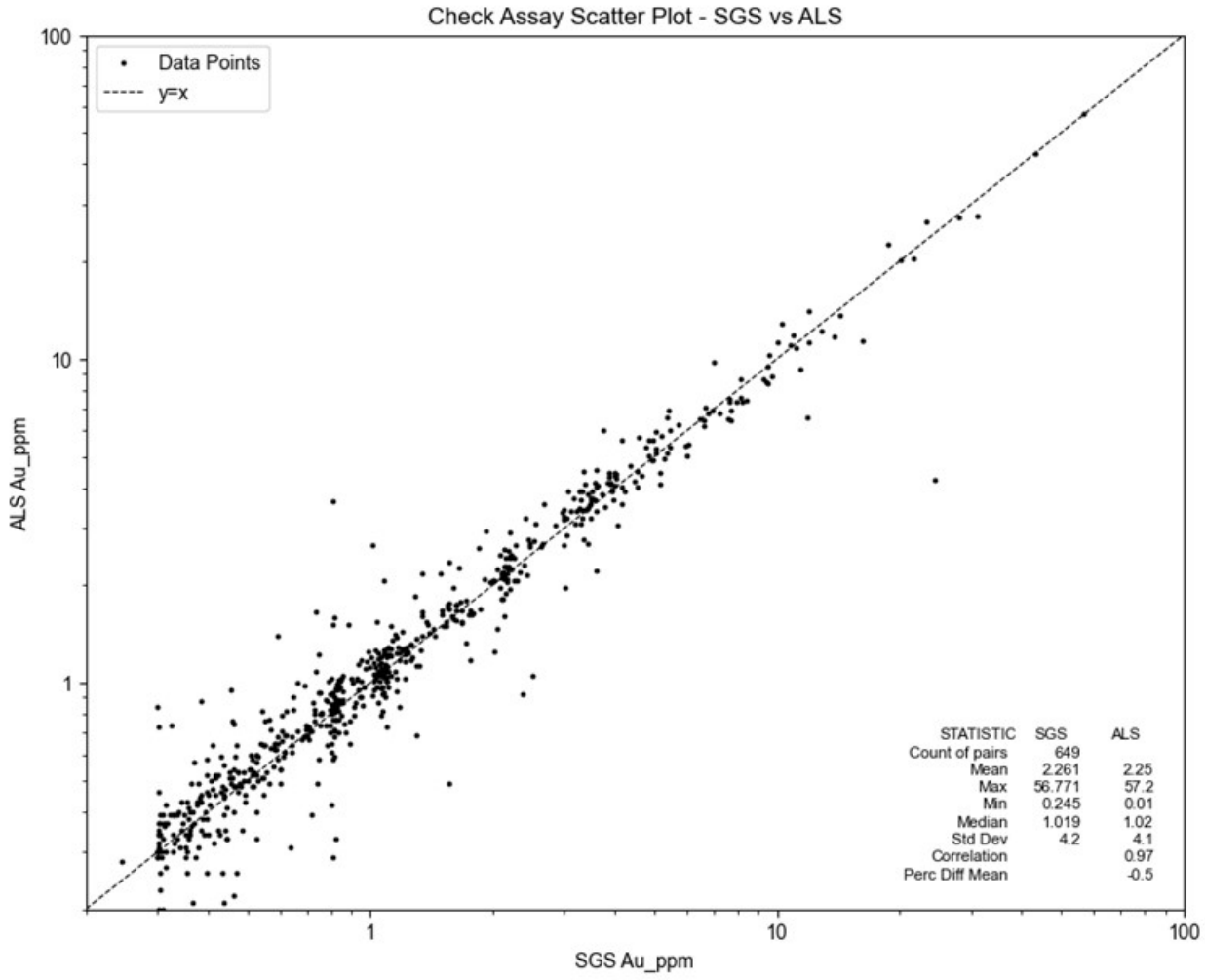

## 8.4.4 Check Assay

Between 2010 and 2011, 649 samples were collected from drill holes and submitted to ALS.

The gold analyses, as shown in Figure 8-13, demonstrated a strong correlation coefficient of 0.97, with a mean percentage difference of -0.5% between results from SGS and ALS laboratories. These findings indicate both datasets are statistically comparable, supporting the accuracy of the primary laboratory's reported grades.

No check assays were conducted during the period from 2022 to 2024.

**Figure 8-13: Scatter Plots for Gold Pulp External Checks: 2010 – 2011**




## 8.4.5 External Laboratory QA/QC Program

Ghazanfari et al. (2021) also reported the results of QA/QC assessments conducted by the laboratories themselves, and their findings are summarized below.

SGS Geosol and ALS laboratories incorporated blanks, CRMs, and duplicate samples into each analytical batch. Additionally, SGS Geosol laboratory included replicate samples in every batch. External QA/QC results from SGS Geosol laboratory were integrated with routine assay results, while ALS provided separate QA/QC reports upon request. Both laboratories archived their external QA/QC results and copies were stored in Rio Novo's digital database.

Results were analyzed using batch-based and global population-based control methods, ensuring high reliability and accuracy throughout the program.

### 8.4.5.1 Certified Reference Materials

SGS Geosol laboratory analyzed over 3,200 CRM samples using 29 different CRMs. All results were within the warning threshold of two standard deviations, demonstrating excellent analytical accuracy and precision.

#### 8.4.5.2 Blank Samples

A total of 3,455 blank samples were analyzed by SGS Geosol laboratory. Only three exceeded the failure threshold (0.015 g/t), with no contamination detected.

#### 8.4.5.3 Duplicate Samples

Over 3,500 duplicates from coarse reject material were analyzed, showing a strong correlation to original assays ($R^2$ = 0.99).

Under global population control, 90% of duplicates had relative differences below 20%, with only 26 samples (<1%) rejected. No batches were rejected.

#### 8.4.5.4 Replicate Samples

Over 2,000 replicate pulp samples were analyzed, also showing a high correlation ($R^2$ = 0.99).

Under global population control, 90% of replicates had relative differences below 10%, with only 85 samples (<5%) rejected. No batches were rejected.

Ghazanfari et al. (2021) concluded that the QA/QC program proved to be highly reliable, with minimal sample rejections and no impact on batch quality. This robust control framework ensured data integrity and supported the accuracy of the assay results.

### 8.4.6 Conclusions and Recommendations

Based on the review of data spanning from 2010 to 2024, the SLR QP has the following QA/QC conclusions and recommendations:

- No major contamination occurrences were identified during preparation at any of the participating laboratories.
- Overall, the CRMs demonstrated satisfactory performance across all participating laboratories, with a bias of less than 5% with control limits established at ±3SD from the expected values. For the currently used CRMs (CDN), the SLR QP recommends considering the expected value (EV) and only 1SD when evaluating the data, despite the CRM certificate reporting EV and 2SD.
- Some issues were identified, particularly in campaigns prior to 2012, and 8% of outliers were found in the 2022 to 2024 data. These outliers should be reviewed, however, they do not materially affect the reliability or confidence of the resource estimation.
- The SLRQP recommends reducing CRM types to three: high-grade, medium-grade, and low-grade, as this reduction will be sufficient to monitor laboratory performance and track potential emerging biases or systematic failures over extended timeframes.
- Pulp duplicates demonstrated acceptable precision levels at both SGS-LI and SGS-LE laboratories. The SLRQP recommends implementing coarse duplicates to assist in monitoring the sample preparation processes at the laboratory and evaluating the distribution of minerals of interest within a coarser fraction of the sample, as well as continuing the evaluation of field duplicate results to monitor the sampling processes from the drill holes.
- The external check (2010 to 2011) indicates good reproducibility of gold values for both primary laboratories, SGS and ALS. The SLR QP recommends continuing check assays at a rate of approximately 2% to 4% to monitor and validate analytical performance.





These samples should be shipped along with blanks and standards to validate the secondary results.

In the SLR QP's opinion, the QA/QC program as designed and implemented by Aura is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

# 9.0 Data Verification

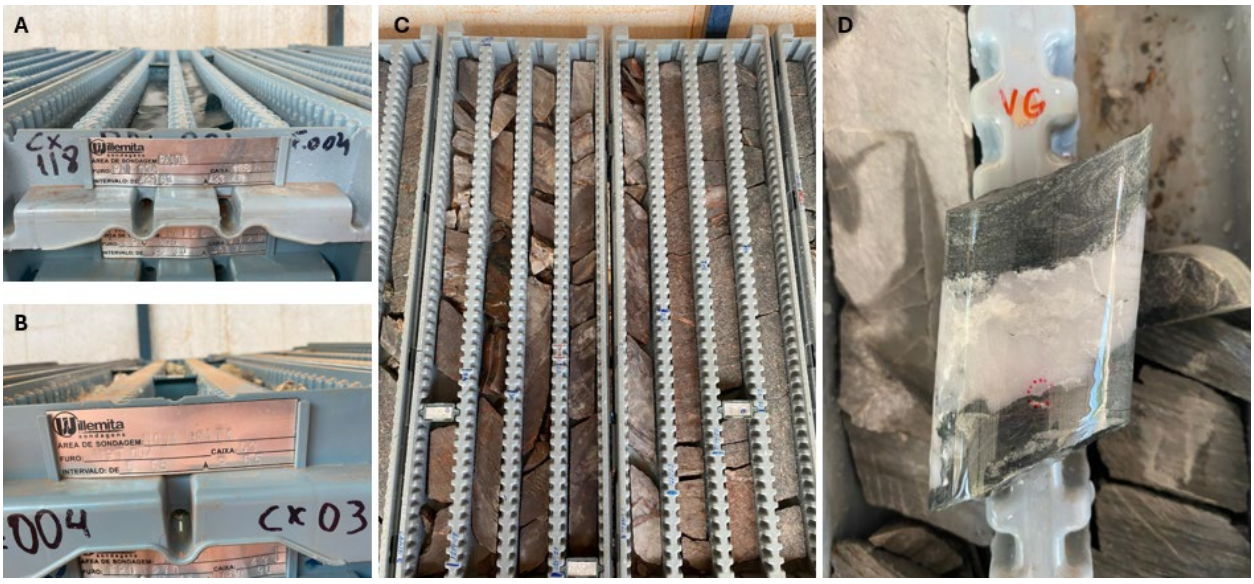
## 9.1 SLR Site Verification Procedures

### 9.1.1 Confirmation of Mineralized Intercepts

During the site visit, the SLR QP conducted visual inspections of drill cores from selected intercepts, chosen based on the geological models. These intercepts and drill holes were selected for their relevance to mineralization, geological context, and the mineral deposit.

The SLR QP reviewed the following drill holes: FPD-0270, PAI-020, PAI-014, PAI-004, NPT-004, and VRS-034. Figure 9-1 illustrates drill cores from the core shed.

**Figure 9-1: Drill Core Inspection**




Note: A. PAI-004 drill box; B. NPT-004 drill box; C. Drill core showing the aspect of the mineralization of the region; D. Visible gold in the drill core.

In general, the lithological descriptions of the drill holes match the drill logs, as well as the sampling intervals. No major issues were identified during the visual inspection.

## 9.2 SLR Audit of the Drill Hole Database

SLR carried out cross-checks between the Almas assay databases and the SGS assay certificates. These databases contain a total of 194,145 samples with gold assays recorded up to the cut-off date of August 22, 2024. Of these, 49,076 samples correspond to historical campaigns (pre-2008). SLR compared 68,139 samples, all post-2008, representing 35% of the entire database. Therefore, it can be considered that 47% of the certificates from the recent database have been analyzed.

The data verification covered 1,290 out of 3,006 drill holes, including data from 953 assay certificates spanning the years 2008 to 2024.

SLR identified only two discrepancies in gold values between the database and the assay certificates, representing an insignificant fraction of the total samples compared.

A total of 19 minor discrepancies were identified, with 11 samples showing different values in the re-analysis certificates. The values recorded in the database correspond to the detection limit, likely from the original certificate (which was not provided in the data room), however, the differences do not exceed 0.05 ppm Au.

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

# 10.0 Mineral Processing and Metallurgical Testing

## 10.1 Introduction and Historical Background

This section of the report contains the metallurgical test results for the Almas Project conducted during two test work campaigns. All previous test work campaigns conducted on this Project were reported and summarized in RPM (2016).

The initial test work program reported in this TRS was conducted at the SGS Geosol laboratory. The test work program was conducted September to December 2018. The mineralogical study on the deposit samples was conducted at the SGS Lakefield facility in Lakefield, Canada (SGS Lakefield) in 2018. A senior metallurgist from the SGS Lakefield gold metallurgy group visited the SGS Geosol laboratory from September 25 to October 3, 2018 to monitor initial tests and review several SGS SOPs that were used in the test program.

The SGS test work reports are as follows:

- SGS Geosol laboratory. 2019. Metallurgical study report- Project 3965- 1801- Final Report- Gravity Separation, Flotation and Leaching Test work on Gold Ore Samples from the Almas Deposit, prepared for Aura Minerals. September 20, 2019.
- SGS Minerals Services, Lakefield. 2019. Mineralogy study report - Project 17013-01, MI5030-OCT18 – Final Report – An Investigation by High Definition Mineralogy into the Mineralogical Characteristics of Nine Composite Samples from the Almas and Matupa Gold Projects, Brazil, prepared for Aura Minerals. February 7, 2019.
- SGS Minerals Services, Lakefield. 2018. Trip Report Summary, SGS Geosol laboratory (on-site) – Project 17029- 01A, prepared for Aura Minerals. October 17, 2018.

The main objective of this test work program was to evaluate potential process flowsheets for a subsequent trade-off study by the engineering company, Ausenco Engineering. The process flowsheets evaluated were as follows:

- Flowsheet 1 - Gravity separation followed by flotation and concentrate cyanide leaching. The main emphasis was placed on the development of this flowsheet, specifically evaluating flotation.
- Flowsheet 2 - Gravity separation followed by cyanidation- preliminary testing.
- Amenability to heap leaching has also been briefly evaluated

The second test work program reported in this document was conducted by the independent metallurgical laboratory Testwork Desenvolvimento de Processo Ltda (Testwork Process Development) in Brazil and the chemical analysis was conducted at the SGS Geosol laboratory.

The second test work campaign was completed from March to November 2020, with the main objective to confirm the gravity separation – cyanidation flowsheet and to optimize the process variables for a feasibility level study. This program included further testing of the gravity separation circuit, confirmation of the cyanide leach parameters, cyanide destruction, and solid-liquid separation testing.

Additional settling and rheology tests were conducted by FLSmidth in Brazil and the gravity separation circuit was evaluated and modelled by FLSmidth in Canada. Additional comminution breakage test work was conducted at the Metso:Outotec laboratory in Sorocaba, Brazil.

The additional breakage tests conducted at Metso:Outotec included three semi-autogenous grinding (SAG) mill comminution (SMC) tests, one on each major ore type from the Almas deposit. The results of these tests were published by Metso:Outotec, as they are the only licenced laboratories that can conduct the SMC Test in Brazil.

The following results and reports were issued during this program:

- Testwork Process Development Laboratory – test work results and test details
- SGS Geosol laboratory - certificates of chemical analysis
- Coteprom Mineral Consultancy and Advisory Services Ltda – test work summary tables
- FLSmidth - Solid/Liquid Separation Report – Report Number RTE522/20, Aura Minerals Almas Project, Settling and Rheology of Ore Samples, Brazil, July 8, 2020 (FLSmidth 2020a)
- FLSmidth – Gravity Separation Report – Report Number 200903-CA- 1600, Gravity Audit Modelling Report, Aura Minerals, Almas Project, September 3, 2020 (FLSmidth 2020b)
- MinPro Solutions - Comminution Process Simulation – Report Aura 01-20, Rev 0 03, September 2020
- Metso:Outotec – Comminution tests report, October 26, 2020

The following sub-sections contain the results for both campaigns in chronological order.

## 10.2 Sample Preparation and Head Assays

For the first campaign, six ore type samples from the Almas Project deposits were submitted for testing as individual hole core samples. The ore types for each deposit were identified as follows:

- **Paiol Deposit (these composites contained saprolite and two lithology samples)**
  - Paiol Saprolite: submitted weight: 114 kg. This is oxide material, representing approximately 5% to 10% of the deposit, which is similar to the other two deposits of saprolite ore.
  - Paiol SDCX (sericite-chlorite-ankerite schist): submitted weight: 58 kg. This is sulphide material representing approximately 40% to 45% of the deposit.
  - Paiol SDQS (sericite-ankerite-quartz schist): submitted weight: 53 kg. This is sulphide material representing approximately 40% to 45% of the deposit.
- **Vira Saia Deposit (these composites contained two lithology samples)**
  - Vira Saia QSX (quartz-sericite shist): submitted weight: 90 kg. Identified as the sulphide material representing approximately 20% to 25% of the deposit.
  - Vira Saia GDM (mylonitic granodiorite: submitted weight: 89 kg. Identified as the sulphide material representing approximately 70% to 75% of the deposit.
- **Heap Leach Pad Material (identified as Trench Composite)**
  - Trench Composite*:* submitted weight: 61 kg. This is oxidized material from the old heap leach operation by the VALE mine.

For the second campaign, a composite representing the first three years of operation was selected by the Aura technical team. The three year composite, identified as “Blend 3-Y”,

contained a blend of saprolite and fresh rock. The average blend composition representing a three year period was as follows:

- Paiol: submitted weight 158 kg, representing approximately 75.4% of the deposit period.
- Vira Saia and Vira Saia saprolite: submitted weight 17.8 kg and 23.2 kg, representing 8.5% and 11.1%, respectively.
- Cata Funda: submitted weight 10.6 kg representing 5.1% of the deposit period.

The available sample weights and the composite distribution by typology for the first three years of operation are shown in Table 10-1.

**Table 10-1: Composite Weights**

| Sample | Weight (kg) | Average % Weight Distribution | | | |
|---|---|---|---|---|---|
| | | Year 1 | Year 2 | Year 3 | Average* |
| Individual Composites | | | | | - |
| Paiol Saprolite | 114 | | | | 5-10 |
| Paiol SDCX | 58 | | | | 40-45 |
| Paiol SDQX | 53 | | | | 40-45 |
| Vira Saia QSX | 90 | | | | 20-25 |
| Vira Saia GDM | 89 | | | | 70-75 |
| Trench | 61 | | | | - |
| Blend 3-Year Composite | 210 | - | - | - | - |
| Paiol | 158 | 100 | 58 | 57 | 73 |
| Vira Saia | 41 | 0 | 42 | 23 | 20 |
| Cata Funda | 11 | 0 | 0 | 20 | 6 |
| Note. *Average composition for each deposit | | | | | |

For the additional SMC Tests, three ore type samples from the Almas deposits were submitted for testing as blended hole core samples. The ore types for each deposit were identified as follows:

- Vira Saia: GDM-QSX-VS001
- Paiol: SDQX-ADQX-PA-003 and SDQX-SCDX-PA01
- Cata Funda: SCDX CAT-001

The sample preparation and the sample handling protocols for low-grade gold ores were followed during the test work programs to ensure that the QA/QC guidelines and the SOPs were executed throughout the Project.

In addition to the sample preparation protocols, the low detection FA methodology (especially for tailings and residue analysis) has been reviewed with the testing laboratories. SGS Lakefield has provided an explanatory note and a “precision curve” graph, indicating that if the sample concentration is slightly above or near the detection limit of 0.01 g/t Au to 0.02 g/t Au, the analysis will have a significantly large uncertainty at that level. Therefore, this level of uncertainty should be taken into consideration when analyzing the results.

The individual core samples of each ore type were combined and crushed to -6 mesh. Each composite was well blended and split into representative test charges. Representative head samples were removed from each composite for assays. Each sample was analyzed for gold by direct FA (using nine subsamples from each ore type) and by screened metallic protocol, as shown in Table 10-2 and Table 10-3. Calculated head grades from metallurgical balances of gravity and leach tests are also shown for cross reference with the assayed head grades.

**Table 10-2: Comparative Gold Head Assays**

| Sample | Weight (kg) | (Au g/t) | | |
|---|---|---|---|---|
| | | Average from Nine Aliquots | Screened Metallic Assay | Average Calculated Head from Gravity Separation Tests |
| Paiol Saprolite | 114 | 0.65 | 0.65 | 0.65 |
| Paiol SDCX | 58 | 0.89 | 1.01 | 0.98 |
| Paiol SDQX | 53 | 1.20 | 1.42 | 1.29 |
| Vira Saia QSX | 90 | 1.46 | 1.59 | 1.53 |
| Vira Saia GDM | 89 | 0.89 | 0.94 | 0.91 |
| Trench | 61 | 0.89 | 0.98 | 0.94 |
| | | | | |
| Blend 3-Year | 210 | - | 1.28^/1.34^^ | 1.86/1.31* |

Notes:
^Triplicate screened metallic assay.
^^Size fraction analysis head grade assay.
*Average calculated head grade from gravity tests/whole ore leach tests.

**Table 10-3: Individual Samples Gold Head Assays**

| Sample | Aliquot (g/t Au) | Sub-sample (g/t Au) | Average (g/t Au) | Sample | Aliquot (g/t Au) | Sub-sample (g/t Au) | Average (g/t Au) |
|---|---|---|---|---|---|---|---|
| Paiol Saprolite | 0.69 | 0.71 | 0.65 | Vira Saia QSX | 1.53 | 1.42 | 1.46 |
| | 0.75 | | | | 1.32 | | |
| | 0.67 | | | | 1.41 | | |
| | 0.59 | 0.62 | | | 1.35 | 1.28 | |
| | 0.61 | | | | 1.21 | | |
| | 0.65 | | | | 1.29 | | |
| | 0.57 | 0.63 | | | 1.68 | 1.68 | |
| | 0.68 | | | | 1.53 | | |
| | 0.64 | | | | 1.83 | | |
| Paiol SDCX | 0.86 | 0.86 | 0.89 | Vira Saia GDM | 0.86 | 0.83 | 0.89 |
| | 0.88 | | | | 0.80 | | |
| | 0.86 | | | | 0.82 | | |
| | 0.83 | 0.96 | | | 0.86 | 0.86 | |
| | 1.06 | | | | 0.88 | | |
| | 1.01 | | | | 0.85 | | |
| | 0.90 | 0.85 | | | 1.12 | 0.97 | |
| | 0.84 | | | | 0.91 | | |
| | 0.82 | | | | 0.88 | | |
| Paiol SDQX | 1.15 | 1.13 | 1.20 | Trench | 0.83 | 0.90 | 0.89 |
| | 1.13 | | | | 0.85 | | |
| | 1.11 | | | | 1.01 | | |
| | 1.27 | 1.28 | | | 0.77 | 0.83 | |
| | 1.19 | | | | 0.88 | | |
| | 1.40 | | | | 0.86 | | |
| | 1.24 | 1.18 | | | 0.89 | 0.95 | |
| | 1.14 | | | | 0.99 | | |
| | 1.15 | | | | 0.97 | | |

The Blend 3-Y composite was prepared following the same SOP as applied to the individual composites. Representative test charges were riffled for testing and head samples were removed for analysis. The head samples were submitted for gold assays by the screened metallic method, conducted at 150 mesh and by size fraction analysis, shown in Table 10-4 and Table 10-5, respectively, and illustrated in Figure 10-1.

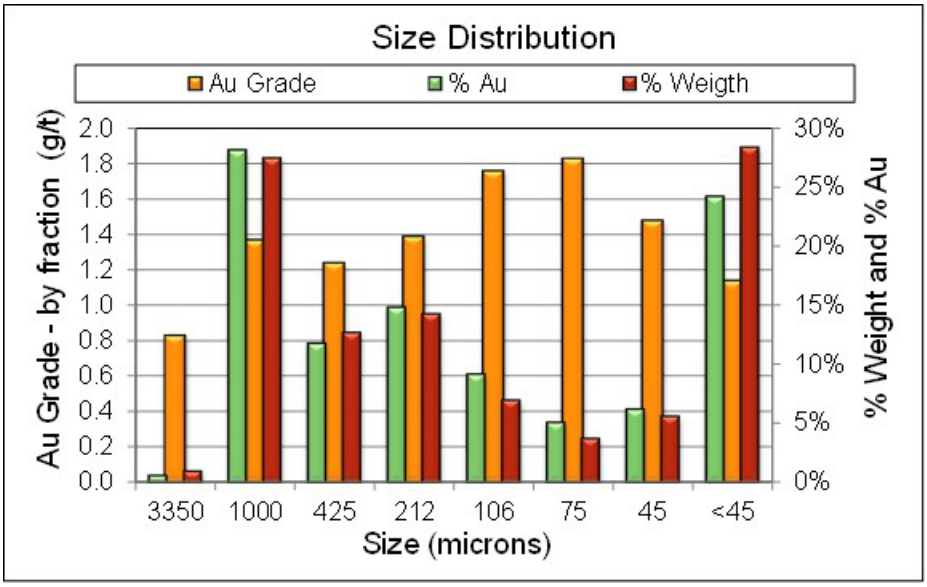
**Table 10-4: Blend 3-Y Composite Screened Metallic Assays**

| Fraction, mesh | Weight (%) | Au (g/t) | Au Distribution (%) |
|---|---|---|---|
| +150 mesh | 2.88 | 2.43 | 5.2 |
| -150 mesh | 97.12 | 1.32 | 94.8 |
| Head (calc) | 100.00 | **1.35** | 100.0 |
| +150 mesh | 3.77 | 1.69 | 5.0 |
| -150 mesh | 96.23 | 1.26 | 95.0 |
| Head (calc) | 100.00 | **1.28** | 100.0 |
| +150 mesh | 4.41 | 2.14 | 7.7 |
| -150 mesh | 95.59 | 1.18 | 92.3 |
| Head (calc) | 100.00 | **1.22** | 100.0 |
| Head (average) | | **1.28** | |

**Table 10-5: Blend 3-Y Composite Size Fraction Analysis**

| Size Fraction (mesh) | Size Fraction (µm) | Au (g/t) | % Au Retained | % Au Retained Cumulative | % Au Passing Cumulative |
|---|---|---|---|---|---|
| 6 | 3350 | 0.83 | 0.6 | 0.6 | 99.4 |
| 16 | 1000 | 1.37 | 28.2 | 28.8 | 71.3 |
| 35 | 425 | 1.24 | 11.8 | 4.5 | 59.5 |
| 65 | 212 | 1.39 | 14.8 | 55.4 | 44.6 |
| 150 | 106 | 1.76 | 9.2 | 64.5 | 35.5 |
| 200 | 75 | 1.83 | 5.1 | 69.6 | 30.4 |
| 325 | 45 | 1.48 | 6.2 | 75.8 | 24.2 |
| <325 | <45 | 1.14 | 24.2 | 100.0 | 0.0 |
| **Head (calc)** | | **1.34** | **100.0** | | |

**Figure 10-1: Blend 3-Y Composite Size Distribution Analysis**




The Blend 3-Y composite screened metallic triplicate head assays showed the calculated head grade of 1.28 g/t Au with 5% to 7% of the gold reporting into the coarse fraction. The size fraction analyses showed the calculated head grade of 1.34 g/t Au.

The samples were submitted for specific gravity (SG) determination, sulphur, carbon speciation analysis, and the multi-element ICP scan, as presented in Table 10-6 for the individual and the 3-year composites. The sulphur grades were approximately 0.5% for the Paiol, Trench, and the Blend 3-Y composite samples. The other samples contained 0.02% to 0.04% S. The graphitic and organic carbon concentration in all the samples was less than 0.05% to 0.1%, indicating that there is no preg-robbing potential, unless the clay minerals present in the ore exhibit such capacity. The silver analyses were included in the ICP scan and reported as less than 3 g/t Ag for all the samples. The copper and zinc concentrations were low for all the samples tested. The copper speciation conducted in the Blend 3-Y Composite showed very low concentration of cyanide soluble copper of less than 0.002%. The mercury concentration was also low (0.02 ppm to 0.07 ppm).

In addition, the whole rock analysis was conducted by SGS Lakefield as a part of the mineralogy program, as shown in Table 10-7.

**Table 10-6: Head Assays – Sulphur, Carbon, ICP Scan, and Hg**

| Sample | SG | S | C | $C_{org}$ | C g | Ag | Al | As | Ba | Be | Bi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (g/cm³) | (%) | (%) | (%) | (%) | (ppm) | (%) | (ppm) | (ppm) | (ppm) | (ppm) |
| Paiol Saprolite | 2.83 | 0.04 | 0.13 | 0.08 | <0.05 | <3 | 7.23 | 11 | 222 | <3 | <20 |
| Paiol SDCX | 2.85 | 0.43 | 2.45 | <0.05 | 0.09 | <3 | 5.87 | 17 | 221 | <3 | <20 |
| Paiol SDQX | 2.89 | 0.48 | 3.37 | <0.05 | 0.10 | <3 | 5.39 | 37 | 109 | <3 | <20 |
| Vira Saia QSX | 2.70 | 0.04 | 0.26 | <0.05 | <0.05 | <3 | 7.22 | <10 | 717 | <3 | <20 |
| Vira Saia GDM | 2.68 | 0.02 | 0.47 | <0.05 | <0.05 | <3 | 7.34 | <10 | 770 | <3 | <20 |
| Trench | 2.81 | 0.49 | 2.36 | <0.05 | <0.05 | <3 | 5.33 | 27 | 134 | <3 | <20 |
| | | | | | | | | | | | |
| Blend 3-Year | - | 0.48 | 2.49 | <0.05 | - | <3 | 5.49 | 63 | 177 | <3 | <20 |
| **Sample** | **Ca** | **Cd** | **Co** | **Cr** | **Cu** | **Fe** | **K** | **La** | **Li** | **Mg** | **Mn** |
| | (%) | (ppm) | (ppm) | (ppm) | (ppm) | (%) | (%) | (ppm) | (ppm) | (%) | (%) |
| Paiol Saprolite | 0.11 | <3 | 82 | 58 | 91 | 10.0 | 1.13 | <20 | 29 | 0.7 | 0.14 |
| Paiol SDCX | 5.70 | <3 | 34 | 11 | 47 | 10.0 | 0.89 | <20 | 19 | 1.9 | 0.15 |
| Paiol SDQX | 5.81 | <3 | 39 | 35 | 64 | 7.8 | 1.46 | <20 | 14 | 2.4 | 0.14 |
| Vira Saia QSX | 0.90 | <3 | <8 | 10 | 12 | 1.6 | 3.35 | <20 | 10 | 0.3 | 0.02 |
| Vira Saia GDM | 1.68 | <3 | <8 | 4 | 7 | 1.8 | 2.79 | 22 | 11 | 0.4 | 0.03 |
| Trench | 4.44 | <3 | 31 | 35 | 49 | 8.0 | 0.95 | <20 | 13 | 1.7 | 0.12 |
| | | | | | | | | | | | |
| 3-Year Comp | 4.49 | <3 | 33 | 30 | 46 | 7.8 | 1.04 | <20 | <3 | 1.7 | 0.12 |
| **Sample** | **Mo** | **Na** | **Ni** | **P** | **Pb** | **S** | **Sb** | **Sc** | **Se** | **Sn** | **Sr** |
| | (ppm) | (%) | (ppm) | (%) | (ppm) | (%) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Paiol Saprolite | <3 | 0.27 | 64 | 0.03 | <8 | <0,01 | <10 | 39 | <20 | <20 | 15 |
| Paiol SDCX | <3 | 1.55 | 18 | 0.08 | <8 | 0.41 | <10 | 28 | <20 | <20 | 112 |
| Paiol SDQX | <3 | 1.18 | 51 | 0.03 | <8 | 0.44 | <10 | 30 | <20 | <20 | 92 |
| Vira Saia QSX | <3 | 1.15 | 5 | 0.02 | 13 | 0.03 | <10 | <5 | <20 | <20 | 118 |
| Vira Saia GDM | <3 | 1.76 | <3 | 0.03 | <8 | 0.03 | <10 | <5 | <20 | <20 | 238 |
| Trench | <3 | 1.4 | 30 | 0.05 | <8 | 0.46 | <10 | 26 | <20 | <20 | 86 |
| | | | | | | | | | | | |
| 3-Year Comp | <3 | 1.53 | 30 | 0.06 | <8 | 0.53 | <10 | 25 | <20 | <20 | 120 |

| Sample | Th | Ti | Tl | U | V | W | Y | Zn | Zr | Hg | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ppm) | (%) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | |
| Paiol Saprolite | <20 | 0.34 | <20 | <20 | 267 | 28 | 8 | 126 | 49 | 0.07 | |
| Paiol SDCX | <20 | 0.92 | <20 | <20 | 236 | 48 | 5 | 146 | 124 | 0.07 | |
| Paiol SDQX | <20 | 0.24 | <20 | <20 | 210 | 37 | <3 | 91 | 33 | 0.05 | |
| Vira Saia QSX | <20 | 0.11 | <20 | <20 | 23 | <20 | <3 | 61 | 37 | 0.02 | |
| Vira Saia GDM | <20 | 0.14 | <20 | <20 | 24 | <20 | <3 | 60 | 40 | 0.02 | |
| Trench | <20 | 0.43 | <20 | <20 | 184 | 31 | 4 | 111 | 66 | 0.02 | |
| | | | | | | | | | | | |
| 3-Year Comp | <20 | 0.57 | <20 | <20 | 183 | 33 | 6 | 87 | 87 | <0.05 | |
| **Sample** | **$Cu_S$** | **$Cu_{CN}$** | **$Cu_{Res}$** | **S*** | **S=*** | **$SO_4$ **** | | | | | |
| | **%** | **%** | **%** | **%** | **%** | **%** | | | | | |
| Paiol Saprolite | - | - | - | < 0.01 | < 0.05 | - | | | | | |
| Paiol SDCX | - | - | - | 0.38 | 0.33 | - | | | | | |
| Paiol SDQX | - | - | - | 0.57 | 0.44 | - | | | | | |
| Vira Saia QSX | - | - | - | 0.04 | <0.05 | - | | | | | |
| Vira Saia GDM | - | - | - | 0.02 | < 0.05 | - | | | | | |
| Trench | - | - | - | 0.4 | 0.35 | - | | | | | |
| | | | | | | | | | | | |
| 3-Year Comp | <0.002 | <0.002 | 0.004 | - | - | 0.07 | | | | | |

Notes:
* SGS Lakefield assays
** SGS Geosol Laboratory assays

**Table 10-7: Head Assays – Whole Rock Analysis (SGS Lakefield)**

| Sample | $SiO_2$ (%) | $Al_2O_3$ (%) | $Fe_2O_3$ (%) | MgO (%) | CaO (%) | $Na_2O$ (%) | $K_2O$ (%) |
|---|---|---|---|---|---|---|---|
| Paiol Saprolite | 57.9 | 15 | 14.5 | 1.15 | 0.17 | 0.43 | 1.44 |
| Paiol SDCX | 47.1 | 11 | 13.5 | 3.08 | 8.41 | 2.08 | 1.04 |
| Paiol SDQX | 48.3 | 9.88 | 10.6 | 3.92 | 8.36 | 1.6 | 1.64 |
| Vira Saia QSX | 77.3 | 11.7 | 1.52 | 0.41 | 1.16 | 1.6 | 3.36 |
| Vira Saia GDM | 69.4 | 14.5 | 2.17 | 0.61 | 2.48 | 2.54 | 3.74 |
| Trench | 52.4 | 10.6 | 10.9 | 2.94 | 6.69 | 2.15 | 1.32 |
| **Sample** | **$TiO_2$ (%)** | **$P_2O_5$ (%)** | **MnO (%)** | **$Cr_2O_3$ (%)** | **$V_2O_5$ (%)** | **LOI (%)** | **Sum (%)** |
| Paiol Saprolite | 1.23 | 0.08 | 0.21 | 0.02 | 0.06 | 7.54 | 99.7 |
| Paiol SDCX | 1.72 | 0.21 | 0.21 | < 0.01 | 0.04 | 10.5 | 98.9 |
| Paiol SDQX | 0.78 | 0.07 | 0.18 | 0.02 | 0.04 | 13.3 | 98.7 |
| Vira Saia QSX | 0.18 | 0.05 | 0.02 | 0.02 | < 0.01 | 2.13 | 99.5 |
| Vira Saia GDM | 0.24 | 0.07 | 0.04 | < 0.01 | < 0.01 | 3.37 | 99.2 |
| Trench | 1.12 | 0.11 | 0.17 | 0.02 | 0.03 | 10.3 | 98.8 |

## 10.3 Mineralogy

Each composite sample from the first campaign was submitted to the Advanced Mineralogy Facility at the SGS Lakefield site for a mineralogical examination by Quantitative Evaluation of Minerals by Scanning Electron Microscopy (QEMSCAN) and X-ray diffraction (XRD). The results were presented in SGS Mineral Services (2019).

The objectives of this investigation were to determine the overall mineral assemblage of each sample and liberation of minerals of interest such as sulphides. A summary of the results obtained from the SGS report is presented below.

### 10.3.1 Results from the XRD Analysis

The bulk and clay XRD analysis indicated that the three samples consisted of quartz, muscovite, albite, ankerite, chlorite (chamosite and clinochlore), pyrite, phlogopite goethite, microcline (K-feldspar), and trace amounts of other minerals (<2%).

The clay minerals included kaolinite, nontronite, illite, and illite-montmorillonite. The total clay content ranged from 5% in the Trench to 9% in the Oxide and 33% in the Paiol Saprolite.

### 10.3.2 Results from QEMSCAN Analysis - Modal Mineralogy

All minerals varied widely within the ore types, as shown in Table 10-8, however, the Paiol Saprolite was characterized by elevated amounts of clays (approximately 18%) compared to the other samples (1% to 9%), and goethite compared to approximately less than 1% for the rest of the samples. Elevated ankerite was shown in Paiol SDQX (32%), Trench (21%), and Paiol SDCX (14%). Table 10-8 also includes a summary of the mineral mass in each sample as

shown in the SGS report. The highlighted minerals can affect the ore processing stages in different ways (in crushing/grinding, flotation, leaching, and material handling).

**Table 10-8: Head Assays – Mineral Mass in Each Sample (SGS Lakefield Report)**

| Sample | Unit | Paiol Saprolite | Paiol SDCX | Paiol SDQX | Vira Saia QSX | Vira Saia GDM | Trench |
|---|---|---|---|---|---|---|---|
| Pyrite | % | 0.05 | 3.3 | 0.71 | 0.20 | 0.03 | 1.05 |
| Other Sulphides | % | 0.01 | 0.01 | 0.03 | 0.01 | 0.00 | 0.01 |
| Quartz/Feldspars | % | 48.7 | 46.3 | 47.1 | 62.3 | 66.7 | 56.3 |
| Sericite/Muscovite | % | 16.7 | 7.3 | 9.7 | 32.3 | 26.6 | 7.2 |
| Clays | % | 17.9 | 9.4 | 4.1 | 1.7 | 1.7 | 6.4 |
| Chlorite/Biotite | % | 5.0 | 6.2 | 4.1 | 0.3 | 0.2 | 2.9 |
| Fe Ox/Oxy | % | 10.9 | 4.6 | 1.0 | 0.3 | 0.4 | 2.3 |
| Carbonates | % | 0.70 | 21.8 | 32.8 | 2.02 | 3.6 | 23.3 |
| Other | % | 0.10 | 0.98 | 0.43 | 0.80 | 0.70 | 0.69 |

### 10.3.3 Pyrite Liberation

Pyrite was the predominant sulphide mineral ranging from traces to 3% in the samples examined. Free and liberated pyrite accounted for 70% Paiol SDCX to 90% to 100% in the rest of the samples. Most of the middling occurred as complex particles (ternary and quaternary composite particles) in the Paiol SDCX.

### 10.3.4 Gold Deportment

The mineralogical gold deportment study was not conducted at this stage. It was noted that gold can be associated with a few minerals (quartz, sulphides). Gold in some of the oxidized samples can be associated with iron oxides and oxyhydroxides. Both the Fe-oxyhydroxides and pyrite can also contain chemically bound (submicroscopic) gold.

## 10.4 Comminution Testing

Each sample from the first test work campaign conducted at SGS Geosol laboratory was submitted for Bond Ball Work index determination, as shown in Table 10-9. The results suggested that the Saprolite sample showed a very low BWI of 4.4 kWh/t. The other samples showed average Bond indices (8.5 kWh/t to 11.9 kWh/t) for low-grade sulphide and oxide ores. These results are in line with previous test work conducted for the Almas Project, which exhibited values between 6.8 kWh/t and 11.2 kWh/t.

**Table 10-9: Bond Ball Work Index Summary**

| Sample | $F_{80}$ (µm) | Control Screen, (µm) | $P_{80}$, (µm) | BWi (kWh/t) |
|---|---|---|---|---|
| Paiol Saprolite | 397 | 106 | 57 | 4.4 |
| Paiol SDCX | 2,053 | 106 | 75 | 10.1 |
| Paiol SDQX | 1,975 | 106 | 75 | 9.7 |
| Vira Saia QSX | 2,066 | 106 | 76 | 11.2 |
| Vira Saia GDM | 1,978 | 106 | 76 | 11.9 |
| Trench | 1,180 | 106 | 70 | 8.5 |

The results of the SMC Tests indicated that the Cata Funda ore is more competent than Vira Saia and Paiol ores, as shown by the Axb values in Table 10-10 (the lower the Axb value, the more competent the ore). Previous Axb values for the Project were obtained from tests following the MinPro SOLUTIONS methodology, which is different from the SMC Tests, and suggests that the Almas ores are more competent.

**Table 10-10: SMC Test® Summary**

| Sample | DWI ($kWh/m^3$) | A x b | Specific Gravity | Abrasion Index ($t_a$) |
|---|---|---|---|---|
| Vira Saia | 4.13 | 66 | 2.73 | 0.63 |
| Paiol | 4.74 | 60 | 2.86 | 0.54 |
| Cata Funda | 5.87 | 49 | 2.86 | 0.44 |

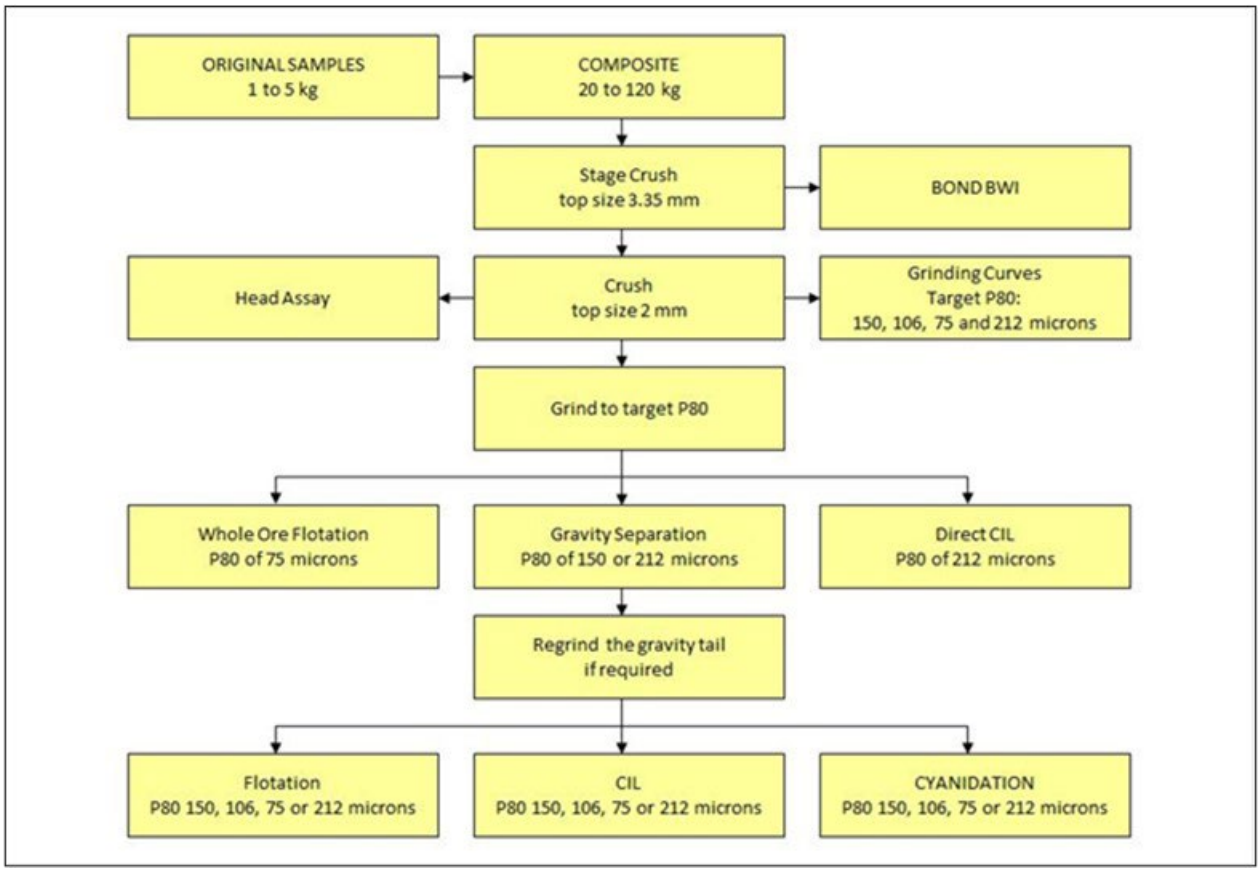
The recommended comminution process design parameters based on test work in previous sections include (in the case where no test work available an interpolation of the value was made):

- Axb = 60
- Bond crushing work index = 11.7 kWh/t
- Bond rod mill work index = 11.6 kWh/t
- Bond ball mill work index = 10.1 kWh/t
- Abrasion index = 0.069

## 10.5 Individual Composites Test Work Program

The test work program for the individual composites is presented in the flowsheet in Figure 10-2.

**Figure 10-2: Test Work Program Flowsheet**




### 10.5.1 Individual Composites Flowsheet 1: Gravity Separation – Flotation

A series of exploratory grinding tests was conducted in a laboratory rod mill to establish the grinding time to reach the particle size $K_{80}$ of 150 µm, 106 µm, and 75 µm. All the samples tested required short grinding time in a laboratory rod mill.

Each ore type was subjected to gravity separation and flotation testing. Flotation concentrate cyanide leaching has not been conducted at this phase of testing.

#### 10.5.1.1 Gravity Separation

Ten kilograms of each ore type was ground to a $K_{80}$ of 150 µm and subjected to a gravity separation test using a laboratory Knelson concentrator. The Knelson concentrate was further upgraded by hand panning. The test products were submitted for gold assays and the pan tailings and the Knelson tailings were combined for subsequent testing. The results are presented in Table 10-11. The results indicated that 0.2% to 0.6% of the mass was recovered into the gravity concentrate with the grade ranging from 58 g/t Au to 234 g/t Au. The arithmetic average calculated recovery for all the samples tested (assuming equal weight ratios from each composite) was 25% with the concentrate grade of 109 g/t Au and the tailings grade of 0.7 g/t Au, as shown in Table 10-12. It should also be noted that SGS Geosol laboratory calculated the metallurgical balances for the gravity circuits using the BILMAT software and the experimental results.

**Table 10-11: Individual Composites Gravity Separation Test Results**

| Sample | Product | Weight | | Assays (g/t) | % Distribution |
|---|---|---|---|---|---|
| | | (g) | (%) | Au | Au |
| Paiol Saprolite | Hand Panning Concentrate | 20.0 | 0.20 | 57.9 | 17.9 |
| | Hand Panning Tailing | 46.0 | 0.46 | 7.22 | 5.1 |
| | Knelson Tailing | 9,934 | 99.3 | 0.50 | 76.9 |
| | Comb Hand & Knelson Tailing (calc) | 9,980 | 99.8 | 0.53 | *82.1* |
| | Head (calc assay) | 10,000 | 100.0 | 0.65 | 100.0 |
| | Head (direct assay) | 10,000 | | 0.65/0.65 | |
| Paiol SDCX | Hand Panning Concentrate | 35.4 | 0.35 | 70.4 | 25.5 |
| | Hand Panning Tailing | 31.6 | 0.32 | 4.00 | 1.3 |
| | Knelson Tailing | 9,933 | 99.3 | 0.72 | 73.2 |
| | Comb Hand & Knelson Tailing (calc) | 9,965 | 99.6 | 0.73 | *74.5* |
| | Head (calc) | 10,000 | 100.0 | 0.98 | 100.0 |
| | Head (direct) | 10,000 | | 0.89/1.01 | |
| Paiol SDQX | Hand Panning Concentrate | 55.9 | 0.56 | 77.6 | 33.6 |
| | Hand Panning Tailing | 20.1 | 0.20 | 16.29 | 2.5 |
| | Knelson Tailing | 9,924 | 99.2 | 0.83 | 63.8 |
| | Comb Hand & Knelson Tailing (calc) | 9,944 | 99.4 | 0.86 | *66.4* |
| | Head (calc) | 10,000 | 100.0 | 1.29 | 100.0 |
| | Head (direct) | 10,000 | | 1.20/1.42 | |
| Vira Saia QSX | Hand Panning Concentrate | 14.0 | 0.14 | 129 | 11.8 |
| | Hand Panning Tailing | 35.0 | 0.35 | 154 | 35.3 |
| | Knelson Tailing | 9,951 | 99.5 | 0.81 | 52.8 |
| | Comb Hand & Knelson Tailing (calc) | 9,986 | 99.9 | 1.35 | *88.2* |
| | Head (calc) | 10,000 | 100.0 | 1.53 | 100.0 |
| | Head (direct) | 10,000 | | 1.46/1.59 | |
| Vira Saia GDM | Hand Panning Concentrate | 11.0 | 0.11 | 234 | 28.3 |
| | Hand Panning Tailing | 37.0 | 0.37 | 33.6 | 13.7 |
| | Knelson Tailing | 9,952 | 99.5 | 0.53 | 58.0 |
| | Comb Hand & Knelson Tailing (calc) | 9,989 | 99.9 | 0.65 | *71.7* |
| | Head (calc) | 10,000 | 100.0 | 0.91 | 100.0 |
| | Head (direct) | 10,000 | | 0.89/0.94 | |

| Sample | Product | Weight | | Assays (g/t) | % Distribution |
|---|---|---|---|---|---|
| | | (g) | (%) | Au | Au |
| Trench | Hand Panning Concentrate | 35.0 | 0.35 | 85.3 | 31.7 |
| | Hand Panning Tailing | 45.0 | 0.45 | 10.5 | 5.0 |
| | Knelson Tailing | 9,920 | 99.2 | 0.60 | 63.3 |
| | Comb Hand & Knelson Tailing (calc) | 9,965 | 99.7 | 0.64 | *68.3* |
| | Head (calc) | 10,000 | 100.0 | 0.94 | 100.0 |
| | Head (direct) | 10,000 | | 0.89/0.98 | |
| Ave Gravity Concentrate | | | 0.29 | 109 | 24.8 |

**Table 10-12: Individual Composites Gravity Separation Summary**

| Sample | Gravity Concentrate | | | Combined Gravity Tailing (g/t Au [calc]) |
|---|---|---|---|---|
| | Weight (%) | Grade (g/t Au) | Au Recovery (%) | |
| Paiol Saprolite | 0.20 | 58 | 17.9 | 0.53 |
| Paiol SDCX | 0.35 | 70 | 25.5 | 0.73 |
| Paiol SDQX | 0.56 | 78 | 33.6 | 0.86 |
| Vira Saia QSX | 0.14 | 129 | 11.8 | 0.81 |
| Vira Saia GDM | 0.11 | 234 | 28.3 | 0.65 |
| Trench | 0.35 | 85 | 31.7 | 0.64 |
| Almas Ave | 0.29 | 109 | 24.8 | 0.70 |

### 10.5.1.2 Flotation

Samples of the whole ore and gravity tailings were subject to flotation to evaluate the recovery of gold into a flotation concentrate. The main objective of this test program was to maximize the recovery of gold into a flotation concentrate for subsequent cyanide leaching. The effects of fineness of grind and various reagent schemes were evaluated in a series of bulk rougher tests. There were three rougher flotation tests conducted on each ore type and six exploratory rougher tests conducted on the whole ore. No other flotation flowsheet configurations were evaluated at this stage due to the limited scope of the program.

The sample gravity tailings were reground to the specified grind size and subjected to flotation. The effect of fineness of grind ($P_{80}$ = 150 µm, 106 µm, and 75 µm) was evaluated in this test series. The reagents used were potassium amyl xanthate (PAX), as a sulphide collector, copper sulphate as a promoter, and MIBC as a frother. Four stages of rougher concentrates were collected separately over a period of 17 minutes and submitted for gold assays. The rougher tailings were analysed for gold and sulphur. Visually, the flotation appeared to be sluggish with a non-stable froth. It has been noted that very high collector (PAX) dosages of 120-240 g/t were applied in this test series to try and recover all the residual sulphides and gold. Also 40 g/t CuSO4 was added into the last rougher stage. The test results are presented in Table 10-13.

The best results were achieved at a finer grind of 75 µm, as illustrated in Figure 10-3 showing cumulative gold grades at each rougher stage versus recovery. The results indicated that 82-87% of the gold was recovered into a flotation concentrate for the Paiol and Vira Saia composites and 71% gold recovery for the Trench composite. The flotation tailings contained 0.11- 0. 24 g/t Au and 0.03% S, (indicating that all the sulphides were recovered into the flotation concentrate). It is likely that the residual gold present in the tailings is associated with iron oxides and/or silicates. A diagnostic gold deportment study will be required to confirm the gold associations. The overall recovery by gravity separation and flotation was 86-92 % for the Paiol and Vira Saia composites and 80% for the Trench composite. A very good correlation between the calculated head grade and the assayed gravity tailings grade (flotation feed) was shown for all the composites. It is noted that this test work did not include leaching of the concentrate.

In addition, the PAIOL SDQX whole ore sample, without gravity separation, was subjected to exploratory testing of sulphide flotation to evaluate the effect of pH and various collectors. These tests were conducted at a grind size of $P_{80}$= 75 µm. The test results are presented in Table 10-14. Despite applying strong collector combinations, the results for the tests were similar. The best test results were achieved with the PAX or SIBX collectors, copper sulphate, and Dowfroth-250 additions at a natural pH. The recovery of gold in these tests was 91-92%. The flotation tailings contained 0.10-0.12 g/t Au and 0.03% S. The results from the whole ore flotation were comparable with the results obtained from gravity- flotation circuit. It is noted that this test work did not include leaching of the concentrate.

Only exploratory scoping flotation test work has been conducted on the Almas Project composite samples at this stage of testing. Standard bulk sulphide flotation conditions were applied without further optimization including gangue depressing reagent evaluation and different flotation configurations. However, due to relatively high gold losses into the flotation tailings, the flotation process option was not further investigated.





**Table 10-13: Gravity Tailings Flotation Results – Effect of Grind**

| Sample | Conditions | Grind, $P_{80}$ (µm) | Sample | % Weight | Au (g/t) | Au Distribution (%) | Au Overall Recovery (%)* |
|---|---|---|---|---|---|---|---|
| Paiol SDCX Grav Tail | pH- 8.4<br>120-240 g/t PAX<br>$CuSO_4$- 40 g/t<br>Frother - MIBC<br>Flot time- 17 min | 150 | Rougher Concentrate | 2.6 | 23.4 | 73.7 | 80.4 |
| | | | Rougher Tailings | 97.4 | 0.23 | 26.3 | |
| | | | Head (calc) | 100.0 | 0.84 | 100.0 | |
| | | | Head (direct) | | 0.73 | | |
| | | 106 | Rougher Concentrate | 2.8 | 22.2 | 78.4 | 83.9 |
| | | | Rougher Tailings | 97.2 | 0.18 | 21.6 | |
| | | | Head (calc) | 100.0 | 0.79 | 100.0 | |
| | | | Head (direct) | | 0.73 | | |
| | | 75 | Rougher Concentrate | 3.6 | 19.0 | 84.5 | 88.4 |
| | | | Rougher Tailings | 96.4 | 0.13 | 16.1 | |
| | | | Head (calc) | 100.0 | 0.82 | 100.5 | |
| | | | Head (direct) | | 0.73 | | |
| Paiol SDQX Grav Tail | pH- 8.4<br>Collector- 120g/t PAX<br>$CuSO_4$- 40 g/t<br>Frother - MIBC<br>Flot time- 17 min | 150 | Rougher Concentrate | 3.6 | 18.4 | 84.8 | 89.9 |
| | | | Rougher Tailings | 96.4 | 0.12 | 15.2 | |
| | | | Head (calc) | 100.0 | 0.77 | 100.0 | |
| | | | Head (direct) | | 0.86 | | |
| | | 106 | Rougher Concentrate | 3.5 | 19.2 | 80.9 | 87.3 |
| | | | Rougher Tailings | 96.5 | 0.17 | 19.1 | |
| | | | Head (calc) | 100.0 | 0.84 | 100.0 | |
| | | | Head (direct) | | 0.86 | | |
| | | 75 | Rougher Concentrate | 3.9 | 17.8 | 87.3 | 91.6 |
| | | | Rougher Tailings | 96.1 | 0.11 | 12.7 | |
| | | | Head (calc) | 100.0 | 0.80 | 100.0 | |
| | | | Head (direct) | | 0.86 | | |
| Vira Saia QSX Grav Tail | pH- 8.1<br>Collector- 120 g/t PAX<br>$CuSO_4$- 40 g/t<br>Frother - MIBC<br>Flot time -17 min | 150 | Rougher Concentrate | 5.5 | 10.1 | 70.8 | 74.3 |
| | | | Rougher Tailings | 94.5 | 0.24 | 29.2 | |
| | | | Head (calc) | | 0.78 | 100.0 | |
| | | | Head (direct) | | 1.35 | | |
| | | 106 | Rougher Concentrate | 5.7 | 11.1 | 76.4 | 79.2 |
| | | | Rougher Tailings | 94.3 | 0.21 | 23.6 | |
| | | | Head (calc) | 100.0 | 0.84 | 100.0 | |
| | | | Head (direct) | | 1.35 | | |





| Sample | Conditions | Grind, $P_{80}$ (µm) | Sample | % Weight | Au (g/t) | Au Distribution (%) | Au Overall Recovery (%)* |
|---|---|---|---|---|---|---|---|
| | | 75 | Rougher Concentrate | 7.4 | 9.2 | 84.0 | 85.9 |
| | | | Rougher Tailings | 92.6 | 0.14 | 16.0 | |
| | | | Head (calc) | 100.0 | 0.81 | 100.0 | |
| | | | Head (direct) | | 1.35 | | |
| Vira Saia GDM Grav Tail | pH- 8.1<br>Collector- 120 g/t PAX<br>$CuSO_4$- 40 g/t<br>Frother - MIBC<br>Flot time -17 min | 150 | Rougher Concentrate | 5.5 | 7.28 | 72.7 | 80.4 |
| | | | Rougher Tailings | 94.5 | 0.16 | 27.3 | |
| | | | Head (calc) | 100.0 | 0.55 | 100.0 | |
| | | | Head (direct) | | 0.65 | | |
| | | 106 | Rougher Concentrate | 5.9 | 6.65 | 74.0 | 81.4 |
| | | | Rougher Tailings | 94.1 | 0.15 | 26.0 | |
| | | | Head (calc) | 100.0 | 0.63 | 100.0 | |
| | | | Head (direct) | | 0.65 | | |
| | | 75 | Rougher Concentrate | 9.0 | 4.72 | 82.4 | 87.4 |
| | | | Rougher Tailings | 91.0 | 0.10 | 17.6 | |
| | | | Head (calc) | 100.0 | 0.62 | 100.0 | |
| | | | Head (direct) | | 0.65 | | |
| Trench Grav Tail | pH- 8.1<br>Collector- 120 g/t PAX<br>$CuSO_4$- 40 g/t<br>Frother - MIBC<br>Flot time -17 min | 150 | Rougher Concentrate | 9.0 | 4.20 | 66.5 | 77.1 |
| | | | Rougher Tailings | 91.0 | 0.21 | 33.5 | |
| | | | Head (calc) | 100.0 | 0.57 | 100.0 | |
| | | | Head (direct) | | 0.64 | | |
| | | 106 | Rougher Concentrate | 10.3 | 3.00 | 68.5 | 78.5 |
| | | | Rougher Tailings | 89.7 | 0.16 | 31.5 | |
| | | | Head (calc) | 100.0 | 0.46 | 100.0 | |
| | | | Head (direct) | | 0.64 | | |
| | | 75 | Rougher Concentrate | 10.2 | 3.30 | 71.3 | 80.4 |
| | | | Rougher Tailings | 89.8 | 0.15 | 28.7 | |
| | | | Head (calc) | 100.0 | 0.47 | 100.0 | |
| | | | Head (direct) | | 0.64 | | |

Note. * Overall Gold Recovery by Gravity Separation and Flotation





## Figure 10-3: Effect of Grind: Au Grade vs. Recovery

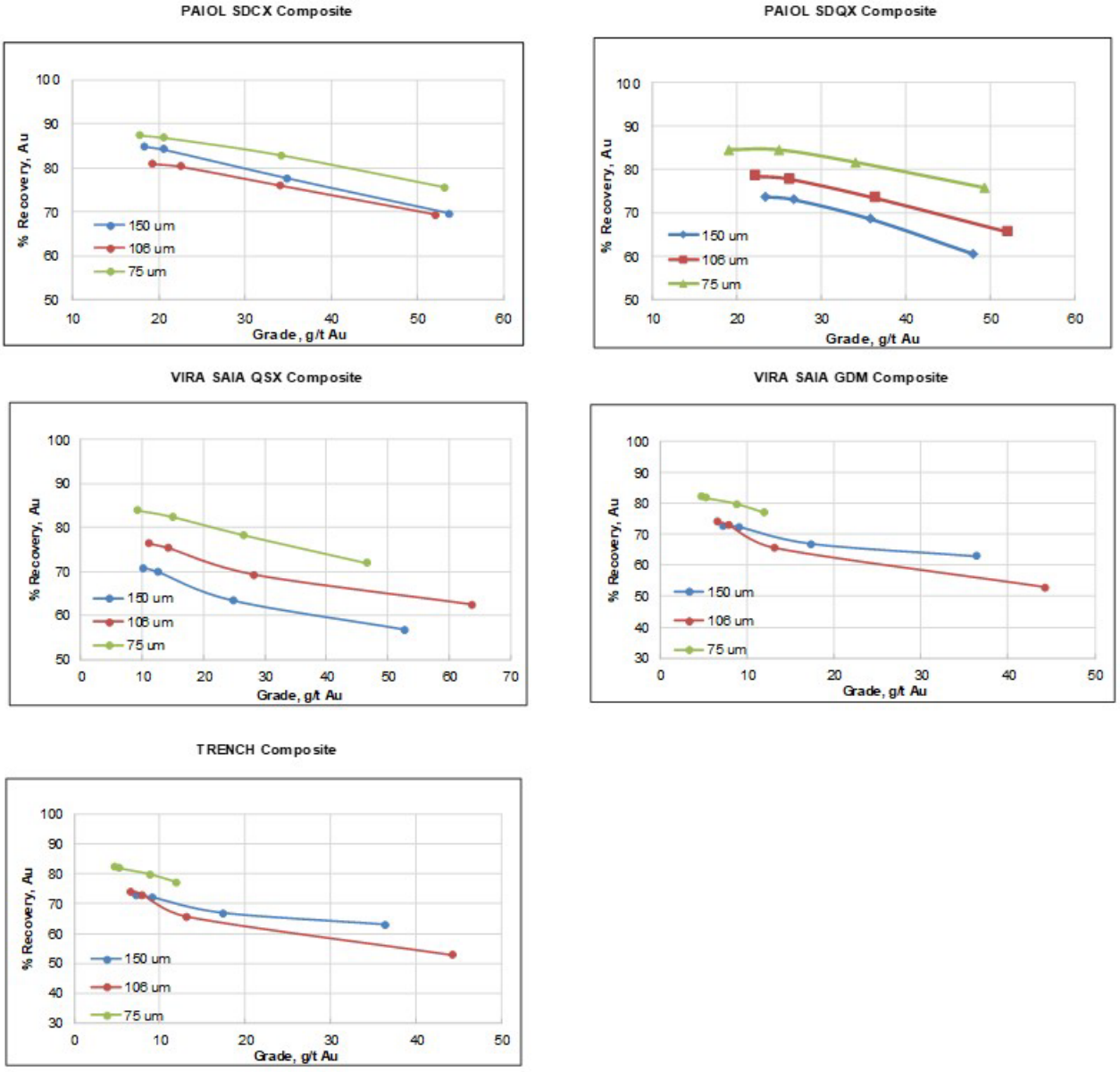


**Table 10-14: Paiol SDQX Whole Ore Flotation Results – Effect of Reagents and pH $P_{80}$ 75 µm**

| Collector | Products | Wt (%) | Au (g/t) | S (%) | Au Distribution (%) | S Distribution (%) |
|---|---|---|---|---|---|---|
| PAX | Rougher Concentrate | 6.9 | 15.7 | - | 90.8 | 94.2 |
| | Rougher Tailings | 93.1 | 0.12 | 0.03 | 9.2 | 5.8 |
| | Head (calc) | 100.0 | *1.19* | 0.48 | 100.0 | 100.0 |
| | Head (direct) | | *1.20* | | | |
| MX980 | Rougher Concentrate | 8.3 | 12.3 | - | 88.6 | 90.5 |
| | Rougher Tailings | 91.7 | 0.14 | 0.05 | 11.4 | 9.5 |
| | Head (calc) | 100.0 | *1.16* | 0.48 | 100.0 | 100.0 |
| A3418 | Rougher Concentrate | 7.0 | 14.3 | - | 86.8 | 92.2 |
| | Rougher Tailings | 93.0 | 0.16 | 0.04 | 13.2 | 7.8 |
| | Head (calc) | 100.0 | *1.15* | 0.48 | 100.0 | 100.0 |
| A412 | Rougher Concentrate | 6.5 | 15.5 | - | 87.6 | 86.4 |
| | Rougher Tailings | 93.5 | 0.15 | 0.07 | 12.4 | 13.6 |
| | Head (calc) | 100.0 | *1.16* | 0.48 | 100.0 | 100.0 |
| OX100 | Rougher Concentrate | 7.8 | 12.0 | - | 81.0 | 42.4 |
| | Rougher Tailings | 92.2 | 0.24 | 0.30 | 19.0 | 57.6 |
| | Head (calc) | 100.0 | *1.15* | 0.48 | 100.0 | 100.0 |
| SIBX | Rougher Concentrate | 8.1 | 13.2 | - | 92.3 | 94.3 |
| | Rougher Tailings | 91.9 | 0.10 | 0.03 | 7.7 | 5.7 |
| | Head (calc) | 100.0 | *1.15* | 0.48 | 100.0 | 100.0 |





### 10.5.2 Flowsheet 2 - Cyanidation of Gravity Tailings

During the earlier test work programs, the emphasis was placed on the flowsheet configuration that included either whole ore leaching or gravity separation followed by cyanidation. This segment of testing included the gravity separation circuit prior to cyanidation. The recovery of gold from the coarser 'as is' and reground gravity tailings of all the samples from the Almas Project deposits were evaluated by direct cyanidation and carbon-in-leach (CIL). Three cyanidation and three CIL tests were conducted on each ore type. The tests were conducted in bottle rolls with the conditions listed below. The effect of grind ($P_{80}$ = 150 µm, 106 µm, and 75 µm) was evaluated for each sample.

Cyanidation/CIL test conditions:

- 500 g ground ore leached at 40% solids
- Grind size $P_{80}$ = 150 µm, 106 µm, and 75 µm
- Target pH:10.5 to 11 adjusted with lime additions
- Target NaCN concentration maintained at approximately 1 g/L
- 10 g/L carbon (pre-attritioned) for CIL
- 48 hours retention time (with pregnant solution subsample at 24 hr)
- Dissolved oxygen concentration measured throughout the test period

The final products were submitted for gold assays. The residues were assayed in triplicate and the average value was reported.

The cyanidation/CIL test results are summarized in

Table 10-15 and illustrated in Figure 10-4.

**Table 10-15: Gravity Tailings Cyanidation/CIL Test Results**

| Sample | Grind Size $P_{80}$ (µm) | Comb Grav Tails (g/t Au*) | Residue Assay (g/t Au) | 48 hr Au Extraction (%) | Calc Head (g/t Au)** | Estimated NaCN Cons (kg/t) | Estimated Lime Addition (kg/t) |
|---|---|---|---|---|---|---|---|
| Paiol Saprolite | 150 | 0.53 | 0.10 | 80.8 | 0.53 | 1.1 | 1.3 |
| | 106 | | 0.05 | 92.2 | 0.58 | 1.1 | 1.5 |
| | 75 | | 0.02 | 96.5 | 0.52 | 0.9 | 1.6 |
| Paiol SDCX | 150 | 0.73 | 0.10 | 86.6 | 0.75 | 0.9 | 0.2 |
| | 106 | | 0.12 | 83.3 | 0.71 | 0.7 | 0.2 |
| | 75 | | 0.07 | 87.8 | 0.61 | 1.0 | 0.2 |
| Paiol SDQX | 150 | 0.86 | 0.08 | 89.8 | 0.79 | 0.7 | 0.1 |
| | 106 | | 0.07 | 89.7 | 0.71 | 0.9 | 0.2 |
| | 75 | | 0.06 | 93.0 | 0.79 | 0.8 | 0.2 |

| Sample | Grind Size $P_{80}$ (µm) | Comb Grav Tails (g/t Au*) | Residue Assay (g/t Au) | 48 hr Au Extraction (%) | Calc Head (g/t Au)** | Estimated NaCN Cons (kg/t) | Estimated Lime Addition (kg/t) |
|---|---|---|---|---|---|---|---|
| Vira Saia QSX | 150 | 0.88 | 0.03 | 96.4 | 0.79 | 0.7 | 0.2 |
| | 106 | | 0.03 | 96.3 | 0.73 | 0.6 | 0.1 |
| | 75 | | 0.02 | 97.0 | 0.68 | 0.7 | 0.2 |
| Vira Saia GDM | 150 | 0.64 | 0.04 | 93.1 | 0.54 | 0.7 | 0.1 |
| | 106 | | 0.03 | 93.8 | 0.46 | 0.6 | 0.2 |
| | 75 | | 0.02 | 96.2 | 0.41 | 0.7 | 0.2 |
| Trench | 150 | 0.64 | 0.09 | 82.9 | 0.54 | 0.7 | 0.6 |
| | 106 | | 0.10 | 81.7 | 0.56 | 0.7 | 0.6 |
| | 75 | | 0.08 | 86.0 | 0.55 | 1.0 | 0.6 |

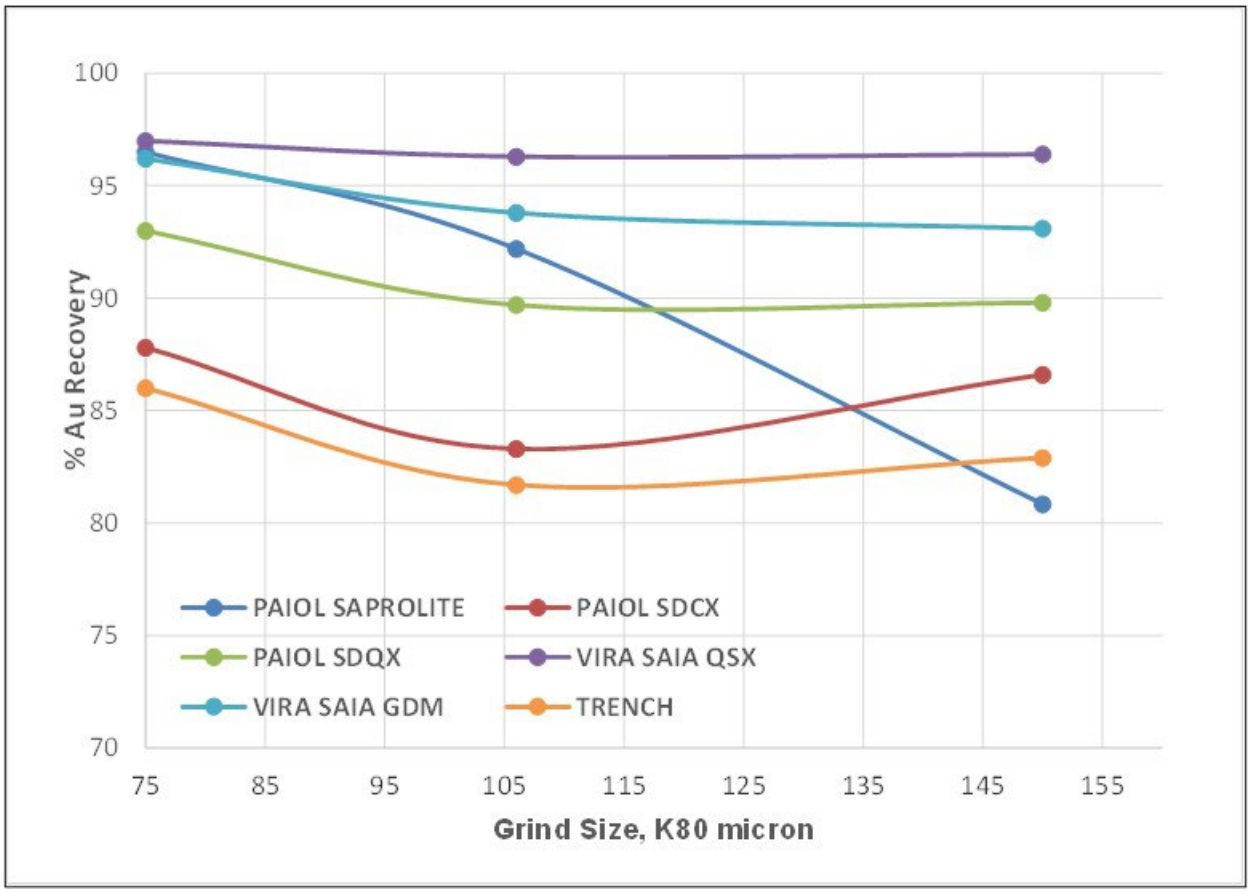
Note:
*Calculated from gravity separation products.
**Calculated from cyanidation products.

The following information was observed from the test results:

- The initial pulp pH was in the range of 7.2 to 7.5 for the Saprolite material and 8.2 to 8.5 for the other composites, indicating that a pre-aeration stage may be required. The pH was stable after the initial lime additions.
- The dissolved oxygen concentration was relatively high and averaged at 7 mg/L to 8 mg/L throughout the test.
- Table 10-15 includes the comparison between the calculated gravity tailings grade (feed to cyanidation) and the calculated head grade obtained from the cyanidation test metallurgical balance. The grades were relatively comparable for all the samples.
- All the samples tested were amenable to cyanide leaching and showed excellent gold extraction after 48 hours of leaching averaging greater than 90% with the average residue assay of 0.06 g/t Au.
- The intermediate 24 hr pregnant solution assays have indicated that leaching was mostly complete after 24 hours of leaching. Additional kinetic testing will be required to confirm the retention time.
- The CIL results were similar to the cyanidation results with an average residue assay of 0.06 g/t Au.
- The effect of grind size has been somewhat demonstrated as shown in Figure 10-4. This series of tests showed a trend of residual gold grade reduction at a finer grind however, because of low reported residue grades (0.02-0.1g/t Au), slight fluctuations in the calculated gold grades, and the allowed procedural and analytical detection limits, the results can be difficult to compare. Additional test work will be required to confirm the optimum grind size.

- The sodium cyanide consumption averaged 0.8 kg/t. The lime addition was higher for the Saprolite and Trench composites, between 0.6 kg/t and 2.8 kg/t, and approximately 0.2 kg/t for the Paiol and Vira Saia composites. A pre-aeration stage with lime conditioning may be required prior to cyanide addition.

**Figure 10-4: Cyanidation Gold Recovery versus Grind Size**




### 10.5.3 Overall Results

The overall results for gravity separation followed by cyanidation/CIL are presented in Table 10-15.

The results indicate that all the samples leached with consistent kinetics with the arithmetic average gravity recovery of 25%, and the overall gold recovery achieved by gravity separation followed by cyanidation/CIL for the three grind sizes tested was 93% to 94% leaving a residue assaying 0.06 g/t Au after 48 hr of leaching.

The overall test results comparing the flowsheets tested – gravity separation/cyanidation and gravity separation/ flotation – are shown in Table 10-16 at a grind size of 75 µm. The SLR QP notes that the gravity cyanidation and flotation concentrate cyanidation gold recovery has not been accounted for because there was no cyanidation work complete.

## Table 10-16: Overall Test Results – Comparison of Flowsheets

| Sample | Grind Size $K_{80}$ (µm) | Average Ore | Gravity | Grav/ Cyanidation* | | Grav/ CIL* | | | | Grav/Flotation** | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Head Grade Au (g/t) | Recovery Au (%) | Overall Au Recovery (%) | Residue (Au g/t) | Overall Au Recovery (%) | Residue Au (g/t) | Estimated NaCN Cons kg/t | Estimated Lime add'n (kg/t) | Overall Au Recovery (%) | Ro Tailings (g/t Au) |
| Paiol Saprolite | 150 | 0.65 | 17.9 | 84.3 | 0.10 | 83.7 | 0.13 | 1.2 | 2.4 | - | - |
| | 106 | | | 93.6 | 0.05 | 95.7 | 0.05 | 1.2 | 2.7 | - | - |
| | 75 | | | 97.1 | 0.02 | 97.4 | 0.02 | 1.1 | 2.8 | - | - |
| Paiol SDCX | 150 | 0.95 | 25.5 | 90.0 | 0.10 | 90.1 | 0.12 | 1.0 | 0.5 | 80.4 | 0.23 |
| | 106 | | | 87.6 | 0.12 | 90.8 | 0.11 | 0.9 | 0.3 | 83.9 | 0.18 |
| | 75 | | | 90.9 | 0.07 | 94.2 | 0.07 | 0.9 | 0.3 | 88.4 | 0.13 |
| Paiol SDQX | 150 | 1.31 | 33.6 | 93.2 | 0.08 | 94.2 | 0.09 | 0.8 | 0.3 | 89.9 | 0.12 |
| | 106 | | | 93.2 | 0.07 | 94.6 | 0.08 | 0.7 | 0.3 | 87.3 | 0.17 |
| | 75 | | | 95.4 | 0.06 | 96.3 | 0.05 | 0.9 | 0.3 | 91.6 | 0.11 |
| Vira Saia QSX | 150 | 1.53 | 11.8 | 96.8 | 0.03 | 96.6 | 0.04 | 0.6 | 0.3 | 74.3 | 0.24 |
| | 106 | | | 96.7 | 0.03 | 97.8 | 0.02 | 0.8 | 0.2 | 79.2 | 0.21 |
| | 75 | | | 97.4 | 0.02 | 98.5 | 0.02 | 0.9 | 0.2 | 85.9 | 0.14 |
| Vira Saia GDM | 150 | 0.91 | 28.3 | 95.1 | 0.04 | 96.6 | 0.03 | 0.7 | 0.2 | 80.4 | 0.16 |
| | 106 | | | 95.6 | 0.03 | 97.8 | 0.02 | 0.8 | 0.2 | 81.4 | 0.15 |
| | 75 | | | 97.3 | 0.02 | 98.5 | 0.01 | 0.7 | 0.2 | 87.4 | 0.10 |
| Trench | 150 | 0.94 | 31.7 | 88.3 | 0.09 | 88.3 | 0.11 | 0.9 | 0.8 | 77.1 | 0.21 |
| | 106 | | | 87.5 | 0.10 | 90.4 | 0.09 | 0.9 | 0.8 | 78.5 | 0.16 |
| | 75 | | | 90.4 | 0.08 | 92.1 | 0.08 | 0.8 | 0.8 | 80.4 | 0.14 |
| **AVERAGE at $P_{80}$-106 µm** | | **1.05** | **24.8** | **92.4** | **0.07** | **94.5** | **0.06** | **0.9** | **0.8** | **82.1** | **0.17** |
| **AVERAGE at $P_{80}$-75 µm** | | **1.05** | **24.8** | **94.7** | **0.04** | **96.2** | **0.04** | **0.9** | **0.8** | **86.7** | **0.12** |

Notes:
*Gravity concentrate leach recovery has not been accounted for.
**Gravity and flotation concentrates leach recovery has not been accounted for.

The overall results shown in Table 10-16 show that the average overall gold recovery by gravity separation/ CIL at grind sizes of $P_{80}$ 106 µm and 75 µm was 94.5% and 96.2% leaving a residue assaying 0.07 g/t Au and 0.04 g/t Au, respectively.

Flotation concentrate was not leached in the test work program therefore the true recovery of a flotation concentrate leach flowsheet is unknown. An 81% average overall recovery was estimated assuming a rougher tailings assay of 0.12 g/t Au and the estimated final overall residue (calculated value of flotation tailings plus the estimated leach residue) of approximately 0.3 g/t Au. The SLR QP notes this needs to be confirmed with test work.

The results shown in Table 10-16 indicate that the direct cyanide leaching without flotation resulted in a significantly higher overall gold recovery under the conditions tested. A trade-off study was conducted by Ausenco to compare both flowsheets and confirmed the economic viability of each processing flowsheet. The whole ore leaching or the gravity separation followed by leaching flowsheet was selected for further evaluation in the subsequent stage of testing.

### 10.5.4 Heap Leach Amenability Results

The Paiol Sulphide and Saprolite material was submitted for heap leach amenability testing in bottle rolls. The main objective of this testing was to conduct a preliminary assessment of gold recovery by simulating heap leach conditions and to determine the reagent requirements for subsequent column testing, if required. There was no agglomeration or permeability testing conducted at this phase.

Each composite was prepared by blending and crushing to -1/2 inch. The samples were split into the test charges and further crushed to the required sizes. The representative head samples were riffled out and submitted for gold assays. The reported average head assays were as follows:

- Paiol Saprolite: 0.52 g/t Au
- Paiol Sulphide: 1.06 g/t Au

The crush sizes evaluated were -1/2 inch for the Saprolite material and -1/2, -1/4, and -1/8 inch for the Sulphide material. The tests were conducted with two kilograms charge samples in bottle rolls at 45% solids. The bottles were rolled intermittently, rolling for one minute every hour to minimize attrition and simulate the heap leach/column testing.

The pH was maintained at the 10.0 to 10.5 level with lime additions and the cyanide concentration was maintained at 0.5 g/L NaCN throughout the test period. The tests were conducted for a period of 14 days to 20 days with intermittent removal of pregnant solution samples for gold assay. The final pulp was filtered and washed, and the products were submitted for analyses. The test results are summarized in Table 10-17.

The results indicate that the recovery of gold for the Saprolite ore was approximately 88% and for the Sulphide ore was in the range of 40% to 68%, increasing with the crush size reduction. The cyanide and lime consumption was below one kilogram per tonne and two kilograms per tonne, respectively, however, the lime consumption reported for the Saprolite material was high at 10 kg/t. The reason for such high lime consumption has not been determined.

Further confirmatory testing will be required to evaluate the ore amenability to heap leaching, if this process route will be considered.

**Table 10-17: Heap Leach Amenability Test Results**

| Sample | Crush Size (in.) | Leach Time (d) | Residue Assay (g/t Au) | Calc Cum Au Extraction (%) | Calc Head (g/t Au) | Direct Head (g/t Au) | Estimated NaCN Addition (kg/t) | Estimated Lime Addition (kg/t) |
|---|---|---|---|---|---|---|---|---|
| Paiol Saprolite | 1/2 | 20 | 0.07 | 88.2 | 0.58 | 0.52 | 0.6 | 10.3 |
| | | | | | | | | |
| Paiol Sulphide | 1/2 | 14 | 0.66 | 39.5 | 1.09 | 1.06 | 0.9 | 1.6 |
| Paiol Sulphide | 1/4 | 14 | 0.67 | 49.8 | 1.33 | 1.06 | 0.9 | 1.7 |
| Paiol Sulphide | 1/8 | 14 | 0.35 | 67.8 | 1.07 | 1.06 | 0.8 | 1.6 |

## 10.6 Blend 3-Year Composite Test Work Program

A confirmatory test work program was conducted during the 2020 campaign at the feasibility study level. The tests were conducted at the Testwork Process Development metallurgical laboratory in Brazil. The testing included the following investigations:

- Evaluation of gravity circuit inclusion prior to cyanide leaching.
- Comparison of whole ore leaching versus gravity separation followed by gravity tailings leaching.
- Cyanide leaching conditions optimization, leaching mode pre-leach/CIL versus direct CIL evaluation.
- Cyanide destruction.
- Solids/liquid separation characterization.

### 10.6.1 Gravity Separation GRG Test Work

Two standard GRG tests were conducted on the Blend 3-Y composite sample. The standard three-stage protocol has been applied with the final targeted grind size of $P_{80}$ of 75 µm. At each stage, test products were submitted for size fraction analysis for gold. The results were submitted to FLSmidth & Co. A/S (FLS) for further evaluation and modelling. The results indicated that the cumulative three-stage GRG recoveries varied between 31% and 39% with the respective calculated head grades of 1.9 g/t Au and 1.7 g/t Au, as shown in Table 10-18. The size classification of the GRG has been determined as course to moderate using the AMIRA size classification scale by FLS.

It has been concluded that the ore is amenable to gravity recovery and the GRG particle distribution is coarse. As such, a moderate gravity circuit with concentrate intensive cyanidation has been suggested for inclusion in the flowsheet. Modelling has been undertaken and several options for a gravity circuit installation were suggested. The gravity equipment suggested by FLS was as follows:

- One KC-QS40 Knelson concentrator installed at cyclone underflow.
- One Consep Acacia CS2000 unit for intensive cyanidation system to treat the Knelson concentrate. This unit is sized to treat 24 hr production of Knelson concentrate.

For process design purposes, gravity gold recovery of 17.5% is used processing 25% of the cyclone underflow stream.





**Table 10-18: GRG Test Summary Blend 3-Y Composite**

| Grind Size | | | Product | Assay & Distribution | |
|---|---|---|---|---|---|
| | | | | (g/t Au) | (%) |
| $P_{80}$ = | 845 | µm | Stage 1 Concentrate | 26.9 | 11.8 |
| $P_{80}$ = | 169 | µm | Stage 2 Concentrate | 26.7 | 12.3 |
| -75mm= | 20.1 | % | | | |
| $P_{80}$ = | 68 | µm | Stage 3 Concentrate | 24.1 | 7.4 |
| | | | Final Tailings | 1.33 | 68.5 |
| | | | Calc Head | 1.89 | 100.0 |
| | | | Knelson Concentrate | 26.1 | 31.5 |
| | | | **GRG Value** | | **31.5** |
| $P_{80}$ = | 796 | µm | Stage 1 Concentrate | 25.0 | 13.3 |
| $P_{80}$ = | 197 | µm | Stage 2 Concentrate | 33.1 | 16.2 |
| -75mm= | 21.8 | % | | | |
| $P_{80}$ = | 62 | µm | Stage 3 Concentrate | 29.9 | 10.2 |
| | | | Final Tailings | 1.06 | 60.2 |
| | | | Calc Head | 1.72 | 100.0 |
| | | | Knelson Concentrate | 29.1 | 39.8 |
| | | | **GRG Value** | | **39.8** |

### 10.6.2 Whole Ore Cyanide Leaching

The first series of cyanidation tests were conducted without gravity separation. The tests were conducted in bottles rolls under the conditions listed below.

- 1,000 g to 2000 g ground ore leached at 45% solids.
- Grind size $P_{80}$: 106 µm and 75 µm.
- Target pH: 10.5 to 11 adjusted with lime additions.
- Initial NaCN concentration at one gram per litre.
- 20 g/L carbon (pre-attritioned) for CIL.
- 24 hr to 48 hr retention time (with intermediate kinetic subsamples).
- Dissolved oxygen concentration measured throughout the test period at greater than four milligrams per litre.

The intermediate and final test products were submitted for gold assays. The residues were assayed in triplicate and the average value was reported.

The effects of particle grind size of $P_{80}$ of 106 µm and 75 µm, retention time, and cyanidation versus CIL or pre-leach/CIL on leach kinetics and flowsheet configuration are summarized in Table 10-19. Two gold extraction results are included in the table. The column labeled Extraction Au% uses the calculated head grade and reside grade to calculate a recovery value.

The final leach residues and barren solution ICP scans from the two selected 24 hr CIL tests at $P_{80}$ 106 µm and 75 µm grind sizes are presented in Table 10-20 and Table 10-21, respectively.

## Table 10-19: Whole Ore Leach Results

| Sample | Leach Time (hr) | CN Test Mode | Grind Size ($P_{80}$, µm) | Au Extraction[1] (%) | Calc Head (g/t Au) | NaCN Cons (kg/t) | Lime Cons (kg/t) |
|---|---|---|---|---|---|---|---|
| Blend 3 Year | 24 | CN | 106 | 92.2 | 1.38 | 0.17 | 0.96 |
| Blend 3 Year | 24 | CIL | 75 | 95.7 | 1.23 | 0.31 | 0.93 |
| Blend 3 Year | 24 | CN | 75 | 94.3 | 1.42 | 0.18 | 0.94 |
| Blend 3 Year | 24 | CIL | 75 | 93.6 | 1.31 | 0.34 | 1.00 |
| Blend 3 Year^^ | 24 | CN | 106 | 93.1 | 1.54 | 0.25 | 0.93 |
| Blend 3 Year^^ | 24 | CIL | 75 | 91.8 | 1.40 | 0.27 | 0.96 |
| Blend 3 Year | 4 | CIL | 106 | 79.4 | 1.43 | 0.12 | 0.82 |
| Blend 3 Year | 4 | CIL | 75 | 87.4 | 1.24 | 0.11 | 0.78 |
| Blend 3 Year | 12 | CIL | 106 | 90.9 | 1.40 | 0.21 | 1.38 |
| Blend 3 Year | 12 | CIL | 75 | 90.8 | 1.42 | 0.22 | 1.54 |
| Blend 3 Year | 24 | CIL | 106 | 92.3 | 1.24 | 0.34 | 1.53 |
| Blend 3 Year | 24 | CIL | 75 | 92.8 | 1.14 | 0.27 | 1.68 |
| Blend 3 Year | 48 | CIL | 106 | 93.3 | 1.23 | 0.49 | 1.94 |
| Blend 3 Year | 48 | CIL | 75 | 93.9 | 1.25 | 0.49 | 1.32 |
| Blend 3 Year | 12+12 | CN-CIL | 106 | 92.0 | 1.28 | 0.33 | 1.60 |
| Blend 3 Year | 12+12 | CN-CIL | 75 | 92.6 | 1.26 | 0.33 | 1.64 |
| Blend 3 Year | 24 | CIL | 106 | 92.5 | 1.21 | 0.18 | 0.90 |
| Blend 3 Year | 24 | CIL | 75 | 93.3 | 1.12 | 0.26 | 0.90 |
| Blend 3 Year | 24 | CIL | 75 | 92.1 | 1.35 | 0.17 | 1.60 |
| Blend 3 Year | 24 | CIL | 75 | 91.7 | 1.37 | 0.19 | 1.60 |
| Saprolite | 24 | CIL | 106 | 96.4 | 0.55 | 0.39 | 1.50 |
| Saprolite | 24 | CIL | 75 | 97.2 | 0.53 | 0.40 | 1.50 |
| Average at 24 hr 106 µm grind size | | | | 92.4 | 1.33 | 0.25 | 1.18 |
| Average at 24 hr 75 µm grind size | | | | 93.1 | 1.29 | 0.26 | 1.25 |

Notes:
1. Au Extraction - based on the difference between met balance calculated head grade and residue grades.
2. Residue washed with NaOH solution.
3. CN = cyanidation





**Table 10-20: CIL Residue Analysis**

| Elements | Unit | 24 hr CIL Tests | | Element | Unit | 24 hr CIL Tests | |
|---|---|---|---|---|---|---|---|
| | | 106 µm | 75 µm | | | 106 µm | 75 µm |
| Ag | g/t | <3 | <3 | Ni | g/t | 24 | 25 |
| Al | % | 5.56 | 5.27 | P | % | 0.06 | 0.06 |
| As | g/t | 40 | 46 | Pb | g/t | <8 | <8 |
| Ba | g/t | 180 | 168 | S | % | 0.53 | 0.55 |
| Be | g/t | <3 | <3 | Sb | g/t | <10 | <10 |
| Bi | g/t | <20 | <20 | Sc | g/t | 26 | 25 |
| Ca | % | 4.56 | 4.51 | Se | g/t | <20 | <20 |
| Cd | g/t | <3 | <3 | Sn | g/t | <20 | <20 |
| Co | g/t | 35 | 34 | Sr | g/t | 117 | 114 |
| Cr | g/t | 29 | 27 | Th | g/t | <20 | <20 |
| Cu | g/t | 41 | 36 | Ti | % | 0.62 | 0.63 |
| Fe | % | 7.72 | 7.84 | Tl | g/t | <20 | <20 |
| K | % | 1.16 | 1.08 | U | g/t | <20 | <20 |
| La | g/t | <20 | <20 | V | g/t | 197 | 189 |
| Li | g/t | 28 | 28 | W | g/t | 30 | 34 |
| Mg | % | 1.72 | 1.69 | Y | g/t | 6 | 7 |
| Mn | % | 0.13 | 0.12 | Zn | g/t | 107 | 105 |
| Mo | g/t | <3 | <3 | Zr | g/t | 97 | 93 |
| Na | % | 1.52 | 1.45 | | | | |

**Table 10-21: CIL Barren Solution Analysis**

| Element (mg/L) | 24 hr CIL Tests | | Element (mg/L) | 24 hr CIL Tests | |
|---|---|---|---|---|---|
| | 106 µm | 75 µm | | 106 µm | 75 µm |
| Ag | <0.08 | <0.08 | Mn | 0.05 | 0.05 |
| Al | 8.0 | 7.3 | Mo | <0.6 | <0.6 |
| As | <3 | <3 | Na | 423 | 430 |
| Ba | <0.007 | 0.013 | Ni | <0.6 | <0.6 |
| Be | <0.002 | <0.002 | P | <5 | <5 |
| Bi | <1 | <1 | Pb | <2 | <2 |
| Ca | 2.6 | 2.3 | Sb | <1 | <1 |
| Cd | <0.09 | <0.09 | Se | <3 | <3 |
| Co | <0.3 | <0,3 | Sn | <2 | <2 |

| Element (mg/L) | 24 hr CIL Tests | | Element (mg/L) | 24 hr CIL Tests | |
|---|---|---|---|---|---|
| | 106 µm | 75 µm | | 106 µm | 75 µm |
| Cr | <0.1 | 0.3 | Sr | 0.068 | 0.064 |
| Cu | 2.8 | 4.3 | Ti | 0.06 | 0.04 |
| Fe | 5.1 | 6.1 | Tl | <3 | <3 |
| K | 52 | 50 | V | <0.2 | <0.2 |
| Li | <2 | <2 | Y | <0.02 | <0.02 |
| Mg | 0.15 | 0.35 | Zn | <0.7 | <0.7 |

The following information was obtained from the test results:

- The first six tests listed in Table 10-19 were the exploratory tests to compare direct cyanidation versus CIL to rule out preg-robbing potential and to evaluate the effect of grind size. The next six tests examined the leach kinetics (4 hr to 48 hr) and the effect of grind size. The subsequent eight tests evaluated the pre-leach/CIL versus the CIL configurations at two grind sizes.
- The results indicated that the leach kinetics reached a plateau after 24 hr of leaching. The fineness of grind examined ($P_{80}$ of 106 µm and 75 µm) and CIL versus pre-leach/CIL did not affect the results. The gold recovery was in the range of 92% to 93% with the residual gold grade of 0.09 g/t Au to 0.10 g/t Au after 24 hr of leaching. The calculated head grade compared well with the direct head grade assay in this test series and the ‘normalized’ gold extractions were close in value to the calculated extractions. The NaCN and lime consumptions averaged at 0.3 kg/t and 1.2 kg/t to 1.3 kg/t, respectively. The low cyanide consumption confirms the lack of cyanicides and other cyanide consumers present in the ore.
- The leach products analysis indicated that metal dissolution during cyanidation was low, and there were no obvious concerns with deleterious elements.

### 10.6.3 Gravity Separation-Cyanide Leaching

The second series of tests was conducted with the inclusion of the gravity separation circuit. The gravity separation circuit simulation was conducted in two stages. The first stage included gravity separation of the ore crushed to 16 mesh on the laboratory Knelson concentrator. The first stage Knelson concentrate was subjected to an intensive cyanide leach. The leach residue was combined with the gravity tailings and forwarded to the second stage gravity separation conducted at grind size of 106 µm and 75 µm. The second stage concentrate was also subject to intensive leaching. The combined final gravity tailings were leaching with the test conditions and results listed in Table 10-22. The effect of leach time, grind size, and cyanidation (CIL versus pre-leach/CIL) were evaluated in this series of tests.

## Table 10-22: Gravity Separation-Cyanidation Results

| Sample | Est Cum Grav Recovery Au (%) | Calc Head Grade Au (g/t) | CN Test Mode | Grind Size $P_{80}$, (µm) | Leach Time (hr) | Residue Assay Au (g/t) | Individual Cyanidation Recovery (% Au)* | Overall Au Recovery (gravity + Cyanidation (%)** | Calc CN Feed Grade Au (g/t)^^ | NaCN Cons (kg/t) | Lime Cons (kg/t) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Blend 3 Year | 52.4 | 1.43 | CIL | 106 | 24 | 0.09 | 87.2 | 93.9 | 0.66 | 0.23 | 0.85 |
| Blend 3 Year | | | CIL | 106 | 48 | 0.10 | 85.7 | 93.2 | 0.70 | 0.45 | 1.29 |
| Blend 3 Year | | | CN-CIL | 106 | 12+12 | 0.08 | 89.3 | 94.9 | 0.78 | 0.31 | 1.29 |
| Blend 3 Year | 56.4 | 1.43 | CIL | 75 | 24 | 0.07 | 88.6 | 95.0 | 0.65 | 0.20 | 0.87 |
| Blend 3 Year | | | CIL | 75 | 48 | 0.07 | 88.6 | 95.0 | 0.63 | 0.44 | 1.28 |
| Blend 3 Year | | | CN-CIL | 75 | 12+12 | 0.07 | 89.1 | 95.2 | 0.68 | 0.27 | 1.02 |
| Blend 3 Year | 56.9 | 2.13 | CN-CIL | 106 | 12+12 | 0.10 | 88.8 | 95.2 | 0.92 | 0.19 | 1.61 |
| Blend 3 Year | | | CN-CIL^^^ | 106 | 12+12 | 0.20 | 81.0 | 91.8 | 1.05 | 0.18 | 1.62 |
| Blend 3 Year | 31.8 | 2.06 | CN-CIL | 75 | 12+12 | 0.09 | 93.4 | 95.5 | 1.42 | 0.21 | 1.63 |
| Blend 3 Year | | | CN-CIL^^^ | 75 | 12+12 | 0.23 | 85.5 | 90.1 | 1.59 | 0.21 | 1.62 |
| Blend 3 Year | 21.1 | 3.06 | CN-CIL | 75 | 3+21 | 0.10 | 89.2 | 91.5 | 0.90 | 0.22 | 1.69 |
| Blend 3 Year | 52.7 | 1.82 | CN-CIL | 106 | 12+12 | 0.11 | 88.1 | 94.4 | 0.92 | 0.21 | 1.41 |
| Blend 3 Year | 49.2 | 1.43 | CN-CIL | 75 | 12+12 | 0.10 | 87.5 | 93.6 | 0.77 | 0.25 | 1.32 |
| Blend 3 Year | CIL Average | | | 106 | 24-48 | 0.10 | 86.5 | 93.5 | 0.68 | 0.34 | 1.07 |
| | | | | 75 | 24-48 | 0.07 | 88.6 | 95.0 | 0.64 | 0.32 | 1.08 |
| Blend 3 Year | CN CIL Average | | | 106 | 24 | 0.12 | 86.8 | 94.1 | 0.92 | 0.22 | 1.48 |
| | | | | 75 | 24 | 0.12 | 88.9 | 93.2 | 1.07 | 0.23 | 1.46 |
| Blend 3 Year | Average | | | 106 | 24 | 0.11 | 86.6 | 93.8 | 0.80 | 0.28 | 1.28 |
| | | | | 75 | 24 | 0.09 | 88.6 | 94.1 | 0.86 | 0.28 | 1.27 |

Notes:
*Individual cyanidation Au recovery- based on the difference between met balance calculated head grade and residue grades.
**Overall recovery includes gravity plus cyanidation leach recoveries, assuming gravity concentrate leach recovery=98%.
^^Calculated gravity tailings/ CN feed grade.





The following conclusions were obtained from the test results:

- The results indicated that the two-stage gravity separation tests were not consistent and resulted in estimated gravity recovery from 32% to 57%. The SLR QP notes that, due to the tested flowsheet configuration without the intermediate recycled leach residue assays and the assumption of the intensive cyanidation recovery of 100% after each gravity stage, the gravity circuit recovery should be viewed as an estimated recovery only. The presence of coarse free gold in the ore could have also contributed to the variance in the results. The gravity concentrate weight recovery of 5% to 7% was significantly higher than industrial scale. The calculated head grades averaged 1.9 g/t, which is higher than the direct screened metallic head grade.
- In general, at coarser grinds, gravity separation ahead of leaching can contribute to higher gold recovery by removing coarse gold and therefore reducing the required leach residence time.
- CIL versus pre-leach/CIL configuration was evaluated. The CIL process has some inherent disadvantages compared with carbon-in-pulp (CIP) (such as larger carbon inventory and higher gold inventory, increased carbon attrition and the associated gold losses are typically higher, carbon loading is lower, and the operating costs are typically higher). The CIL process can be effective, however, if a pre-leach step is included, providing a higher gold grade to the first stage of CIL/CIP. Therefore, this configuration, including the pre-leach stage, has been selected for the process flowsheet.
- The effects of the grind size and the retention time in the CIL and pre-leach/CIL flowsheet configuration have also been examined. The results indicated that the fineness of grind examined ($P_{80}$ of 106 µm and 75 µm) appear to have a minor impact on the overall results and the leach configuration of CIL versus pre-leach/CIL did not affect the results as expected.
- Calculated overall recovery of 93.8% to 94.1% was achieved after 24 hr of leaching, leaving the average residue assay of 0.09 g/t Au to 0.11 g/t Au. The NaCN and lime consumptions were 0.2 kg/t to 0.3 kg/t and 1.1 kg/t to 1.5 kg/t, respectively. The low cyanide consumption indicates that there were no significant cyanide consuming species present in the composite sample.

### 10.6.4 Cyanide Destruction

The objective of the cyanide destruction test work was to investigate the amenability of the Blend 3-Y Composite to detoxification using $SO_2$/air and to produce treated product containing less than 2 mg/L residual $CN_{WAD}$ targeting the design criteria parameters of $SO_2$ additions of 5.5 $SO_2$/g $CN_{WAD}$ to 6.0 g $SO_2$/g $CN_{WAD}$ and 50 mg/L $Cu^{+2}$ additions at pH 8.5 to 9.0 with two hours retention time.

A series of preliminary batch tests was conducted evaluating the amenability of the sample to treatment using $SO_2$/air and providing some indication of reagent requirement and retention time.

The SLR QP notes that batch tests are inefficient and should only be used for determining the amenability of the sample to treatment using SO2/air and providing some indication of reagent requirement. Continuous testing is required for optimization of parameters such as retention time and reagent requirement.

The slurry used for the cyanide destruction (CND) test work was the cyanidation slurry at a grind size $P_{80}$ of 75 µm at 45% solids. The final NaCN concentration of the feed pulps to the cyanide destruction testing was decreased to approximately 100 mg/L to 140 mg/L.

Seven exploratory batch tests were carried out at various sodium metabisulphite ($Na_2S_2O_5$) and/or copper sulphate ($CuSO_4$) dosages. The pH was adjusted with lime addition and oxidation reduction potential of the pulp was monitored. The test conditions and results are shown in Table 10-23. The results indicate that the residual $CN_{WAD}$ target of less than two milligrams per litre was achieved under the design criteria conditions of 5.5 g $SO_2$/1 g $CN_{WAD}$ and 50 mg/L $Cu^{+2}$ additions and when reducing the copper addition below 50 mg/L (tests CND5 and CND6) resulted in higher residual $CN_{WAD}$ concentration.

**Table 10-23: Batch Cyanide Destruction Test Conditions and Results**

| Test | Retention Time | Reagent Addition g/g $CN_{WAD}$ & mg/L | | pH | EMF | Product Sol'n $CN_{WAD}$ | Treatment Efficiency |
|---|---|---|---|---|---|---|---|
| | (hr) | ($SO_2$ Equiv.) | (Cu) | | (mV) | (mg/L) | (%) |
| | Feed | - | - | 10.5 | -128 | 94 | - |
| CND1 | 2 | 5.5 | 50 | 8.6 | 86 | 1.3 | 98.6 |
| CND2 | 2 | 5.5 | 50 | 8.6 | 62 | 1.8 | 98.1 |
| CND3 | 2 | 6.0 | 50 | 8.6 | 59 | 3.5 | 96.3 |
| CND4 | 2 | 6.0 | 50 | 8.5 | 55 | 3.5 | 96.3 |
| CND5 | 2 | 5.5 | 25 | 8.6 | 138 | 10.6 | 88.8 |
| CND6 | 2 | 5.5 | 25 | 8.7 | 114 | 11.9 | 87.4 |
| CND7 | 2 | 5.5 | 119 | 8.5 | 144 | 0.90 | 99.0 |

A single continuous test was carried out under the optimum conditions developed in the batch tests. A batch test was completed initially to produce treated pulp with low residual cyanide for use as a starting material for the continuous test. The continuous test examined standard operating conditions for $SO_2$/air oxidation of the leached pulp at pH 8.5 to 9.0 with a retention time of 120 minutes using 5.5 g to 5.7 g $SO_2$ per gram $CN_{WAD}$ and 50 mg/L Cu. The leached pulp and the reagents were pumped continuously into a reactor vessel. Air was also applied to the reactor at a continuous flowrate. The target pH was maintained by pumping a lime slurry into the reactor. The oxidation reduction potential (EMF) was monitored and reported. The continuous test was run for four displacement periods to ensure that the steady-state conditions were achieved. The reactor overflowed into a collection vessel which was sub-sampled every 30 minutes to monitor the residual $CN_{WAD}$ concentration in the solution phase throughout the destruction test. The collected samples were filtered, preserved and submitted to SGS Geosol laboratory for analysis. The test conditions and results are presented in Table 10-24. The test results indicate that the average residual $CN_{WAD,}$ achieved under the conditions tested with a retention time of two hours, using the ratio of 5.1 g to 5.7 g $SO_2$ equivalent per gram $CN_{WAD}$ and 50 mg/L Cu during the four displacement periods was 1.2 mg/L, which is below the targeted residual $CN_{WAD}$ concentration of less than two milligrams per litre.

## Table 10-24: Continuous Cyanide Destruction Test Conditions and Results

| Test Conditions / Pulp | | | | | Product/ Sol'n CN WAD | Treatment Efficiency | Reagent Addition (kg/t Solids) | | | Reagent Addition (g/g $CN_{WAD}$) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contact Time | Retention Time (hr) | pH | EMF | DO | | | $SO_2$ Equiv. | Cu | $Ca(OH)_2$ | $SO_2$ | Cu | $Ca(OH)_2$ |
| hour | | | (mV) | (mg/L) | (mg/L) | % | | | | | | |
| Feed | - | 9.0 | - | 5.5 | 136 | - | - | - | - | - | - | - |
| 0.5 | 2.0 | 9.0 | 85 | 5.2 | 0.88 | 99.4 | 0.97 | 0.067 | 3.1 | 5.8 | 0.40 | 18.8 |
| 1.0 | 2.0 | 9.1 | 96 | 5.4 | 1.32 | 99.0 | 0.88 | 0.054 | 1.0 | 5.3 | 0.33 | 5.7 |
| 1.5 | 2.0 | 9.1 | 110 | 5.5 | 1.32 | 99.0 | 1.03 | 0.069 | 1.2 | 6.2 | 0.42 | 7.1 |
| 2.0 | 2.0 | 9.1 | 103 | 5.4 | 0.88 | 99.4 | 1.03 | 0.067 | 1.3 | 6.2 | 0.40 | 8.0 |
| 2.5 | 2.0 | 8.9 | 107 | 5.2 | 1.76 | 98.7 | 0.99 | 0.066 | 2.3 | 5.9 | 0.40 | 13.9 |
| 3.0 | 2.0 | 9.1 | 107 | 5.3 | 0.88 | 99.4 | 0.90 | 0.058 | 0.9 | 5.4 | 0.35 | 5.3 |
| 3.5 | 2.0 | 9.1 | 113 | 5.2 | 0.88 | 99.4 | 1.03 | 0.067 | 1.3 | 6.2 | 0.40 | 8.0 |
| 4.0 | 2.0 | 8.9 | 124 | 5.5 | 0.88 | 99.4 | 0.96 | 0.062 | 1.1 | 5.8 | 0.37 | 6.7 |
| 4.5 | 2.0 | 9.1 | 145 | 5.3 | 0.88 | 99.4 | 1.03 | 0.069 | 1.5 | 6.2 | 0.42 | 9.3 |
| 5.0 | 2.0 | 9.0 | 164 | 5.5 | 1.32 | 99.0 | 1.02 | 0.064 | 1.1 | 6.1 | 0.39 | 6.5 |
| 5.5 | 2.0 | 9.1 | 189 | 5.5 | 1.32 | 99.0 | 0.99 | 0.066 | 1.1 | 5.9 | 0.40 | 6.8 |
| 6.0 | 2.0 | 9.0 | 190 | 5.4 | 1.32 | 99.0 | 1.03 | 0.067 | 1.0 | 6.2 | 0.40 | 6.2 |
| 6.5 | 2.0 | 8.9 | 198 | 5.7 | 2.20 | 98.4 | 1.03 | 0.067 | 1.3 | 6.2 | 0.40 | 8.0 |
| 7.0 | 2.0 | 9.0 | 206 | 5.1 | 1.32 | 99.0 | 0.99 | 0.068 | 1.2 | 6.0 | 0.41 | 7.3 |
| 7.5 | 2.0 | 9.1 | 213 | 5.3 | 1.32 | 99.0 | 0.99 | 0.066 | 1.2 | 5.9 | 0.40 | 7.1 |
| 8.0 | 2.0 | 9.1 | 210 | 5.4 | 1.32 | 99.0 | 0.90 | 0.060 | 1.2 | 5.4 | 0.36 | 7.1 |
| Average | | 9.0 | _ | 5.4 | 1.24 | 99.1 | 0.98 | 0.065 | 1.4 | 5.9 | 0.39 | 8.2 |
| Maximum | | 9.1 | 213 | 5.7 | 2.20 | 99.4 | 1.03 | 0.069 | 3.1 | 6.2 | 0.42 | 18.8 |
| Minimum | | 8.9 | 85 | 5.1 | 0.88 | 98.4 | 0.88 | 0.054 | 0.9 | 5.3 | 0.33 | 5.3 |

### 10.6.5 Solid/Liquid Separation Testing

FLS conducted flocculant screening, static settling, and vane-rheology tests on the Blend 3-Y pre-leaching sample. The test work was conducted in June 2020 at the FLS laboratory located in Sao Paulo, Brazil.

The test sample was submitted as two ground sub-sample pulps differentiated by their particle size. The $P_{80}$ values were 75 µm and 106 µm. Each sample contained approximately 33% wt. solids. The pH of the as-received samples was 8.5. The pH was adjusted to 9.5 using lime prior to being subjected to testing.

Reagent screening results indicated that BASF Magnafloc 10, an anionic polyacrylamide flocculant with high molecular weight and low charge density, produced good clarification and sedimentation rate.

The best screening results were produced at 10% wt solids content of the auto diluted thickener feed, for both samples (particle sizes) tested. Auto dilution was done using overflow, therefore it will not require addition of fresh water into the feed well of the industrial thickener.

The static setting tests established a common design criteria for both grind sizes. This allowed for the preliminary sizing of the high-rate thickener that can thicken either grind size. The flocculant dosage ranged from 17 g/t to 25 g/t and from 5 g/t to 10 g/t for the finer ($P_{80}$ approximately 75 µm) and coarser ($P_{80}$ approximately 106 µm) samples, respectively. Under these conditions, and, at 33% wt. feed auto diluted to 10% wt., the test work-predicted solids load was 1.4 tph/$m^2$ for both samples. This is equivalent to a specific unit area of 0.05 $m^2$/ tpd.

The corresponding underflows predicted solids concentration was approximately 50.0 wt% for both samples. This solids content was realized during a residence time of approximately 60 min. Vane-rheology measurements on these 50wt% underflows determined that the yield-stress values ranged from five Pascals (Pa) to 10 Pa for both samples.

The results allowed establishing a common preliminary sizing criterion for both grind sizes, and for a dry-solid throughput of 195 t/hr being fed as 33 wt% pulp. The underflow removal method consisted of a centrifugal pump, valid for solids content of maximum 50wt%. The recommended process parameters for a Hi-Rate type thickener and for an E-Cat type thickener are shown in Table 10-25 and Table 10-26 , as presented in the FLS report (FLSmidth 2020a).

**Table 10-25: FLS Sedimentation and Rheology Summary for Thickener Type Hi-Rate**

| Process Parameters | Grind Size 75 µm | Grind Size 106 µm |
|---|---|---|
| Solid Conc (wt%) | 10 | |
| **Underflow** | | |
| Solids in Underflow (wt%) | 50 | |
| Yield Stress (Pa) | 43,961 | |
| Required Residence Time (min) | 1.0 | |
| **Overflow** | | |
| Turbidity | <100 | |
| Particulate (ppm) | <200 | |
| **Flocculant** | | |
| Recommend Flocculant (type) | BASF Magnafloc 10 | |
| Recommended Concentration (g/L) | 0.1-0.3 | |
| Recommended Dosage (g/t) | 17-25 | 5-10 |
| **Parameters*** | | |
| Unit Area ($m^2$/tpd) | 0.05 | |
| Flux Rate (tph/$m^2$) | 1.4 | |
| Max Recommended Rise Rate (m/hr) | 28.2 | |
| **Recommended Sizing**** | | |
| Quantity | 1 | |
| | 15/4 | |
| Suggested Unit (model) | LL-130 | |

**Table 10-26: FLS Recommendations and Sizing Summary for Thickener Type E-Cat**

| Process Parameters | Grind Size 75 µm | Grind Size 106 µm |
|---|---|---|
| Solid Conc (wt%) | 10 | |
| **Underflow** | | |
| Solids in Underflow (wt%) | 50 | |
| Required Residence Time (min) | 1.0 | |
| **Overflow** | | |
| Turbidity | <100 | |
| Particulate (ppm) | <200 | |
| **Flocculant** | | |
| Recommend Flocculant (type) | BASF Magnafloc 10 | |
| Recommended Concentration (g/L) | 0.1-0.3 | |
| Recommended Dosage (g/t) | 17-25 | 5-10 |
| **Parameters*** | | |
| Unit Area ($m^2$/tpd) | 0.05 | |
| Flux Rate (tpd/$m^2$) | 34.4 | |
| Maximum Rise Rate (m/hr) | 25.0 | |
| **Recommended Sizing**** | | |
| Quantity | 1 | |
| Diameter (m) | St. 12 | |

Notes:

* The reported values were calculated based on the results obtained. For the detailed sizing of industrial equipment, FLS may use the conversion factor of its test apparatus.

**The recommended sizing is based on the information provided by the client such as: flow of solids (dry basis) of: 195t/ hr @ 33 wt% for both cases.

### 10.6.6 Metallurgical Recovery Estimate

The Almas Project samples selected for metallurgical testing represented various ore types and lithologies within the different ore types and deposits. In addition, an overall composite representing the first three years of operation has been tested. Sufficient sample mass has been submitted for testing, so that tests were performed on enough material. The samples tested were not refractory and the mineralization indicated no cyanicides present, except for low concentration of sulphur and iron, suggesting that there will be no obvious environmental concerns.

The ore was amenable to gravity separation followed by cyanide leaching. The suggested flowsheet included gravity separation followed by gravity concentrate intensive leaching and electrowinning. The gravity tailings were subjected to a cyanide leaching circuit with the following configuration pre-leach/ CIL. Subsequently, the gold would be recovered from the loaded carbon by elution and electrowinning.

The overall gold recovery is shown in Table 10-27, based on the metallurgical gold recoveries achieved in the test work program. In addition, the estimated recoveries, corrected for economic analyses purposes, were derived by reducing the overall gold extraction by one percent to allow for potential gold losses. These losses can include the gravity concentrate intensive leach recovery of 98% to 99%, the carbon fines, soluble and refining losses. The average estimated overall recovery for the individual ore types/lithologies was estimated at 93% to 95% leaving a residue assay of 0.04 g/t Au to 0.06 g/t Au, showing minor trends for grind sensitivity. The sodium cyanide and lime consumptions were below one kilogram per tonne.

The average overall recovery for the 3-Y Blend composite was estimated at 93% with residue assays of 0.09 g/t Au to 0.11g/t Au. The fineness of grind did not affect the results. The sodium cyanide and lime consumptions were 0.2 kg/t and 1.5 kg/t, respectively. The cyanide consumption was quite low in comparison with typical consumptions in the industry. This low consumption reflects the lack of cyanicides and other cyanide consuming species. Metal dissolution during cyanidation was low, and there were no obvious concerns with any deleterious elements.

The process design criteria include an overall gold recovery of 92.5% at a grind of $P_{80}$ = 75 µm.

**Table 10-27: Gold Recovery Estimate**

| Sample | Grind Size $K_{80}$ (µm) | Ave Direct | Ave Calc | Overall | Residue | Reagent Cons | | Estimated |
|---|---|---|---|---|---|---|---|---|
| | | Head Grade (g/t Au)* | Head Grade (g/t Au)** | Recovery by Grav/CIL (Au %) | Assay (Au g/t) | NaCN (kg/t) | Lime (kg/t) | Recovery for Economic Analysis (Au %) |
| Average Individual Composites | 106 | 1.10 | 1.05 | 94.5 | 0.06 | 0.9 | 0.8 | 93.5 |
| | 75 | | | 96.2 | 0.04 | 0.9 | 0.8 | 95.2 |
| | | | | | | | | |
| Blend 3-Year Composite | 106 | 1.28 | 1.91/1.31 | 93.8 | 0.11 | 0.2 | 1.5 | 92.8 |
| | 75 | | | 94.1 | 0.09 | 0.2 | 1.5 | 93.1 |

Notes:
*Average direct head grade determined by screen metallic assay.
**Average calculated head grade from gravity-CIL/or whole ore leach metallurgical balance.

## 10.7 Metallurgical Testing Conclusions

In the SLR QP's opinion, the Almas Project samples selected for metallurgical testing represented various ore types and lithologies within the different ore types and deposits. In addition, an overall composite representing the first three years of operation has been tested. The samples tested were not refractory and the mineralization had low concentrations of cyanicides present, suggesting that there will be no obvious environmental concerns.

The processing flowsheet selected for the Almas Project incorporated proven technologies for the recovery of gold from ores. Metallurgical test work completed on the Project included comminution, gravity recoverable gold and gravity separation tests, evaluation of bulk sulphide flotation, cyanide leaching in the CIL and CIP circuit configurations, cyanide destruction, and solid-liquid separation testing.

The projected average overall recovery for the individual ore types tested was in the range of 93% to 95%, and 93%for the Blend 3-Y composite.

The process design criteria included overall gold recovery of 92.5% at a grind of $P_{80}$ = 75 µm.

Cyanide and lime consumptions were low, which reflected the lack of cyanide consuming species present in the ore. Metal dissolution during cyanide leaching was found to be low, and there were no obvious concerns with the presence of environmentally deleterious elements.

In the SLR QP's opinion, the metallurgical data is appropriate for the estimation of Mineral Reserves.

# 11.0 Mineral Resource Estimates

## 11.1 Summary

The Almas Project consists of three main gold deposits: Paiol, Vira Saia, and Cata Funda. Mineral Resource estimates for each of the deposits were prepared by Aura and adopted by the SLR QP.

The geological model and grade estimation for Cata Funda and Vira Saia were completed in 2020 and are unchanged. As part of this update, resource classification at Vira Saia was revised, and pit optimizations were rerun at both Cata Funda and Vira Saia using higher gold prices. The Paiol Mineral Resource estimate was updated in 2024, incorporating new drill holes and updated gold prices.

Block model estimates were completed for the Paiol deposit in Leapfrog Edge software and in Gemcom software for Vira Saia and Cata Funda.

Mineralization domains for all deposits were generated with consideration to known geologic controls, including structure, alteration, weathering, and lithology and refined targeting a nominal gold threshold value. Intersecting drill hole and blast hole intervals were capped and composited, and gold grades were estimated into blocks using a standard ordinary kriging (OK) multi-pass approach.

The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resource classification.

Classification of Mineral Resources considered confidence in geological continuity and drill hole spacing. Resource classification for Cata Funda was carried forward from the previous estimate, while the resource classification for Vira Saia and Paiol was updated using a methodology of creating class assignments from calculated drill hole spacing.

SLR focused its validation work mainly on the Paiol deposit, which accounts for a significant percentage of the Mineral Resource and is currently in operation. In addition to standard historical data and database validation techniques, wireframe and block model validation procedures including wireframe to block volume confirmation, statistical comparisons including swath plots of composites with the estimate and parallel estimates (inverse distance cubed [$ID^3$], and nearest neighbour [NN]) were performed. Visual reviews in both 3D and section view were conducted, and cross-software reporting confirmation in Python was completed for all deposits by SLR.

Mineral Resources are constrained within an optimized pit using a gold price of US$2,500/oz. A summary of the open pit Mineral Resources exclusive of Mineral Reserves is presented in Table 11-1.

**Table 11-1: Summary of Almas Project Mineral Resources EXCLUSIVE of Mineral Reserves – December 31, 2024**

| Deposit | Category | Tonnage | Grade | Contained Metal |
|---|---|---|---|---|
| | | (000 t) | (g/t Au) | (000 oz Au) |
| Paiol | Measured | 2,948 | 0.51 | 49 |
| | Indicated | 6,591 | 0.68 | 144 |
| | M&I | **9,539** | **0.63** | **193** |
| | Inferred | 2,606 | 0.77 | 65 |
| Vira Saia | Measured | 501 | 0.86 | 14 |
| | Indicated | 2,306 | 0.68 | 50 |
| | M&I | **2,806** | **0.71** | **64** |
| | Inferred | 357 | 0.91 | 10 |
| Cata Funda | Measured | 228 | 1.47 | 11 |
| | Indicated | 293 | 1.22 | 11 |
| | M&I | **520** | **1.33** | **22** |
| | Inferred | 599 | 1.30 | 25 |
| Total | Measured | 3,677 | 0.62 | 73 |
| | Indicated | 9,189 | 0.70 | 206 |
| | M&I | **12,866** | **0.67** | **279** |
| | Inferred | 3,562 | 0.88 | 100 |

Notes:

1. Mineral Resources are reported exclusive of Mineral Reserves.
2. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
3. Mineral Resources are reported from optimized pit shells.
4. Mineral Resources are estimated at a cut-off grade of 0.31 g/t Au for Paiol, 0.34 g/t Au for Cata Funda, and 0.32 g/t Au for Vira Saia.
5. Mineral Resources are estimated using a long-term gold price of US$2,500 per ounce.
6. A minimum mining width of five metres was used.
7. Bulk density is 2.75 t/m$^3$ for Paiol, 2.71 t/m$^3$ for Cata Funda, and 2.63 t/m$^3$ for Vira Saia.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Metallurgical recovery is 92% for high-grade (Au≥0.90 g/t) material, 90% for medium-grade (0.70≤Au<0.89 g/t), and 86% for low-grade (0.34≤Au<0.69 g/t).
10. Numbers may not add due to rounding.

The SLR QP is of the opinion that, with the consideration of the recommendations summarized in Sections 1 and 23 of this TRS, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

## 11.2 Resource Database

The drilling data from the Paiol, Cata Funda, and Vira Saia deposits included in this TRS are a combination of historical and updated databases. The databases include information about DD, RC drilling, blast holes, metallurgical holes, and auger holes over several different companies and drill programs. All the data have been validated and include assay certificates to ensure

authenticity of the information provided by the analysis laboratory. The cut off date for the databases provided was August 22, 2024.

The current resource database for the Almas Project is separated by deposit. Additionally, the Paiol resource database includes short-term data from production drilling along with a long-term database. A summary of the databases is outlined in Table 11-2 and a description of the variables included in the resource databases is provided in Table 11-3 .

**Table 11-2: Summary of Resource Database**

| Mineral Deposit | Drill Holes | Total length (m) | Total Number of Samples |
|---|---|---|---|
| Paiol (DDH) | 518 | 67,571 | 83, 354 |
| Paiol (RC) | 1,413 | 20,666 | 20,086 |
| Paiol (BH) | 50 | 43,092 | 43,217 |
| Cata Funda | 342 | 29,020 | 29,433 |
| Vira Saia | 194 | 26,491 | 25,433 |
| Note. RC = Reverse circulation drill hole; DDH = Diamond drill hole; BH = Blasthole | | | |

**Table 11-3: Description of Resource Database Variables**

| Variable | Description | Deposit/ Data Type | | | | |
|---|---|---|---|---|---|---|
| | | Paiol | | Cata Funda | Vira Saia | |
| | | RC, BH | | RC, DDH | DDH[1] | DDH[1] |
| Au_ppm_BESTEL | final Au values | ✓ | ✓ | ✓ | ✓ | |
| Au_Clean | Au variable used in estimation | ✓ | ✓ | | | |
| Density_Litho_teste | lithology grouping for density | | ✓ | | | |
| FROM | beginning of sample | ✓ | ✓ | ✓ | ✓ | |
| HOLE ID | hole id | ✓ | ✓ | ✓ | ✓ | |
| LITHO | described lithology (log) | ✓ | ✓ | ✓ | ✓ | |
| LITHO_grp | grouped lithology for modelling | ✓ | ✓ | ✓ | ✓ | |
| SAMPLEID | sample id | ✓ | | ✓ | | |
| SAMPLETYPE | type of sample | | | ✓ | ✓ | |
| SG Dry | specific gravity test- dry | | ✓ | | | |
| SG Wet | specific gravity test- wet | | ✓ | | | |
| TO | end of sample | ✓ | ✓ | ✓ | ✓ | |

Notes:
1. Resource database excludes RC holes
2. RC = Reverse circulation drill hole; DDH = Diamond drill hole; BH = Blasthole

Figure 11-1 (a and b) depicts the geographical relationships between Almas databases (Paiol, Vira Saia, and Cata Funda) including mineral rights boundaries.

**Figure 11-1a: Almas Deposit Locations and Mineral Rights**

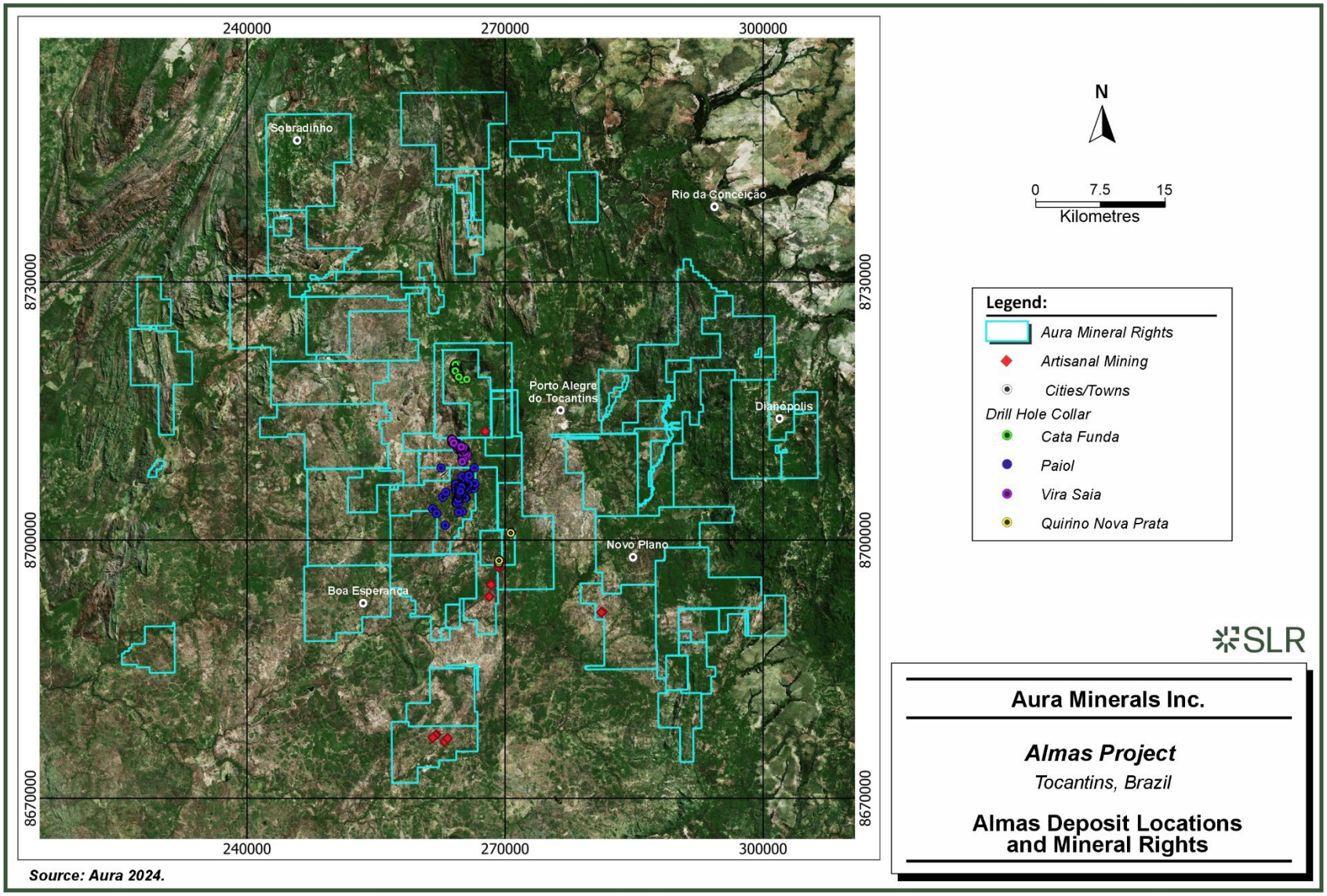
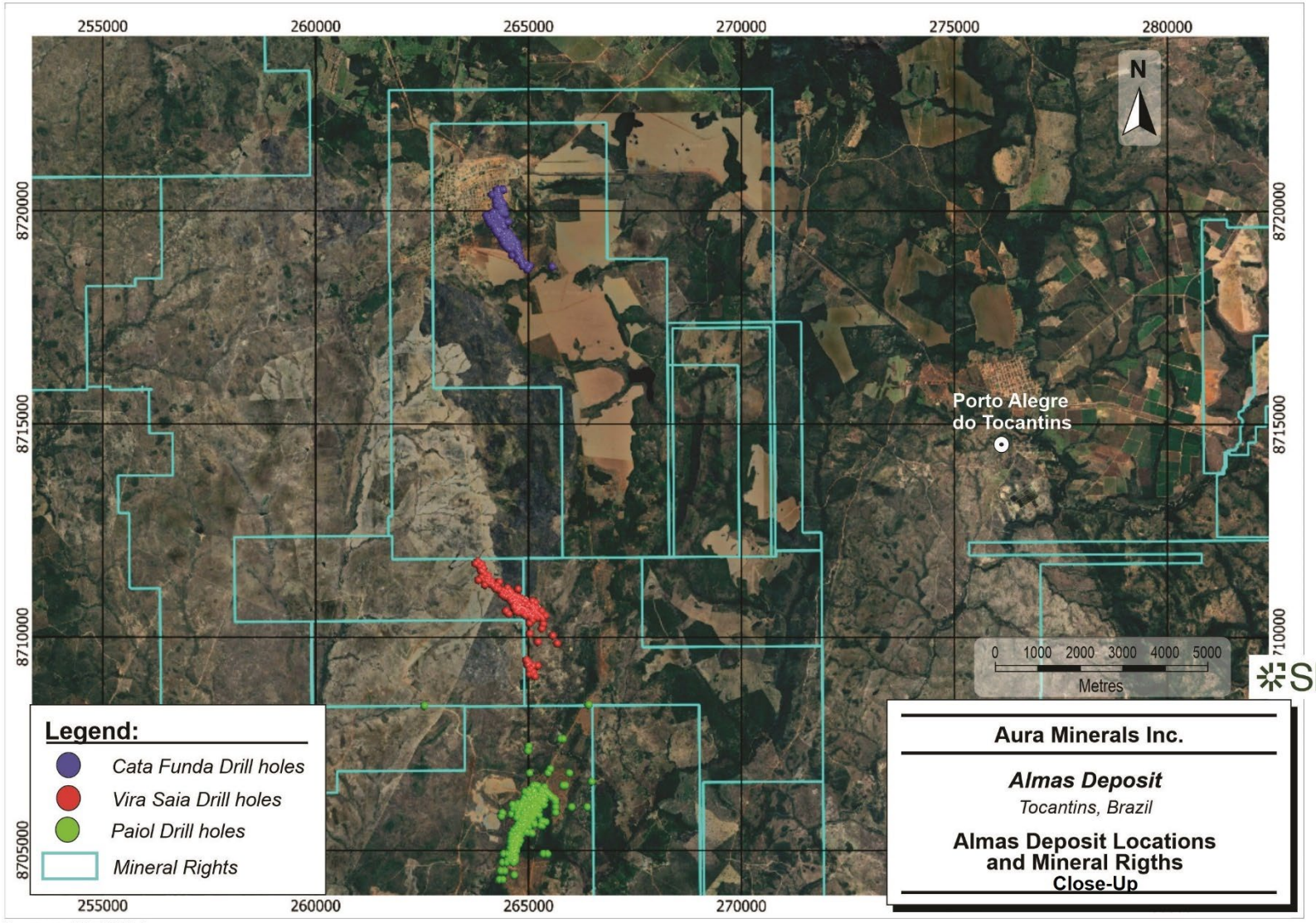


**Figure 11-1b: Almas Deposit Locations and Mineral Rights – Close-Up**




*Source: SLR 2024.*

## 11.3 Geological Interpretation

### 11.3.1 Paiol

The Paiol deposit is interpretated as a steeply dipping, narrow shear-hosted vein deposit made up of splays of discontinuous lenses of gold mineralization. The orientation of the mineralization is approximately 15° to 25° and typically dips 60° to the northwest. In the centre of the deposit the splays converge generating a broader steeply plunging ore body. To the north, the splays tend to diverge from each other and generally have slightly different orientations.

Mineralization wireframes for the Paiol model were generated using Leapfrog Geo software, through interval selections which considered a combination of lithology, structure, and assay gold grade. A nominal cut-off of 0.1 g/t was used to constrain the mineralization into a solid representing the core of the mineralization, referred to as Central solid.

Further refinement of the Central solid was completed by using numeric categorical selection, using 0.34 g/t Au for the Central 0.3 100 and Central 0.3 domains. A high-grade (HG) domain was then defined using a cut-off grade of 0.9 g/t Au. Waste was defined as material within the hanging wall (HW) and footwall (FW) of these solids.

These domains, used to constrain the estimation, are shown in Figure 11-2, and a representative cross section of the mineralized domains within the Central solid is shown in Figure 11-3.

A weathering model was also constructed within Leapfrog Geo using the interval selection tool and referencing the logged data. Although not used in grade estimation, the weathering domains support density assignment. The weathering model is depicted in Figure 11-4.

Table 11-4 outlines the grade thresholds used in the generation of the Paiol estimation domains.

**Table 11-4: Estimation Domain Grade Thresholds**

| Domain | Code | Au (g/t) |
|---|---|---|
| HG | HG | >0.9 |
| Central 0.3 100 | Central_100 | 0.34 < Au < 0.9 |
| Central 0.3 | Central | 0.34 <Au <0.9 |
| LG Domain | LG | 0.1 < Au <0.34 |

**Figure 11-2: Paiol Mineralization Domains**

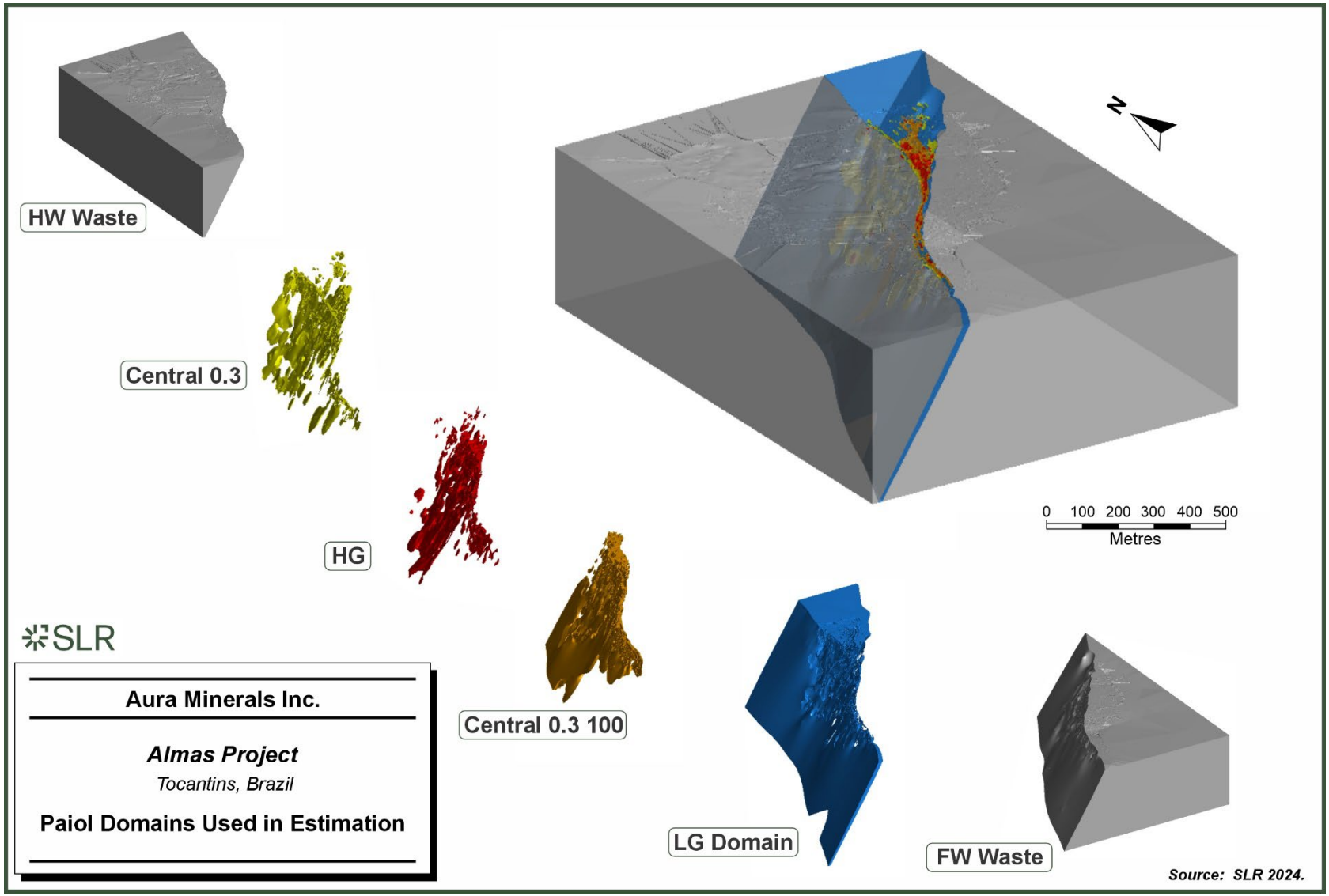


**Figure 11-3: Cross Section of Central Solid Mineralized Domains**

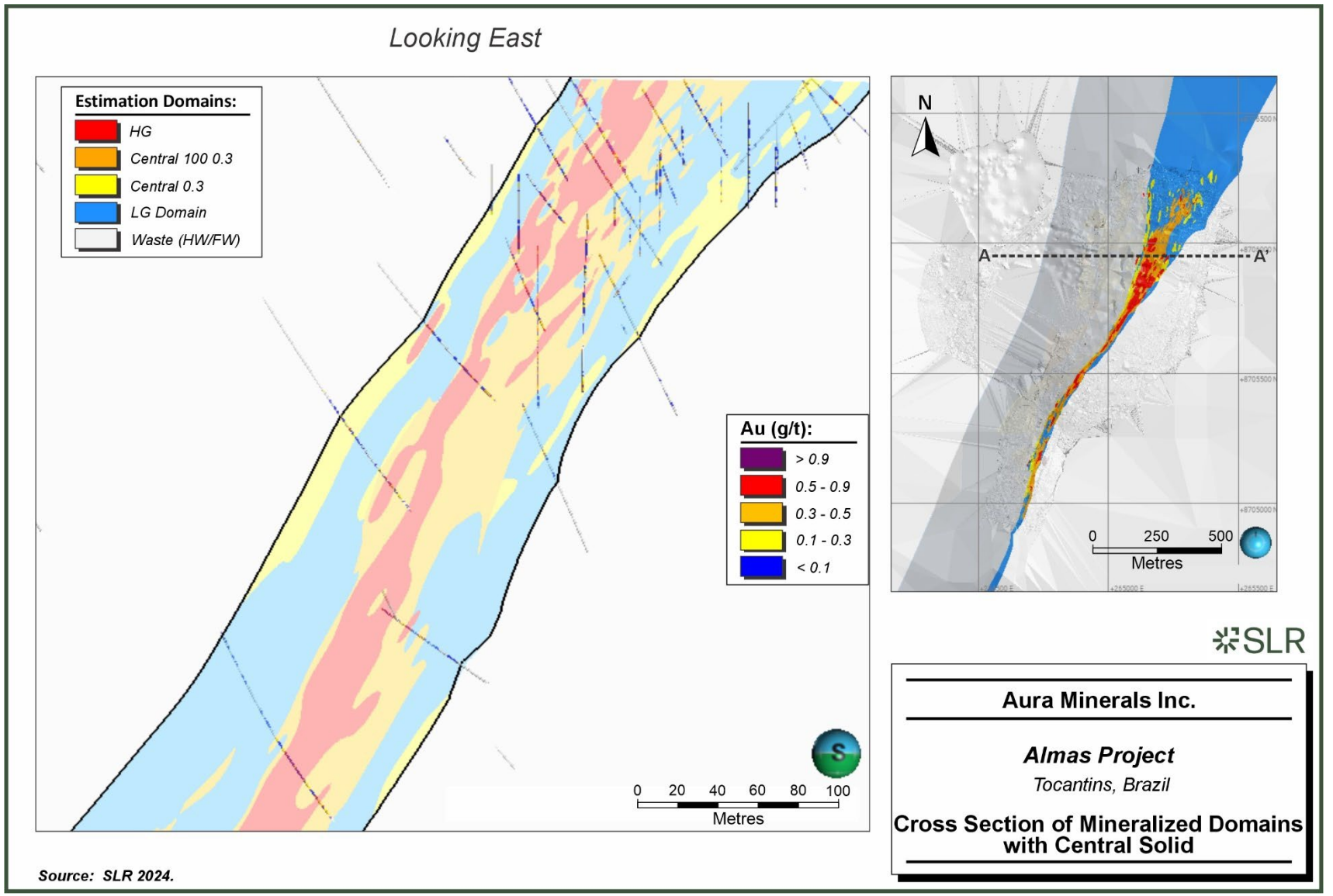
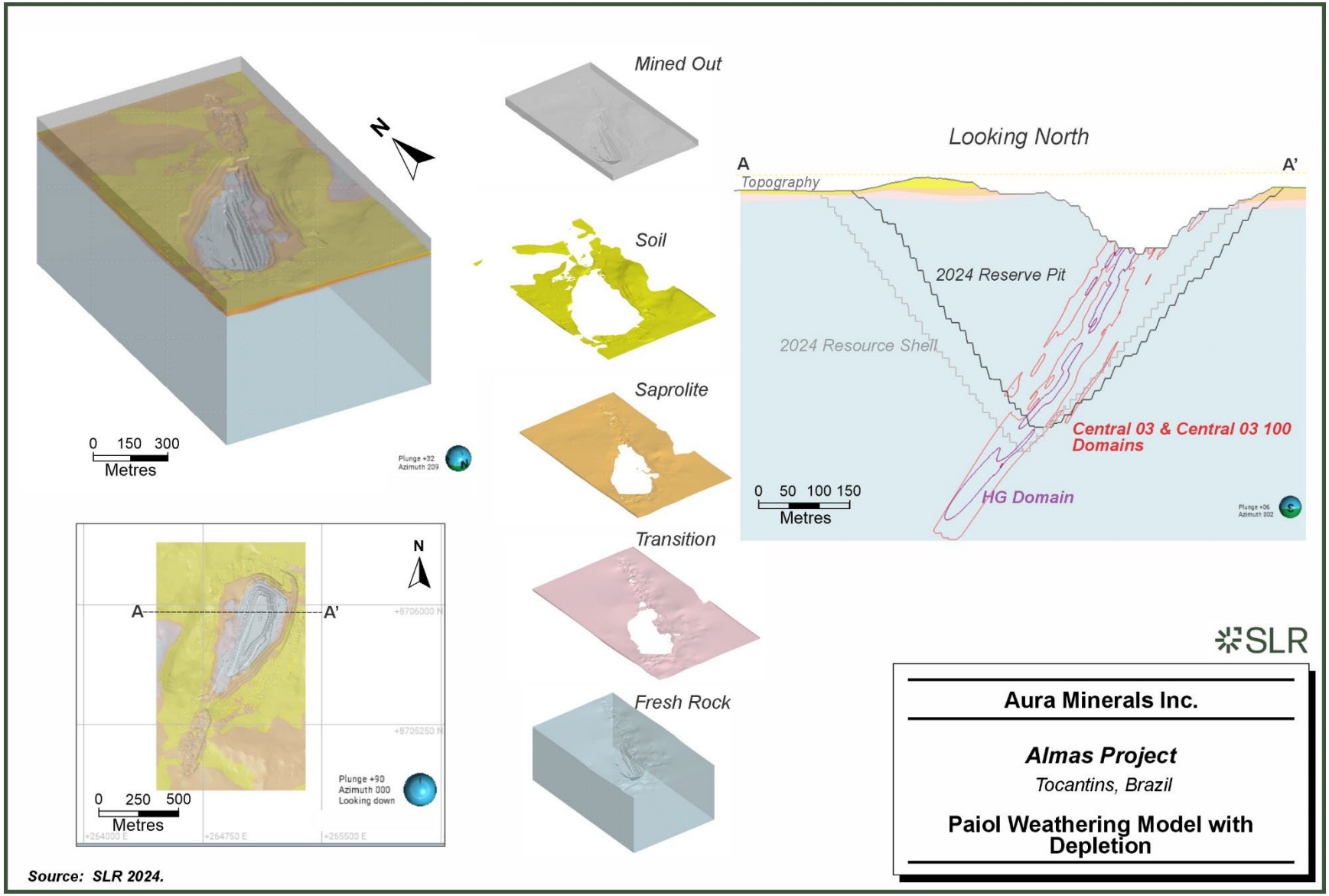


**Figure 11-4: Paiol Weathering Model with Depletion**



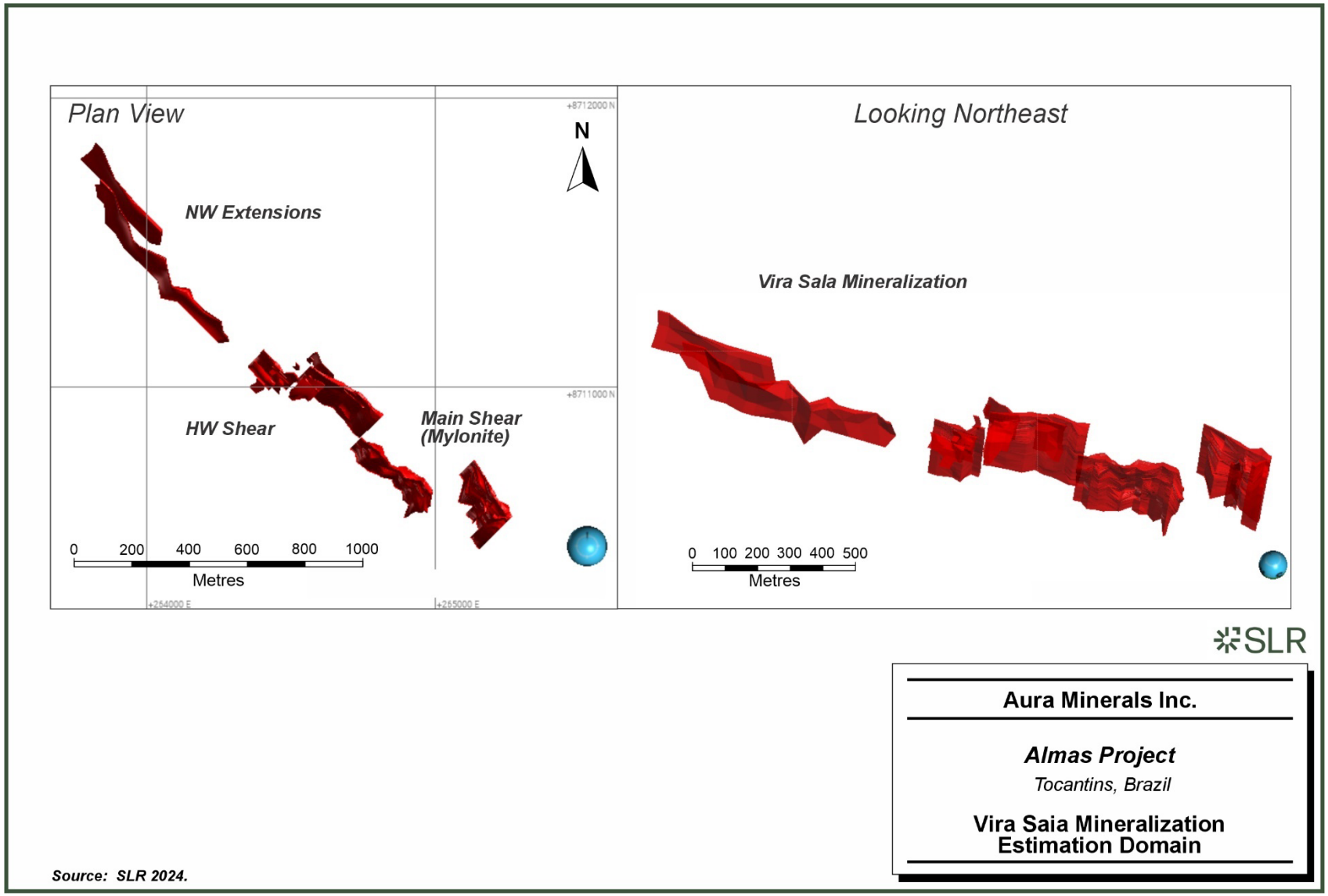

***Source: SLR 2024.***

### 11.3.2 Vira Saia

The Vira Saia deposit is interpreted to be structurally controlled, comprised of two main lithology-alteration units of quartz-sericite schist and sheared granodiorite. The 3D model was constructed using the lithology and supported by structural data. The mineralization typically has an elongated geometry and strikes about N45W along a fault. The dip in the zone can vary anywhere from 55° to 85° to the southwest.

The mineralized zone is comprised of a main shear zone and has been expanded with a hanging wall shear and northwest extensions. The domains are modelled using a 0.3 g/t cut-off, within the same orientation of the main shear zone and within favourable granodioritic rocks. The zone varies in thickness throughout the mineralization. Figure 11-5 depicts the geometry of the Vira Saia mineralization.

**Figure 11-5: Vira Saia Mineralization Estimation Domain**



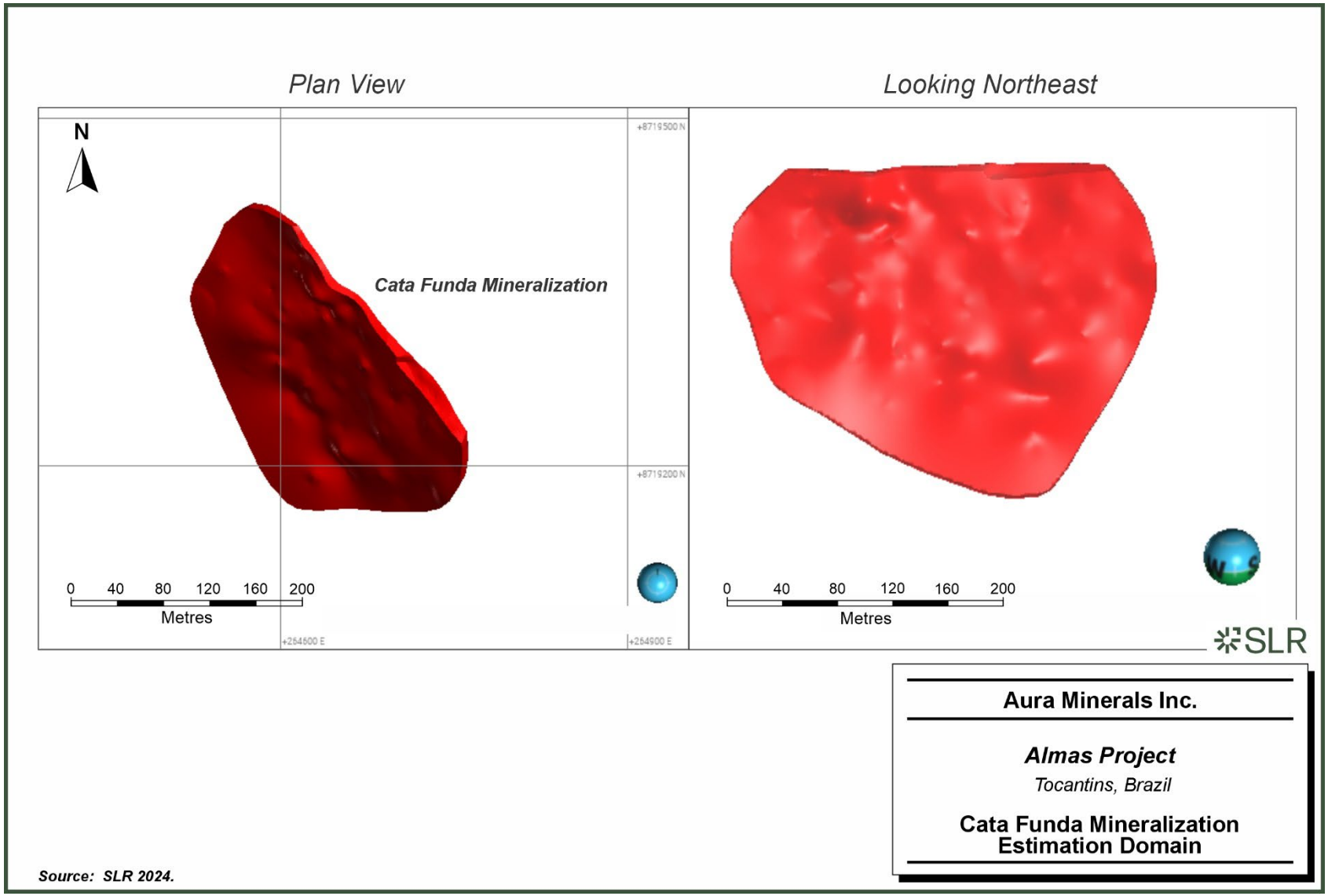

*Source: SLR 2024.*

### 11.3.3 Cata Funda

The Cata Funda deposit is controlled by a major northwest-trending shear zone. The mineralized zone strikes about N45W and dips 55° to the southwest. The zone averages approximately 20 m in thickness.

The mineralization was modelled using a combination of favourable alteration units with a cut-off grade of 0.3 g/t. All mineralization is currently constrained to a singular continuous unit. Figure 11-6 depicts the geometry of the Cata Funda mineralization.

**Figure 11-6: Cata Funda Mineralization Estimation Domain**



## 11.4 Resource Assays and Compositing

### 11.4.1 Assay Selection

The Paiol resource database combines drill hole (DDH, RC) and blast hole data, maintained in separate databases which reference their primary purpose, supporting the long term or short term models (Table 11-5). All data types were considered in the estimation; though a confidence filter was applied to remove holes with spurious results, low confidence, or lacking QA/QC support.

**Table 11-5: Paiol Resource Database Drill Hole Types**

| Database | Drilling Type | Number of Drill Holes |
|---|---|---|
| Long Term | DDH | 518 |
| | RC | 417 |
| Short Term | RC | 996 |
| | Blast Hole | 50 |
| **Total** | | **1,981** |

Although it is common in mining operations to use different drilling methods, the SLR QP recommends conducting individual statistical assessments of the diamond, RC, and blast hole data to evaluate the differences from varying drilling and sampling methodologies, in support of deepening the understanding of any impact on resource estimation.

Unsampled intervals at Paiol, representing approximately 2% of the total samples were assigned a value of 0.001 g/t prior to estimation through the creation of a new variable “Au_Clean”. A visual representation of the missing intervals is shown in Figure 11-7 and a comparison of the resource assay selection after assigning values to the missing intervals is outlined in Table 11-6.





**Figure 11-7: Missing Gold Values in Paiol Sample Database**

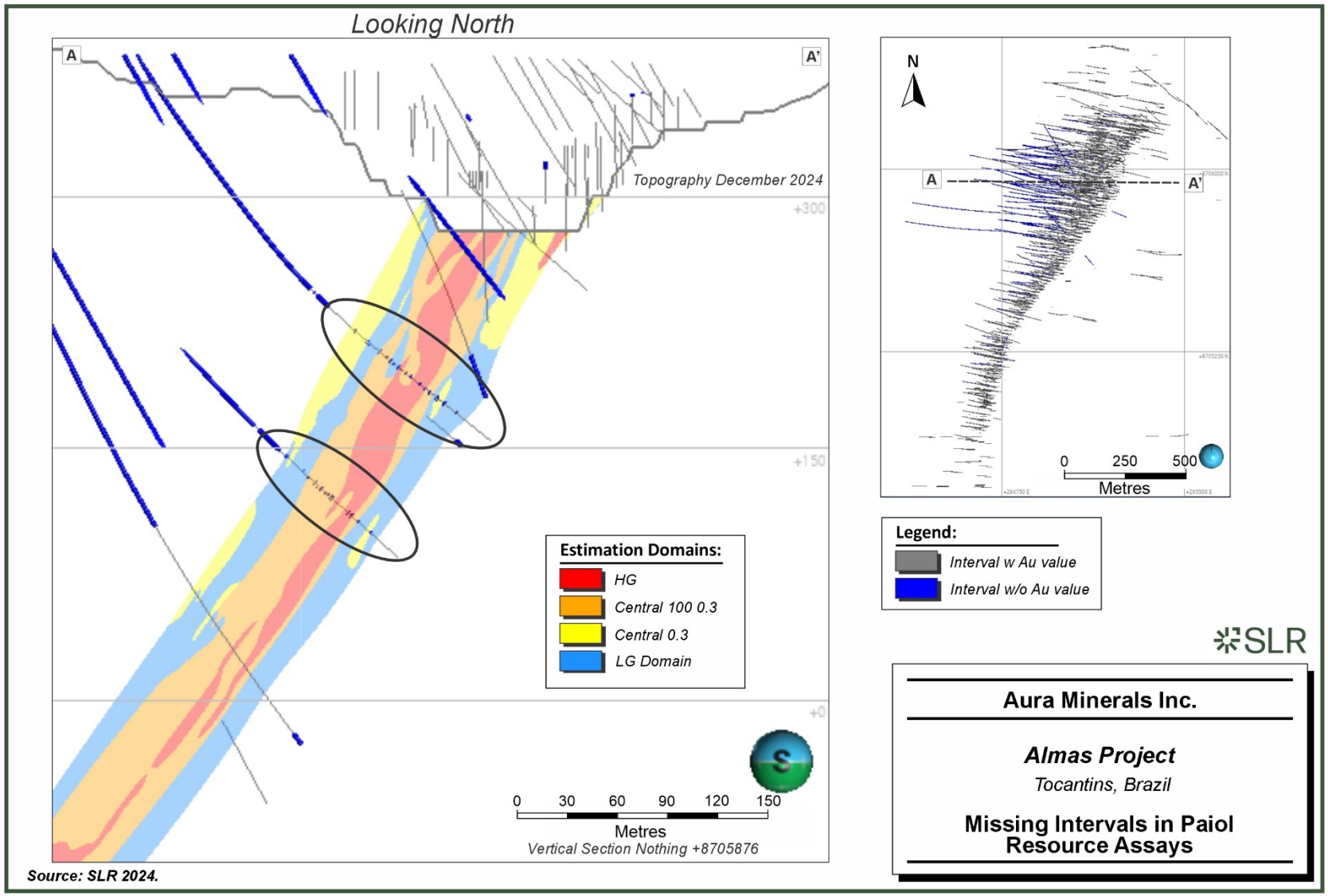


**Table 11-6: Comparison of the Paiol Resource Assay Database after Assigning Values to the Missing Intervals**

| Variable | Drill Holes | Total Length (m) | Total Number of Samples |
|---|---|---|---|
| Au_ppm_BESTEL* | 1,987 | 126,457 | 131,532 |
| Au_Clean | 1,987 | 150,566 | 134,190 |
| Note. * Original assays with missing intervals. | | | |

Summary statistics of domain intersecting assays are presented in Table 11-7. The resource assays selected for Vira Saia and Cata Funda are made up exclusively of diamond drill holes, excluding historical RC holes due to the lack of QAQC measures found from the previous operator (VALE). They were excluded from the estimation to avoid creating any bias in estimation.

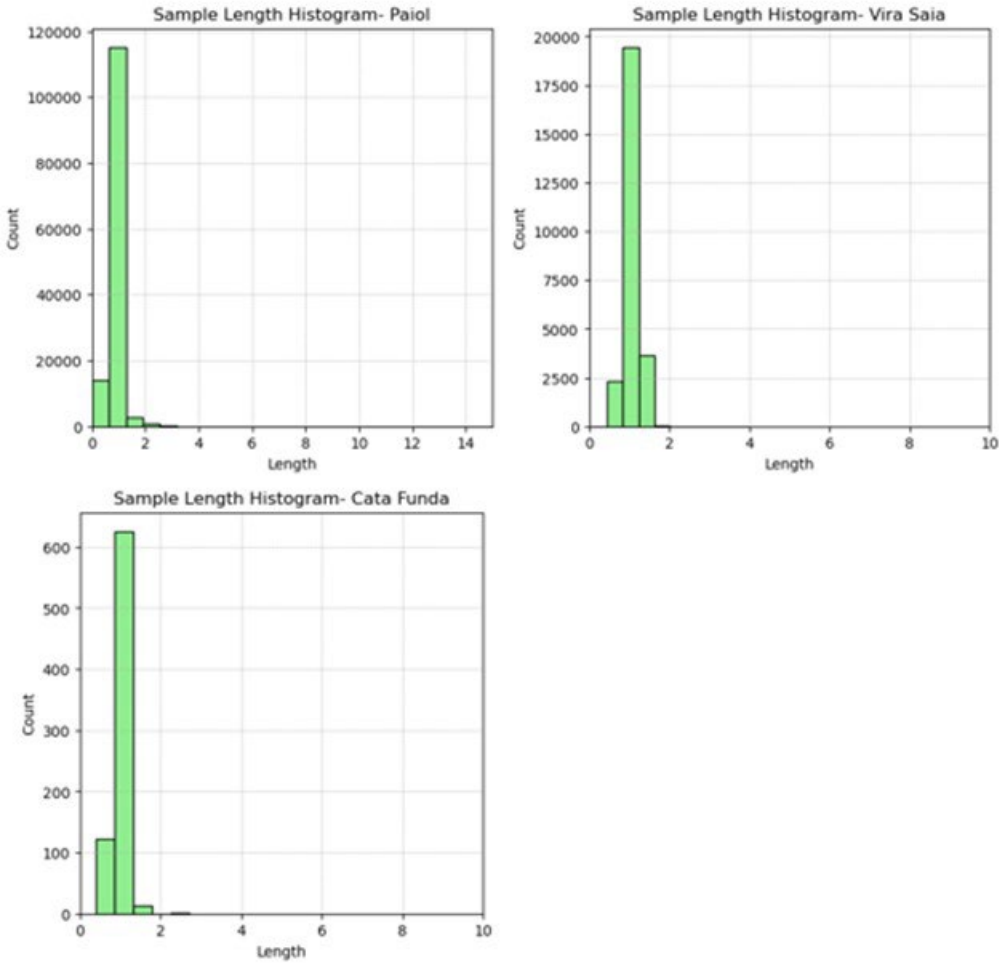
**Table 11-7: Statistics of Domain Intersecting Gold Resource Assays**

| Mineral Deposit | Count | Length (m) | Mean (g/t) | Min (g/t) | Max (g/t) | SD | Variance |
|---|---|---|---|---|---|---|---|
| Paiol | 131,329 | 146,658 | 0.32 | 0.001 | 110.9 | 1.34 | 1.80 |
| Cata Funda | 763 | 739 | 1.59 | 0.0025 | 109.46 | 4.11 | 19.89 |
| Vira Saia | 2385 | 2250 | 0.94 | 0.005 | 57.57 | 2.84 | 0.16 |

### 11.4.2 Compositing

Compositing for Vira Saia and Cata Funda involved processing the selected resource assays into composites of defined length within the mineralized domains. The compositing workflow for Paiol utilized Leapfrog Edge software where composites were generated in the estimator, using the resource assays within domain boundaries. Histograms of the raw sample lengths for all deposits are shown in Figure 11-8 and all have an average sample length of approximately one metre.

**Figure 11-8: Histograms of Raw Sample Lengths in Metres (m)**




A compositing length of 2.5 m was used for Paiol and Cata Funda and two metres for Vira Saia within the domain boundaries. The compositing length of 2.5 m for Paiol and Cata Funda was chosen for operational parameters, however, the SLR QP recommends a composite length of multiples of the average raw sample length (i.e., two metres for one metre average sample length) be applied for future model updates. This will decrease the artificial breaks within the samples and will uphold the integrity of the samples database.

Basic statistics of the composited intervals before and after compositing practices are outlined in Table 11-8 and histograms of the composites by deposit and domain are shown in Figure 11-9.

**Table 11-8: Basic Statistics of Uncapped Gold Assays and Composites**

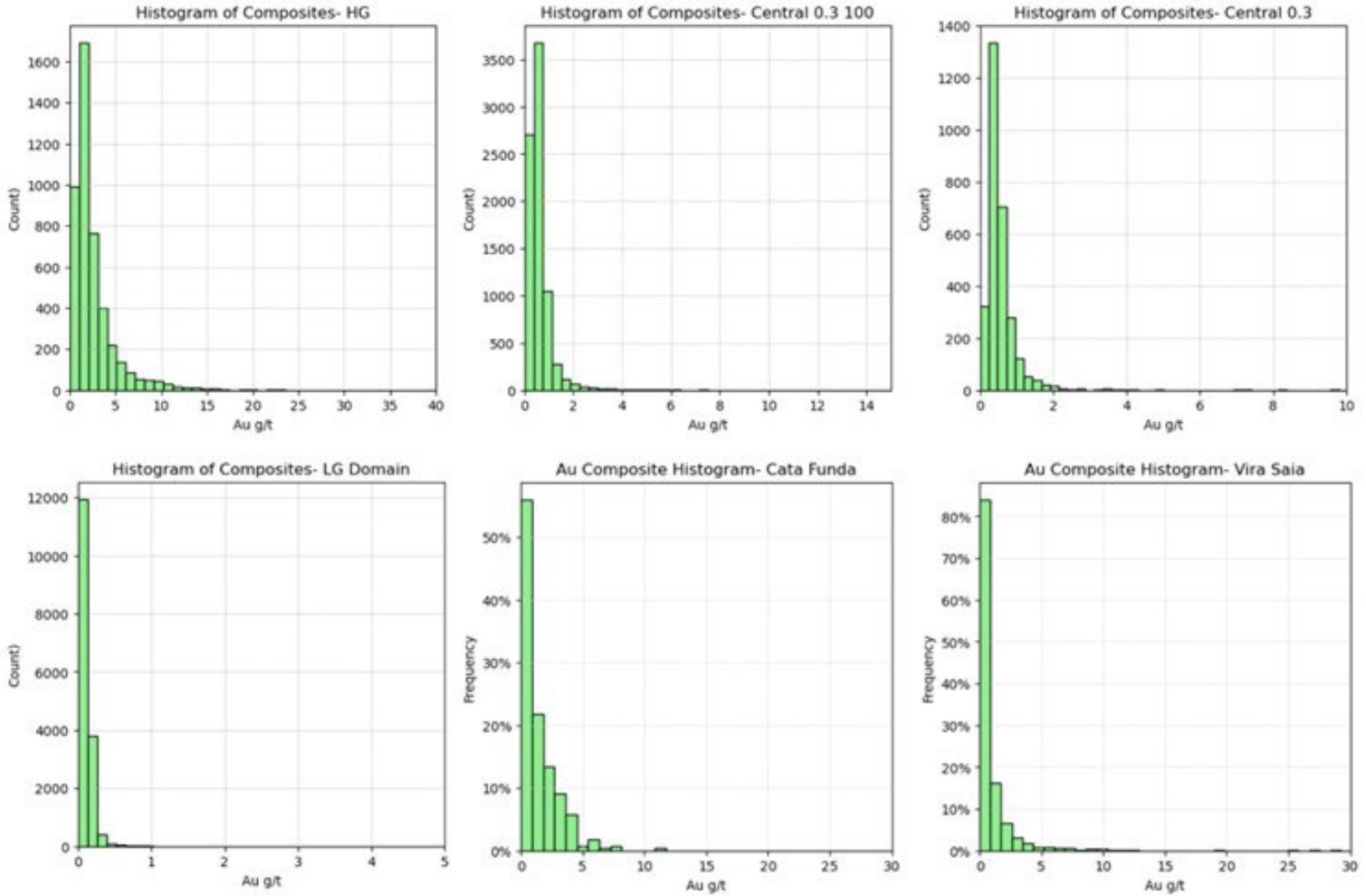
| | | Before Compositing | | | | After Compositing | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Mineral Deposit** | **Domain** | **Count** | **Mean (g/t)** | **Min (g/t)** | **Max (g/t)** | **Count** | **Mean (g/t)** | **Min (g/t)** | **Max (g/t)** |
| Paiol | HG | 12,523 | 2.69 | 0.001 | 110.9 | 4,560 | 2.64 | 0.001 | 41.01 |
| | Central 03 100 | 18,482 | 0.56 | 0.001 | 33.4 | 8,034 | 0.58 | 0.001 | 15.02 |
| | Central 03 | 6,056 | 0.59 | 0.001 | 100.1 | 2,926 | 0.58 | 0.001 | 35.85 |
| | LG Domain | 40,933 | 0.09 | 0.001 | 22.13 | 16,366 | 0.09 | 0.001 | 8.99 |
| Cata Funda | | 763 | 1.59 | 0.0025 | 109.46 | 304 | 1.58 | 0 | 36.20 |
| Vira Saia | | 2,395 | 0.97 | 0.005 | 85.63 | 1,195 | 0.99 | 0.005 | 43.00 |

It is noted that there are differences in the mean values of the sample before and after compositing for most of the domains. The differences of the values can be attributed to artificial breaks in the samples due to chosen compositing lengths, and a result of the compositing workflow across different software. The SLR QP recommends that the mean value remains consistent before and after compositing practices.





**Figure 11-9: Histograms of Composited Au Values by Estimation Domain**



## 11.5 Treatment of High-Grade Assays

### 11.5.1 Capping Levels

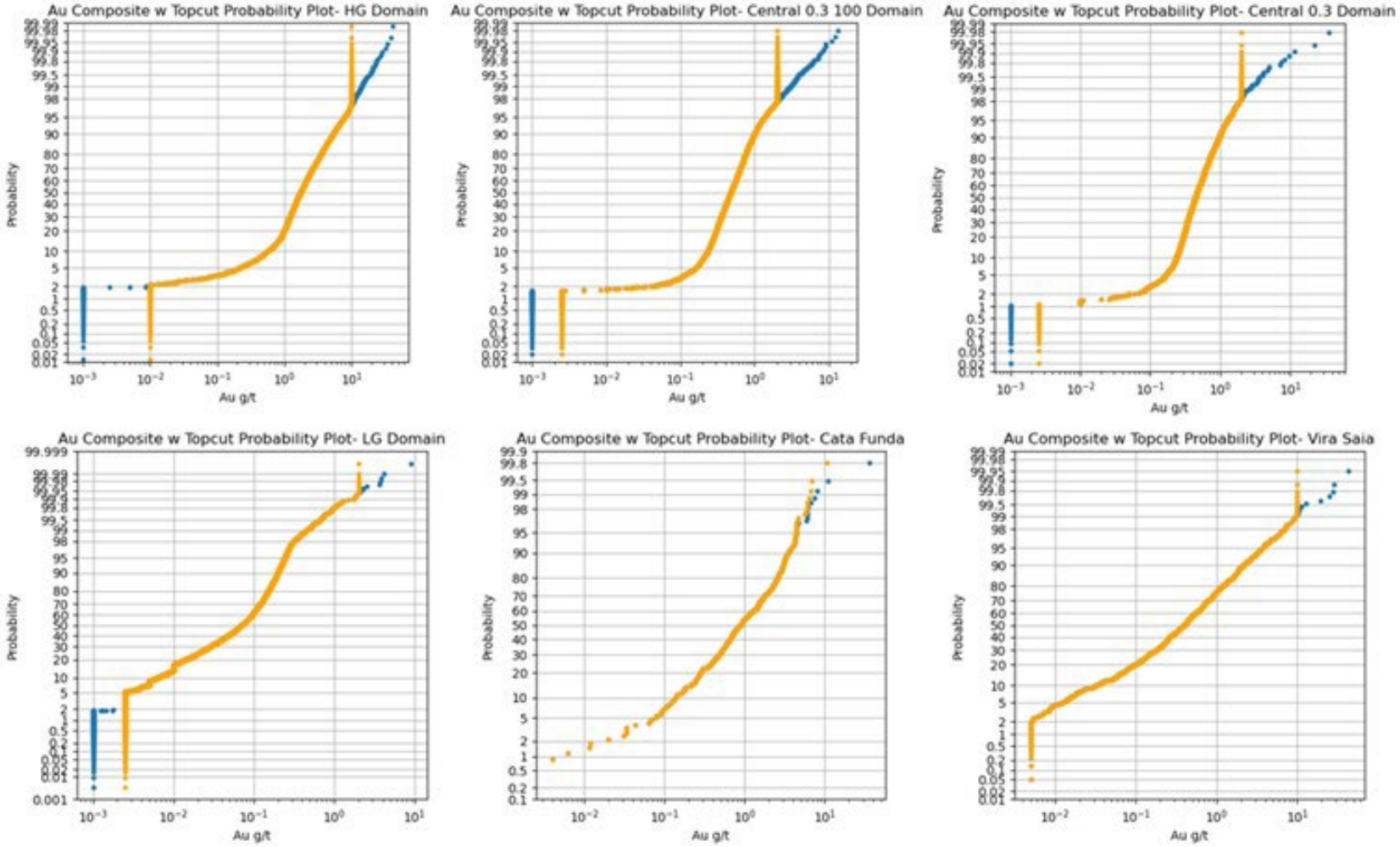
To constrain high-grade samples in the estimation and eliminate outlier assays, capping values were applied to the domains in Paiol and Vira Saia after composite generation. A bottom cut was also applied to the Paiol database to assign values to low-grade samples (<0.01 g/t Au). For Cata Funda, capping was applied to resource assays prior to compositing. The differences in capping procedures among the mineral deposits reflect variations in block model generations and associated workflows; each of which is considered acceptable and standard.

The effect of capping on samples is depicted in Table 11-9 for all deposits and visually in probability plots in Figure 11-10.

**Table 11-9: Basic Statistics of Capped and Uncapped Gold Composites**

| Mineral Deposit | Domain | Count | Uncapped Mean (g/t) | Max (g/t) | Top Cut (g/t) | Bottom Cut (g/t) | Capped Mean (g/t) | No. of Capped samples | Metal Loss |
|---|---|---|---|---|---|---|---|---|---|
| Paiol | HG | 4,560 | 2.64 | 41.01 | 10 | 0.01 | 2.45 | 123 | 5.0% |
| | Central 03 100 | 8,034 | 0.58 | 15.02 | 2 | 0.01 | 0.57 | 187 | 5.9% |
| | Central 03 | 2,926 | 0.58 | 35.85 | 2 | 0.01 | 0.54 | 51 | 7.4% |
| | LG Domain | 16,366 | 0.09 | 8.99 | 2 | 0.01 | 0.09 | 11 | 1.0% |
| Cata Funda | | 304 | 1.58 | 36.20 | 11 | - | 1.46 | 1 | 5.2% |
| Vira Saia | | 1,195 | 0.99 | 43.00 | 10 | - | 0.92 | 11 | 8.3% |

**Figure 11-10: Probability Plots of Uncapped (Blue) and Capped Composites (Orange)**



For some domains, such as HG, Central 0.3 100, and Central 0.3, the top-cuts selected are before the population break observed in the probability plots shown above, resulting in a cut of 2% of the domain population and higher metal loss.

The SLR QP recommends re-evaluating the methodology for selecting capping values in future estimates, using additional tools in combination with probability plots to better define the top-cut values, and contextualized with reconciliation results. The purpose of capping is to delimit true outlier values without affecting geologically or statistically significant populations.

### 11.5.2 High-Grade Restriction

High-grade restrictions are not currently applied to the Cata Funda or Vira Saia estimates. The updated estimate for Paiol utilizes the high yield restrictions, with the parameters outlined in Table 11-10 by domain and estimation pass.

**Table 11-10: High Yield Restriction Parameters for Paiol Domains**

| Domain | Value Threshold (g/t Au) | Pass | Search (m) | % of Search |
|---|---|---|---|---|
| HG | | 1 | 20 x 20 x 3 | |
| | 10 | 2 | 30 x 20 x 3 | 66 |
| | 10 | 3 | 60 x 35 x 6 | 50 |
| | 10 | 4 | 75 x4 5 x 8 | 50 |
| | 10 | 5 | 150 x 90 x 16 | 50 |
| | 10 | 6 | 450 x 270 x 30 | 50 |
| Central 100 0.3 | 2 | 1 | 20 x 20 x 3 | 50 |
| | 2 | 2 | 40 x 32 x 3 | 50 |
| | 2 | 3 | 80 x 65 x 6.5 | 50 |
| | 2 | 4 | 100 x 80 x 8 | 50 |
| | 2 | 5 | 200 x 160 x 16 | 50 |
| | 2 | 6 | 510 x 390 x 48 | 50 |
| Central 0.3 | 2 | 1 | 20 x 20 x 3 | 50 |
| | 2 | 2 | 40 x 32 x 3 | 50 |
| | 2 | 3 | 80 x 65 x 6.5 | 50 |
| | 2 | 4 | 100 x 80 x 8 | 50 |
| | 2 | 5 | 200 x 160 x 16 | 50 |
| | 2 | 6 | 510 x 390 x 48 | 50 |
| LG Domain | 2 | 1 | 20 x 20 x 3 | 50 |
| | 2 | 2 | 40 x 32 x 3 | 50 |
| | 2 | 3 | 80 x 65 x 6.5 | 50 |
| | 2 | 4 | 100 x 80 x 8 | 50 |
| | 2 | 5 | 200 x 160 x 16 | 50 |
| | 2 | 6 | 510 x 390 x 48 | 50 |

It is noted by the SLR QP that the value thresholds used in the high yield restriction are consistent with the capping values for each of these domains.

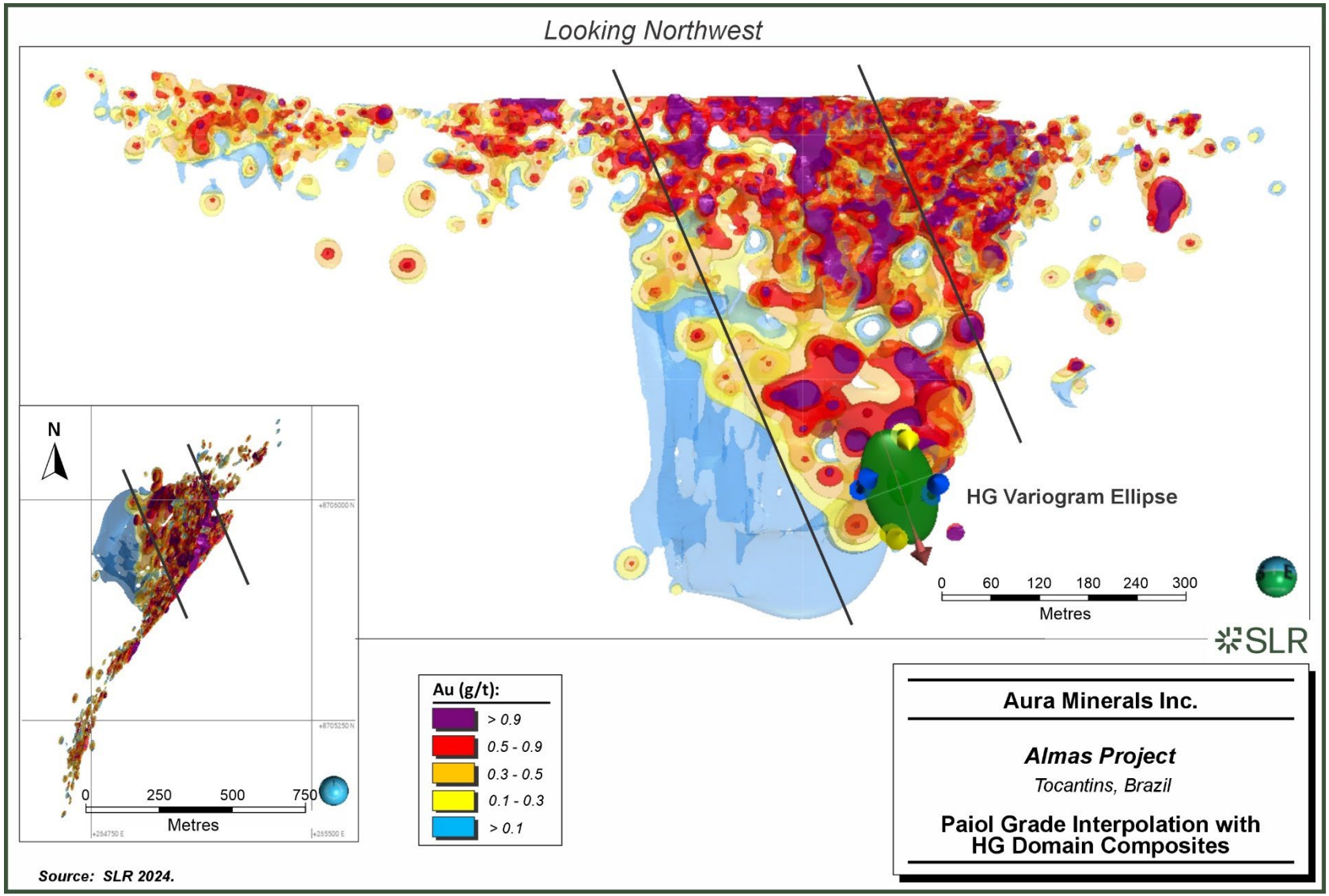
## 11.6 Trend Analysis

### 11.6.1 Grade Contouring

A radial basis function (RBF) interpolant was generated using Leapfrog Edge software for the Paiol composites included in the HG variogram model. The grade interpolant reflects the geometry and the orientation of the domains used in the estimation. The grade interpolant is aligned with the HG variogram ellipse (direction) and can be observed in Figure 11-11.

A trend to the northwest is observed in the HG grade interpolation, represented with black solid lines. This same trend is observed as the major direction (red arrow) within the green ellipse, representing the variogram model for Paiol. The variography was modelled with the major direction following the same directions as observed in the grade interpolation.

**Figure 11-11: Paiol Grade Interpolation with HG Domain Composites**




*Source: SLR 2024.*

### 11.6.2 Variography

Variogram models have been created for gold in all Almas deposits using composites. Variography for Paiol was completed in Leapfrog Edge software. A variogram model was fit using composite data from the combined HG, Central 100 0.3 and Central 0.3 domains, and a separate variogram model was fit from the low-grade (LG) domain composite data. The anisotropy directions align with Central wireframe and follow the general orientation of all estimation domains.

Variography for Vira Saia was completed using Snowden's Supervisor software. The modelled azimuth for the major axis is 310° (strike of deposit), with a plunge of -70°. For Cata Funda, the model resolved a down-dip range of approximately 30 m, and an along-strike range of approximately 75 m.

Variogram models for Paiol, Vira Saia, and Cata Funda are outlined in Table 11-11.

**Table 11-11: Variogram Models**

| Deposit | Azimuth (°) | Nugget | Sill 1 | Sill 2 | Sill 3 | Structure 1 (m) | | | Structure 2 (m) | | | Structure 3 (2) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Major | Semi-major | Minor | Major | Semi-major | Minor | Major | Semi-major | Minor |
| Paiol HG | 295 | 0.15 | 0.55 | 0.3 | | 25 | 15 | 5 | 75 | 45 | 13 | | | |
| Paiol LG | 295 | 0.15 | 0.55 | 0.3 | | 25 | 20 | 5 | 75 | 45 | 13 | | | |
| Cata Funda | 320 | 0.23 | 1.84 | 0.36 | 0.92 | 30.3 | 27.9 | 14 | 79.5 | - | 18 | 91.1 | - | - |
| Vira Saia | 310 | 0.23 | 0.51 | 0.26 | | 30 | 30 | 12 | 60 | 60 | 41 | | | |

## 11.7 Search Strategy and Grade Interpolation Parameters

### 11.7.1 Paiol

Parent block estimates were completed using the ordinary kriging (OK) method. The estimation process consisted of up to six progressively expanding interpolation passes with successively relaxed octant search and composite selection criteria. Anisotropic search ellipses, aligned with observed grade plunges, were utilized for grade estimation across all domains. Dynamic anisotropy was applied using the orientation of the Central solid to account for local variability in the mineralization orientation.

Specific dimensions and orientations of the pass approach by domain are summarized in Table 11-12.

**Table 11-12: Estimation Parameters for Paiol**

| Domain | Pass | Search Distances (m) | | | Min Samples | Max Samples | Max Samples per Hole | Sector (Octant) Search | |
|---|---|---|---|---|---|---|---|---|---|
| | | X | Y | Z | | | | Max Samples | Max Empty Sectors |
| HG | 1 | 20 | 20 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 2 | 30 | 20 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 3 | 60 | 35 | 6 | 6 | 16 | 2 | 2 | 4 |
| | 4 | 75 | 45 | 8 | 5 | 16 | 2 | 2 | 5 |
| | 5 | 150 | 90 | 16 | 3 | 16 | 2 | 2 | 6 |
| | 6 | 450 | 270 | 30 | 2 | 16 | 2 | 2 | 7 |
| Central 03 100 | 1 | 20 | 20 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 2 | 40 | 32 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 3 | 80 | 65 | 6.5 | 6 | 16 | 2 | 2 | 4 |
| | 4 | 100 | 80 | 8 | 5 | 16 | 2 | 2 | 5 |
| | 5 | 200 | 160 | 16 | 3 | 16 | 2 | 2 | 6 |
| | 6 | 510 | 390 | 48 | 2 | 16 | 2 | 2 | 7 |
| Central 03 | 1 | 20 | 20 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 2 | 40 | 32 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 3 | 80 | 65 | 6.5 | 6 | 16 | 2 | 2 | 4 |
| | 4 | 100 | 80 | 8 | 5 | 16 | 2 | 2 | 5 |
| | 5 | 200 | 160 | 16 | 3 | 16 | 2 | 2 | 6 |
| | 6 | 510 | 390 | 48 | 2 | 16 | 2 | 2 | 7 |
| LG Domain | 1 | 20 | 20 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 2 | 40 | 32 | 3 | 6 | 16 | 2 | 3 | 3 |
| | 3 | 80 | 65 | 6.5 | 6 | 16 | 2 | 2 | 4 |
| | 4 | 100 | 80 | 8 | 5 | 16 | 2 | 2 | 5 |
| | 5 | 200 | 160 | 16 | 3 | 16 | 2 | 2 | 6 |
| | 6 | 510 | 390 | 48 | 2 | 16 | 2 | 2 | 7 |

In the estimate the short-term data, including blast hole data, was not treated differently from long-term data (diamond and RC drill holes) during the estimation (see Section 11.3). While

validation work conducted by the SLR QP has confirmed an acceptable estimation result, re-evaluating the approach to the treatment of short-term (production) data in the interpolation plan is recommended for the next resource model update. Specifically, restricting the influence of production data to very local areas (up to two benches) is recommended, and maintaining a model that excludes production data for the purposes of reconciliation work should also be considered.

The SLR QP also noted that the application of the octant sector search has generated grade artifacts throughout the model, and while not expected to affect the global estimate, in future updates, attention to minimizing these local features is recommended.

### 11.7.2 Vira Saia and Cata Funda

Grade interpolations for Vira Saia and Cata Funda also used OK with a multi search approach, where each pass progressively increased search distances. Dynamic anisotropy was applied to orient the search ellipse parallel to the mineralized ore body, accounting for localized variability in strike and dip.

The search distances and grade interpolation parameters for Vira Saia and Cata Funda are summarized in Table 11-13**.**

**Table 11-13: Estimation Parameters for Vira Saia and Cata Funda**

| Deposit | Pass | Search Distances (m) | | | Min Samples | Max Samples | Min Drill Holes |
|---|---|---|---|---|---|---|---|
| | | X | Y | Z | | | |
| Vira Saia | 1 | 30 | 30 | 5 | 9 | 16 | 3 |
| | 2 | 60 | 60 | 15 | 9 | 16 | 3 |
| | 3 | 120 | 120 | 30 | 1 | 16 | 1 |
| Cata Funda | 1 | 50 | 30 | 10 | 9 | 16 | 3 |
| | 2 | 75 | 45 | 15 | 9 | 16 | 3 |
| | 3 | 150 | 90 | 30 | 1 | 16 | 1 |

## 11.8 Bulk Density

Density data was collected as described in Section 8.3. The data were statistically analyzed by lithology, and weathering, with outliers removed. Density values were assigned based on alteration models derived from logging data.

Current density considerations are based on data was gathered under Rio Novo Gold in 2016 and the results are outlined in Table 11-14. It is noted by the SLR QP that an updated density study should be untaken to confirm current bulk density assumptions about all Almas deposits.





**Table 11-14: Bulk Density of Saprolite and Weathered Rock from Core Samples**

| Target | Rock Type | Count | Minimum SG_WET (g/cc) | Maximum SG_WET (g/cc) | Average SG_WET (g/cc) | Minimum SG_DRY (g/cc) | Maximum SG_DRY (g/cc) | Average SG_DRY (g/cc) | Average Moisture (%) |
|---|---|---|---|---|---|---|---|---|---|
| Paiol | Weathered Rock | 113 | 1.7 | 3.01 | 2.29 | 1.03 | 3 | 2.05 | 11.11 |
| | Transition | 87 | 1.74 | 3.34 | 2.68 | 1.68 | 3.33 | 2.58 | 3.99 |
| | Soil | 67 | 1.61 | 2.33 | 1.98 | 1.23 | 2.11 | 1.62 | 18.31 |
| | Saprolite | 343 | 1.18 | 2.55 | 1.91 | 1.1 | 2.36 | 1.55 | 18.61 |
| Cata Funda | Weathered Rock | 41 | 1.88 | 3.05 | 2.3 | 1.58 | 3.04 | 2.12 | 8.39 |
| | Transition | 28 | 1.93 | 2.97 | 2.58 | 1.8 | 2.93 | 2.48 | 4.04 |
| | Soil | 4 | 1.77 | 2.19 | 1.96 | 1.4 | 1.88 | 1.59 | 18.88 |
| | Saprolite | 158 | 1.4 | 2.42 | 1.86 | 1.07 | 2.39 | 1.54 | 16.96 |
| Vira Saia | Weathered Rock | 115 | 0.24 | 2.81 | 2.29 | 0.21 | 2.77 | 2.12 | 3.48 |
| | Transition | 24 | 1.67 | 2.96 | 2.48 | 1.4 | 2.9 | 2.34 | 5.76 |
| | Soil | 47 | 1.67 | 2.4 | 2 | 1.33 | 2.09 | 1.72 | 14.09 |
| | Saprolite | 244 | 1.18 | 2.76 | 2.04 | 1.24 | 2.89 | 1.78 | 13 |
| Data from 2016 Feasibility Study for Almas Gold Project, Rio Novo Gold Inc. | | | | | | | | | |

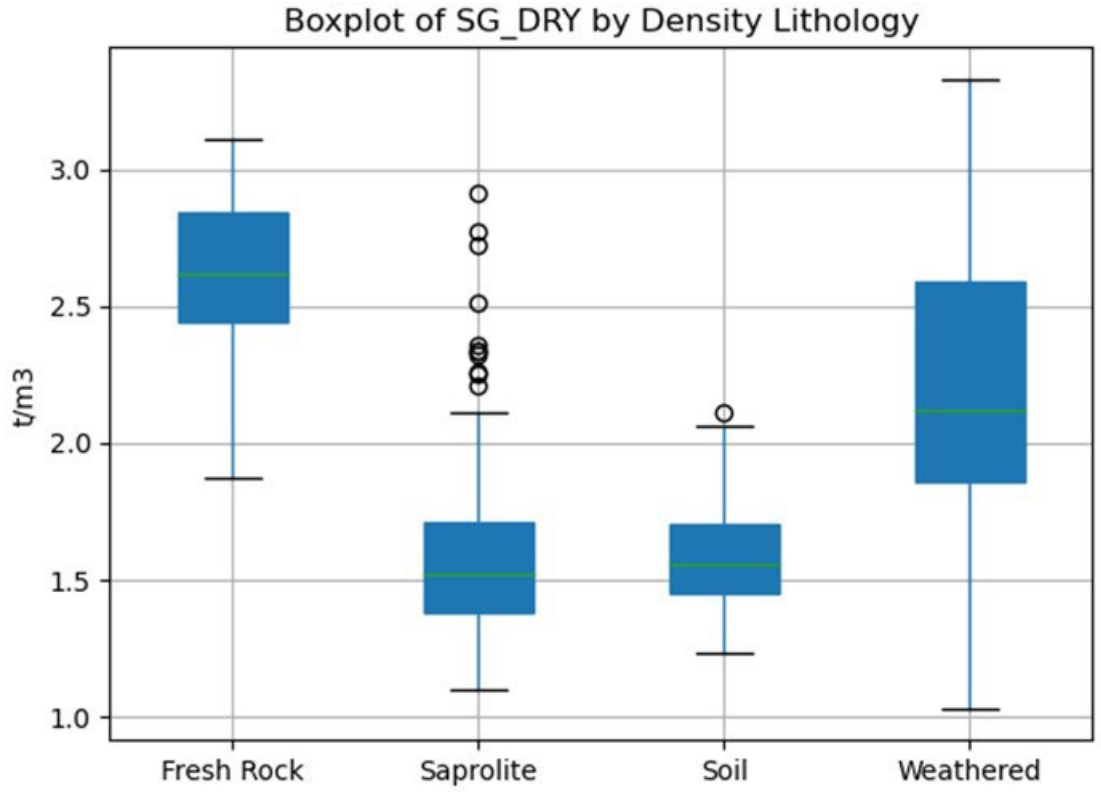
For Paiol, the landfill (ATR) was assigned a separate value as the material is not in situ. Values for all relevant lithologies in the Paiol block model are outlined in Table 11-15.

**Table 11-15: Paiol Density Parameters**

| Lithology | Density ($t/m^3$) |
|---|---|
| Soil | 1.54 |
| Saprolite | 1.54 |
| Transition | 2.35 |
| Landfill (ATR) | 2.12 |
| Fresh Rock | 2.78 |

Box and whisker plots were generated using bulk density measurements and appliable lithologies and can be observed in Figure 11-12. The mean values observed in the plots is appropriate for the density values assigned to the Paiol model.

**Figure 11-12: Box Plots of Bulk Density Measurements (t/m3) by Weathering Unit**




At Vira Saia, density is assigned to the model by weathering profile. It is noted that the mineralization occurs within essentially a transition zone, and therefore, there is a large range in density values. Values for all relevant lithologies in the Vira Saia block model are outlined in Table 11-16.

**Table 11-16: Vira Saia Density Parameters**

| Weathering Profile | Density ($t/m^3$) |
|---|---|
| Saprolite and Soil | 1.78 |
| Transitional | 2.12 |
| Fresh Rock | 2.72 |

For Cata Funda, the median of the density dataset was used for converting volume to tonnes. Values for all relevant lithologies in the Cata Funda block model are outlined in Table 11-17.

**Table 11-17: Cata Funda Density Parameters**

| Lithology | Density ($t/m^3$) |
|---|---|
| Soil | 1.47 |
| Saprolite | 1.70 |
| Weathered (Intermediate) | 2.76 |
| Fresh Rock | 2.82 |

## 11.9 Block Models

Block model specifications by mineral deposit are shown in Table 11-18. Individual block model dimensions cover each mineral deposit, and the models are rotated along the orientation of the mineralization.

**Table 11-18: Block Model Specifications**

| Mineral Deposit | Axis | Origin | No Blocks | Block Size | Rotation |
|---|---|---|---|---|---|
| Paiol | X | 263,660 | 154 | 10 | 25 |
| | Y | 8,704,730 | 242 | 10 | |
| | Z | 410 | 122 | 5 | |
| Cata Funda | X | 264,234 | 60 | 10 | 50 |
| | Y | 8,719,327 | 60 | 10 | |
| | Z | 525 | 30 | 10 | |
| Vira Saia | X | 265,100 | 60 | 10 | 310 |
| | Y | 8,710,200 | 215 | 10 | |
| | Z | 110 | 68 | 5 | |

## 11.10 Cut-off Grade and Whittle Parameters

Gold cut-off grades were generated for each deposit and vary due to the different mine sustaining and transport costs associated with the individual pits. Cut-off grades of 0.31 g/t Au, 0.32 g/t Au, and 0.34 g/t Au were calculated for Paiol, Vira Saia, and Cata Funda, respectively. The calculations considered gold price, metallurgical recovery, and full operating costs, including mining, processing, and general and administration (G&A).

Metal prices were supplied by Aura's Corporate group and are based on consensus, long term forecasts from banks, financial institutions, and other sources. Metal prices used for resources are slightly higher than those for reserves.

.

The open pit shells for the three mineral deposits were optimized using Whittle software. The Whittle inputs, assumptions, and costs for the Almas deposits are shown in Table 11-19 and Table 11-20.





**Table 11-19: Whittle Inputs and Assumptions**

| Description | Unit | Forward Values |
|---|---|---|
| MCF | % | 95 |
| MCF for low grade | % | 100 |
| Metallurgical recovery | % | 92.00% |
| Metallurgical recovery (low grade) | % | 86 |
| Dilution | % | 10 |
| Exchange rate (FX) | BRL/USD | 5.30 |
| Cost of selling gold (refining, royalties, Management Fees) | US$/oz | 63.28 |
| Reserve Gold Price | US$/oz | 2,000 |
| Resource Gold Price | US$/oz | 2,500 |

**Table 11-20: Whittle Costs**

| Item | Unit | Paiol | Vira Saia | Cata Funda |
|---|---|---|---|---|
| Mining Ore | US$/t mined | 2.71 | 2.68 | 2.68 |
| Mining Cost (without administration) | US$/t mov | 2.26 | 2.26 | 2.26 |
| Mine fixed Cost (administration) | US$/t mov | 0.14 | 0.14 | 0.14 |
| Premium Cost for Ore (grade control) | US$/t mov | 0.23 | 0.23 | 0.23 |
| Sustaining (mine) | US$/t mov | 0.08 | 0.05 | 0.05 |
| Mining Waste | US$/t mov | 2.40 | 2.40 | 2.40 |
| Mining Cost (without administration) | US$/t mov | 2.26 | 2.26 | 2.26 |
| Mine Fixed Cost (administration) | US$/t mov | 0.14 | 0.14 | 0.14 |
| Sustaining (mine) | US$/t mov | 0 | 0 | 0 |
| Plant Costs | US$/t ore | 12.95 | 14.10 | 15.04 |
| Total Processing Costs | US$/t ore | 11.99 | 11.99 | 11.99 |
| Rehandle | US$/t ore | 0.20 | 0.20 | 0.20 |
| Rehandle Cost for Long Haulage | US$/t ore | 0.00 | 1.15 | 2.09 |
| Sustaining (process) | US$/t ore | 0.75 | 0.75 | 0.75 |
| G&A + Overhead | US$/t ore | 2.63 | 2.63 | 2.63 |
| Mine Closure Cost | US$/t ore | 0.13 | 0.13 | 0.13 |
| Cut-off Grade | (g/t) | 0.38 | 0.40 | 0.42 |

The SLR QP is of the opinion that the assumptions, parameters, and methodology used for the Almas Mineral Resource estimates are appropriate for the style of mineralization and mining methods. The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-

economic, political, or other relevant factors that could significantly affect the Almas Mineral Resources.

## 11.11 Classification

The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resource classification. Mineral Resources are classified into Measured, Indicated, and Inferred categories for all deposits, based primarily on drill spacing which in turn reference continuity modelled in variograms and observed.

For Paiol and Vira Saia, resource class flags were based on the generation of solids representing volumes defined by drill hole spacing as shown in Table 11-21. Drill spacing was calculated on a block-by-block basis.

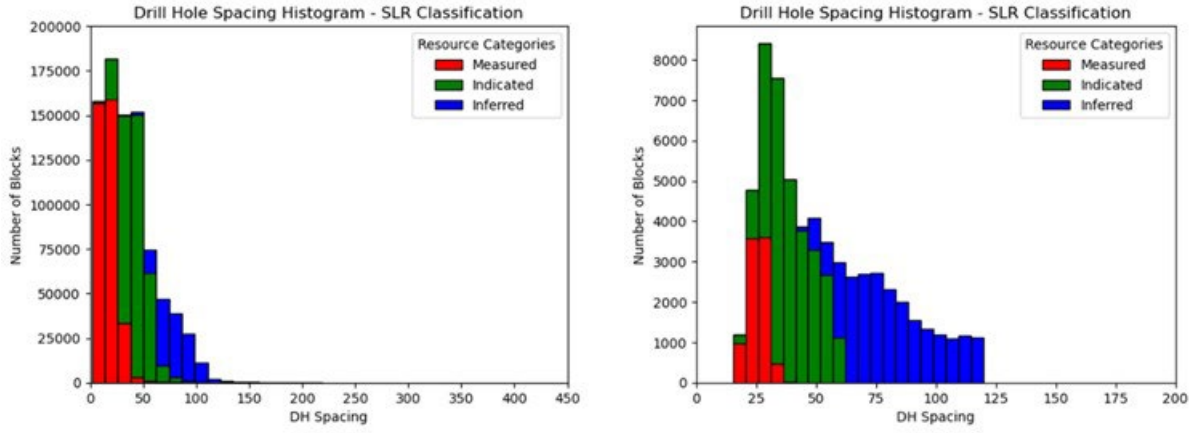
**Table 11-21: Drill Hole Spacing Parameters for Resource Classification for Paiol and Vira Saia**

| Classification | Criteria |
|---|---|
| Measured | Up to 30 m drill hole spacing, inside HG, Central 0.3 100, Central 0.3 and LG Domains. Minimum of three drill holes. |
| Indicated | Up to 60 m drill hole spacing, inside HG, Central 0.3 100, Central 0.3 and LG Domains. Minimum of three drill holes. |
| Inferred | Up to 120 m drill hole spacing, inside HG, Central 0.3 100, Central 0.3 and LG Domains. Minimum of three drill holes. |

Smooth class shapes were created to best represent areas defined by the various drill hole spacings in the deposit.

The distribution of the resource categories by drill hole spacing for Paiol (left) and Vira Saia (right) is illustrated in Figure 11-13.

**Figure 11-13: Resource Classification by Drill Hole Spacing for Paiol (left) and Vira Saia(right)**




Cata Funda's classification used the first and second estimation passes approach to assign Measured and Indicated categories, respectively. These flags represent consideration to sample

density (through a combination of search distance and minimum drill hole criteria), and sample distribution (through octant criteria). The criteria applied is outlined in Table 11-22**.**

This approach is considered acceptable, however, the SLR QP recommends standardizing class approach across all deposits in any updates.

**Table 11-22: Criteria for Cata Funda Resource Classification**

| Classification | Criteria |
|---|---|
| Measured | At least four holes within a search distance of 25 m, within at least four octants. |
| Indicated | At least four holes within a search distance of 25 m, within at least four octants. |
| Inferred | Garde estimated from drill hole data, but no greater than 80 m from sample data. |

Visualizations of all final Resource Classification for Paiol by estimation domain are shown in Figure 11-14 and for Vira Cata and Cata Funda in Figure 11-15.

**Figure 11-14: Resource Classification for Paiol by Domain**

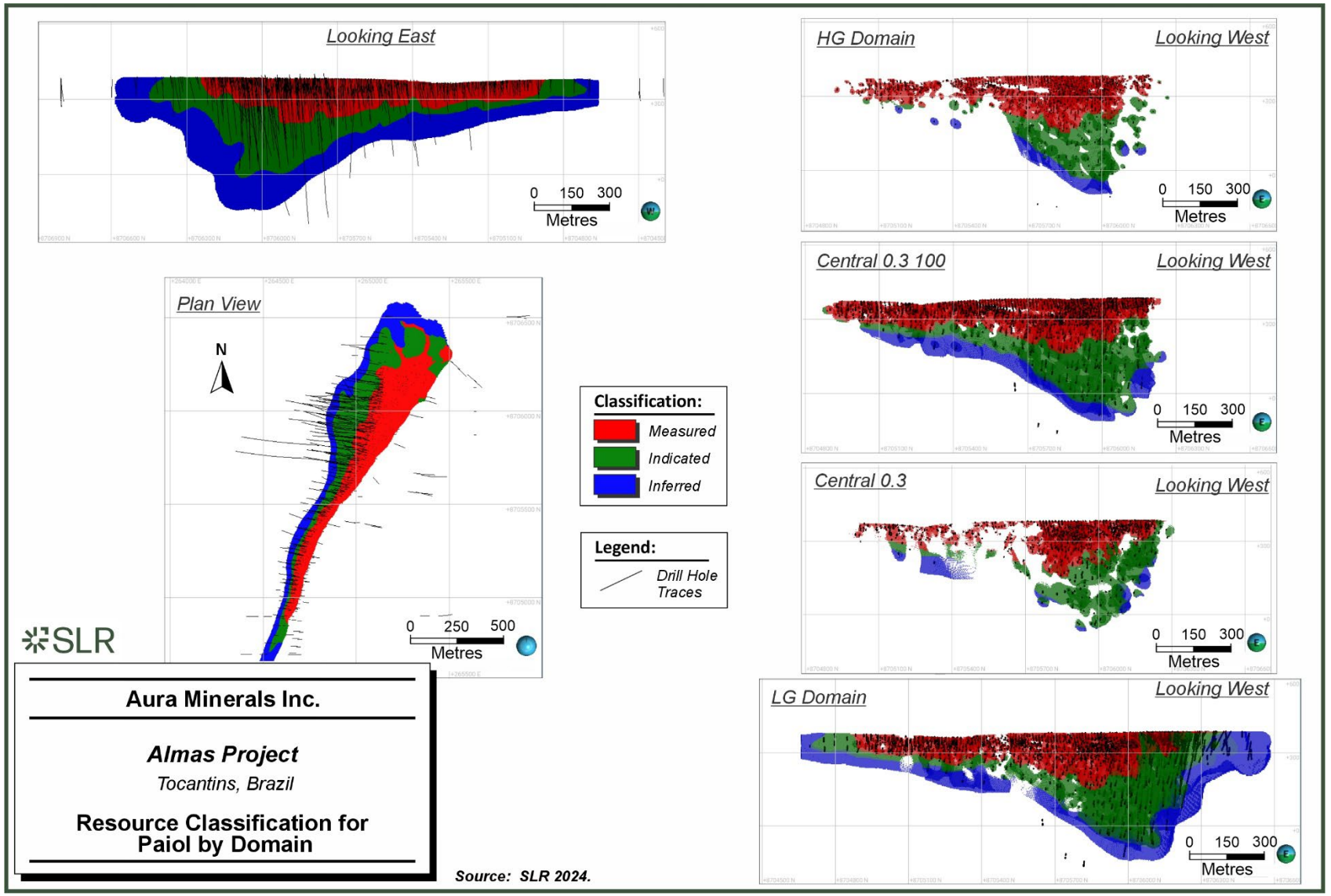
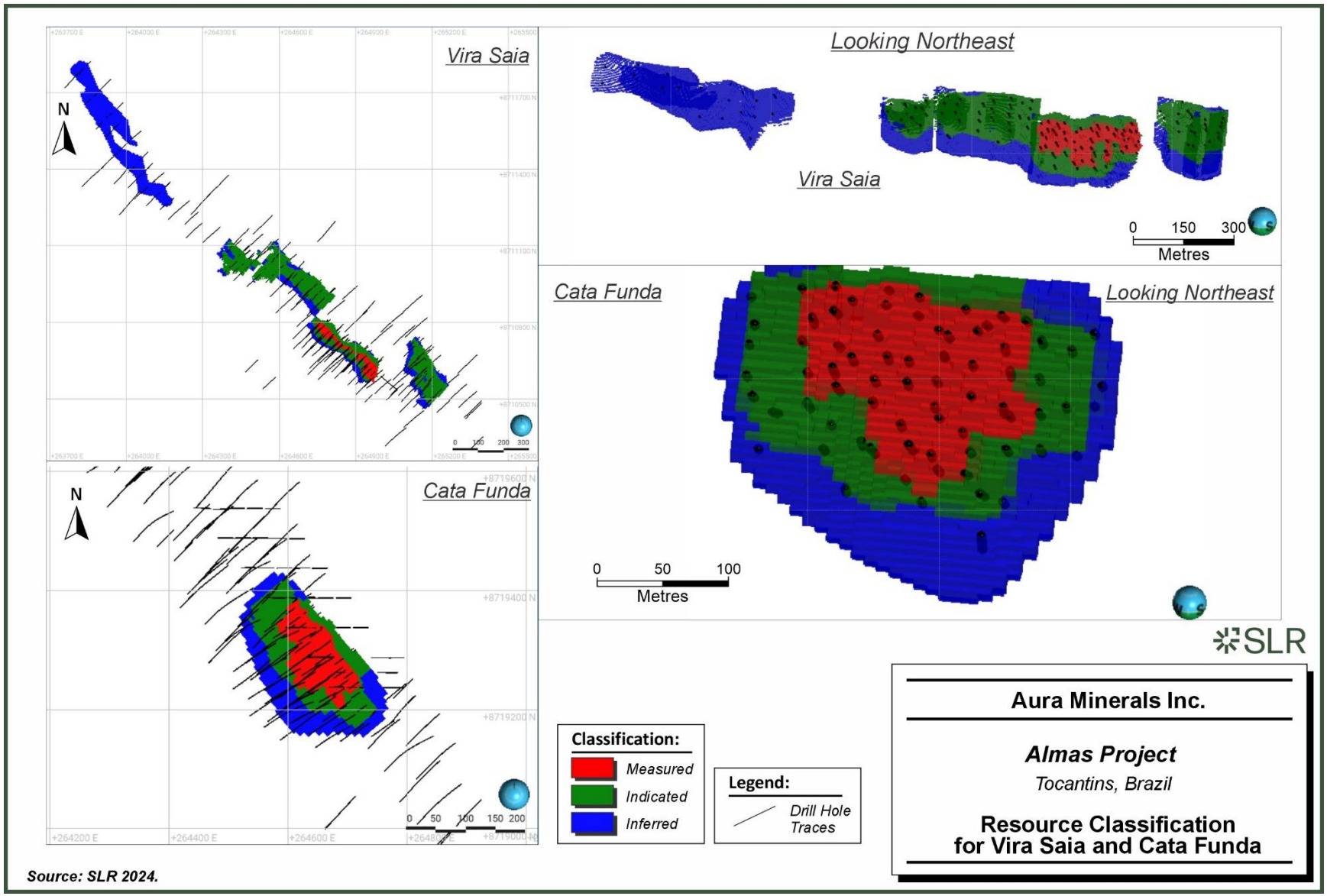


**Figure 11-15: Resource Classification for Vira Saia and Cata Funda**



## 11.12 Block Model Validation

- Both Aura and SLR performed a series of validations and statistical and visual checks on the block model. Specifically, SLR utilized the following tools to confirm that the block model gold grades exhibited general accord with the drilling and sampling results: Swath plots containing the OK, $ID^3$, and NN estimations. The $ID^3$ and NN estimates were parallel estimates prepared by SLR within mineralized domains using duplicate parameters from the official grade variables as outlined by Aura.
- Statistical comparison of parallel estimations interpolated (OK, $ID^3$, and NN) including capped composite values.
- Visual validation of the block models and composited samples through representative sections.

### 11.12.1 Swath Plots

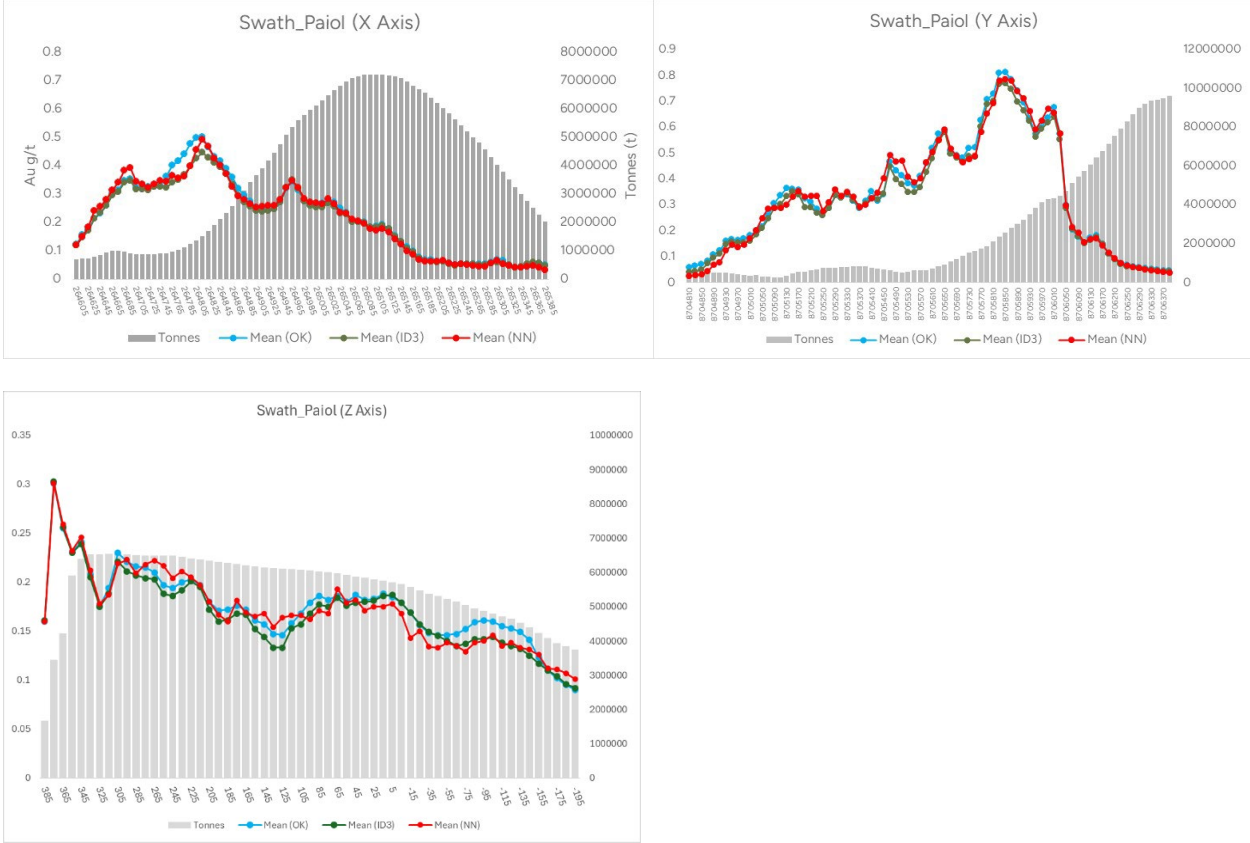
Figure 11-16, Figure 11-17, and Figure 11-18 show the swath plots for the Almas mineral deposits. In general, the plots show good adherence between the estimators, although small and non-material differences are observed and expected.

The Paiol swath plots combine all mineralized domains (HG, Central 0.3 100, Central 0.3, and Domain LG) to provide a comprehensive understanding of the resource. Slight overestimation of the OK variable is observed at the limits of the swaths in both the X and Y directions; however, this is generally acceptable in areas with lower data density.

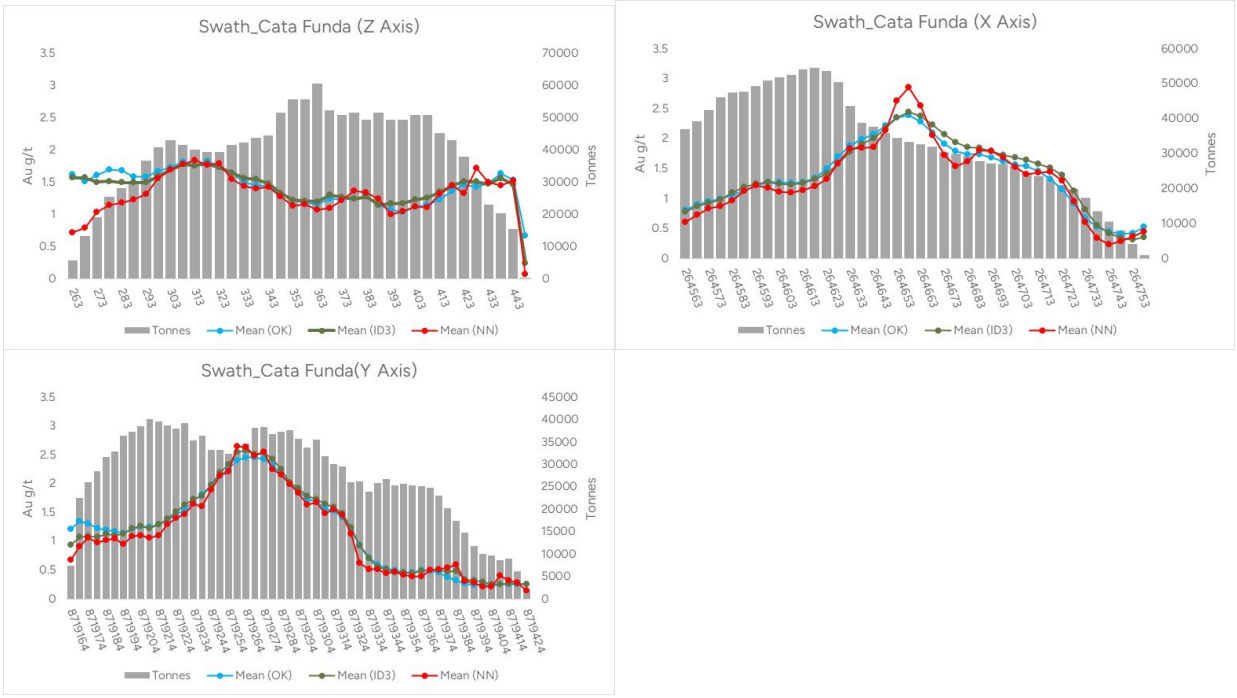
Cata Funda swath plots exhibit a pattern like Paiol, with the main difference occurring in the Z direction in the deeper portion of the deposit, where the OK and $ID^3$ estimators show a different trend when compared with NN.

Vira Saia swath plots exhibit more variability between the estimators when compared with Paiol and Cata Funda, although the general NN trend is being followed by the OK and $ID^3$ estimators.

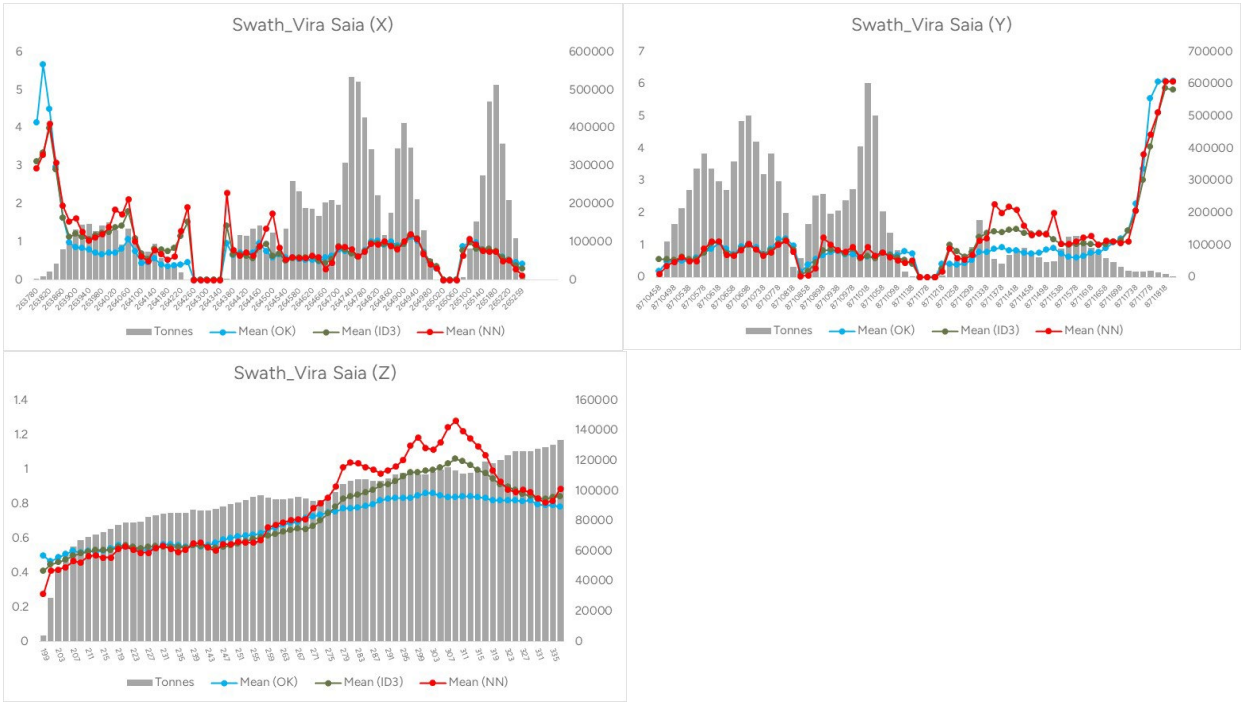
## Figure 11-16: Paiol Swath Plots (X, Y, Z)



## Figure 11-17: Cata Funda Swath Plots (X, Y, Z)




## Figure 11-18:Vira Saia Swath Plots (X, Y, Z)



### 11.12.2 Parallel Estimation Statistics

Block model estimated values are compared against the capped composited samples in Table 11-23. Composited samples were not declustered. Although the mineralized domains were combined for the swath analysis of the Paiol deposit, they have been reported separately in the statistical validation to provide more detail. Cata Funda and Vira Saia have one estimation domain each.

**Table 11-23: Parallel Estimation Statistics with Capped Composites**

| Mineral Deposit | Domain | Capped Comps (Au g/t) | | | | OK (Au g/t) | | | | NN (Au g/t) | | | | ID³ (Au g/t) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Max | Mean | Min | SD | Max | Mean | Min | SD | Max | Mean | Min | SD | Max | Mean | Min | SD |
| Paiol | HG | 10 | 2.45 | 0.001 | 2.2 | 8.92 | 2.39 | 0.48 | 1.13 | 10 | 2.32 | 0.01 | 2.05 | 9.99 | 2.27 | 0.008 | 1.48 |
| | Central 03 100 | 2 | 0.57 | 0.0025 | 0.38 | 1.52 | 0.52 | 0.09 | 0.16 | 2 | 0.54 | 0.005 | 0.334 | 1.98 | 0.51 | 0.006 | 0.192 |
| | Central 03 | 2 | 0.53 | 0.0025 | 0.36 | 1.42 | 0.51 | 0.08 | 0.145 | 2 | 0.57 | 0.01 | 0.334 | 1.99 | 0.53 | 0.01 | 0.21 |
| | LG Domain | 2 | 0.09 | 0.0025 | 0.11 | 1.20 | 0.06 | 0 | 0.05 | 2 | 0.05 | 0.005 | 0.075 | 1.73 | 0.05 | 0.0025 | 0.05 |
| Cata Funda | Ore | 10.8 | 1.46 | 0.004 | 1.51 | 5.41 | 1.39 | 0.056 | 0.9 | 11 | 1.33 | 0.005 | 1.38 | 5.99 | 1.41 | 0.08 | 0.96 |
| Vira Saia | Ore | 10 | 0.92 | 0.005 | 1.55 | 6.40 | 0.78 | 0.01 | 0.6 | 10 | 0.89 | 0.005 | 1.37 | 9.95 | 0.84 | 0.008 | 0.76 |
| SD = Standard Deviation | | | | | | | | | | | | | | | | | |



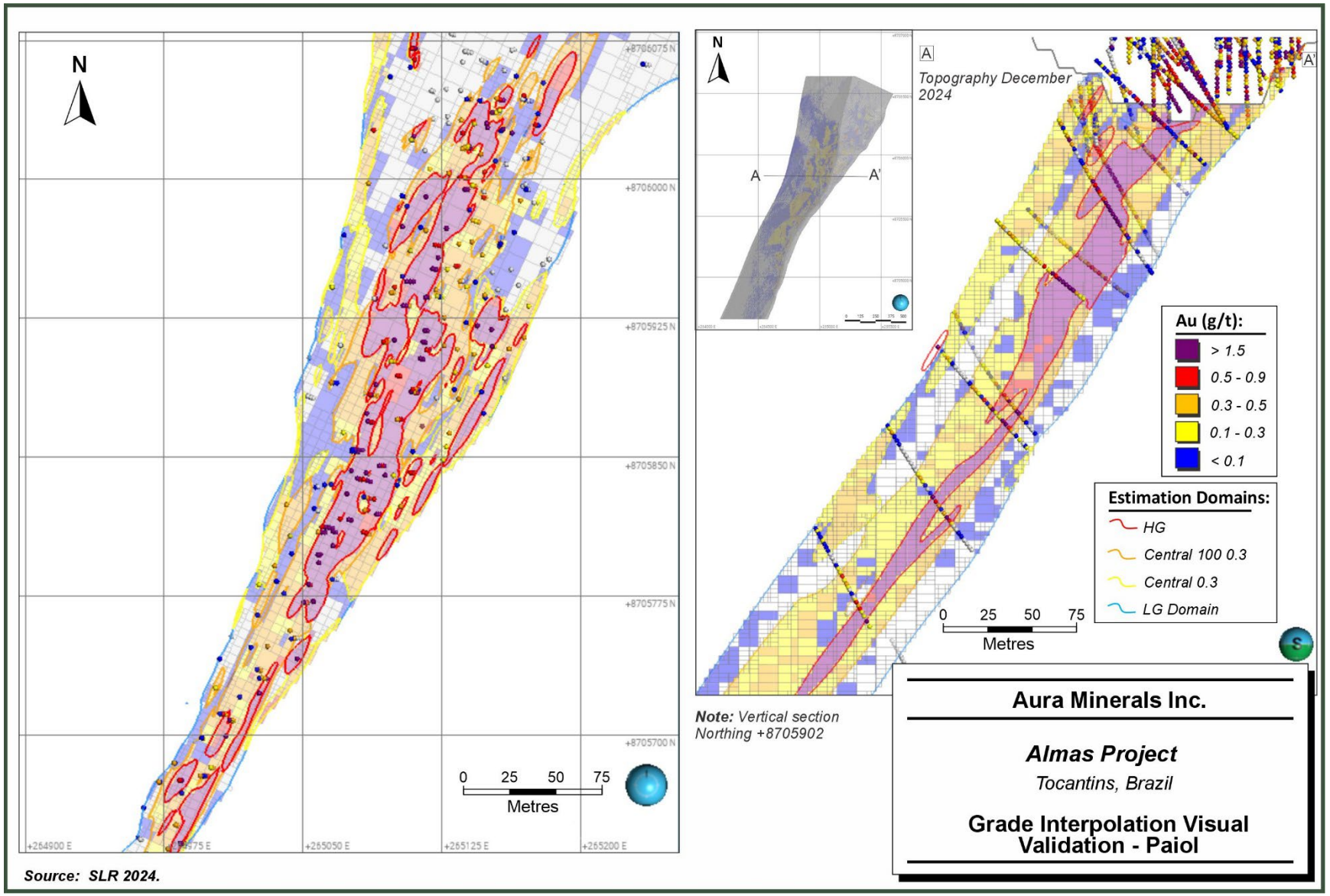


The comparisons indicate that the maximum, minimum, and mean values of the final block model grades are consistent and are within the range of minimum and maximum values observed in the composited samples, but smoother, as indicated by the SD and CV, which is typical and expected. Mean differences of approximately 3% to 10% are observed and considered expected due to low capping values in some of the domains. The SLR QP is of the opinion that the current estimations sufficiently represent the respective databases for the Almas deposits.

### 11.12.3 Visual Validation

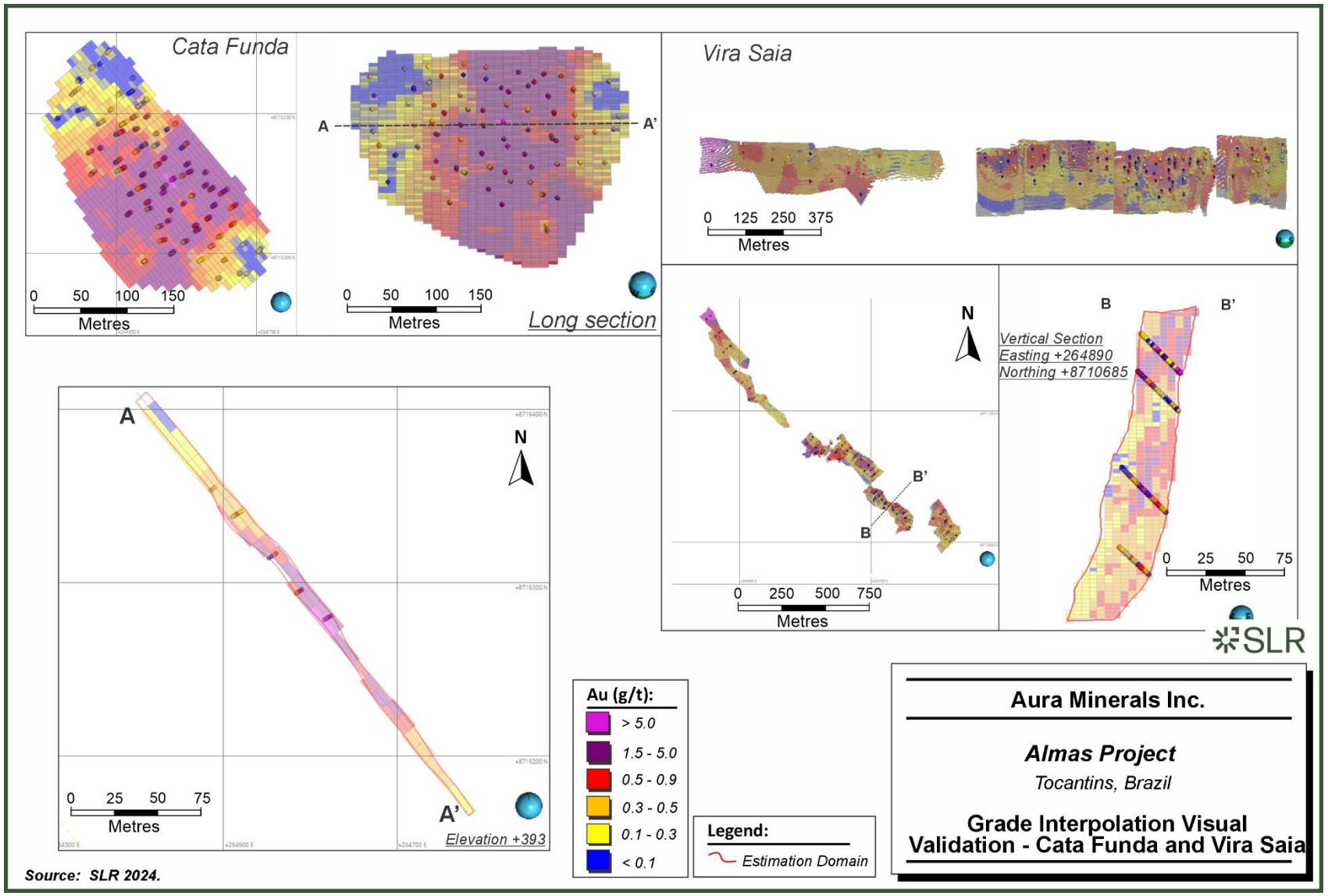
A visual validation for each deposit was carried out by generating sections in multiple orientations throughout each deposit. The purpose of this exercise was to observe the adherence of block grade with capped composites for all deposits to ensure the samples are consistent with the grades estimated in the blocks around in the block model. Figure 11-19 and Figure 11-20 show representative sections of each of the deposits.

**Figure 11-19: Grade Interpolation Visual Validation - Paiol**




*Source: SLR 2024.*

**Figure 11-20: Grade Interpolation Visual Validation - Cata Funda and Vira Saia**




*Source: SLR 2024.*

## 11.13 Mineral Resource Reporting

Table 11-24 summarizes the Almas Mineral Resource estimate, exclusive of Mineral Reserves, by deposit (Paiol, Vira Saia, and Cata Funda). Figure 11-21, Figure 11-22, and Figure 11-23 depict exclusive Mineral Resource blocks within the resource shells, and above cut-off grade for all respective deposits. The effective date of this estimate is December 31, 2024.

**Table 11-24: Summary of Almas Project Mineral Resources Exclusive of Mineral Reserves – December 31, 2024**

| Deposit | Category | Tonnage | Grade | Contained Metal |
|---|---|---|---|---|
| | | (000 t) | (g/t Au) | (000 oz Au) |
| Paiol | Measured | 2,948 | 0.51 | 49 |
| | Indicated | 6,591 | 0.68 | 144 |
| | M&I | **9,539** | **0.63** | **193** |
| | Inferred | 2,606 | 0.77 | 65 |
| Vira Saia | Measured | 501 | 0.86 | 14 |
| | Indicated | 2,306 | 0.68 | 50 |
| | M&I | **2,806** | **0.71** | **64** |
| | Inferred | 357 | 0.91 | 10 |
| Cata Funda | Measured | 228 | 1.47 | 11 |
| | Indicated | 293 | 1.22 | 11 |
| | M&I | **520** | **1.33** | **22** |
| | Inferred | 599 | 1.30 | 25 |
| Total | Measured | 3,677 | 0.62 | 73 |
| | Indicated | 9,189 | 0.70 | 206 |
| | M&I | **12,866** | **0.67** | **279** |
| | Inferred | 3,562 | 0.88 | 100 |

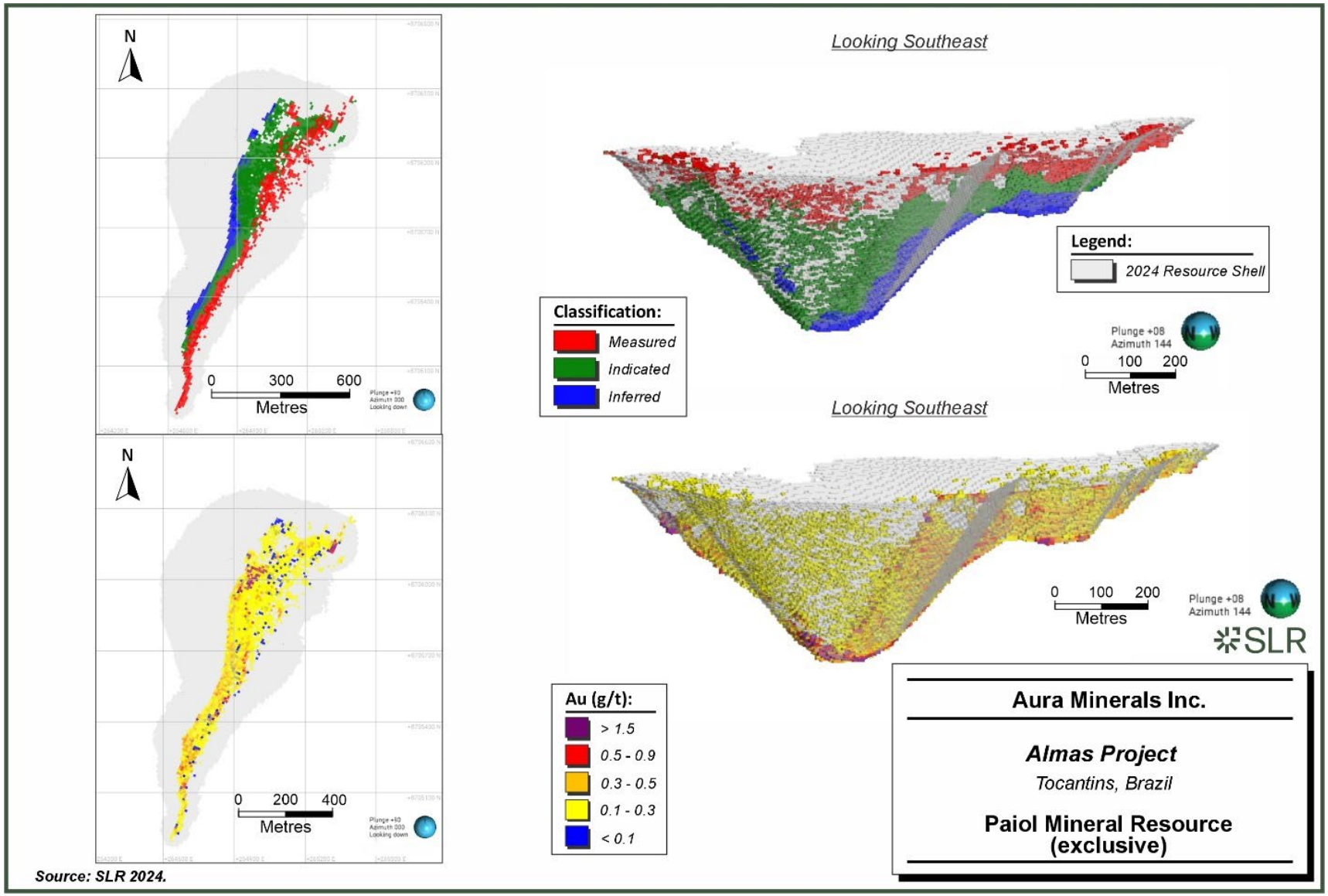
Notes:

1. Mineral Resources are reported exclusive of Mineral Reserves.
2. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
3. Mineral Resources are reported from optimized pit shells.
4. Mineral Resources are estimated at a cut-off grade of 0.31 g/t Au for Paiol, 0.34 g/t Au for Cata Funda, and 0.32 g/t Au for Vira Saia.
5. Mineral Resources are estimated using a long-term gold price of US$2,500 per ounce.
6. A minimum mining width of five metres was used.
7. Bulk density is 2.75 t/m$^3$ for Paiol, 2.71 t/m$^3$ for Cata Funda, and 2.63 t/m$^3$ for Vira Saia.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Metallurgical recovery is 92% for high-grade (Au≥0.90 g/t) material, 90% for medium-grade (0.70≤Au<0.89 g/t), and 86% for low-grade (0.34≤Au<0.69 g/t).
10. Numbers may not add due to rounding.



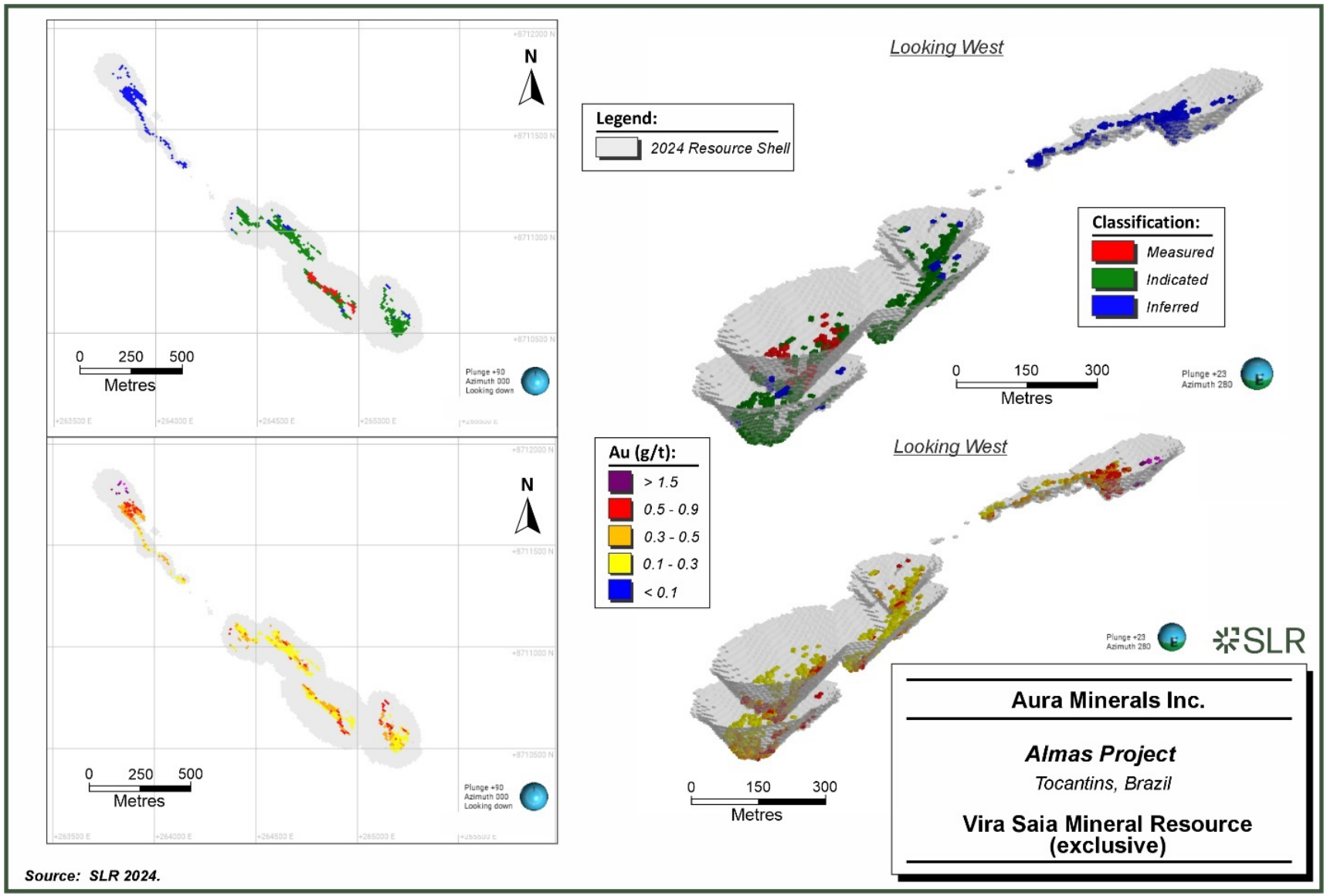


**Figure 11-21: Paiol Mineral Resource (exclusive)**



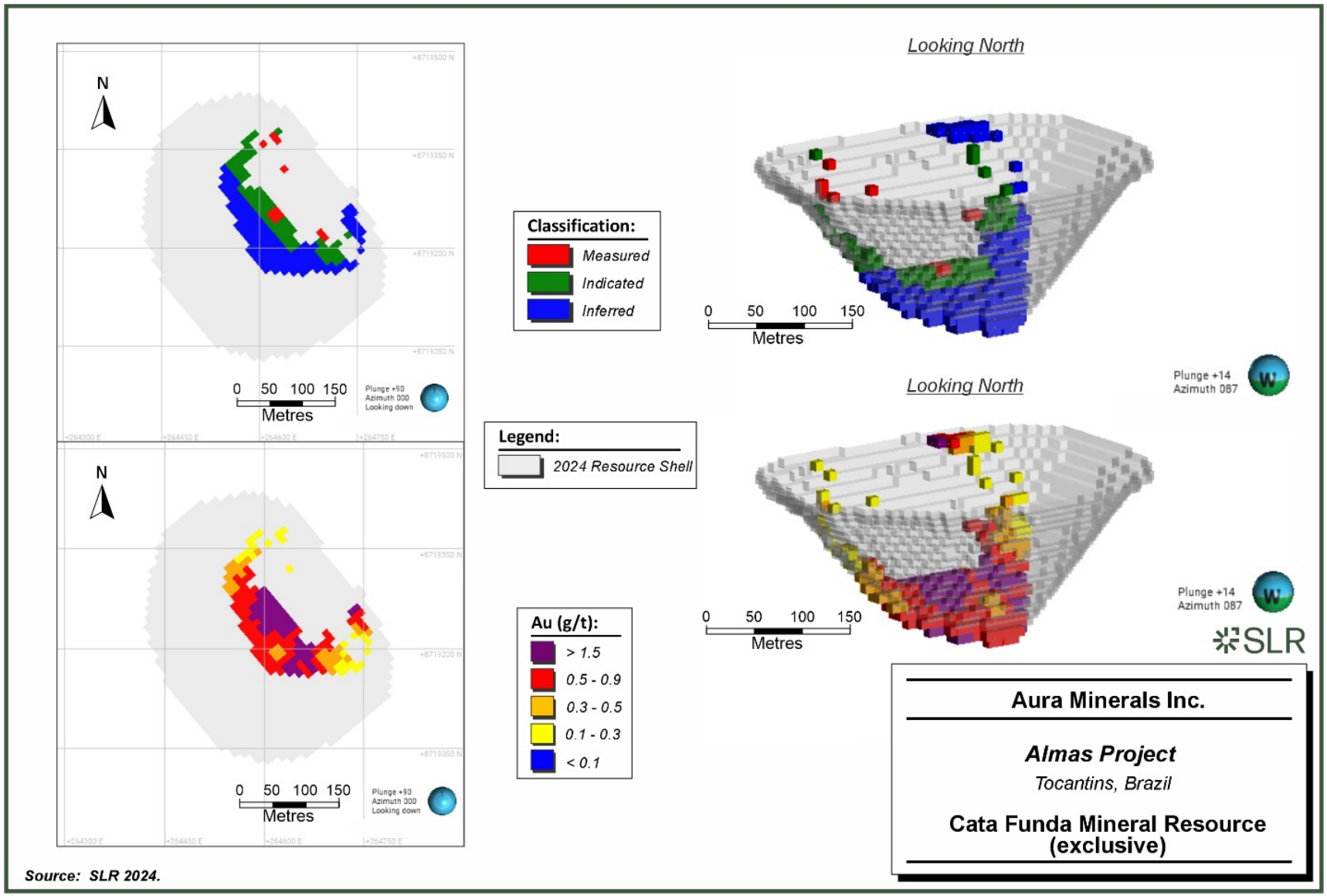

*Source: SLR 2024.*

**Figure 11-22: Vira Saia Mineral Resource (exclusive)**




*Source: SLR 2024.*

**Figure 11-23: Cata Funda Mineral Resource (exclusive)**




*Source: SLR 2024.*

The open pit Mineral Resource estimate is reported using regularized block models with grades above the cut-off grades, and considering the blocks situated within the resource shell. The open pit sub-blocked model was reblocked to 10 m x 10 m x 5 m regular blocks (in X, Y, and Z, respectively) to represent a reasonable selective mining unit (SMU).

The SLR QP is of the opinion that the resource reporting procedures are consistent with S-K 1300 and satisfy the Reasonable Prospects for Economic Extraction (RPEE).

The SLR QP reviewed database consistency, QA/QC results, mineralized wireframes, and the resource classification, implementing changes to support the Mineral Resource disclosure. The SLR QP is of the opinion that the Mineral Resource estimate is appropriate for the style of mineralization.

The SLR QP is of the opinion that, with the consideration of the recommendations summarized in Sections 1 and 23 of this TRS, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

### 11.13.1 Sources of Uncertainty

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability, nor is there certainty that all or any part of the Mineral Resource estimated here will be converted to Mineral Reserves through further study.

Uncertainty in the reporting of Mineral Resources may arise from factors such as sampling or drilling methods, data handling and processing, geological modelling, and grade estimation procedures. At the Property, these uncertainties vary depending on the assigned classification of the Mineral Resources. The SLR QP has not identified any significant technical or economic factors that would require resolution to support the current Mineral Resource estimate.





# 12.0 Mineral Reserve Estimates

This section describes the methodology and parameters used to estimate the Mineral Reserves for the Project. Mineral Reserves are inclusive of diluting materials that will be mined in conjunction with the economically mineralized rock and delivered to the treatment plant.

The term “Mineral Reserve” does not necessarily signify that all facilities are in place and operational, nor that governmental approvals have been received for the entire life of mine (LOM). The term does indicate, however, that there are reasonable expectations for such approvals.

The current Mineral Reserve estimate, as prepared by the SLR QP, is effective as of December 31, 2024, and considers all information used in the Mineral Resource estimate, presented in Section 11.0.

Only Measured and Indicated Mineral Resources were converted to Mineral Reserves. Any Inferred Mineral Resources included within the Mineral Reserve designs were considered waste and carried at zero grade.

## 12.1 Summary

The Mineral Reserve estimates reported as of December 31, 2024, are summarized in Table 12-1.

**Table 12-1: Summary of Mineral Reserves – Almas Project - December 31, 2024**

| Pit | Category | Tonnage (000 t) | Grade (g/t Au) | Contained Metal (000 oz Au) | Metallurgical Recovery (%) |
|---|---|---|---|---|---|
| Paiol | Proven | 5,950 | 1.04 | 198 | 89% |
| | Probable | 7,514 | 1.20 | 290 | 89% |
| | Total Proven + Probable | 13,464 | 1.13 | 488 | 89% |
| Vira Saia | Proven | 1,133 | 1.16 | 42 | 91% |
| | Probable | 2,019 | 0.95 | 61 | 91% |
| | Total Proven + Probable | 3,152 | 1.02 | 104 | 91% |
| Cata Funda | Proven | 456 | 1.80 | 26 | 90% |
| | Probable | 267 | 1.41 | 12 | 90% |
| | Total Proven + Probable | 723 | 1.66 | 38 | 90% |
| SUB-TOTAL | | 17,339 | 1.13 | 630 | 89% |
| Stockpiles | Proven | 2,369 | 0.58 | 44 | 86% |
| | Probable | | | | |
| | Total Proven + Probable | 2,369 | 0.58 | 44 | 86% |
| **TOTAL** | | **19,709** | **1.07** | **674** | **89%** |

Notes:
1. The definitions for Mineral Reserves in S-K 1300 were followed for Mineral Reserves.
2. Mineral Reserves are 100% attributable to Aura.
3. Bulk density is 2.75 t/m$^3$ for Paiol, 2.64 t/m$^3$ for Vira Saia and 2.67 t/m$^3$ for Cata Funda

4. Mineral Reserves are reported on an in situ basis after applying dilution and mining recovery.
5. Mineral Reserves are estimated using a cut-off grade of 0.38 g/t Au for Paiol, 0.40 g/t Au for Vira Saia and 0.42 g/t Au for Cata Funda.
6. Metallurgical recovery is 92% for high-grade material, 90% for medium-grade, and 86% for low-grade and stockpiles.
7. Low-grade material: 0.34≤Au<0.69; medium-grade: 0.70≤Au<0.89; high-grade: Au≥0.90. All grades in g/t.
8. Mineral Reserves are estimated using an average long-term price of $2,000/oz Au.
9. Totals may not add due to rounding.

The SLR QP is not aware of any risk factors associated with, or changes to, any aspects of the modifying factors such as mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

## 12.2 Dilution and Ore Losses

### 12.2.1 Internal Dilution and Ore Losses

Internal or planned dilution accounts for the waste material entrenched within the deposit at the scale of the selective mining unit (SMU) block size.

The block model created and used for the Mineral Reserves estimation includes planned dilution. The SMU for the Almas deposits is 10 m x 10 m x 5 m, and the gold grade of economically mineralized zones is diluted according to the amount of uneconomical material present within each block, as defined during the re-blocking procedure.

This process calculates the average grade weighted by the volume of the sub-blocks or portions of sub-blocks falling within the SMU. If the total volume inclusion is less than 100%, then the grade of the SMU block is diluted with zero grade for the remaining portion. Blocks with diluted grades below the cut-off grade were treated as waste and removed from the Mineral Reserve as ore losses.

### 12.2.2 Contact Dilution

Contact dilution refers to the inclusion of waste material that is unintentionally extracted along with the ore at the boundaries between the orebody and the surrounding waste rock. It occurs due to the physical difficulty of maintaining precise separation between ore and waste during extraction. Almas has a record of operational dilution and ore losses, which were applied to the Mineral Reserve estimation as follows:

- Mining dilution: 10% considering the diluting material as 0.0 g/t Au
- Ore loss:
  - High- and medium-grade: 5%
  - Low-grade: 0%

For reference purposes, the grade classes are presented in Table 12-2.

**Table 12-2: Material Classification by Au Grade**

| Material | Grade Au (g/t) |
|---|---|
| High Grade | > 0.90 |
| Medium Grade | 0.70 – 0.90 |
| Low Grade | 0.34* - 0.7 |

| Material | Grade Au (g/t) |
|---|---|
| Waste | < 0.34* |

## 12.3 Cut-off Grade

The cut-off grade strategy uses results of strategic long-range mine and business planning undertaken by the Almas team in August 2024. The plan has been calibrated with historical numbers.

Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from September 2024 from banks, financial institutions, and other sources. Metal prices used for resources are slightly higher than those for reserves. The cost parameters used for Mineral Reserve estimation and mine planning are outlined in Table 12-3. As the haulage distance differs for Paiol, Vira Saia, and Cata Funda deposits, specific costs are shown in Table 12-4.

**Table 12-3: Cut-Off Grade Parameters – Global**

| Description | Values |
|---|---|
| Ore Loss – High and medium grades | 5% |
| Ore Loss - Low grade | 0% |
| Metallurgical Recovery - High and medium grades | 92.00% |
| Metallurgical Recovery – Low grade | 86.00% |
| Mining Dilution | 10% |
| Exchange rate (FX) USD x BRL | 5.30 |
| Selling Cost (refining, royalties, management fees) (US$/oz) | 63.28 |
| Reserve Gold Price (US$/oz) | 2,000 |
| Resource Gold Price (US$/oz) | 2,500 |

**Table 12-4: Cut-Off Grade Parameters – Costs**

| Item | Unit | Paiol | Vira Saia | Cata Funda |
|---|---|---|---|---|
| Mining Ore | US$/t mined | 2.71 | 2.68 | 2.68 |
| Mining Cost (without administration) | US$/t mined | 2.26 | 2.26 | 2.26 |
| Mine fixed Cost (administration) | US$/t mined | 0.14 | 0.14 | 0.14 |
| Premium Cost for Ore (grade control) | US$/t mined | 0.23 | 0.23 | 0.23 |
| Sustaining (mine) | US$/t mined | 0.08 | 0.05 | 0.05 |
| Mining Waste | US$/t mined | 2.40 | 2.40 | 2.40 |
| Mining Cost (without administration) | US$/t mined | 2.26 | 2.26 | 2.26 |
| Mine Fixed Cost (administration) | US$/t mined | 0.14 | 0.14 | 0.14 |
| Sustaining (mine) | US$/t mined | 0 | 0 | 0 |
| Plant Costs | US$/t ore | 12.95 | 14.10 | 15.04 |

| Item | Unit | Paiol | Vira Saia | Cata Funda |
|---|---|---|---|---|
| Total Processing Costs | US$/t ore | 11.99 | 11.99 | 11.99 |
| Rehandle | US$/t ore | 0.20 | 0.20 | 0.20 |
| Rehandle Cost for Long Haulage | US$/t ore | 0.00 | 1.15 | 2.09 |
| Sustaining (process) | US$/t ore | 0.75 | 0.75 | 0.75 |
| G&A + Overhead | US$/t ore | 2.63 | 2.63 | 2.63 |
| Mine Closure Cost | US$/t ore | 0.13 | 0.13 | 0.13 |
| Cut-off Grade | (g/t) | 0.38 | 0.40 | 0.42 |

## 12.4 Pit Optimization

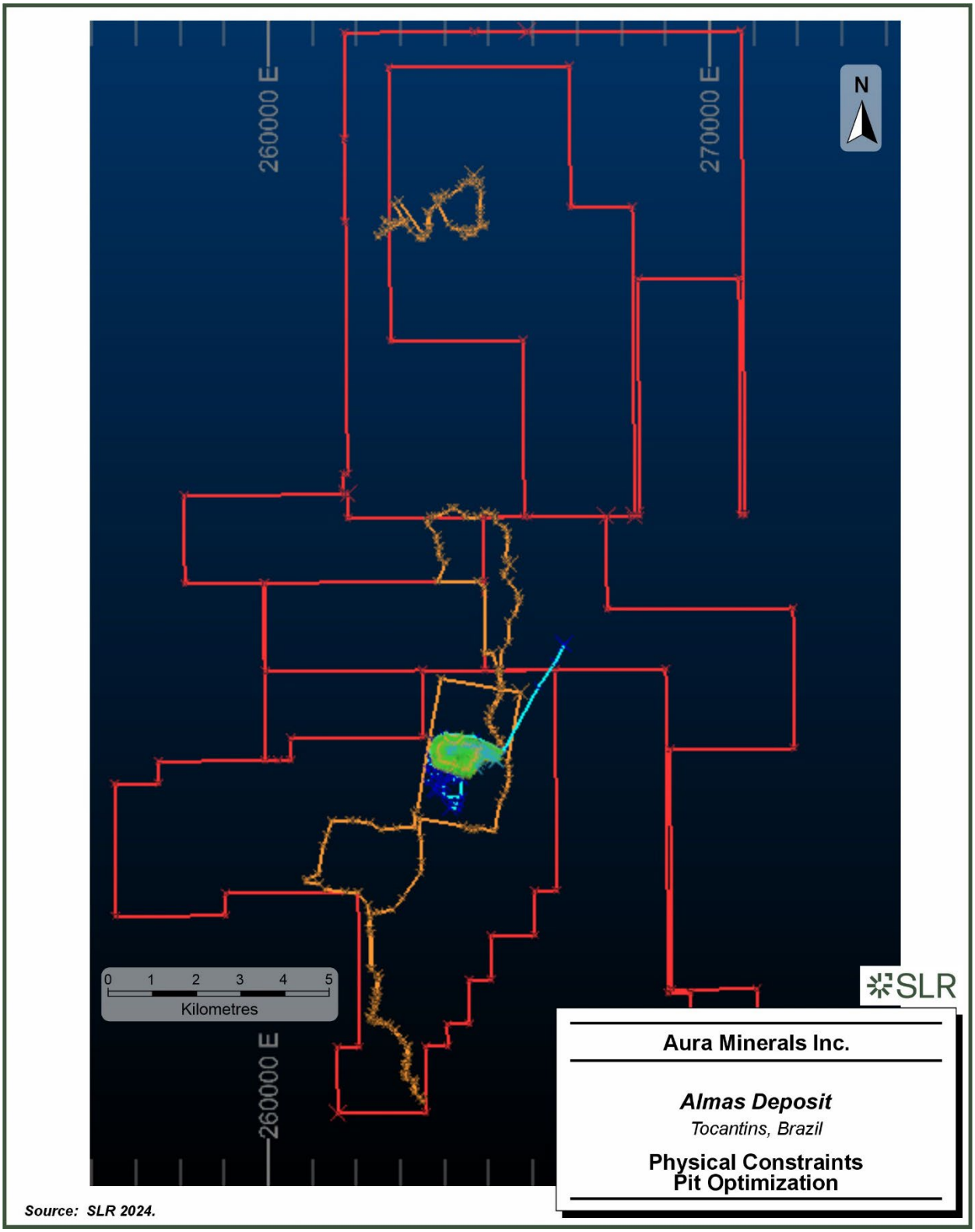
Several nested pit shells were generated using Geovia Whittle software with the Pseudoflow pit optimization algorithm, for a range of revenue factors related to the product price. The following physical constraints were applied in the pit optimization (Figure 12-1):

- Mineral rights
- Environmental licences (current and future, with reasonable expectations to be granted)
- Main road
- Civil facilities (administrative offices, workshop, plant)
- Mineral residue facilities (stockpiles and tailings dam)

The pit optimization results are presented in Table 12-5, Table 12-6, and Table 12-7 for Paiol, Vira Saia, and Cata Funda, respectively. The charts are presented in Figure 12-2, Figure 12-3, and Figure 12-4.

The optimal pit shell was selected through marginal analysis. Larger pit shells that have modest increases in net present value (NPV) for large increases in rock tonnage are usually avoided. Alternatively, maximizing the mineral inventory tonnage and Life of Mine can be a valid strategy to select the Revenue Factor (R.F). This criterion was adopted in the Almas Project and was executed by selecting RF 1.0 for the detailed design of the ultimate pit and intermediate phases. This RF pit was used for all three pits.

**Figure 12-1: Physical Constraints – Pit Optimization**




*Source: SLR 2024.*

**Table 12-5: Pit Optimization Results - Paiol**

| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 1 | 0.50 | 3,537 | 21% | 15,181 | 11% | 4.29 |
| 2 | 0.51 | 3,641 | 22% | 15,483 | 11% | 4.25 |
| 3 | 0.52 | 3,858 | 23% | 16,432 | 12% | 4.26 |
| 4 | 0.53 | 3,955 | 24% | 16,568 | 12% | 4.19 |
| 5 | 0.54 | 4,109 | 25% | 17,199 | 12% | 4.19 |
| 6 | 0.55 | 4,434 | 26% | 18,744 | 13% | 4.23 |
| 7 | 0.56 | 4,750 | 28% | 19,962 | 14% | 4.20 |
| 8 | 0.57 | 4,876 | 29% | 20,285 | 14% | 4.16 |
| 9 | 0.58 | 4,994 | 30% | 20,446 | 15% | 4.09 |
| 10 | 0.59 | 5,138 | 31% | 20,525 | 15% | 3.99 |
| 11 | 0.60 | 5,264 | 31% | 20,642 | 15% | 3.92 |
| 12 | 0.61 | 5,470 | 33% | 21,405 | 15% | 3.91 |
| 13 | 0.62 | 5,556 | 33% | 21,356 | 15% | 3.84 |
| 14 | 0.63 | 6,112 | 37% | 24,382 | 17% | 3.99 |
| 15 | 0.64 | 6,322 | 38% | 24,913 | 18% | 3.94 |
| 16 | 0.65 | 6,534 | 39% | 25,374 | 18% | 3.88 |
| 17 | 0.66 | 6,824 | 41% | 26,535 | 19% | 3.89 |
| 18 | 0.67 | 6,971 | 42% | 26,587 | 19% | 3.81 |
| 19 | 0.68 | 7,157 | 43% | 27,167 | 19% | 3.80 |
| 20 | 0.69 | 7,349 | 44% | 27,764 | 20% | 3.78 |
| 21 | 0.70 | 7,593 | 45% | 28,475 | 20% | 3.75 |
| 22 | 0.71 | 7,743 | 46% | 28,881 | 21% | 3.73 |
| 23 | 0.72 | 7,871 | 47% | 28,925 | 21% | 3.67 |
| 24 | 0.73 | 8,344 | 50% | 32,296 | 23% | 3.87 |
| 25 | 0.74 | 8,521 | 51% | 32,589 | 23% | 3.82 |
| 26 | 0.75 | 8,596 | 51% | 32,550 | 23% | 3.79 |
| 27 | 0.76 | 8,699 | 52% | 32,561 | 23% | 3.74 |
| 28 | 0.77 | 10,405 | 62% | 52,362 | 37% | 5.03 |
| 29 | 0.78 | 10,499 | 63% | 52,773 | 38% | 5.03 |
| 30 | 0.79 | 14,272 | 85% | 108,465 | 78% | 7.60 |
| 31 | 0.80 | 14,957 | 89% | 120,927 | 86% | 8.08 |
| 32 | 0.81 | 14,965 | 89% | 120,959 | 86% | 8.08 |



| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 33 | 0.82 | 14,988 | 90% | 121,104 | 87% | 8.08 |
| 34 | 0.83 | 15,245 | 91% | 125,656 | 90% | 8.24 |
| 35 | 0.84 | 15,313 | 92% | 127,475 | 91% | 8.32 |
| 36 | 0.85 | 15,339 | 92% | 127,566 | 91% | 8.32 |
| 37 | 0.86 | 15,516 | 93% | 128,922 | 92% | 8.31 |
| 38 | 0.87 | 15,550 | 93% | 129,165 | 92% | 8.31 |
| 39 | 0.88 | 15,574 | 93% | 129,235 | 92% | 8.30 |
| 40 | 0.89 | 15,591 | 93% | 129,294 | 92% | 8.29 |
| 41 | 0.90 | 15,633 | 93% | 129,547 | 93% | 8.29 |
| 42 | 0.91 | 15,741 | 94% | 130,615 | 93% | 8.30 |
| 43 | 0.92 | 15,797 | 94% | 131,221 | 94% | 8.31 |
| 44 | 0.93 | 15,936 | 95% | 132,609 | 95% | 8.32 |
| 45 | 0.94 | 16,081 | 96% | 134,630 | 96% | 8.37 |
| 46 | 0.95 | 16,130 | 96% | 134,911 | 96% | 8.36 |
| 47 | 0.96 | 16,401 | 98% | 137,335 | 98% | 8.37 |
| 48 | 0.97 | 16,412 | 98% | 137,369 | 98% | 8.37 |
| 49 | 0.98 | 16,666 | 100% | 139,510 | 100% | 8.37 |
| 50 | 0.99 | 16,697 | 100% | 139,699 | 100% | 8.37 |
| 51 | 1.00 | 16,732 | 100% | 139,952 | 100% | 8.36 |

**Table 12-6: Pit Optimization Results – Vira Saia**

| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 1 | 0.50 | 1,331 | 23% | 3,850 | 15% | 2.89 |
| 2 | 0.51 | 1,362 | 23% | 3,939 | 15% | 2.89 |
| 3 | 0.52 | 1,388 | 24% | 4,036 | 15% | 2.91 |
| 4 | 0.53 | 1,437 | 25% | 4,114 | 16% | 2.86 |
| 5 | 0.54 | 1,468 | 25% | 4,195 | 16% | 2.86 |
| 6 | 0.55 | 1,537 | 26% | 4,397 | 17% | 2.86 |
| 7 | 0.56 | 1,580 | 27% | 4,542 | 17% | 2.88 |
| 8 | 0.57 | 2,109 | 36% | 6,887 | 26% | 3.27 |
| 9 | 0.58 | 2,181 | 37% | 7,070 | 27% | 3.24 |
| 10 | 0.59 | 2,247 | 38% | 7,258 | 28% | 3.23 |
| 11 | 0.60 | 2,436 | 42% | 8,390 | 32% | 3.44 |



| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 12 | 0.61 | 2,489 | 42% | 8,479 | 32% | 3.41 |
| 13 | 0.62 | 2,515 | 43% | 8,538 | 33% | 3.39 |
| 14 | 0.63 | 2,615 | 45% | 8,965 | 34% | 3.43 |
| 15 | 0.64 | 2,694 | 46% | 9,364 | 36% | 3.48 |
| 16 | 0.65 | 2,730 | 47% | 9,419 | 36% | 3.45 |
| 17 | 0.66 | 2,762 | 47% | 9,486 | 36% | 3.43 |
| 18 | 0.67 | 3,153 | 54% | 11,030 | 42% | 3.50 |
| 19 | 0.68 | 3,220 | 55% | 11,619 | 44% | 3.61 |
| 20 | 0.69 | 3,478 | 59% | 12,773 | 49% | 3.67 |
| 21 | 0.70 | 3,547 | 60% | 13,012 | 50% | 3.67 |
| 22 | 0.71 | 3,634 | 62% | 13,322 | 51% | 3.67 |
| 23 | 0.72 | 3,721 | 63% | 13,728 | 53% | 3.69 |
| 24 | 0.73 | 3,880 | 66% | 15,169 | 58% | 3.91 |
| 25 | 0.74 | 3,901 | 67% | 15,170 | 58% | 3.89 |
| 26 | 0.75 | 3,953 | 67% | 15,290 | 58% | 3.87 |
| 27 | 0.76 | 4,143 | 71% | 16,289 | 62% | 3.93 |
| 28 | 0.77 | 4,165 | 71% | 16,340 | 63% | 3.92 |
| 29 | 0.78 | 4,251 | 73% | 16,735 | 64% | 3.94 |
| 30 | 0.79 | 4,329 | 74% | 17,212 | 66% | 3.98 |
| 31 | 0.80 | 4,382 | 75% | 17,510 | 67% | 4.00 |
| 32 | 0.81 | 4,657 | 79% | 19,145 | 73% | 4.11 |
| 33 | 0.82 | 4,726 | 81% | 19,626 | 75% | 4.15 |
| 34 | 0.83 | 4,804 | 82% | 20,170 | 77% | 4.20 |
| 35 | 0.84 | 4,858 | 83% | 20,362 | 78% | 4.19 |
| 36 | 0.85 | 4,972 | 85% | 20,980 | 80% | 4.22 |
| 37 | 0.86 | 5,008 | 85% | 21,254 | 81% | 4.24 |
| 38 | 0.87 | 5,095 | 87% | 21,892 | 84% | 4.30 |
| 39 | 0.88 | 5,407 | 92% | 23,087 | 88% | 4.27 |
| 40 | 0.89 | 5,446 | 93% | 23,270 | 89% | 4.27 |
| 41 | 0.90 | 5,476 | 93% | 23,411 | 90% | 4.27 |
| 42 | 0.91 | 5,523 | 94% | 23,759 | 91% | 4.30 |
| 43 | 0.92 | 5,568 | 95% | 23,990 | 92% | 4.31 |
| 44 | 0.93 | 5,585 | 95% | 24,115 | 92% | 4.32 |



| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 45 | 0.94 | 5,660 | 97% | 24,572 | 94% | 4.34 |
| 46 | 0.95 | 5,711 | 97% | 24,985 | 96% | 4.37 |
| 47 | 0.96 | 5,718 | 98% | 25,053 | 96% | 4.38 |
| 48 | 0.97 | 5,786 | 99% | 25,528 | 98% | 4.41 |
| 49 | 0.98 | 5,792 | 99% | 25,564 | 98% | 4.41 |
| 50 | 0.99 | 5,859 | 100% | 26,116 | 100% | 4.46 |
| 51 | 1.00 | 5,862 | 100% | 26,143 | 100% | 4.46 |

**Table 12-7: Pit Optimization Results – Cata Funda**

| Pit | Revenue Factor | Ore (000 t) | Ore (%) | Waste (000 t) | Waste (%) | Strip Ratio |
|---|---|---|---|---|---|---|
| 1 | 0.50 | 327 | 38% | 1,952 | 26% | 5.98 |
| 2 | 0.51 | 367 | 42% | 2,181 | 30% | 5.95 |
| 3 | 0.52 | 393 | 45% | 2,336 | 32% | 5.94 |
| 4 | 0.53 | 579 | 66% | 4,678 | 63% | 8.08 |
| 5 | 0.54 | 588 | 68% | 4,790 | 65% | 8.15 |
| 6 | 0.56 | 608 | 70% | 4,842 | 66% | 7.96 |
| 7 | 0.57 | 623 | 72% | 4,868 | 66% | 7.81 |
| 8 | 0.58 | 632 | 73% | 4,883 | 66% | 7.73 |
| 9 | 0.63 | 646 | 74% | 4,872 | 66% | 7.54 |
| 10 | 0.64 | 734 | 84% | 6,191 | 84% | 8.43 |
| 11 | 0.66 | 758 | 87% | 6,626 | 90% | 8.74 |
| 12 | 0.68 | 779 | 89% | 6,752 | 92% | 8.67 |
| 13 | 0.74 | 801 | 92% | 6,885 | 93% | 8.60 |
| 14 | 0.78 | 817 | 94% | 6,897 | 94% | 8.44 |
| 15 | 0.80 | 820 | 94% | 6,902 | 94% | 8.41 |
| 16 | 0.86 | 823 | 95% | 6,952 | 94% | 8.44 |
| 17 | 0.94 | 835 | 96% | 7,010 | 95% | 8.39 |
| 18 | 0.98 | 838 | 96% | 7,024 | 95% | 8.38 |
| 19 | 0.99 | 847 | 97% | 7,077 | 96% | 8.36 |
| 20 | 1.00 | 870 | 100% | 7,374 | 100% | 8.47 |

**Figure 12-2: Pit Optimization Results - Paiol**

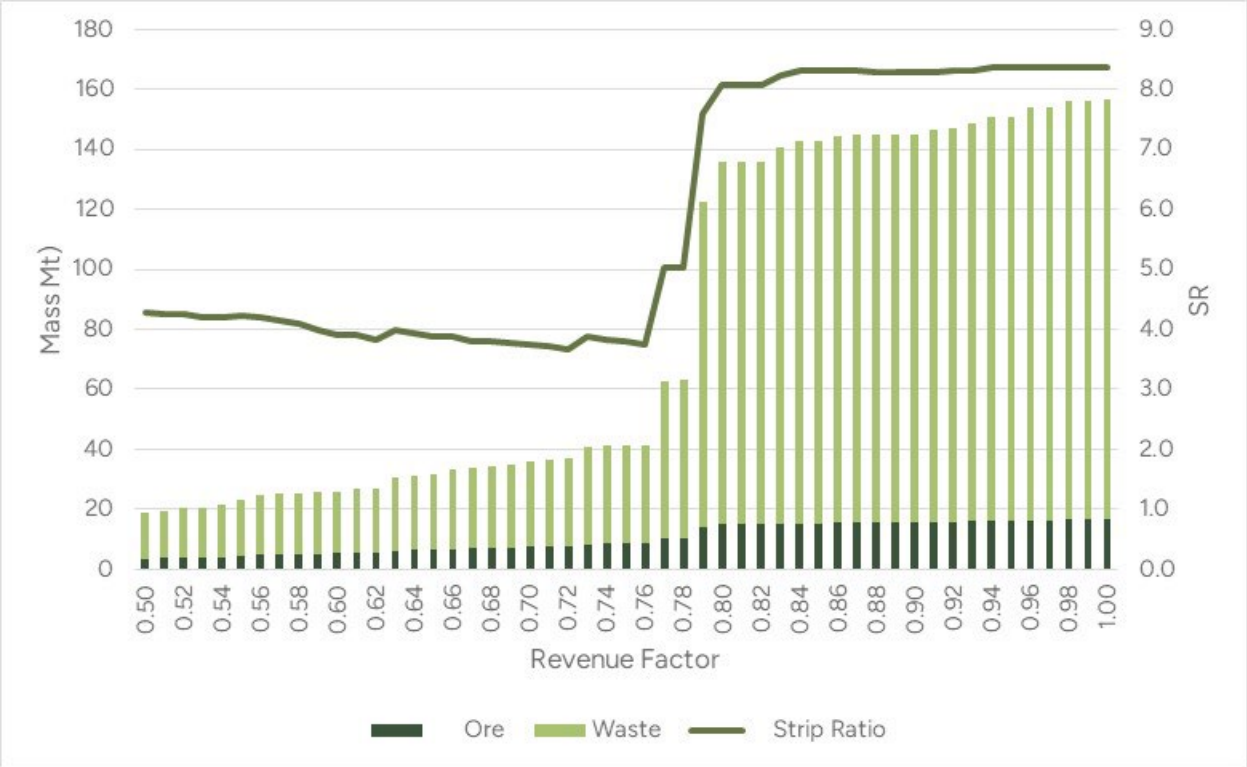



**Figure 12-3: Pit Optimization Results – Vira Saia**

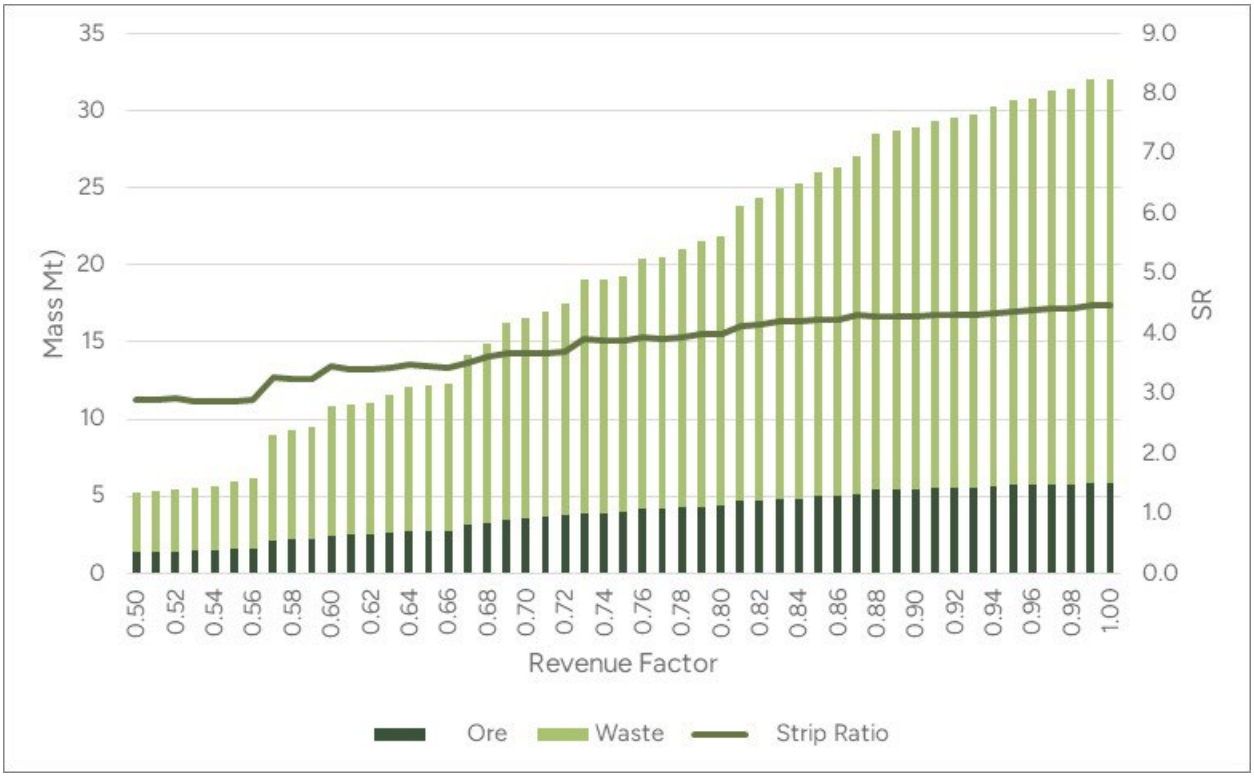
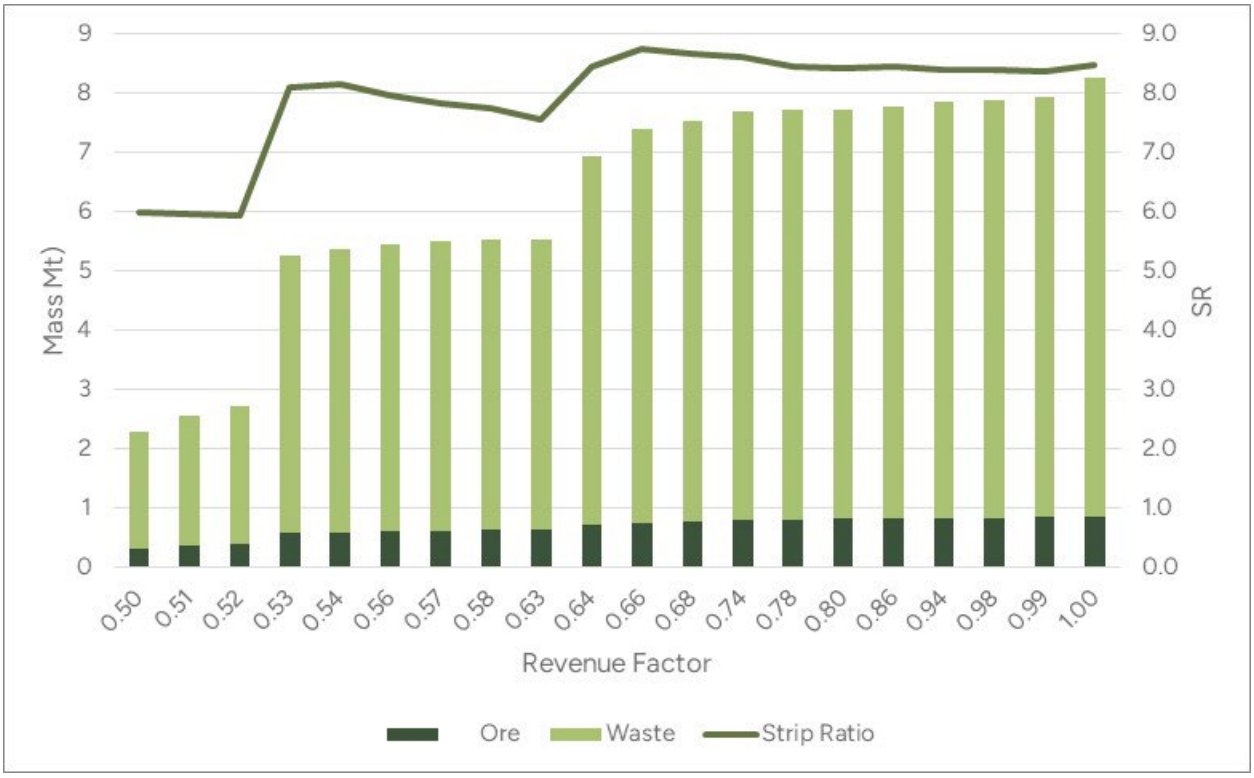


**Figure 12-4: Pit Optimization Results – Cata Funda**




## 12.5 Conversion to Mineral Reserves

The Mineral Resource block model provided by the Aura Almas geology department forms the basis for estimating Mineral Reserves. The SLR QP estimated Mineral Reserve using Deswik software.

The conversion of Mineral Resources to Mineral Reserves is based on modifying factors applied to Pseudoflow pit optimization, detailed pit design, scheduling, and associated modifying parameters described above.

This process applied detailed access, haulage, and operational cost criteria for each deposit (Paiol, Vira Saia, and Cata Funda). The plan uses metric units, and gold grades are represented in g/t. The orientation, proximity to the topographic surface, and geological controls of the mineralization support mining the Mineral Reserves with open pit mining techniques.

Measured Mineral Resources and stockpiles were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. Inferred Mineral Resources were not converted to Mineral Reserves and are not included in the LOM plan.

The Almas Project open pit Mineral Reserve statement with an effective date of December 31, 2024, is presented in Table 12-1.

The SLR QP is not aware of any risk factors associated with, or changes to, any aspects of the modifying factors such as mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

## 12.6 Comparison with Previous Estimate

The 2024 Mineral Reserve estimate presents a net decrease of 3,268 kt (16%) of ore compared with the previous Mineral Reserve estimate completed in 2023. Although tonnes decreased, metal grades increased by 23%, resulting in a 4% increase in contained gold.

The most significant change was observed at Paiol, where a completely new block model was developed, incorporating new infill drilling works and updated modelling and estimation parameters.

The economic parameters largely explain most differences in Mineral Reserves for all deposits. The reserve metal price increased from $1,500 to $2,000 per ounce of gold. On the cost side, unit costs were materially higher in 2024, resulting in a cut-off grade increase between 35% and 40%. Higher cut-off grades have also increased the average grade of the reserves while reducing the tonnages, except for Paiol, which has benefited from the new geological information.

The 2024 and 2023 Mineral Reserve estimates are presented in Table 12-8, which also shows the comparison (in absolute and percentage values) between them.

**Table 12-8: Mineral Reserves Comparison to Previous Estimates**

| Pit | Category | Tonnage (000 t) | Grade (g/t Au) | Contained Metal (000 oz Au) |
|---|---|---|---|---|
| **December 31, 2024 Proven & Probable Reserves** | | | | |
| Paiol | Proven | 5,950 | 1.04 | 198 |
| | Probable | 7,514 | 1.20 | 290 |
| | Total Proven + Probable | 13,464 | 1.13 | 488 |
| Vira Saia | Proven | 1,133 | 1.16 | 42 |
| | Probable | 2,019 | 0.95 | 61 |
| | Total Proven + Probable | 3,152 | 1.02 | 104 |
| Cata Funda | Proven | 456 | 1.80 | 26 |
| | Probable | 267 | 1.41 | 12 |
| | Total Proven + Probable | 723 | 1.66 | 38 |
| **TOTAL** | | **17,339** | **1.13** | **630** |
| **December 31, 2023 Proven & Probable Reserves** | | | | |
| Paiol | Proven | 5,358 | 0.89 | 153 |
| | Probable | 10,781 | 0.88 | 304 |
| | Total Proven + Probable | 16,138 | 0.88 | 457 |
| Vira Saia | Proven | 646 | 0.88 | 18 |
| | Probable | 3,134 | 0.91 | 92 |
| | Total Proven + Probable | 3,780 | 0.91 | 110 |
| Cata Funda | Proven | 439 | 1.89 | 27 |
| | Probable | 250 | 1.79 | 14 |

| Pit | Category | Tonnage (000 t) | Grade (g/t Au) | Contained Metal (000 oz Au) |
|---|---|---|---|---|
| | Total Proven + Probable | 689 | 1.86 | 41 |
| **TOTAL** | | **20,607** | **0.92** | **608** |

| Pit | Category | Tonnage (000 t) | Grade (g/t Au) | Contained Metal (000 oz Au) |
|---|---|---|---|---|
| **Difference between 2023 and 2024 Reserves – Absolute Values** | | | | |
| Paiol | Proven | 593 | 0.15 | 45 |
| | Probable | -3,267 | 0.32 | -14 |
| | Total Proven + Probable | -2,674 | 0.25 | 31 |
| Vira Saia | Proven | 694 | -0.73 | 15 |
| | Probable | 1,769 | -0.84 | 47 |
| | Total Proven + Probable | 2,463 | -0.84 | 62 |
| Cata Funda | Proven | -190 | 0.92 | 8 |
| | Probable | -2,867 | 0.50 | -80 |
| | Total Proven + Probable | -3,057 | 0.75 | -72 |
| **TOTAL** | | **-3,268** | **0.21** | **22** |
| **Difference between 2023 and 2024 Reserves – Percentage** | | | | |
| Paiol | Proven | 11% | 16% | 30% |
| | Probable | -30% | 36% | -5% |
| | Total Proven + Probable | -17% | 28% | 7% |
| Vira Saia | Proven | 158% | -39% | 58% |
| | Probable | 707% | -47% | 326% |
| | Total Proven + Probable | 358% | -45% | 152% |
| Cata Funda | Proven | -29% | 105% | 44% |
| | Probable | -91% | 55% | -87% |
| | Total Proven + Probable | -81% | 82% | -65% |
| **TOTAL** | | **-16%** | **23%** | **4%** |

# 13.0 Mining Methods

## 13.1 Introduction

The Almas Project consists of three open pits: Paiol (existing), and Cata Funda and Vira Saia (conceptual). The mining operations utilize a combination of 4.5 m³ hydraulic excavators, front-end loaders (FELs), and 35 t haul trucks as the primary equipment. The ultimate pit designs were derived from mine optimization using Whittle Pseudoflow analysis for each of the deposits. The planned annual average run-of-mine (ROM) production rate is 2.0 Mt at a gold grade of 1.13 g/t, with a total of 168 Mt of waste to be moved over the 10 year life of the Project. The production schedule is presented in Table 13-13.

Three deposits will be mined, including the primary Paiol deposit, which is already in production, and two satellite deposits, Vira Saia and Cata Funda, located approximately five kilometres and 15 km away, respectively. Existing heap leach reserves from VALE's historical operations and low-grade stockpiles are also included.

## 13.2 Geotechnical Considerations

### 13.2.1 Introduction

The slope stability assessments for Paiol, Vira Saia, and Cata Funda pits were conducted using kinematic analysis, limit equilibrium, and finite element methods. Safety factors were computed for each pit based on laboratory testing results and geological data. Key findings for the slope stability analysis included:

- Stability analysis indicated a minimum safety factor of 1.5 for all major slopes, meeting or exceeding acceptable industry standards.
- No unstable layers were observed, though ground conditions required careful monitoring for stability. The maintenance of face angles ensured upperslope stability.
- Controlled blasting was recommended to minimize damage to the rock mass and mitigate the risk of slope failures.

In 2012, BVP Geotecnia & Hidrotecnia (BVP) consultants proposed adjustments for pit geometries to further enhance slope stability, suggesting bench face angles of 80° for the hanging wall and a global angle of 48°, ensuring stability through broader berms (at least 8.0 m wide).

### 13.2.2 Paiol Pit

The open pit Paiol mine is designed to optimize gold extraction through well structured geotechnical, hydrogeological, and operational planning, ensuring economic efficiency and long-term stability. The pit design incorporates phased pushbacks to ensure manageable slope conditions during mining, balance stripping ratios, and ore recovery over the life of the mine, and to allow for progressive dewatering and slope adjustments as mining progresses.

#### 13.2.2.1 Geological and Geomechanical Description

The Paiol mine is located within the Almas Metavolcano sedimentary Sequence (Archean age), characterized by mafic volcanic rocks and metasediments. The pit displays weathered profiles including saprolitic soils, altered rock, and fresh rock. Foliation dips average 65°, with steep dips

being a primary structural control on stability. Rock mass anisotropy plays a significant role in failure mechanisms, including planar and wedge failures. The Paiol rock mass has a low fracturing intensity, and no significant problems are expected for mining operations. The RMR of the geological units encountered are based on parameters such as UCS, geological strength index (GSI), RQD, and discontinuity conditions and are described as follows:

- Colluvial/Eluvial Soil: RMR not applicable due to unconsolidated nature.
- Saprolitic Soil: RMR Class V (very poor) due to low cohesion and high weathering.
- Saprolite: RMR Class V (very poor), highlighting limited structural support capacity.
- Weathered Rock: RMR Class IV (poor), indicating reduced stability due to high fracturing and moderate alteration.
- Fresh Rock: RMR Classes I-II (good to very good), with high intact strength and low alteration contributing to high stability.

A summary of the geological and geomechanical profile is provided in Table 13-1 and a typical geological and geomechanical cross section is provided in Figure 13-1.

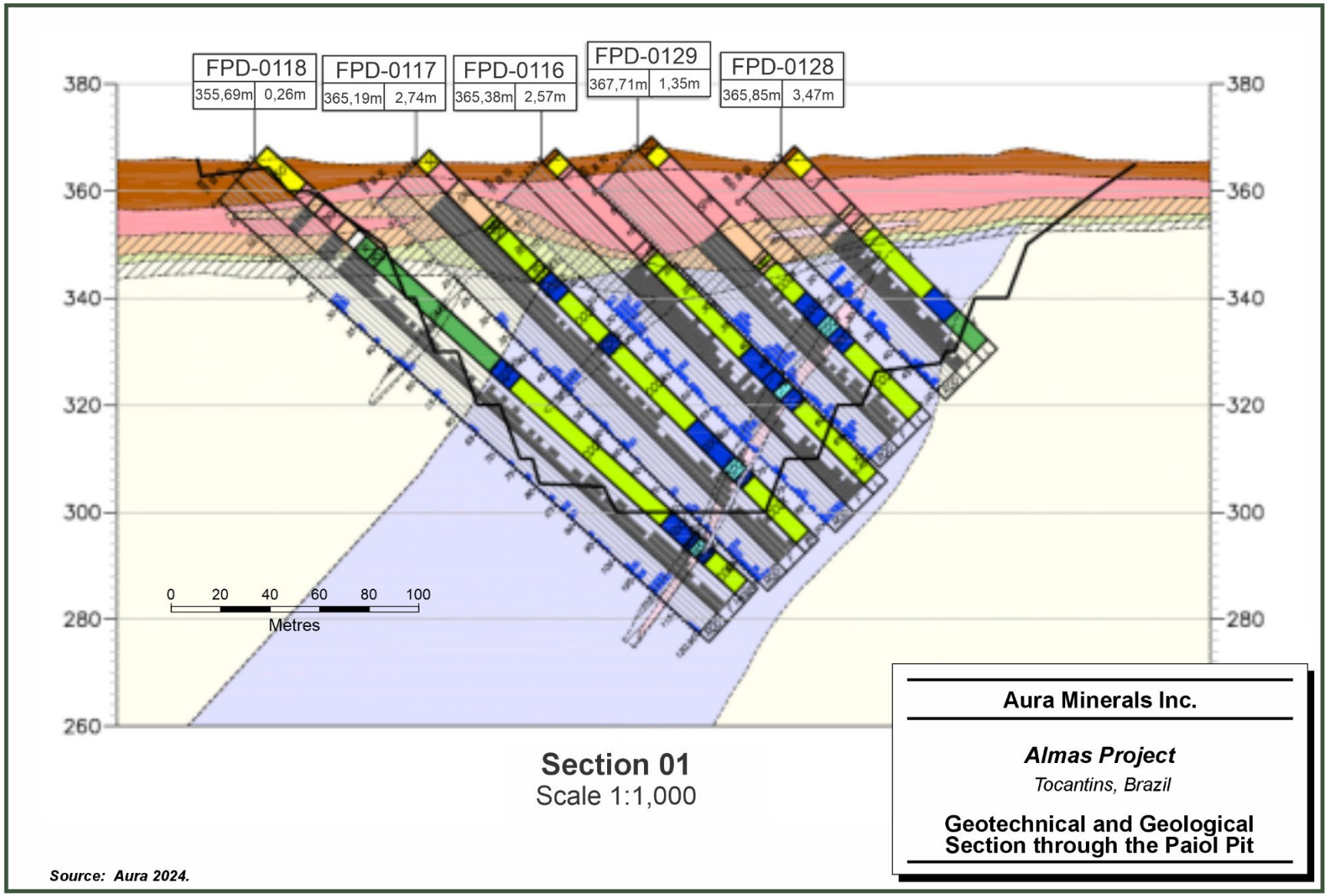




**Table 13-1: Geological and Geomechanical Description for the Paiol Pit**

| Unit | Description | Approximate Thickness (m) | RQD (%) | RMR | Classification |
|---|---|---|---|---|---|
| Colluvial/Eluvial Soils | Clayey to sandy texture with quartz and laterite gravels; red colour; stiff to very stiff compaction (S4–S5). | 4 | N/A | N/A | Soil |
| Saprolitic Soils | Fine silty texture; retains relic foliation; stiff to very stiff (S4–S5); slightly plastic to non-plastic. | 7–20 (variable) | N/A | N/A | Soil |
| Saprolite | Fine silty-sandy texture; yellow-ochre colour; highly weathered (A5); low strength (C5−); highly fractured (F5). | 3–6 | 0–25 | Very Poor (Class V) | Weathered Rock |
| Weathered Rock | Carbonate-Chlorite-Quartz Schist (CCQX) and Chlorite-Albite-Amphibole Schist (CAAX); moderate to high weathering (A3–A4); low strength (C3–C5+); very high fracturing (F5). | 1–4 (localized 12 m) | 0–25 | Poor (Class IV) | Weathered Rock |
| Encaixante 1 (Host Rock 1) | Chlorite-Albite-Amphibole Schist (CAAX); dark green; fine-grained; compact to very compact (C1−); moderate fracturing (F3). | N/A | 91–100 | Good to Very Good (Class I–II) | Fresh Rock |
| Encaixante 2 (Host Rock 2) | Carbonate-Chlorite-Quartz Schist (CCQX); greenish; lepidoblastic texture; compact (C2); moderate to high fracturing (F3–F4). | N/A | 91–100 | Good (Class II) | Fresh Rock |
| Mineralized Zone 1 | Albite-Ankerite-Quartz Schist (ADQX) and Sericite-Ankerite-Quartz Schist (SDQX); high banding and fragmentation; compact to very compact (C2–C1−); high fracturing (F4–F5). | 5 | 0–76 | Fair (Class III) | Mineralized Rock |
| Mineralized Zone 2 | Sericite-Chlorite-Ankerite Schist (SCDX); proximal alteration halo; compact to very compact (C2–C1−); moderate fracturing (F3). | 31 | 91–100 | Good (Class II) | Mineralized Rock |
| Metadacite Dike | Sparse tabular dikes; fine- to medium-grained, porphyritic texture; very compact (C1−); moderate fracturing (F3). | 1 | 91–100 | Very Good (Class I) | Dike Rock |

**Figure 13-1: Geotechnical and Geological Section through the Paiol Pit**




*Source: Aura 2024.*

#### 13.2.2.2 Hydrogeological Description

Hydrogeological conditions were assessed through a numerical steady-state model created for the Paiol area. Three scenarios were analyzed: baseline (pre-existing conditions), conditions in 2000 during operations by VALE, and the projected final pit conditions for Rio Novo's operations. Key hydrogeological findings include:

- The water table in the pit, in the year 2024, stands at approximately elevation 366, with seasonal fluctuations of plus/minus one metre.
- Hydraulic conductivities for various lithological units were estimated as follows:
  - Saprolite: 0.7 m/day.
  - Altered rock: 17.5 m/day.
  - Fresh rock: 0.0175 m/day.
- Groundwater inflow to the final pit was estimated at 46 L/s, with most contributions originating from the altered rock zone.
- Structural mapping indicated fractures filled with quartz and carbonates, increasing permeability in specific zones.
- The volume of estimated groundwater entering in the pit is not expected to affect the stability.

The dewatering and depressurization plan for the Paiol mine aims to ensure operational stability, prevent water-related geotechnical risks, and maintain safe working conditions in the expanded excavation areas. The approach involves managing both surface water and groundwater through a comprehensive system of drainage infrastructure, monitoring, and groundwater extraction techniques. The dewatering strategy includes measures to manage water inflow into the mine and lower groundwater levels to reduce pore pressures in slope walls. The key components of the dewatering and depressurization system are:

- Surface water control to divert runoff and prevent water ingress into the pit.
- Groundwater extraction to reduce water table levels within the pit footprint.
- Monitoring infrastructure, for real-time tracking of water levels and flow patterns.

#### 13.2.2.3 Paiol Pit Design

The design of the Paiol pit involved the development and evaluation of slope geometries, informed by geological and geotechnical data from exploration drilling and structural mapping. A total of four cross sections were developed. The analyses were carried out using the Rocscience Slide and RS2 software, employing the GLE/Morgenstern-Price method for planar failure surfaces and the Mohr-Coulomb criterion for circular failures. Parameters such as cohesion and friction angle were determined for various lithological units using the RocLab software. Inputs included UCS, GSI, and disturbance factors. The hanging wall slope inclination angle at 55° was initially analyzed for circular rupture and the safety factors for the various vertical sections were calculated.

The kinematic analysis aimed to evaluate the stability of slopes under various geological, structural, and operational conditions. The study was conducted to assess potential failure mechanisms (e.g., planar, wedge, and toppling failures), define optimal slope geometries for long-term stability, and develop recommendations for operational safety. Structural data,





including joint orientations, fracture densities, and rock mass quality, were collected from exploration drilling and mapping.

For the Paiol pit, the kinematic analysis included analysis of the foliation planes for their dip angles, which typically ranged between 60° and 70° and kinematic assessments identified wedge and planar failure potential in steeply inclined slopes.

Key steps in the design process included:

- The initial design provided by the client was analyzed for stability, considering an acceptable safety factor (FS) of ≥1.5.
- The supplied geometry showed adequate stability, with FS values exceeding the minimum required.
- To reduce excavation volumes and improve safety margins, BVP proposed revised slope geometries.
- Suggested adjustments included modifying berm widths and face angles, ensuring global stability angles of 53° while maintaining adequate berm widths to control erosion and rolling debris.
- Previous studies (prefeasibility study [PFS] and feasibility study [FS]) outlined the original design parameters, which included:
    - Berm widths of three metres for rock and six metres for soil.
    - Bench heights of 20 m for fresh rock, contingent on a compatible global angle.
- In 2022, adjustments were made to optimize operational and safety requirements:
    - Berms were widened to eight metres to accommodate safety concerns and equipment operation.
    - Bench angles for soil and oxidized rock were re-evaluated.

Key outcomes of the geotechnical design were as follows:

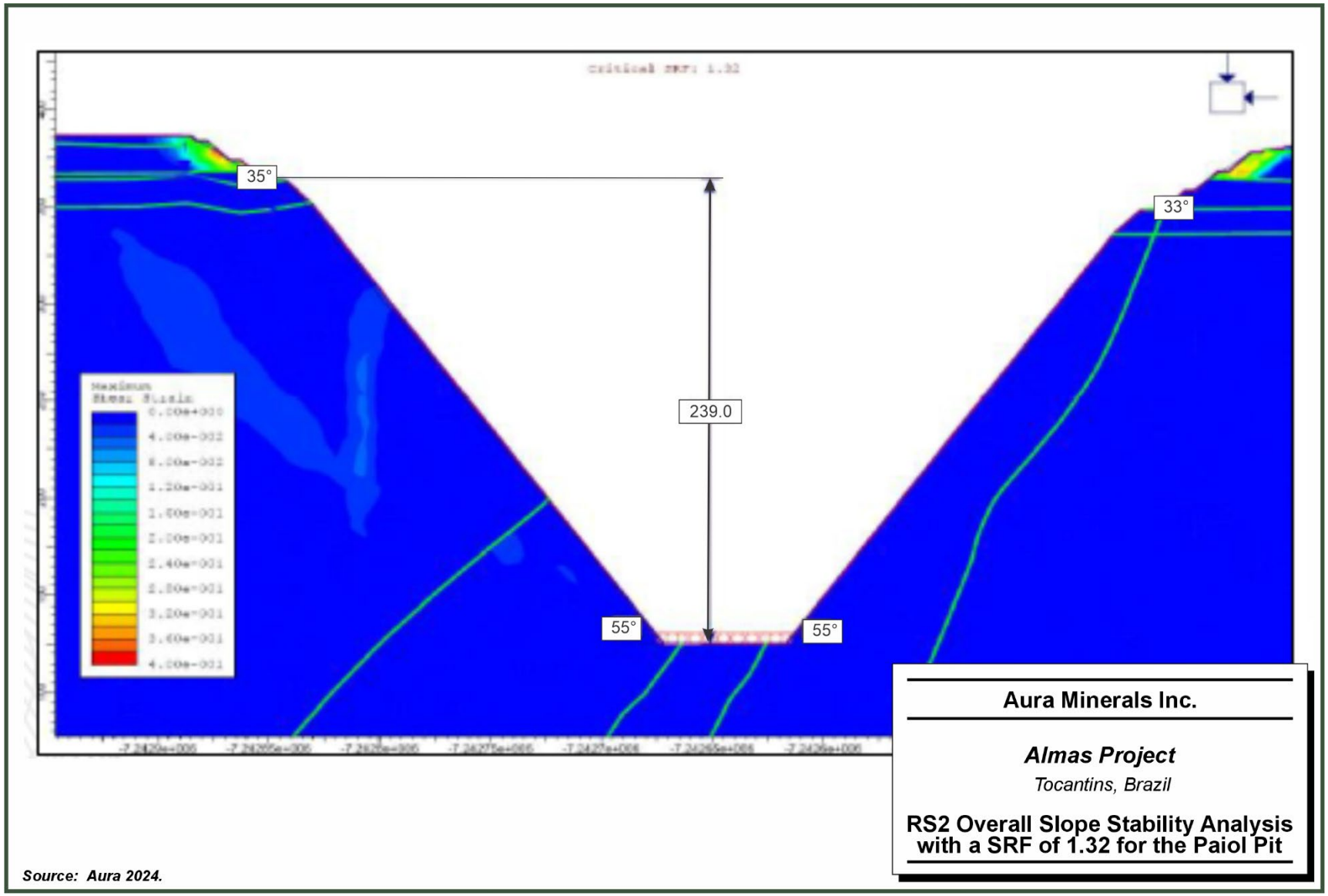
- The final pit design for Paiol ensures:
    - Safe operations with stable slope geometries.
    - Efficient mining of ore reserves while minimizing waste removal.
    - Effective groundwater management through integrated dewatering systems.
- The design prioritizes flexibility, allowing for adjustments based on monitoring data and operational needs.

In conclusion, the Paiol pit's rock mass was found to be generally competent with low fracturing intensity, posing minimal risk to stability. Safety factors for rock slopes were deemed appropriate even for heights reaching 300 m. Groundwater inflow was predicted to have a negligible impact on overall stability. A summary of the final pit slope angles for the Paiol pit is provided in Table 13-2. An example of numerical slope stability analysis is provided in Figure 13-2.

**Table 13-2: Final Pit Slope Angles Recommended for Paiol Pit**

| Geological Unit | Berm Width (m) | Bench Height (m) | Bench Face Angle (°) | Inter-Ramp Angle (°) |
|---|---|---|---|---|
| Colluvial/Eluvial Soil | 8 | 10 | 30 | 25 |
| Saprolitic Soil | 8 | 10 | 35 | 30 |
| Saprolite | 8 | 10 | 35 | 32 |
| Weathered Rock | 8 | 20 | 45 | 40 |
| Fresh Rock Footwall | 8 | 20 | 70 | 53 |
| Fresh Rock Hanging Wall | 8 | 20 | 80 | 60 |

**Figure 13-2: RS2 Overall Slope Stability Analysis with a SRF of 1.32 for the Paiol Pit**




*Source: Aura 2024.*

### 13.2.3 Cata Funda Pit

The Cata Funda pit is situated within the Almas Greenstone Belt, a region known for its significant gold mineralization associated with shear zones and hydrothermal alteration. Pushbacks are designed to balance ore recovery, minimize stripping ratios, and maintain slope stability. Initial pushbacks will target areas with higher saprolitic material content to reduce risks during early excavation phases. Later pushbacks will focus on steeper slopes in fresh rock zones, which will benefit from improved stability.

#### 13.2.3.1 Geological and Geomechanical Description

The Cata Funda pit lies within the Almas metavolcano-sedimentary sequence, which consists of mafic volcanic and metasedimentary rocks. The geological profile includes:

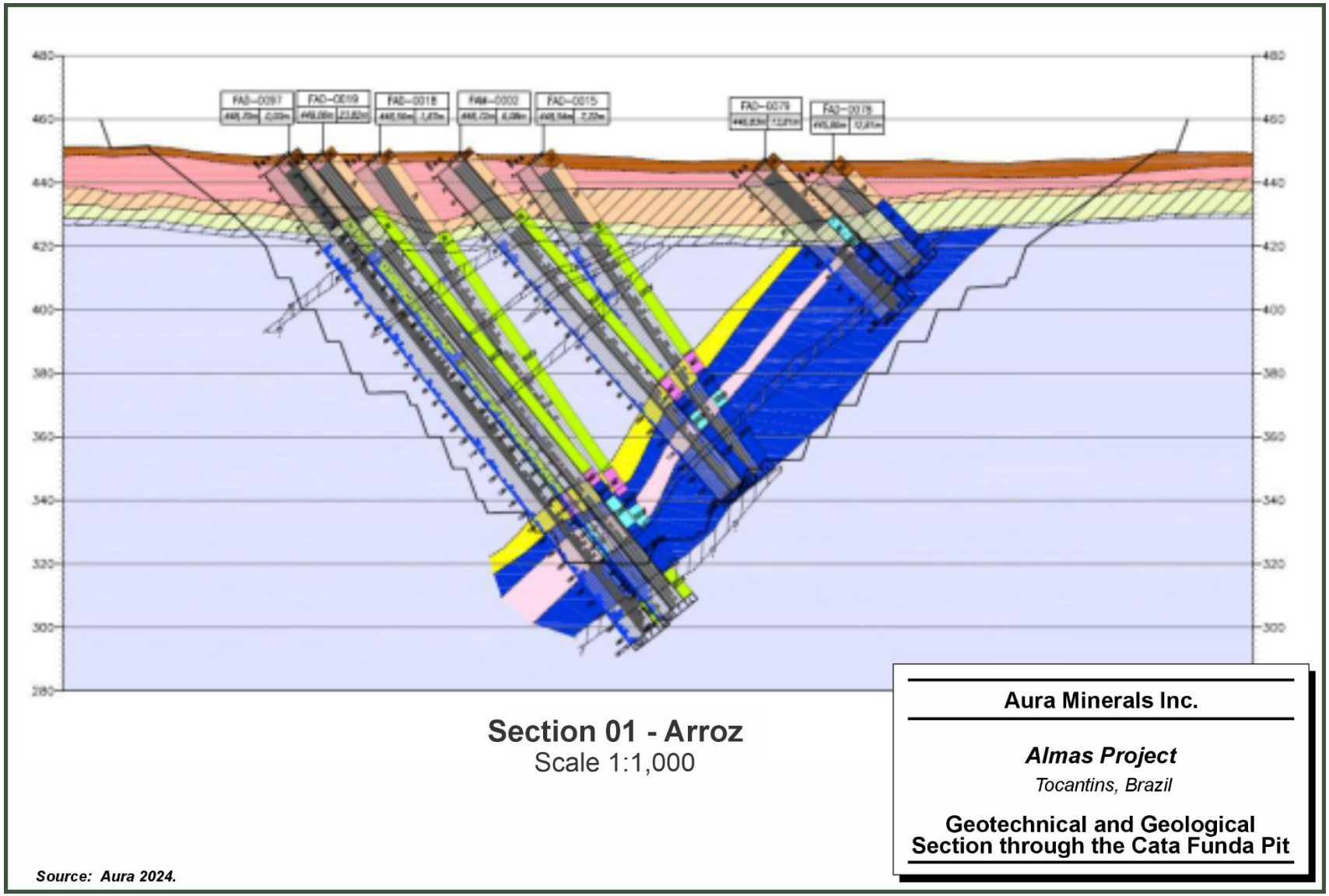
- Colluvial/Eluvial Soils: Fine clayey to sandy material with subrounded quartz and laterite fragments.
- Saprolitic Soils: Silty soils with relic foliation of parent rock.
- Saprolite: Silty-sandy texture with high alteration and elevated fracturing.
- Weathered Rock: Moderately to highly altered, fractured rock zones with low RQD values.
- Fresh Rock: Dominated by schist lithologies, including chlorite schist and amphibole schist, exhibiting high RQD and good geomechanical quality.

RMR classifications were determined based on RQD and discontinuity properties such as alteration, spacing, roughness, and infill. A summary of the geological and geomechanical profile is provided in Table 13-3 and a typical geological and geomechanical cross section is provided in Figure 13-3.

**Table 13-3: Geological and Geomechanical Description for the Cata Funda Pit**

| Geology | Thickness (m) | RQD (%) | RMR | Classification |
|---|---|---|---|---|
| Colluvial/Eluvial Soil | 4 | N/A | N/A | Unconsolidated, low strength |
| Saprolitic Soil | 7 to 20 | 0-25 | Class V (Very Poor) | Highly weathered, weak |
| Saprolite | 3 to 6 | 0-25 | Class V (Very Poor) | Highly fractured, very weak |
| Weathered Rock | 1 to 4 | 25-50 | Class IV (Poor) | Moderately weathered, weak to fair |
| Fresh Rock | >4 | 50-100 | Class II-I (Good to Very Good) | Competent, strong |

**Figure 13-3: Geotechnical and Geological Section through the Cata Funda Pit**



#### 13.2.3.2 Hydrogeological Description

A hydrogeological model was developed for water management within the pit. Key findings from the hydrogeological investigations include:

- Groundwater inflow is predominantly sourced from the weathered rock zones.
- Hydraulic conductivity values:
  - Saprolite: approximately 0.7 m/day.
  - Altered Rock: approximately 17.5 m/day.
  - Fresh Rock: approximately 0.0175 m/day.
- Seasonal water table variations were incorporated into stability models.
- Recommendations included piezometer installation and regular groundwater level monitoring.

#### 13.2.3.3 Cata Funda Pit Design

The pit design incorporates geomechanical and hydrogeological findings, emphasizing stability and operational efficiency. The slope stability was conducted using Rocscience Slide and RS2 software, incorporating anisotropic rock mass behaviour and groundwater effects. Safety factors exceeded the minimum requirement of 1.5 for all modelled scenarios.

The Cata Funda pit drilling data from FAE-01, FAE-02, and FAE-03 supported stability evaluations. Suggested modifications included wider berms and maintenance of the global slope angle for footwall slopes to enhance safety. Circular rupture analyses indicated minimal risk of planar failures.

Key outcomes of the geotechnical design were as follows:

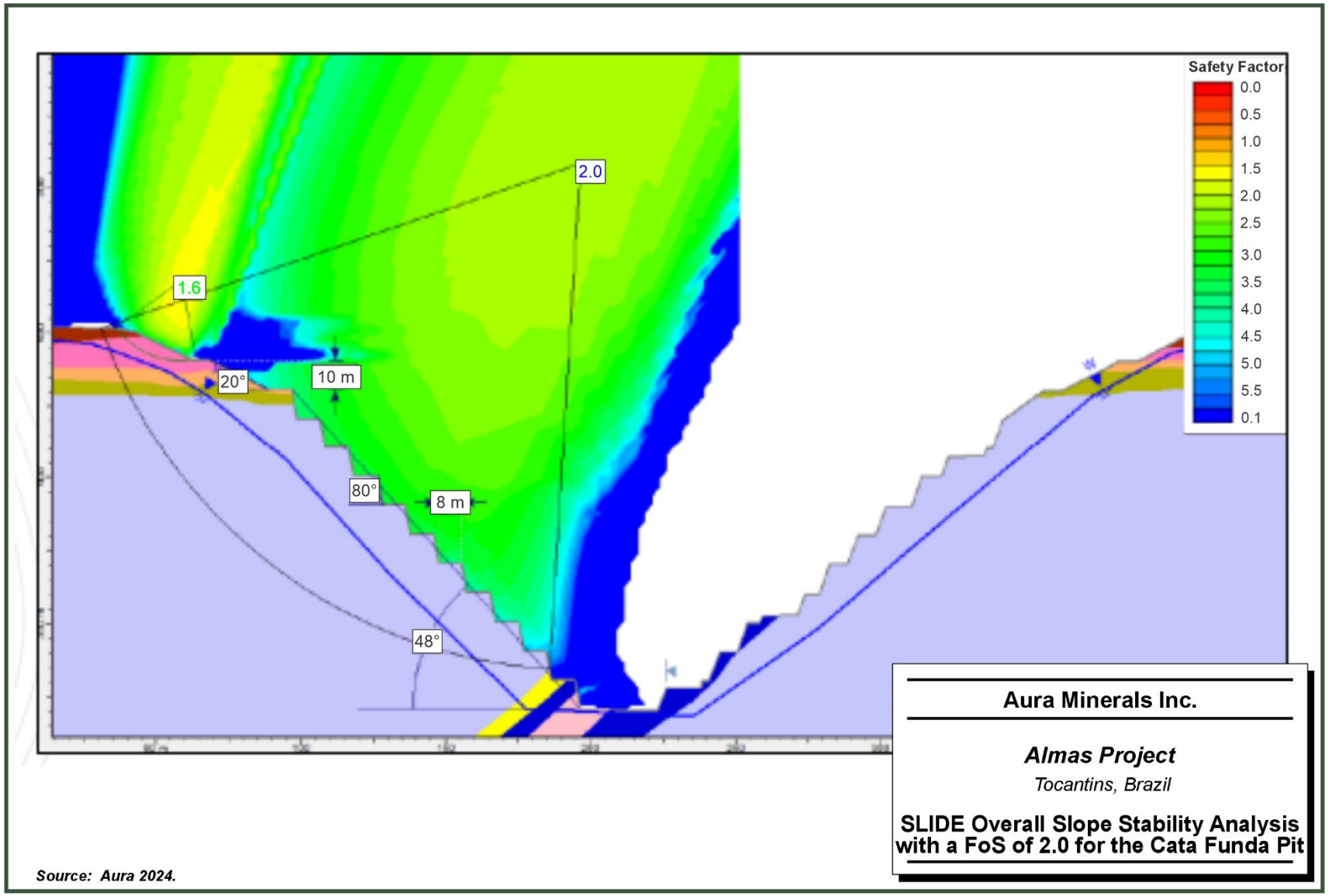
- The pit design incorporates conservative geometries for weak materials and steeper slopes for competent rocks.
- Effective dewatering and drainage systems mitigate groundwater impacts and ensure long-term stability.
- The phased pushback approach optimizes ore recovery while maintaining safe working conditions.

A summary of the final pit slope angles for the Cata Funda is provided in Table 13-4. An example of numerical slope stability analysis is provided in Figure 13-4.

**Table 13-4: Final Pit Slope Angles Recommended for Cata Funda Pit**

| Direction | Group | Lithologies | Maximum Height of Slopes (m) | Minimum Berm Width (m) | Face Angle (°) | Inter-Ramps Angle (°) |
|---|---|---|---|---|---|---|
| HW | Fresh Rock | ENC2, ZM1/ZM2, MD | 10 | 8 | 80 | 48 |
| FW | Fresh Rock | ENC2, ZM1/ZM2 | 10 | 8 | 65 to 70 | 45 to 47 |
| FW/HW | Soil | CO, SSP, SAP, RI | 10 | 6 | 27 | 23 |

**Figure 13-4: SLIDE Overall Slope Stability Analysis with a FS of 2.0 for the Cata Funda Pit**




*Source: Aura 2024.*

### 13.2.4 Vira Saia Pit

#### 13.2.4.1 Geological and Geomechanical Description

The Vira Saia pit is located in the Almas Greenstone Belt. This belt is characterized by Archean and Proterozoic-aged metavolcanic and metasedimentary sequences, with mineralization primarily associated with hydrothermal processes and structural deformation. The geology of the Vira Saia pit is defined by a sequence of overburden materials, saprolitic and weathered rocks, and fresh bedrock (Table 13-5). The rock mass exhibits a strong foliation trend, generally dipping steeply towards the southwest. Shear zones filled with sericite and quartz are present, acting as weak planes in the rock mass. These zones are localized near ore bodies and require special attention for slope stability. Two major joint sets were identified, sub-parallel to foliation (prone to planar failure) and cross-cutting joints creating potential wedge failures.

**Table 13-5: Geological and Geomechanical Description for the Vira Saia Pit**

| Geology | Thickness (m) | RQD (%) | RMR | Classification |
|---|---|---|---|---|
| Colluvial/Eluvial Soil | 1-3 | N/A | N/A | Unconsolidated, low strength |
| Saprolitic Soil | 7-12 | 0-25 | Class V (Very Poor) | Highly weathered, weak |
| Saprolite | 3-8 | 0-25 | Class V (Very Poor) | Highly fractured, very weak |
| Weathered Rock | 5-10 | 25-50 | Class IV (Poor) | Moderately weathered, weak to fair |
| Fresh Rock | >10 | 75-100 | Class II-I (Good to Very Good) | Competent, strong |

#### 13.2.4.2 Hydrogeological Description

The hydrogeological profile at the Vira Saia pit consists of multiple hydrostratigraphic units, aligned with the geological sequence. Groundwater predominantly flows from higher elevation areas toward the proposed pit location, which is driven by the regional gradient. The flow is influenced by structural controls such as fault zones and joint sets. Water levels fluctuate seasonally, with higher levels observed during the rainy season (October to April) due to increased infiltration. A perched water table may develop above low-permeability zones in saprolite during wet periods.

Pit water management strategies included the following:

- Dewatering wells, including the installation of wells around the proposed pit perimeter and within the proposed pit floor. Target depths vary by lithology, with wells typically 30 m deep in weathered rock and 70 m in fresh rock.
- Horizontal drains will be installed into the proposed pit walls to reduce pore pressure and manage perched water zones. Typical drain lengths will range from 20 m to 40 m.
- Surface drainage will include peripheral drainage channels to divert surface water away from the pit. Sumps will be placed strategically in the pit floor to collect and pump infiltrated water.





#### 13.2.4.3 Vira Saia Pit Design

The pit design incorporates geomechanical and hydrogeological findings, emphasizing stability and operational efficiency. The slope stability was conducted using Rocscience Slide and RS2 software, incorporating anisotropic rock mass behaviour and groundwater effects. Safety factors exceeded the minimum requirement of 1.5 for all modelled scenarios.

With the results of the kinematic and stability analysis for the final rock slopes from Vira Saia pit, the re-confirmation of the pit geometry was done by specific analysis, with the following observations:

- The slopes of the final pits were considered stable in terms of stability analysis by limit equilibrium, presenting safety factors well above 1.5 for global ruptures.
- The Vira Saia pit structural measurements in oriented holes FVSE-01 and FVSE-02 were used to characterize fracture sets and discontinuities.
- Although there are no thick layers in the analyzed sections, the slopes on the ground deserve special attention with maintenance of the angle of the face down, thus ensuring stability in the upper portion of the pit.
- The need to carry out systematic geological mapping simultaneously with the opening of the pit is also emphasized, to verify, or not, the potential of ruptures verified in the kinematic analysis, thus being able to adopt preventive and/or corrective measures.
- The importance of adopting controlled blasting operations is emphasized to minimize the damage to the rock mass, thus avoiding its more intense and deep opening according to the foliation plan and, consequently, reducing the potential for breaks at the bench level, mainly controlled by openings and damage to material discontinuities.

Key outcomes of the geotechnical design were as follows:

- The pit design incorporates conservative slope angles and robust dewatering systems to ensure stability.
- The integration of geological, geotechnical, and hydrogeological data into the design process reduces risks associated with slope failure.
- Regular monitoring and adaptive management strategies are in place to address potential geotechnical challenges during mining operations.
- Summary of the final pit design is provided in Table 13-6.

**Table 13-6: Final Pit Slope Angles Recommended for the Vira Saia Pit**

| Direction | Group | Lithologies | Sector (1) | Maximum Height of Slopes (m) | Minimum Berm Width (m) | Face Angle (°) | Inter-Ramp Angle (°) |
|---|---|---|---|---|---|---|---|
| HW | Fresh Rock | GD, GDP, DM-GDM | 1 | 10 | 8 | 80° | 46° |
| HW | Fresh Rock | GD, GDP, DM-GDM | 2 | 5 | 8 | 80° | 56° |
| HW | Fresh Rock | GD, GDP, DM-GDM | 3 | 10 | 5 | 85° | 48° |
| FW | Fresh Rock | GD, GDP, DM-GDM | 4 | 10 | 5 | 85° | 48° |
| FW | Fresh Rock | GD, GDP, DM-GDM | 5 (2) | 10 | 5 | 85° | 48° |
| FW/HW | Soil - SAPR | - | - | 10 | 6 | 27° | 21° |

### 13.2.5 Recommendations for Future Geotechnical Investigations

The geotechnical studies concluded that current pit designs are adequate for ongoing mining activities at Paiol and for initiating mining activities at Cata Funda and Vira Saia, however, the SLR QP recommends the following actions:

- As slopes are exposed, continual mapping and geotechnical assessments are required to identify unstable areas and implement corrective measures.
- The importance of controlled blasting to reduce damage to rock discontinuities is emphasized, with a focus on maintaining bench and slope integrity.
- Future geotechnical analysis should incorporate ongoing monitoring data and kinematic assessments to refine slope designs and ensure stability.

## 13.3 Open Pit Design

A detailed design was completed on the selected pit shell, including access points and ramps. The geometrical assumptions adopted are:

- Road and ramp width of 12 m.
- Maximum ramp gradient of 10%.
- Distance between pushbacks / phases of 40 m.
- Minimum operational work width of 20 m.

Slope and bench geometric parameters are derived from the geotechnical recommendations supplied by Aura and are presented in Table 13-7.

**Table 13-7: Slope and Bench Geometric Parameters**

| Pit | Group | Sector | Bench Height (m) | Bench Width (m) | Bench Face Angle (°) | Inter Ramp (toe-to-toe) (°) |
|---|---|---|---|---|---|---|
| Paiol [1] | Soil / Weathered | HW | 10 | 8 | 45 | 29 |
| | | FW | 10 | 8 | 35 | 24 |
| | Fresh Rock | HW | 20 | 8 | 80 | 60 |
| | | FW | 20 | 8 | 70 | 53 |
| Cata Funda [2] | Soil /Sap | All | 10 | 6 | 45 | 35 |
| | Weathered | All | 10 | 6 | 45 | 35 |
| | Fresh Rock | HW | 10 | 3 | 80 | 55 1 |
| | | FW | 10 | 3 | 70 | 50 1 |
| Vira Saia [3] | Soil /Sap | All | 10 | 6 | 27 | 24 |
| | Weathered | All | 10 | 6.5 | 45 | 35 |
| | Fresh Rock | HW | 10 | 6.5 | 85 | 52 |
| | | FW | 10 | 6.5 | 80 | 49 |

Notes:
1. Parameters supplied by Aura 2024.
2. Source: FLE 2012.
3. Source: BVP 2012.

Figure 13-5, Figure 13-6, and Figure 13-7 show the designed pits for Paiol, Vira Saia, and Cata Funda, respectively.





**Figure 13-5: Paiol Ultimate Pit Design**

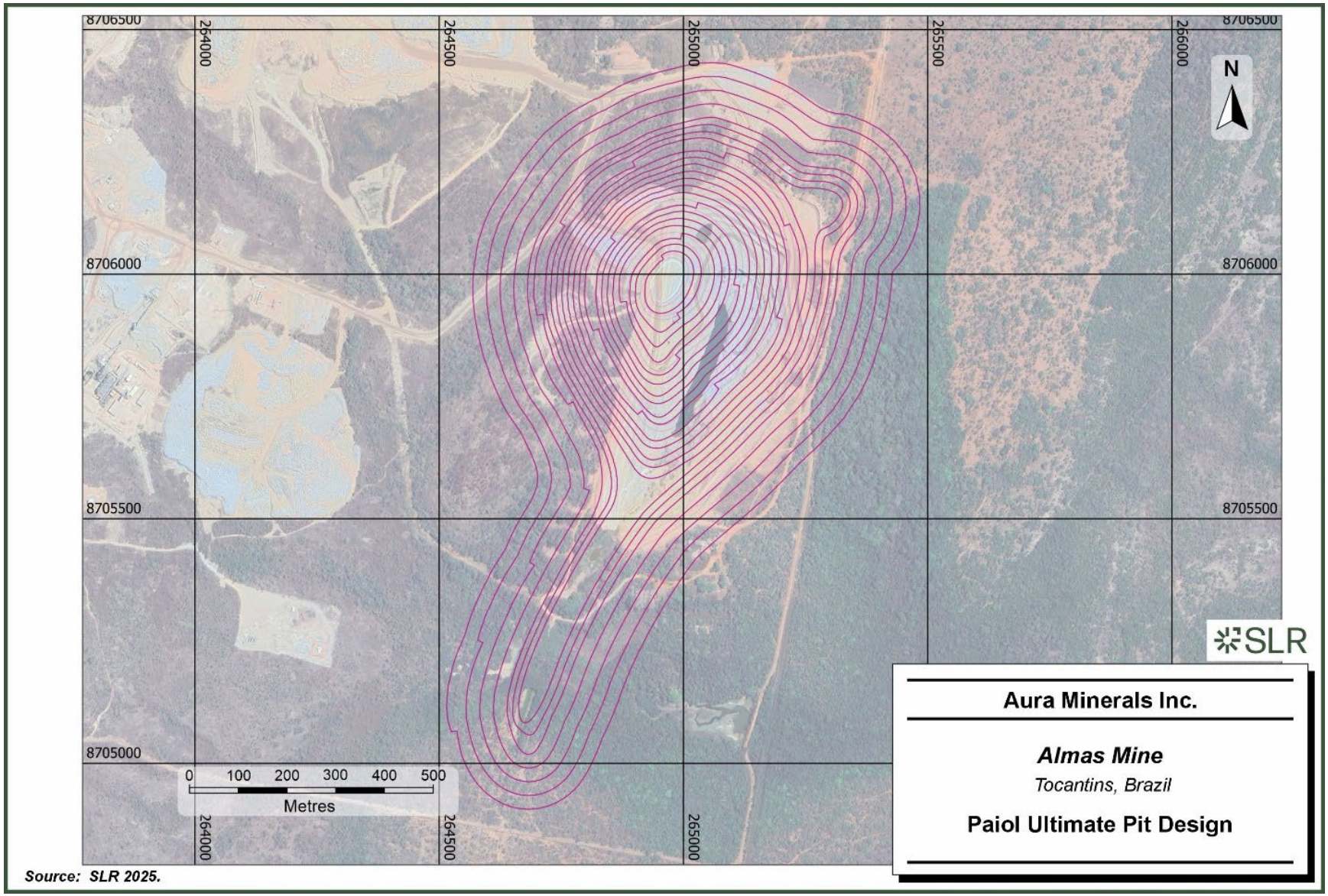
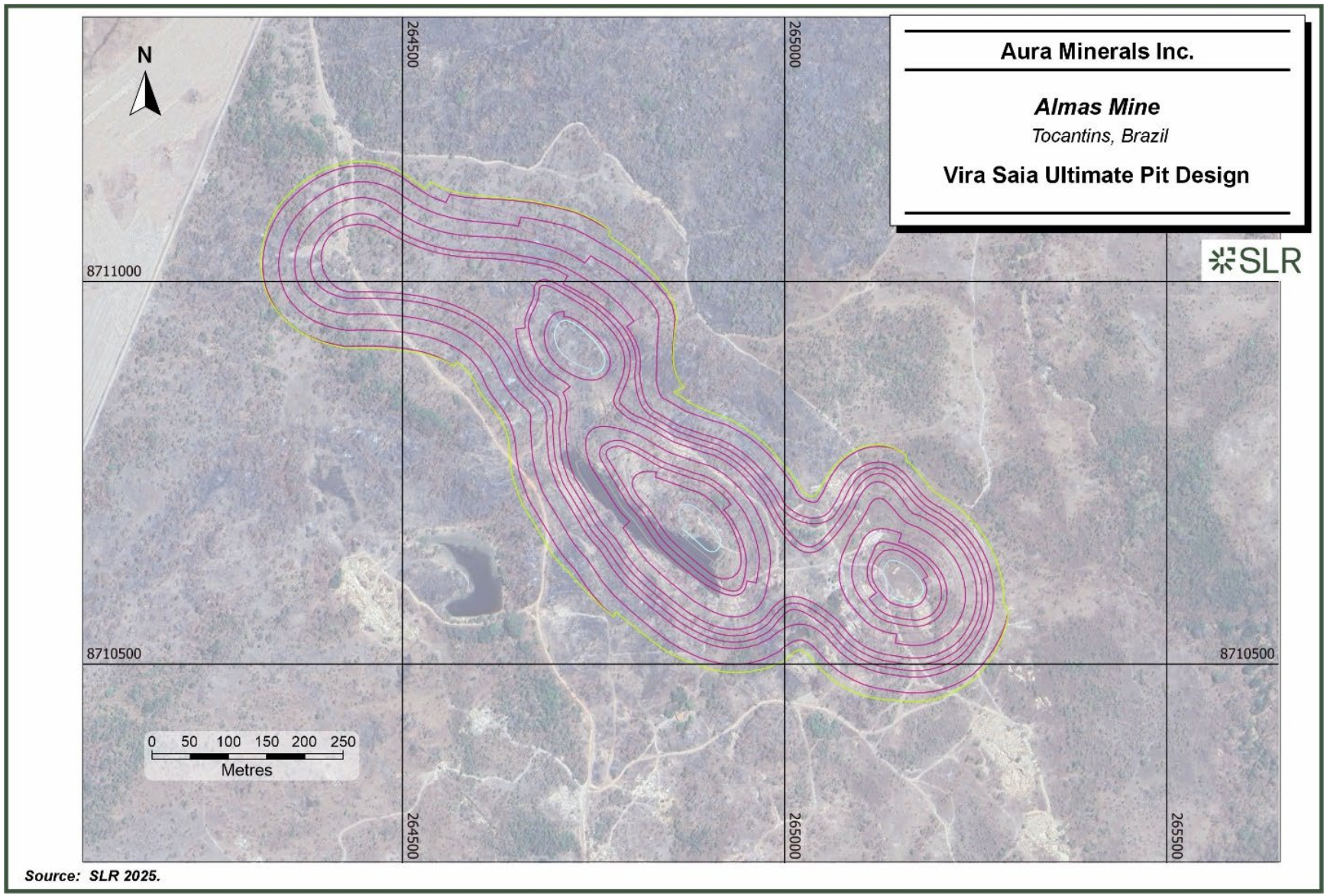
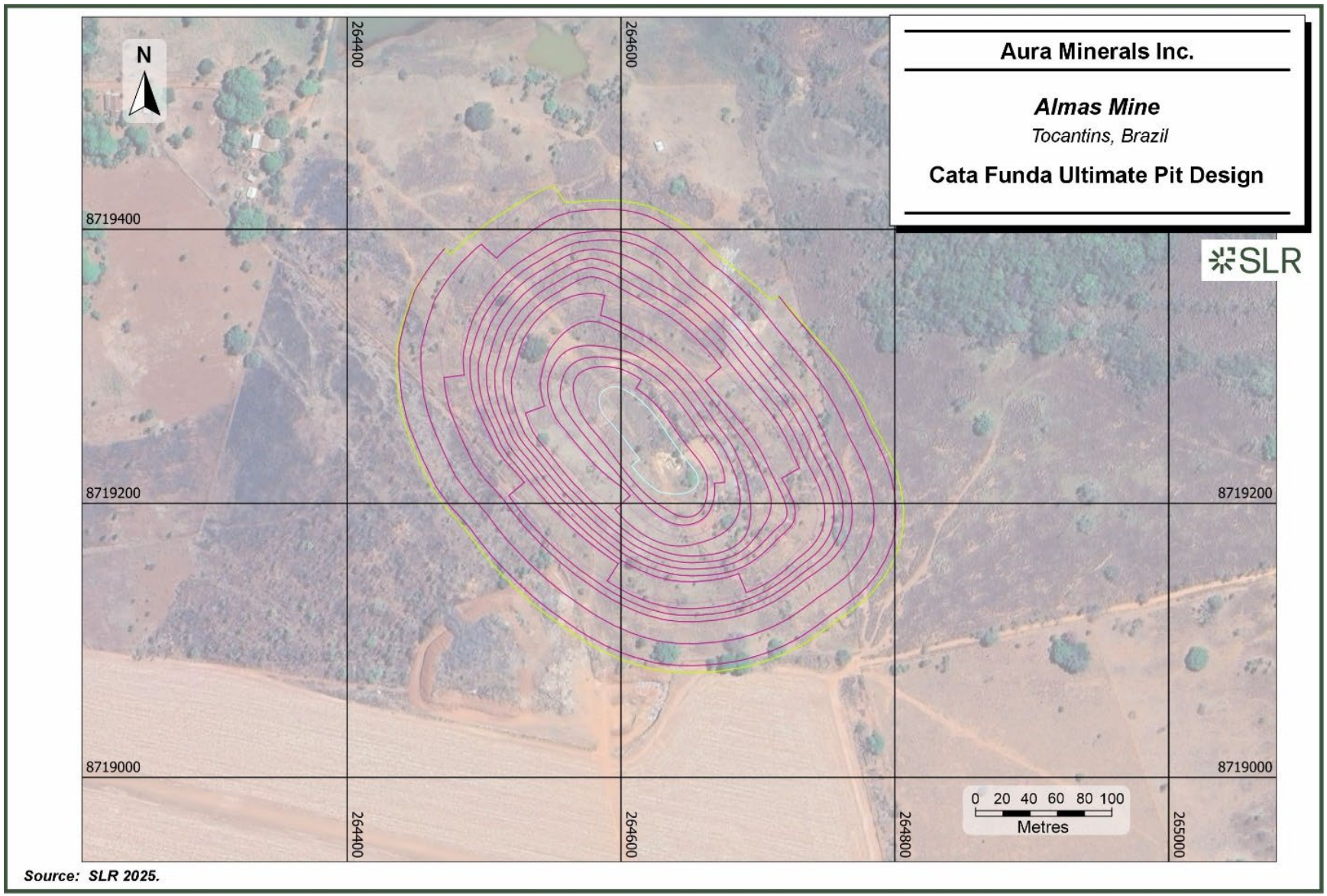


**Figure 13-6: Vira Saia Ultimate Pit Design**




*Source: SLR 2025.*

**Figure 13-7: Cata Funda Ultimate Pit Design**




*Source: SLR 2025.*

## 13.4 Mining Method

The project's mining operation is open pit mining with conventional techniques for surface rock mass excavation, using a maximum level of mechanization. Currently, only the Paiol pit is in operation. Vira Saia is scheduled to start operations in 2028, and Cata Funda, due to its longer haulage distance, will become operational at the end of the mine life in 2033. Up to two pits will be mined simultaneously.

The waste rock comprises soil, saprolite, weathered rock, and fresh rock. Soil tonnage is approximately 70% of saprolite mass, and it is the only lithology that does not require drilling and blasting. A combination of FELs, hydraulic excavators, and on-road trucks is used for loading and haulage.

The benches are executed with a slight decline from toe to crest to permit rainfall drainage. Allocated areas exist for rainwater collection and pumping and drainage infrastructure around the pit to minimize operational disturbances during heavy rain.

The ultimate Paiol pit will fully overlap the existing pit from the former VALE operation. Figure 13-8 shows the overall view of the Paiol pit, the only pit currently being mined. Figure 13-9 shows the main access to the Paiol pit and the haulage equipment adopted at the Almas Project.

The processing plant is 0.7 km from the final Paiol pit, and the tailings dam is approximately 2.0 km away. A new tailings facility will be required to meet the LOM tailings generation, which is projected to be operational in 2030.

The mining faces are accessed by 15 m wide double-lane roads with a 10% maximum gradient. All roads will have a 2.0% transversal gradient from the centre to the lateral edge, with drainage ditches along the roads. Road conditions are compatible with good practices for operating mining equipment.

The main characteristics of the Project operations are presented below:

- Grade control with dedicated drilling: Sample collection supports the grade control engineering and short-term mine plan.
- Blastholes: Holes are drilled using a hydraulic top hammer drilling rig.
- Primary rock blasting: Explosives fragment most of the rock, ore, and waste. Ore fragmentation has special requirements, and electronic caps have been specified for ore.
- Rock mechanical excavation: By hydraulic excavators with the aid of bulldozers.
- The loading operation is performed by a retro-bucket-profile hydraulic excavator and complemented by FELs).
- The mine is operated by a contractor using 70 t operating-weight hydraulic excavators, loading 8 x 4 trucks (four axles, two of which are driving axles) with 22 $m^3$ dump box size and 48 t capacity.
- Ancillary equipment used for the preparation and development of the mine includes crawler tractors, motor graders, and water tank trucks.
- Hydraulic backhoe excavators excavate soft rock and load it directly onto the trucks. Track dozers complement excavation work where the altered rock layers are thicker.

**Figure 13-8: Overall View of the Paiol Pit (August 2024)**



**Figure 13-9: Main Access to the Paiol Pit**



Source: SLR 2024.

The destinations of mined materials are:

- ROM stockpile at the primary crusher area
- Waste dumps
- Low-grade stockpile

The ore is re-handled from the stockyard using a FEL to feed the primary crusher. The ore from the heap leach pad is excavated directly by hydraulic excavators.

Mining is carried out in 10 m and 20 m high benches, however, to improve selectivity along the ore/waste contacts, mining at some areas and pits can be undertaken using five metre benches. The material from low-grade piles is rehandled and hauled to the processing plant when necessary.

A dedicated team performs short-term grade control. They are responsible for collecting samples and analyzing the ore quality before feeding.

## 13.5 Mine Equipment

### 13.5.1 Drill and Blast

Contractors run drill and blast operations at the Project. Aura is responsible for managing the contractors to achieve the necessary production.

The operation undertakes fragmentation quality monitoring to optimize the total rock excavation in the mine and the grinding process. The blasting pattern parameters are summarized in Table 13-8. Blastholes are 5.0” diameter in both ore and waste. In ore blasting, electronic caps are used with an explosive charge rate of 410 g/t, while in waste, non-electric caps are used with an explosive charge rate in waste rock of 220 g/t.

**Table 13-8: Blasting Pattern Parameters**

| Parameter | Unit | 5 m Bench Height | | 10/20 m Bench Height | |
|---|---|---|---|---|---|
| | | Ore | Waste | Ore | Waste |
| Bench height | m | 5.0 | 5.0 | 10.0 | 10.0 |
| % Rock column by bench height | % | 25% | 25% | 75% | 75% |
| Blasthole diameter | (") | 5.0 | 5.0 | 5.0 | 5.0 |
| | m | 0.127 | 0.127 | 0.127 | 0.127 |
| Burden (b) | m | 3 | 3.5 | 3 | 4.1 |
| Spacing (e) | m | 3.4 | 4.5 | 3.5 | 4.8 |
| Spacing/burden ratio (e/b) | no. | 1.13 | 1.30 | 1.20 | 1.17 |
| Sub drilling | m | 0.5 | 0.5 | 1.0 | 1.0 |
| Hole inclination (from horizontal) | (°) | 90 | 90 | 90 | 90 |
| Total hole length | m | 5.5 | 5.5 | 11.0 | 11.0 |
| Stemming | m | 1.6 | 2.0 | 3.1 | 3.5 |
| Explosive density | g/cm$^3$ | 1.15 | 1.15 | 1.15 | 1.15 |

| Parameter | Unit | 5 m Bench Height | | 10/20 m Bench Height | |
|---|---|---|---|---|---|
| | | Ore | Waste | Ore | Waste |
| Explosive charge/meter | kg/m | 14.6 | 14.6 | 14.6 | 14.6 |
| Explosive charge per blasthole | kg/hole | 56.9 | 51.1 | 115.3 | 109.5 |
| "In situ" rock volume per blasthole | $m^3$ | 51 | 79 | 105 | 197 |
| Specific rock density "in situ" | $t/m^3$ | 2.67 | 2.44 | 2.67 | 2.44 |
| "In situ" rock tonnage per hole | t | 136 | 192 | 280 | 480 |
| Specific explosive charge per volume | $g/m^3$ | 1,116 | 649 | 1,098 | 556 |
| Specific explosive charge per mass | g/t | 419 | 266 | 411 | 228 |

### 13.5.2 Loading Equipment

Loading and haulage operations at the Project are carried out by contractors. Aura is responsible for the contractor's management in achieving the necessary production.

Hydraulic excavators with 2.5m³ and 3.5 m³ buckets are adopted for the ore-loading operation combined with 23 t and 35 t capacity trucks. FELs equipped with 3.5 $m^3$ buckets are used to complement the mine loading operation as required. The same equipment type is used to feed ore to the crushing plant.

Table 13-9 presents the physical parameters used for the loading fleet at the Project.

**Table 13-9: Loading Fleet Physical Parameters**

| Parameters | Unit | Excavator 2.5m³ | Excavator 3.5m³ | Front End Loader |
|---|---|---|---|---|
| Loading Equipment model | # | SY500H | SY750H | CAT 966L |
| Truck type | # | 6x4 | 8x4 | 8x4 |
| Truck Dump box | $m^3$ | 14 | 22 | 22 |
| Truck Gross Weight | t | 34 | 48 | 48 |
| Truck Payload capacity | t | 23 | 35 | 35 |
| Tonnage per loading cycle | t | 4.4 | 6.1 | 6.4 |
| Number of passes | qty | 5.2 | 5.7 | 5.5 |
| Rounded cycles quantity (nr) | qty | 5 | 6 | 6 |
| Truck manoeuvre fixed time | min. | 0.5 | 0.5 | 0.4 |
| Discharged fixed time | min. | 1.1 | 1.1 | 1.1 |
| Waiting time per queue | min. | 1.0 | 1.0 | 1.0 |
| Loading fixed time per cycle | min. | 0.6 | 0.6 | 0.6 |
| Loading time | min. | 2.8 | 3.4 | 3.9 |
| Total time per truck | min. | 5.5 | 6.6 | 7.0 |
| Loading Capacity | t/hr | 240 | 353 | 300 |

### 13.5.3 Transport Equipment

The contractor at the Project uses a mix of two conventional road trucks: a 6x4 truck with a 14 m³ dump box and an 8x4 truck with a 22 m³ dump box. Both are suitable for transporting primary rock.

Assuming an average rock density of 1.7 t/m$^3$ to 1.8 t/m$^3$, the truckload is approximately 23 t for the smaller truck and 35 t for the bigger one. and the 4.5 m³ bucket-size excavator needs five cycles to fill the truck.

Currently, the brands and models employed by the contract at Almas are:

- 23t capacity: Mercedes-Benz, AROCS 3351 6×4
- 35t capacity: Volvo, FMX500

This equipment model is made in Brazil and is quite common in the local market. It grants the operation short lead times and increases fleet flexibility.

As shown inTable 13-9, the average fixed total time for loading by hydraulic excavator is six to seven minutes. This includes maneuvering in the loading area, maneuvering and tipping time at the discharge, and waiting time in the queue. The trucks transport cycle time variable was calculated based on the average transport distances for the entire LOM period.

Table 13-10 shows the average transport distances for all sequenced periods for the Paiol, Cata Funda, and Vira Saia pits.

**Table 13-10: Average Transport Distance**

| | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Paiol** | | | | | | | | | | | |
| Ore | km | 2.69 | 2.38 | 2.79 | 2.14 | 2.11 | 2.85 | 3.29 | 3.32 | 3.10 | 3.19 |
| Waste | | 2.38 | 2.45 | 2.54 | 2.55 | 2.28 | 2.73 | 2.85 | 3.19 | 3.39 | 3.29 |
| **Cata Funda** | | | | | | | | | | | |
| Ore | km | | | | | | | | | 1.65 | 3.23 |
| Waste | km | | | | | | | | | 1.16 | 1.51 |
| **Vira Saia** | | | | | | | | | | | |
| Ore | km | | | | 1.87 | 1.95 | 1.82 | 2.03 | 2.27 | 2.05 | |
| Waste | km | | | | 1.36 | 1.46 | 1.50 | 1.53 | 1.69 | 1.54 | |

### 13.5.4 Auxiliary Fleet

The auxiliary fleet is run by the same contractor as the main equipment. The current fleet is summarized in the Table 13-11.

**Table 13-11: Equipment Calculated Working Hours**

| Equipment | Reference Model | Units |
|---|---|---|
| Bulldozer | D155AX-6 | 2 |
| Grader | Caterpillar CAT 140K | 2 |
| Bulldozer | D61EX-23M0 | 3 |
| Truck for Explosives | Mercedes Bens Axor 6x4 | 1 |
| Water tank Trucks | Atego 2730/48 6X4 / VMX 290 6x4R | 4 |
| Backhoe Loader | Caterpillar CAT 316 | 3 |
| Blasthole Production Drill Rig | Pantera DP1500i | 5 |
| Grade Control Drill rig | Epiroc Flexi-Roc D65 RC | 2 |
| Hydraulic Breaker+Excavator | R220LC-9 / SY215C / PC200 | 3 |
| Lube/Fuel Truck | Atego 1719/48 4X2 / Atego 2730/48 6X4 | 2 |
| Field Maintenance Truck | Arocs 3351 6X4 | 1 |
| Portable Lightning Tower | HILIGHT V5+ / TIS STANDARD | 9 |
| Light Vehicle | Toyota Hilux | 8 |
| Low Bed Transport Truck | SR/RANDON | 1 |

## 13.6 Mine Personnel

As the mine operation is sub-contracted, Aura's labor force is limited to management, grade control, and mine planning, as presented in Table 13-12.

**Table 13-12: Workforce in the Mining Operation / Support**

| Sector | Job Title | Formation | Quantity |
|---|---|---|---|
| Management | Mine Manager | Mining Engineer | 1 |
| Grade Control | Department Chief | Geologist Sr | 1 |
| | Coordinator | Geologist Full | 1 |
| | Grade Control Technician | Mining Technician | 2 |
| Mine Planning | Department Chief | Mining Engineer Sr | 1 |
| | Mine Planning Engineer | Mining Engineer Full | 1 |
| | Topography Specialist | Surveyor | 1 |
| | Mine Planning Engineer | Mining Technician | 2 |
| Mine Production | Department Chief | Mining Engineer Sr | 1 |
| | Production Engineer | Mining Engineer | 1 |
| | Production Supervisor | Mining Technician | 4 |

## 13.7 Life of Mine Plan and Mine Schedule

The planned annual average run-of-mine (ROM) production rate is 2.0 Mt at a gold grade of 1.13 g/t, with a total of 168 Mt of waste to be moved over the 10 year life of the Project from 2025 to 2034. The production schedule is presented in Table 13-13.

Three deposits will be mined, including the primary Paiol deposit, which is already in production, and two satellite deposits, Vira Saia and Cata Funda, located approximately five kilometres and 15 km away, respectively. Existing heap leach reserves from VALE's historical operations and low-grade stockpiles are also included.

The objective of the production schedule is to meet the processing plant's production capacity and maximize NPV while maintaining adequate operational practices, including safety.

Production scheduling was developed in the Deswik Sched module using the mining phases created during the design. The LOM production plan was developed annually.

The following assumptions were made for the production scheduling:

- Only blocks classified as Measured and Indicated were scheduled and considered as ore.
- Forecasted topography as of December 31, 2024 (depletion).
- Production rates:
  - 2025: 15.6 Mt of total material moved; 1.85 Mt of mill feed, and 55 koz of targeted Au production
  - 2026: 15.0 Mt of total material moved; 1.90 Mt of mill feed, and 55koz of targeted Au production
  - 2027 onwards: 15.0 Mt of total material moved; 2.00 Mt of mill feed, and 55 koz of targeted Au production
- Ore loss: 5% for High and medium-grade and none for low-grade.
- Mining dilution: 10%.
- SMU: 10 m x 10 m x 5 m.
- Mining timeline:
  - 2025 and 2026: Paiol pit exclusively
  - 2027: Operation commences at Vira Saia
  - Cata Funda must be postponed as much as possible with an operational start date of no earlier than 2028
- Stockpiles opening balances:
  - Heap Leach pile: 1,164 kt @ 0.63 g/t Au
  - Low grade stockpile: 1,205 kt @ 0.48 g/t Au
- Metallurgical Recovery:
  - High-grade: 92%
  - Medium-grade: 90%
  - Low-grade and historical stockpiles: 86%

The guidelines observed for the mine schedule selection were:

- Manage production rates to ensure the processing facilities are consistently supplied.
- Maintaining realistic mining rates that are appropriate for the mining fleet.
- Achieve a practical open pit mining sequence.
- Ensure smooth transition between Paiol, Vira Saia, and Cata Funda deposits.
- Minimize stockpiles and rehandling levels.

Several scheduling iterations were run with the objective of identifying and selecting the best scenario. The preferred option of the LOM production plan is shown on Table 13-13.





**Table 13-13: LOM Production Plan**

| | Unit | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ore Mass** | | | | | | | | | | | | |
| Paiol | 000 t | 1,610 | 1,663 | 1,563 | 1,363 | 1,552 | 1,938 | 1,345 | 765 | 711 | 954 | 13,464 |
| Vira Saia | 000 t | | | | 402 | 448 | 62 | 436 | 785 | 570 | 450 | 3,153 |
| Cata Funda | 000 t | | | | | | | | | 214 | 509 | 723 |
| Stockpiles | 000 t | 240 | 237 | 438 | 236 | | | 218 | 450 | 550 | | 2,369 |
| **Total** | **000 t** | **1,850** | **1,900** | **2,000** | **2,000** | **2,000** | **2,000** | **2,000** | **2,000** | **2,045** | **1,913** | **19,709** |
| | | | | | | | | | | | | |
| **Ore Grade** | | | | | | | | | | | | |
| Paiol | g/t | 1.09 | 1.06 | 1.08 | 0.95 | 0.91 | 1.03 | 1.17 | 1.94 | 1.43 | 1.46 | 1.14 |
| Vira Saia | g/t | 0.00 | 0.00 | 0.00 | 1.18 | 1.24 | 1.06 | 1.01 | 0.85 | 1.20 | 0.87 | 1.04 |
| Cata Funda | g/t | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.69 | 1.64 | 1.65 |
| Stockpiles | g/t | 0.55 | 0.53 | 0.53 | 0.51 | | | 0.48 | 0.48 | 0.55 | | 0.55 |
| **Total** | **g/t** | **1.03** | **1.00** | **0.97** | **0.96** | **0.99** | **1.03** | **1.07** | **1.19** | **1.14** | **1.37** | **1.07** |
| | | | | | | | | | | | | |
| Waste | 000 t | 14,039 | 13,336 | 13,408 | 15,645 | 20,984 | 21,007 | 21,169 | 21,455 | 21,324 | 6,027 | 168,394 |
| Strip Ratio | | 8.7 | 8.0 | 8.6 | 8.9 | 10.5 | 10.5 | 11.9 | 13.8 | 14.3 | 3.2 | 9.7 |
| **Total Mass** | **000 t** | **15,649** | **14,999** | **14,971** | **17,409** | **22,984** | **23,007** | **22,951** | **23,005** | **22,819** | **7,940** | **185,734** |
| | | | | | | | | | | | | |
| Contained Gold | 000 oz | 61 | 61 | 62 | 62 | 63 | 66 | 69 | 76 | 75 | 84 | 680 |
| Metallurgical Recovery | % | 90 | 89 | 89 | 90 | 91 | 90 | 90 | 90 | 89 | 91 | 90 |
| **Recovered/Produced Gold** | **000 oz** | **55** | **55** | **55** | **55** | **57** | **60** | **62** | **69** | **67** | **77** | **612** |





# 14.0 Processing and Recovery Methods

## 14.1 Overall Process Design

The process design is based on the results of several test work programs. This includes test work completed for 2021, feasibility study and historical testing. Historical testing evaluated different flowsheet options. The flowsheet selected for the 2021 feasibility study is based on typical industry unit operations for gold processing plants and the metallurgical test results.

The flowsheet includes primary crushing followed by grinding to achieve a particle size distribution of 80% passing 75 µm. Part of the cyclone underflow will be processed in a gravity circuit and the cyclone overflow will feed a pre-leach thickener; thickener underflow is processed through a leach-CIL circuit. CIL tailings will be treated for cyanide destruction. The carbon from CIL will go to elution, and the eluate solution will go to electrowinning in the gold room followed by refining.

The process plant was commissioned in 2023. A summary of the production data is presented in Table 14-1.

Key process design criteria are listed below:

- Nominal throughput of 5,479 tpd or 2.0 Mtpa.
- Crushing plant availability of 70%.
- Plant availability of 92% for grinding, gravity concentration, leach plant, and gold recovery operations.

**Table 14-1: Production History and Mill Recovery**

| Year | Tonnage Milled (000 t) | Feed Grade (g/t Au) | Recovery (%) | Gold Produced (oz) |
|---|---|---|---|---|
| 2023 | 815 | 0.794 | 90.3 | 18,758 |
| 2024 | 1,333 | 1.116 | 90.7 | 43,077 |

## 14.2 Mill Process Plant Description

The process design comprises the following circuits:

- Primary crushing of ROM material.
- Surge bin to provide buffer capacity ahead of the grinding circuit.
- Emergency stockpile fed from the overflow of the surge bin.
- Low-aspect semi-autogenous grinding (SAG) mill with trommel screen and cyclone classification.
- Gravity recovery of the cyclone underflow slurry by one semi-batch centrifugal gravity concentrator, followed by intensive cyanidation of the gravity concentrate and electrowinning of the pregnant leach solution in a dedicated cell located in the gold room.
- Trash screening.

- Pre-leach thickening.
- Leach + adsorption (L-CIL hybrid).
- Acid washing of loaded carbon and Zadra elution followed by electrowinning and smelting to produce doré.
- Cyanide destruction of tailings using the SO2/air process.
- Carbon safety screening.
- Tailings management facility.

### 14.2.1 Plant Design Criteria

Key process design criteria are listed in Table 14-2.

### 14.2.2 Primary Crushing and Stockpiling

The crushing circuit is designed for an annual operating time of 6,130 hr or 70% availability at the capacity of 5,479 tpd.

Material is hauled from the mine or stockpiles and fed by FEL into the mobile crushing system. This system is composed of the ROM hopper, a vibrating grizzly feeder, a primary crusher, and a discharge conveyor, along with some auxiliary equipment. As part of the mobile system, the ROM is dumped into the ROM hopper, equipped with a static grizzly. Provision for dumping on the ROM pad for blending and re-handling into the ROM hopper is provided. Material from the ROM hopper is crushed by a primary jaw crusher. ROM hopper material is reclaimed by a vibrating grizzly at 326 t/hr to feed the jaw crusher.

A mobile rock breaker is utilized to break oversize rocks at the feed to the jaw crusher. The crushed material is conveyed to a surge bin that provides approximately 1.6 hr of live storage at the nominal processing rate. The bin has an overflow system, which forms an emergency stockpile next to the bin. Given the milling operation is designed for an annual operating time of 8,059 hr or 92% availability, this will result in excess crushed material production when the crusher is operational. The excess crushed material will allow routine crusher maintenance to be carried out without interrupting feed to the mill.

The mill feed surge bin is equipped with two vibrating feeders to regulate feed at 248 t/hr into the SAG mill. When the surge bin has material, crushed material is drawn from the surge bin by the vibrating feeders and feeds the SAG mill circuit via the SAG mill feed conveyor. When operating using the bin overflow stockpile, FELs reclaim the material to a reclaim bin equipped with a vibrating feeder that also feeds the SAG mill circuit. Pebbles from the SAG mill are recycled to the SAG mill via conveyor and discharged on the SAG mill feed conveyor. The transfer point of the pebble recycle conveyor has a chute that allows purging of the pebbles as required.

The material handling and crushing circuit includes the following key equipment:

- ROM hopper
- Vibrating grizzly
- Primary jaw crusher
- Surge bin
- Mill feed vibrating feeders (equipped with variable speed drives [VSDs])





- Material handling equipment

**Table 14-2: Summary of Key Process Design Criteria**

| Design Parameter | Units | Value |
|---|---|---|
| Plant Throughput | t/d | 5,479 |
| Head Grade – Design | g/t Au | 1.13 |
| Crushing Plant Availability | % | 70 |
| Mill Availability | % | 92 |
| Bond Crusher Work Index (CWi) | kWh/t | 17.1 |
| Bond Ball Mill Work Index (BWi) | kWh/t | 10.1 |
| JK Axb | - | 47 |
| Bond Abrasion Index (Ai) | g | 0.069 |
| Primary Crusher | | Metso C116 or Equivalent |
| Material Specific Gravity | t/m³ | 2.79 |
| Angle of Repose | degrees | 37 |
| Moisture Content | % | 5.0 |
| SAG Mill Dimensions | | 5.0 m dia. X 9.0 m EGL |
| SAG Mill Installed Power | MW | 3.75 |
| SAG Mill Discharge Density | % w/w | 70 |
| SAG Mill Ball Charge | % v/v | 21 |
| Primary Grind size ($P_{80}$) | µm | 75 |
| Gravity Circuit Feed Source | | Cyclone underflow slurry |
| Gravity Circuit Feed Rate | % of cyclone underflow | 25 |
| Gravity Circuit Recovery | Au (%) | 17.5 |
| Pre-leach thickener settling rate | t/d/m² | 48,4 |
| Pre-leach thickener diameter | m | 12 |
| L-CIL Residence Time | h | 17.4 |
| L-CIL Extraction | Au (%) | 92.5 |
| L-CIL Operating Density | % w/w | 50 |
| L-CIL Dissolved Oxygen Target | mg/L | 5-8 |
| L-CIL pH Target | | 10.5 – 11.0 |
| CIL Carbon Concentration | g/L | 25 |
| L-CIL Sodium Cyanide Addition | kg/t | 0.51 |
| L-CIL Hydrated Lime Addition | kg $Ca(OH)_2$/t | 1.6 |
| Leach & CIL Tanks | # | 1 + 6 |

| Design Parameter | Units | Value |
|---|---|---|
| Elution Circuit Capacity | t | 3.0 |
| Detox Residence Time | minutes | 101 |
| Detox Oxygen Addition Rate (weight) | $O_2$:$SO_2$ | 3.0 |
| Detox Feed Cyanide Concentration | mg/L $CN_{WAD}$ | 150 |
| Detox Cyanide Discharge Target | mg/L $CN_{WAD}$ | <2.0 |
| Detox Copper Sulphate Addition | mg/L $Cu^{+2}$ | 50 |
| Detox $SO_2$ Addition (weight) | $SO_2$:$CN_{WAD}$ | 5.5 |
| Detox Lime Addition (weight) | CaO:$SO_2$ | 1.0 |

### 14.2.3 Grinding Circuit

The grinding circuit consists of a low-aspect single stage SAG mill in closed circuit with hydrocyclones. The SAG mill is an adaptation of an existing ball mill, already purchased by Aura. The mill size and design were reviewed by Ausenco, and Ausenco is of the opinion that it is suitable for this new application. The circuit is sized based on a SAG feed size F80 of 85 mm and product size P80 of 75 µm. The SAG mill discharges slurry through a trommel screen where the pebbles are screened and recycled back to the SAG mill via a conveyor, with the ability to purge the pebbles at the conveyor transfer point. Trommel undersize discharges into the cyclone feed pumpbox.

Water is added to the cyclone feed pumpbox to obtain the appropriate density prior to pumping to the cyclones. Cyclone underflow is split and feeds the gravity circuit scalping screen and the remaining cyclone underflow recycles to the SAG mill feed. Cyclone overflow flows by gravity to the pre-leach thickener via a trash screen.

The grinding circuit includes the following key equipment:

- 3,750 kW single stage SAG mill
- Cyclone feed pumpbox
- Cyclone feed pumps
- classification cyclones
- Trash screen

### 14.2.4 Gravity Concentrate Recovery Circuit

The gravity circuit comprises one centrifugal concentrator complete with a feed scalping screen. Feed to the circuit is directed from the cyclone underflow to the scalping screen. Gravity scalping screen oversize at +2 mm reports to the gravity tails pumpbox, from where the gravity tails pump directs the material back to feed the SAG mill.

Scalping screen undersize is fed to the centrifugal concentrator. Operation of the gravity concentrator is semi-batch and the gravity concentrate is collected in the concentrate storage cone and subsequently leached by the intensive cyanidation reactor circuit. The tails from the gravity concentrator reports to the gravity tails pumpbox.

The gravity recovery circuit includes the following key equipment:





- Gravity feed scalping screen
- Gravity concentrator
- Gravity tails pumpbox
- Gravity tails pump

### 14.2.5 Intensive Leach Reactor

Concentrate from the gravity circuit reports to the intensive leach reactor (ILR) to extract the contained gold by intensive cyanidation. The concentrate from the gravity concentrator is directed to the ILR gravity concentrate storage cone and de-slimed before transfer to the reaction vessel of the ILR.

ILR leach solution (mixture of NaCN, NaOH, and LeachAid - an oxidant) is made up within the heated ILR reactor vessel feed tank. From the feed tank, the leach solution is circulated though the reaction vessel, then drained back into the feed tank. The leached residue within the reaction vessel is washed, with wash water recovered to the reaction vessel feed tank, and then the solid gravity leach tailings are pumped to the CIL circuit.

The ILR pregnant leach solution is pumped from the reaction vessel feed tank to the ILR pregnant solution tank located in the gold room.

ILR pregnant solution is treated in the gold room for gold recovery as gold sludge using a dedicated electrowinning cell. The sludge is combined with the sludge from the carbon elution electrowinning cells and smelted. It can also be smelted separately for metallurgical accounting purposes.

The ILR circuit includes the following key equipment:

- gravity concentrate storage cone
- Intensive cyanidation reactor
- ILR pregnant solution tank
- ILR electrowinning cell

### 14.2.6 Pre-Leach Thickening

Trash screen undersize feeds the pre-leach thickener, which increases the solids concentration to 50% (w/w) prior to the leach-CIL circuit. Flocculant is added to the thickener feed to improve solids settling in the thickener. The thickener overflow is reused as process water throughout the plant – mainly at the cyclone feed pumpbox.

The pre-leach thickening circuit includes the following key equipment:

- Pre-leach thickener
- Pre-leach thickener underflow pump

### 14.2.7 Leach and Adsorption Circuit

The leach-adsorption circuit consists of one leach tank and six CIL tanks. The circuit is fed by the pre-leach thickener. The leach and CIL tanks are identical in size, with a total circuit residence time of 24 hr at 50% w/w density.





Air is sparged to each tank to maintain adequate dissolved oxygen levels for leaching at 5 mg/L to 8 mg/L. Hydrated lime is added to adjust the operating pH to the desired set point of 10.5 to 11. Cyanide solution is added to the first leach tank. Fresh/stripped carbon is returned to the last tank of the CIL circuit and is advanced counter-currently to the slurry flow by pumping slurry and carbon. Slurry from the last CIL tank gravitates to the cyanide detoxification tanks.

The intertank screen in each CIL tank retains the carbon while allowing the slurry to flow by gravity to the downstream tank. This counter-current process is repeated until the loaded carbon reaches the first CIL tank. Recessed impeller pumps are used to transfer slurry between the CIL tanks and from the lead tank to the loaded carbon screen mounted above the acid wash column in the elution circuit.

The leach and carbon adsorption circuit include the following key equipment:

- Leach-CIL tanks and agitators
- Loaded carbon screen
- Intertank carbon screens
- Carbon sizing screen

### 14.2.8 Cyanide Destruction

CIL tails at approximately 50% w/w solids flow by gravity to the two cyanide destruction tanks. The water used for acid rinse and carbon transfer is also included in the feed to the detoxification circuit. As a result, the percentage of solids in the feed to the detoxification circuit is estimated to be about 47% w/w solids.

Each tank operates with a residence time of approximately 60 min to reduce weak acid dissociable cyanide (CNWAD) concentration from 150 mg/L to less than 2.0 mg/L to comply with environmental requirements prior to deposition in the TSF.

Cyanide destruction is undertaken using the SO2/air method. The reagents required are air, lime, copper sulphate, and sodium metabisulphite (SMBS). The cyanide destruction tank is equipped with compressed air spargers and an agitator to ensure that the oxygen and reagents are thoroughly mixed with the tailing’s slurry.

From the detoxification tank, the tailings report to the carbon safety screen. Screen undersize feeds the tailings pumpbox, whilst screen oversize (recovered carbon) is collected in a fine carbon bin for potential return to the CIL circuit.

The main equipment in this area includes:

- Cyanide destruction tanks and agitators
- Carbon safety screen
- Tailings pumpbox
- Tailings pump

### 14.2.9 Carbon Acid Wash, Elution Circuit

#### 14.2.9.1 Carbon Acid Wash

Prior to gold stripping stage, loaded carbon is treated with a weak hydrochloric acid solution to remove calcium, magnesium, and other salt deposits that could render the elution process less efficient and/or the scale could foul the carbon impacting gold adsorption.

Loaded carbon from the loaded carbon recovery screen flows by gravity to the acid wash column. Entrained water is drained from the column and the column is refilled from the bottom up with the hydrochloric acid solution. Once the column is filled with the acid, it is left to soak, after which the spent acid is rinsed from the carbon and discarded to the cyanide destruction tank.

The acid-washed carbon is then hydraulically transferred to the elution column for gold stripping.

The main equipment in this area includes:

- Acid wash carbon column – three tonne capacity
- Hydrochloric acid feed pump
- Spent solution discharge sump pump

#### 14.2.9.2 Gold Stripping (Elution)

The gold stripping (elution) circuit uses the Zadra process.

The Zadra process operates under pressure eluting gold from activated carbon at high temperatures, approximately 140°C, and pressure of four bar to six bar to accelerate the elution of gold. An elution solution of sodium cyanide (NaCN) and sodium hydroxide (NaOH) solution is heated and circulated through the column, removing the adsorbed gold from the carbon, with an elution time of approximately six hours to 10 hours, for fast and effective operation.

The elution process begins by sending the loaded carbon from the holding tank to the elution column.

Once the carbon is in the column, the prepared elution solution in the solution tank, containing sodium cyanide and sodium hydroxide, begins to be recirculated. This solution passes through heat exchangers and heaters, with the aim of raising the temperature of the solution until it reaches 140°C. Then, the heated solution flows through the bottom of the elution column, promoting the removal of gold adsorbed on the carbon.

The gold-rich solution, generated after passing through the elution column, is directed to the heat exchangers to control temperature and prevent vaporization. The solution is then sent to the electrowinning cell where the gold is plated.

The barren solution, after electrowinning, returns to the solution tank, where it is continuously recirculated until 80% to 90% of the gold adsorbed onto the carbon has been extracted, completing the batch cycle.

The stripping circuit includes the following key equipment:

- Elution carbon column – three tonne capacity
- Direct strip solution heater (propane gas)
- Heat exchangers

- Strip eluate and pregnant solution tanks

#### 14.2.9.3 Carbon

Carbon discharging from the elution column is screened on a carbon sizing screen located on top of the CIL tanks to remove undersized carbon fragments. The undersize fine carbon gravitates to the carbon safety screen, whilst carbon screen oversize is directed to the CIL circuit.

As carbon is lost by attrition, new carbon is added to the circuit using the carbon quench tank. The new carbon is then transferred along with the stripped carbon to feed the carbon sizing screen.

The carbon reactivation circuit includes the following key equipment:

- Carbon dewatering screen
- Carbon sizing screen
- Carbon quench tank

#### 14.2.9.4 Electrowinning and Gold Room

Gold is recovered from the pregnant solution by electrowinning and smelted to produce doré bars. The pregnant solution from both elution and the intensive cyanidation circuit is combined and pumped through one electrowinning cell with stainless steel mesh cathodes. Gold is deposited on the cathodes and the barren solution bleed after elution is complete, and it is then pumped to the CIL circuit for recovery of the remaining dissolved gold.

The gold-rich sludge is washed off the steel cathodes in the electrowinning cell using high-pressure spray water and gravitates to the sludge hopper. The sludge is filtered, dried, mixed with fluxes, and smelted in an electrical induction furnace to produce gold doré. Slag is separated, quenched and any metallic gold is removed. Slag is returned to the SAG mill feed. The electrowinning and smelting processes take place within a secure and supervised gold room equipped with access control, intruder detection, and closed-circuit television equipment.

The electrowinning circuit and gold room include the following key equipment:

- Electrowinning cell with rectifier
- Sludge pressure filter
- Drying oven
- Flux mixer
- Induction smelting furnace with bullion moulds and slag handling system
- Bullion vault and safe
- Dust and fume collection system
- Gold room security system

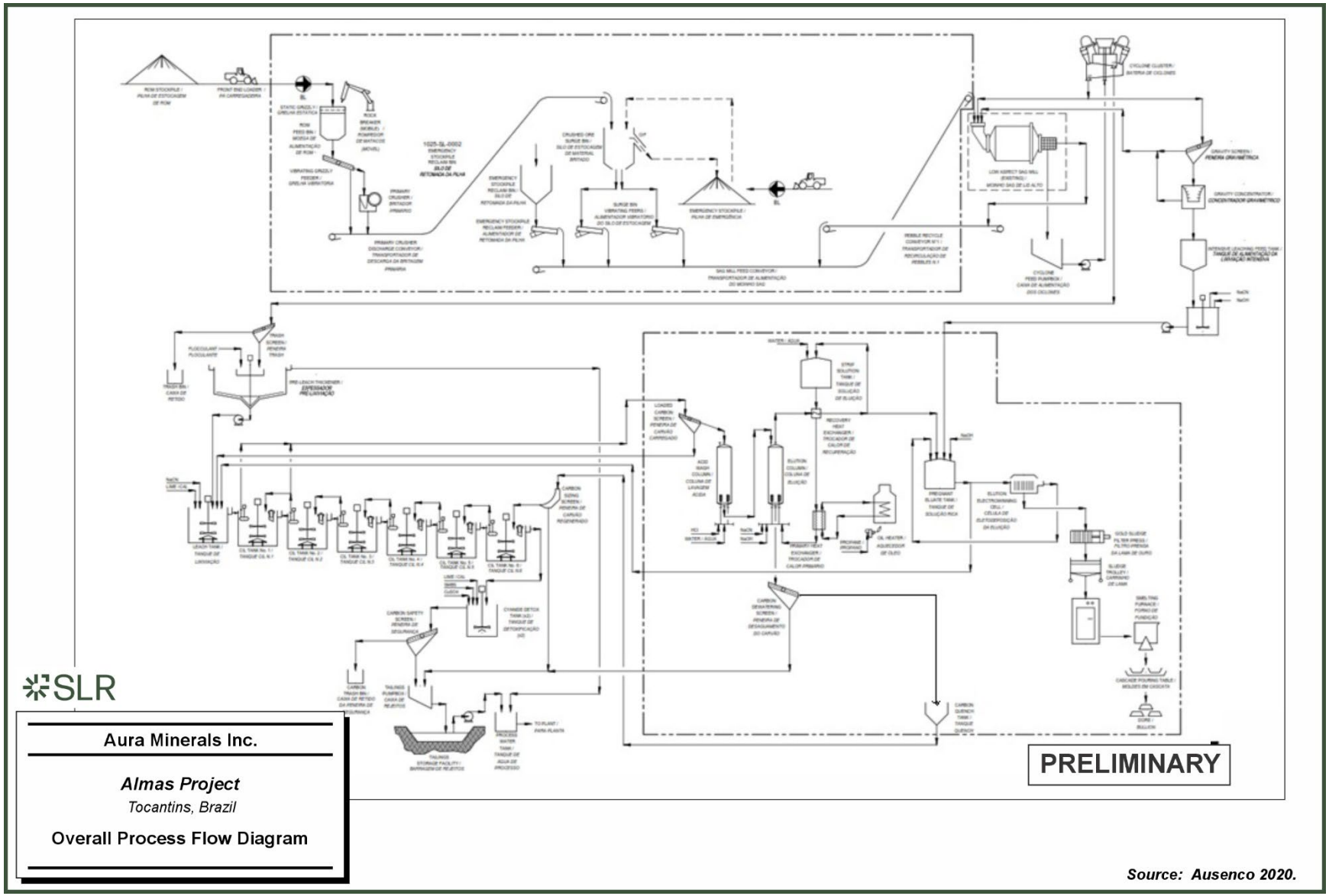
### 14.2.10 Flowsheet

An overall process flow diagram is presented in Figure 14-1.





**Figure 14-1: Overall Process Flow Diagram**




*Source: Ausenco 2020.*

For illustration purposes, Figure 14-2 and Figure 14-3 show images of the metallurgical plant taken during the site visit in August 2024.

**Figure 14-2: Overall View of the Almas Metallurgical Plant – Perspective 01**



Source: SLR 2024.

**Figure 14-3: Overall View of the Almas Metallurgical Plant – Perspective 02**



Source: SLR 2024.

## 14.3 Reagent Handling and Storage

Compatible reagent mixing and storage systems are located within curbed containment areas to prevent incompatible reagents from mixing. Storage tanks are equipped with level indicators, instrumentation, and alarms to ensure spills do not occur during normal operation. Appropriate ventilation, fire and safety protection, eyewash stations, and material safety data sheet (MSDS) stations are located throughout the facilities. Sumps and sump pumps are provided for spillage control.

The following reagent systems are required for the process:

- Hydrated lime
- Sodium cyanide
- Hydrochloric acid
- Copper sulphate pentahydrate
- Sodium metabisulphite
- Sodium hydroxide
- Flocculant
- Activated carbon
- Smelting fluxes

### 14.3.1 Hydrated Lime

The hydrated lime arrives via truck and is unloaded directly into the lime silo storage. Lime is delivered via a screw feeder to the lime preparation tank, where it is mixed to 10% concentration and then pumped to the necessary addition points in the plant.

### 14.3.2 Sodium Cyanide

Sodium cyanide (NaCN) is delivered to site in secured boxes containing one tonne reagent bags. Bags are lifted using a frame and hoist to the sodium cyanide bag breaker on top of the tank. The solid reagent discharges into the tank and is dissolved in water to achieve the required dosing concentration.

After the mixing period is complete, cyanide solution is transferred to the cyanide storage tank using a transfer pump. Sodium cyanide is delivered to the leach circuit, intensive leach circuit, and elution circuit with dedicated dosing pumps.

### 14.3.3 Copper Sulphate

Copper sulphate pentahydrate ($CuSO4•5H2O$) is delivered in solid crystal form in small 25 kg bags on pallets and stored in the warehouse. Process water is added to the agitated copper sulphate mixing tank. A pallet of bags is lifted using a frame and hoist, and periodically a single bag is placed on the copper sulphate bag breaker on top of the tank. The solid reagent falls into the tank and is dissolved in water to achieve the required dosing concentration.

Copper sulphate solution is transferred by gravity to the copper sulphate storage tank, which has a stacked arrangement with the mixing tank. Copper sulphate is delivered to cyanide destruction circuit using the copper sulphate dosing pump.

### 14.3.4 Sodium Metabisulphite

SMBS ($Na2S2O5$) is delivered in the form of solid flakes in one tonne bulk bags and stored in the warehouse. Process water is added to the agitated SMBS mixing tank. Bags are lifted using a frame and hoist into the SMBS bag breaker on top of the tank. The solid reagent falls into the tank and is dissolved in water to achieve the required concentration. After the mixing period is complete, SMBS solution is transferred to the SMBS storage tank using the SMBS transfer pump. SMBS is delivered to the cyanide destruction circuit using the SMBS dosing pump.

### 14.3.5 Sodium Hydroxide

Sodium hydroxide (NaOH or caustic soda) solution at 35% strength is delivered in one cubic metre intermediate bulk containers (IBCs) as a solution and stored adjacent to the elution circuit until required. Dosing pumps automatically deliver the reagent to the required locations—gravity concentrate leach circuit, elution circuit, and electrowinning—to ensure the dosing requirements are met.

### 14.3.6 Hydrochloric Acid

Hydrochloric acid (HCl) is delivered in one cubic metre3 IBCs at 33% solution strength and stored adjacent to the elution circuit until required. Hydrochloric acid is mixed with raw water (inline) to achieve the required 3% w/v concentration. Hydrochloric acid is delivered to the acid wash circuit using the hydrochloric acid dosing pump.

### 14.3.7 Flocculant

The flocculant arrives in a one cubic IBCs and is mixed in an automatic preparation system, where the solution is prepared to the concentration necessary to feed the necessary addition points in the plant.

### 14.3.8 Activated Carbon

Activated carbon is delivered in solid granular form in 0.5 t bulk bags. When required, fresh carbon is introduced to the carbon quench tank, or directly to the final CIL tank.

### 14.3.9 Gold Room Smelting Fluxes

Borax, silica sand, sodium nitrate, and soda ash are delivered as solid crystals/pellets in bags or plastic containers and stored in the warehouse until required.

## 14.4 Services and Utilities

### 14.4.1 Process/Instrument Air

High-pressure air at 700 kPa is produced by compressors to meet plant requirements. The high-pressure air supply is dried and used to satisfy both plant air and instrument air demand. Dried air is distributed via the air receivers located throughout the plant.

### 14.4.2 Low Pressure Air

Compressed air is injected into the leach-CIL tanks and cyanide detox tanks to meet oxygen requirements.

## 14.5 Water Supply

### 14.5.1 Raw Water Supply System

Raw water is supplied to a raw water storage tank. Raw water is used for all purposes requiring clean water with low dissolved solids and low salt content, primarily as follows:

- Gland water for pumps.
- Reagent make-up.
- Elution circuit make-up.
- Raw water is treated and stored in the potable water storage tank for use in safety showers and other similar applications.
- Fire water for use in the sprinkler and hydrant system.

### 14.5.2 Process Water Supply System

Overflow from the pre-leach thickener and TSF decant water meet the main process water requirements. Raw water provides any additional make-up water requirements.

### 14.5.3 Gland Water

One dedicated gland water pump is fed from the freshwater tank to supply gland water to all slurry pump applications in the plant.

## 14.6 Reagent and Consumable Requirements

Reagent and consumable requirements are summarized in Table 14-3.

**Table 14-3 Reagent and Consumables**

| Reagents and Consumables | Units | Quantity |
|---|---|---|
| Grinding media | t | 699,000 |
| Hydrochloric acid | kg | 109,250 |
| Caustic soda | kg | 258,000 |
| Sodium Nitrate | kg | 2,250 |
| Sodium Carbonate | kg | 825 |
| Silica | kg | 875 |
| Borax | kg | 2,225 |
| Carbon | kg | 45,650 |
| Sodium cyanide | t | 765 |
| Leach Aid | kg | 800 |
| Lime | t | 2,137 |
| Sodium Metabisulphite | kg | 554,850 |
| Flocculant | kg | 104,000 |
| Copper Sulphate | kg | 186,000 |

## 14.7 Discussion

The process plant has not reached the design throughput of 5,479 tpd. In 2024 the average throughout was 4,300 tpd. The process design gold leach extraction is 92.5%. The operating plant averaged 90.8% gold leach extraction since commissioning in 2023. This is 2% below design.

# 15.0 Infrastructure

## 15.1 Access Roads

From the municipality of Almas (state of Tocantins, Brazil) to the site, access is via 15 km of road. The first 11 km is on the municipal road, and the remaining 4 km is on a rural road that also provides access to other properties. In the next phases of engineering, Aura considers improvements on this road, to widen the road, improve the drainage system, and follow better safety standards.

The plant internal accesses are approximately 8 m and 10 m wide, designed using primary covering, drainage, and appropriate signage.

On the sides where there is a risk of vehicles falling, barriers are built with a minimum height of half the diameter of the largest vehicle tire that uses that access.

The internal roads allow access between the administrative and operational installations, construction site, beneficiation plant, crushing area, mine pit, waste deposit, and low-grade stockpile.

## 15.2 Power Supply

### 15.2.1 Electrical Power Source

Power is provided by an existing sub-station in Almas city operated by ENERGISA, the local power company, which is connected to the Brazilian national grid. A new 18 km, 138kV overhead power line was constructed to the project site main substation, located to the west of the process plant close to the administrative area. The power line was a package contracted directly by ENERGISA that was responsible for engineering, environmental licensing, construction and commissioning.

The 138kV substation site will contain an incoming structure and isolation switch, main circuit breaker, provision for utility metering, bus work to deliver 138kV power to a 10 MVA stepdown transformer complete with primary circuit breaker, and isolating switches. This transformer will feed associated secondary switchgear and is arranged to provide 13.8kV power to the main processing plant, the crushing plant, the Administration Area, the accommodation area, the mine support area, and the raw water supply and recycle system. Provision is included for automatically switched capacitor banks to assist with site power factor correction. The sub-station will be automated to allow for remote operation.

### 15.2.2 Electrical Distribution

The primary distribution voltage is radial, at 13.8 kV, three phase, 60 Hz, from the main substation.

Feed distribution from the main substation is via three-phase powerlines, power poles, and underground conduits for the secondary substations. Distribution from the secondary substations to the loads and panels in the field is via cable racks and conduits.

### 15.2.3 Main Substation

The main substation includes an electrical room and associated high-voltage equipment. It has a 10 MVA ONAN transformer from 138 CDC to 13.8 kV.



### 15.2.4 Secondary Substations

Site electrical were selected and designed around the major load centres and are shown in Table 15-1.

**Table 15-1: Plant Substations**

| Tag Number | Type | Characteristics | Power Distribution from Main |
|---|---|---|---|
| 3015-SE-0001 (Metallurgy) | E-room | Feed: 13.8 kV-25 kA<br>Process loads: 480 V-50 kA<br>Lighting: 380/220 V-50kA | Conduits – 150 m |
| 3020-SE-0001 (Crushing) | E-room | Feed: 13.8 kV-25 kA<br>Process loads: 480 V-50 kA<br>Lighting: 380/220 V-50kA | Conduits – 180 m |
| 3040-SE-0001 (Administrative) | E-room | Feed: 13.8 kV-25 kA<br>Process loads and lighting: 380/220 V-50kA | Conventional aerial network - 110 m<br>Conduits – 160 m |
| 3050-SE-0001 (Raw water capture) | Skid | Feed: 13.8 kV<br>Process loads and lighting: 380/220 V-50kA | Conduits – 60 m<br>Conventional aerial network: from main substation to derivation - 1300 m.<br>From derivation to substation – 8000 m. |
| 3055-SE-0001 (Decant water capture) | Skid | Feed:13.8 kV<br>Process loads and lighting: 380/220 V-50kA | Conduits – 60 m<br>Conventional aerial network: from main substation to derivation - 1300 m.<br>From derivation to substation – 1400 m. |

The substations will feed the following areas:

- 3015-SE-0001: Grinding, thickening, gravity, leach, detox, elution and electrowinning, reagents, compressed air system, water distribution systems, primary crushing and stockpile/surge bin
- 3040-SE-0001: Administrative buildings, shop and laboratory
- 3050-SE-0001: Raw water capture system
- 3055-SE-0001: Decant return water system

### 15.2.5 Emergency Power

In case of an energy blackout, two diesel generators provide energy to critical places/processes like emergency lights and security systems.

## 15.3 Water

### 15.3.1 Raw Water Supply System

Raw water is captured from the Manuel Alves River and directed to the raw water tank, distributed to required plant points, such as gland water and reagent preparation. It feeds the potable water treatment system and is used as a make-up source for process water. The bottom section of the raw water tank is dedicated to the firewater system.

### 15.3.2 Potable Water Supply

The quality requirement for the potable water treatment plant matches the local drinking water guidelines. Raw water is sourced from the raw water pump and processed through the potable water treatment plant before being stored in the potable water tank. This water feeds all safety showers and administrative buildings (sinks, toilets). Potable water is provided in 20 L gallons of mineral water on several dispensers on the site.

### 15.3.3 Fire Suppression System

All facilities have a fire suppression system in accordance with their function. Fire water is used mainly with an underground ring main network around the facilities. All buildings have hose cabinets and handheld fire extinguishers. Electrical and control rooms are equipped with dry-type fire extinguishers. Ancillary buildings are provided with automatic sprinkler systems. Appropriate fire suppression systems are included for the reagents according to their material safety datasheets.

### 15.3.4 Sewage Collection

A sewage treatment plant package is supplied at the plant to treat all sewage collected within the site. The collection network is underground. Depending on the type of chemical waste from the laboratory, it is either recycled to the plant or stored for off-site disposal. Office and domestic waste is collected and disposed of off-site in accordance with applicable regulations.

## 15.4 Support Buildings

### 15.4.1 Primary Crushing Area

The primary crushing area is located northeast of the process plant. The crushing stage consists of a crushing skid containing a vibrating grizzly feeder, a primary jaw crusher, chutes, plate work, and a discharge conveyor. Mobile cranes service the process equipment as required.

### 15.4.2 Grinding Area

The unenclosed grinding area includes the SAG mill, classification cyclones, cyclone feed hopper and pumps, trash screen, gravity circuit equipment, and a liner handler.

The grinding building is a 30 m (long) x 33.7 m (wide) steel structure with a ground floor, one elevated concrete floor, and multiple equipment access platforms. A 5-tonne hoist service the process equipment, and the mobile crane services any heavier loads.

### 15.4.3 Leach and Detox Areas

The L-CIL/elution area is 46 m (long) x 21.5 m (wide) and includes one 10 m diameter leach tank and six 10 m diameter CIL tanks, including tank platforms, and the area is completely limited by a containment bund with a volumetric capacity equivalent to 110% of the largest tank contained. There is a separate structure in the area for screen maintenance purposes. The area is serviced by a 7.5-tonne hoist on a monorail to access the tank pumps and screens. A mobile crane is required for agitator maintenance.

To the south of the L-CIL tanks is the detoxification and tailings area. This area includes two 7 m diameter detoxification tanks and is 30 m (long) x 12 m (wide). It also includes the tailings hopper and pumps to the TMF.

### 15.4.4 Gold Room

The gold room is a two-storey, pre-cast concrete building measuring 13.5 m (long) x 13.5 m (wide) that houses the electrowinning cells, sludge hopper/filter, drying oven, furnace, vault, and security room, complete with a five-tonne monorail. It is located in a fenced area with restricted access, encompassing the pregnant solution tank and its containment bund.

### 15.4.5 Administrative Area

The administrative complex is located near the mine entrance and includes the gatehouse with a reception area and waiting room, visitors' parking lot, administration building, cafeteria, warehouse, change room, and first aid room.

Near the administrative office are additional ancillary buildings, including a laboratory, warehousing, and a maintenance shop.

## 15.5 Site Infrastructure Views

Figure 15-1 shows the ore pad (stockpile) and the conveyor belt to the mill (to the left) and the electric, water, and communication infrastructure (to the right).

Figure 15-2 shows the metallurgical plant in the foreground, with the administrative area, maintenance, and warehouse visible in the background.

**Figure 15-1: Overall View of the Almas Project – Perspective 01**



Source: SLR 2024.

**Figure 15-2: Overall View of the Almas Project – Perspective 02**



Source: SLR 2024.

# 16.0 Market Studies

## 16.1 Markets

The principal commodity at Almas is gold. This type of product is freely traded on global markets at prices that are widely known, so that prospects for sale of any production are virtually assured.

The gold price used in this report has been provided to SLR by Aura and is based on analyst consensus. The gold price selected is an acceptable long-term price, taking into account the current Project life. The Mineral Resource estimates are based on a long-term gold price of US$2,500 per ounce of gold. The gold prices used for Reserves estimation and the economic analysis is US$2,000 per ounce of gold, flat over the LOM.

The metal prices used in this report for economic analysis are based on analyst market consensus. The SLR QP considers the selected metal prices for the economic analysis to be acceptable considering the current mine life. The prices used for the economic analysis are shown in Table 16-1.

**Table 16-1: Metal Price Assumptions**

| Metal Prices | 2025 | 2026 | 2027 | 2028 | 2029- Long Term |
|---|---|---|---|---|---|
| Gold (US$/oz) | 2,668 | 2,621 | 2,490 | 2,363 | 2,212 |

No external consultants or market studies were directly relied on to assist with the sales terms used in this report. The SLR QP agrees with the assumptions and projections provided by Aura.

## 16.2 Contracts

Almas has numerous contracts with subcontractors for different operating activities at the mine and with suppliers for consumables, reagents, maintenance, general and administrative requirements, and other services.

The different operating activities with subcontractors at the mine are:

- Mine operations
- Drilling
- Blasting
- Laboratory
- Security

The SLR QP has not reviewed the various support service contract details at Almas, however, the Project has used these contractors in the past and continues to do so.

# 17.0 Environmental Studies, Permitting, and Plans, Negotiations, or Agreements with Local Individuals or Groups

This section summarizes the main environmental and social aspects of the Almas Project.

## 17.1 Environmental and Social Setting

The Paiol site is at 400 MASL, at approximate coordinates 11.4ºS and 47.1ºW, and approximately 17 km south of the population center of Almas, in the state of Tocantins. Almas is approximately 300 road kilometres southeast of the state capital of Palmas. Overland travel time from Palmas to Almas is three to four hours via paved highways and Paiol is accessed via unpaved road from Almas. The Vira Saia and Cata Funda sites are north of Paiol approximately 10 km and five kilometres south of Almas, respectively. Dianópolis, a regional commercial hub where many mine employees reside, is approximately 45 km east of Almas along state highway TO-040. The three Project sites are in the catchment of the Manuel Alves River.

The climate is tropical with a mean annual air temperature of between 22ºC and 26ºC and little variation from month to month. The climate is characterized by distinct wet and dry seasons, with the wet season extending from October to March and the dry season from April to September. Average annual rainfall is approximately 1,700 mm with monthly average rainfall (at Dianópolis) varying from less than 10 mm in July and August up to 280 mm in January. The climate is conducive to year-round mining operations.

The Almas region is part of the Central Brazil Plateau, which influences much of the landscape of Tocantins state. Around Almas, the topography is dominated by a combination of gently rolling plateaus, hills, and valleys, with elevation ranging from approximately 200 MASL to 600 MASL. The terrain can be rugged in some areas, particularly around the Serra da Mimoso mountain range, which rises as a series of low hills and isolated peaks.

The vegetation in the Almas region is primarily a transition zone between the Cerrado (Brazilian savanna) and Caatinga (dryland scrub forest) biomes. The Project area lies wholly within the Cerrado biome. The Cerrado is a mosaic of grasslands, shrublands, and forests, influenced by seasonal rainfall and periodic fires, making it a predominantly savanna ecosystem. The vegetation is adapted to these conditions, with drought-resistant plants and trees. The Cerrado's flora is notably rich in endemic species, many of which are highly specialized to survive the region's dry periods, fire regimes, and nutrient-poor soils.

The Cerrado is home to a wide variety of animal species, including jaguars, maned wolves, giant anteaters, armadillos, and a great diversity of birds, reptiles, and insects. The biome is also an important area for migratory species. Many of these species are adapted to the harsh environmental conditions, with specific behavioral and physiological traits that allow them to thrive in a fire-prone, seasonal habitat.

In much of Tocantins including the Almas area, agriculture is the predominant land use, and deforestation due to agricultural expansion—including for soybean farming, cattle ranching, and the cultivation of sugarcane—is a significant cause of habitat loss and environmental degradation. Large areas of Cerrado have been cleared for monoculture crops, causing significant impacts to biodiversity and contributing to soil erosion and water scarcity. Agricultural development is extensive in the area between the community of Almas and the Project site. Locally, the impacts of past mining and ongoing artisanal mining (*garimpeiros*) activity are evident, with little natural habitat remaining.

Paiol, Vira Saia, and Cata Funda are in the municipality of Almas, which has a territorial extent of 4,106.4 km$^2$. Other municipalities in the area of influence of the Project include Dianópolis, Porto Alegre do Tocantina, and Natividade. The economy of Almas suffered in 2001 when the Paiol mine closed and economic conditions have improved since the re-start of the mine under Aura's control.

### 17.1.1 Protected Areas

Existing and planned mining operations are not within any protected areas. There is one protected area in the Project region: the Serra Geral do Tocantins Ecological Station (Estação Ecológica Serra Geral do Tocantins [EESGT][1]). The EESGT is one of the largest ecological stations in Brazil, encompassing an area of over 700,000 ha including land in the municipalities of Almas, Ponte Alta do Tocantins, Rio da Conceição, and Mateiros in Tocantins state, and Formosa do Rio Preto in Bahia state. The EESGT was created by presidential decree in 2001 and is administered by the Chico Mendes Biodiversity Conservation Institute (Instituto Chico Mendes de Conservação da Biodiversidade [ICMBio]) under a formal management plan (ICMBio 2014). The EESGT is intended to protect the Cerrado biome.

The southern part of the EESGT occupies part of the northern sector of the municipality of Almas, approximately 60 km north of the Paiol mine site and outside the area of influence of the Project.

## 17.2 Environmental and Social Aspects

### 17.2.1 Vegetation and Wildlife

In the Project's area of influence, mammals such as the tapir (*Tapirus terrestrial*) and jaguar (*Panthera onca*) may be found, in addition to many species of birds. As previously noted, the Cerrado landscape has been altered substantially by human activity, resulting in the loss of habitat for these species. Depending on decisions around post-closure land use to be made in the context of mine closure planning (Section 17.4), there may be opportunities to restore wildlife habitat on the mine site following the cessation of operations. The climate is well suited to revegetation, as evidenced by the reclaimed heap leach pad that Aura inherited when it assumed control of the site.

### 17.2.2 Environmental Geochemistry

The 2021 NI 43-101 report (Ghazanfari et al. 2021) summarizes the results of sampling and testing of rock samples carried out in 2020. Composite samples of ore (seven samples from Paiol, Cata Funda, Vira Saia, and the heap leach pad), waste rock (18 samples), and tailings (two samples) were collected for static testing including modified acid-base accounting (ABA) and net acid generation (NAG) at a geochemical laboratory in Belo Horizonte. The test results indicated a low potential for the generation of acid rock drainage / metals leaching (ARD/ML), due mainly to the high carbonate content in most samples, and the low sulphide content. The study concluded that the risk of development of ARD/ML is low at Almas. SLR's observations during the site visit in November 2024 are consistent with this conclusion. In addition, the SLR QP notes that the water quality in the Paiol pit lake prior to it being drained was good and that the lake supported fish.

[1] An ecological station in Brazil is a type of protected area defined by the National System of Conservation Units (SNUC). The general purpose of ecological stations is to preserve relatively untouched parts of representative Brazilian biomes.

### 17.2.3 Water Balance and Water Management

The climate at Almas features a wet season—when precipitation exceeds evaporation—and a dry season when the opposite occurs. Thus, the Paiol site swings between a water surplus and a water deficit through the course of a typical year.

The process plant operates in closed circuit with the TSF, with inputs to the facility in the form of tailings supernatant and rainfall approximately balancing losses in the form of evaporation (from ponded water and saturated tailings beaches) and water taken up into permanent storage in the pores of the tailings solids. The process plant draws fresh makeup water from the Manuel Aves River under permit (Section 17.3).

The Paiol pit was partially full of water when Aura acquired the site and the pit needed to be emptied for mining to restart. This dewatering process was done under permit. The water quality in the pit was good owing to the favorable environmental geochemistry described above. Excess water continues to accumulate in the pit during the rainy season. Aura discharges this water under permit to the environment. During the site visit by SLR, site personnel reported that the pit dewatering rate has at times exceeded the permitted rate of 150 $m^3$/hr and that a permit amendment will be needed.

Vira Saia and Cata Funda will require water management planning for sedimentation control of runoff from disturbed areas and pit dewatering during the rainy season.

### 17.2.4 Mine Waste Management

#### 17.2.4.1 Waste Rock

Waste rock is stockpiled permanently in the vicinity of the Paiol pit. At closure, the waste rock stockpiles will be covered and revegetated (Section 17.4).

Waste rock from the Vira Saia and Cata Funda pits will be stockpiled in the vicinity of the pits.

#### 17.2.4.2 Tailings

Slurried process plant tailings are discharged to an engineered TSF for permanent storage. The TSF is located approximately 2.5 km southeast of the process plant. The TSF embankment utilizes a downstream construction method whereby each successive lift of the embankment is placed on the downstream side of the previous one. The embankment is to be constructed in five stages with the ultimate embankment crest elevation reaching 384 MASL. The engineer of record (EOR) for the TSF is consultancy GeoSafe Engenharia (GeoSafe).

As designed and permitted, the TSF has an ultimate capacity of 15 million cubic metres of tailings in storage. Should additional capacity be required, Aura plans to utilize in-pit tailings disposal in the mined-out Vira Saia pit, which will provide capacity for additional storage of approximately six million cubic metres of tailings.

Aura has in place inspection programs for the TSF that include daily and biweekly inspections in accordance with applicable legal requirements. Inspection results are compiled and reported monthly by GeoSafe as EOR. SLR reviewed the most recent available inspection report, for November 2024 (GeoSafe 2024). The inspection report concluded that the facility is in good operating condition and that the stability conditions satisfy the criteria established in applicable Brazilian regulations. The SLR QP relies on the conclusions of GeoSafe monitoring report and provides no conclusions or opinions regarding the stability of the TSF.





### 17.2.5 Community Engagement

Community engagement activities date back to 2010 when consultancy Mediação Social e Sustentabilidade collected socioeconomic baseline data, carried out socioeconomic assessments and stakeholder mapping, and developed a social communication plan. In 2011, consultancy Conestoga Rovers e Associados expanded the database and social impact assessment for the historical Paiol mine, in support of the environmental assessment (EA) process.

The EA process included meetings with residents and other stakeholders from the municipalities of Almas, Porto Alegre do Tocantins, and Dianópolis. Approximately 260 people participated in the meetings. Stakeholders expressed concerns about environmental and social impacts, including increased traffic in Almas, and requested an implementation schedule for the Project. Community members also expressed a desire for economic opportunity in the form of employment and contracting opportunities for affected community members.

Aura has continued with community engagement activities since initiating construction at Paiol, including updating the stakeholder map and communications plan, implementing a socioeconomic diagnostic exercise, and initiating a community investment program focused principally on the town of Almas. The SLR QP understands that there are no formal impact-benefit agreements (IBAs) in place with Almas or other local communities.

Aura has made a concerted effort to recruit women to the Almas operations and informed SLR during the site visit that the workforce is currently 30% female.

### 17.2.6 Management Systems

Aura has in place procedures for managing the key environmental, health and safety, and social (EHSS) aspects of the operation, including:

- **Environment:** Water and effluent management, control of noise and vibrations, reclamation of disturbed areas, and solid waste management.
- **Health & Safety:** Critical risk management including but not limited to working at height, lock-out / tag-out, confined spaces, occupational health, and alcohol / drug control.
- **Social:** Programs include social indicator monitoring, promotion of sustainable development in the local communities, and promotion of women in mining.

The environmental and EHSS procedures are grouped under a management system umbrella that includes key components of International Organization for Standardization (ISO)-style (14001, 45000) management systems such as management roles and responsibilities, risk and impact evaluation, document control, and programs, objectives, and targets.

The Project also has in place an environmental compliance system that utilizes fit-for-purpose software (Software de Gestão Integrado [SOGI]) developed by Brazilian company Ambipar ESG to identify, track, and monitor environmental legal requirements applicable to the Almas operations.

### 17.2.7 International Cyanide Management Code

The International Cyanide Management Code for the Manufacture, Transport, and Use of Cyanide in the Production of Gold[2] (Cyanide Code) is a voluntary certification program of best

[2] The Cyanide Code is available at https://cyanidecode.org/.

practices for gold and silver mining companies and the companies producing and transporting cyanide used in gold and silver mining. The Cyanide Code focuses exclusively on the safe management of cyanide that is produced, transported and used for the recovery of gold and silver, and on mill tailings and leach solutions. The code's framework provides a mechanism of assurance for enhancing the protection of human health and reducing the potential for environmental impacts. The Cyanide Code is administered by The International Cyanide Management Institute, a non-profit corporation established to administer the code through an independent Board of Directors.

Parent company Aura is a signatory to the Cyanide Code and the Project is in the process of obtaining its certification. At the time of the site visit, Project personnel informed SLR that they would undertake a pre-audit gap analysis in early 2025 and that a certification audit is planned for early 2026.

### 17.2.8 Responsible Gold Mining Principles

The Responsible Gold Mining Principles (RGMPs) are an auditable set of standards that establish clear expectations for consumers, investors, and the gold supply chain as to what constitutes responsible gold mining[3]. The RGMPs cover environmental, social, and governance (ESG) aspects of gold production, and seek to consolidate existing standards and instruments under a single framework.

Aura subscribes to the RGMPs. Implementation will affect all Aura operations including those at Almas. As an implementing company, Aura will be required to obtain external assurance from a third party, independent assurance provider.

## 17.3 Permitting and Compliance

Mining operations in Brazil are subject to environmental laws and regulations at the federal and state levels. Generally, federal agencies provide overarching environmental regulation whereas state agencies manage localized concerns, particularly those related to regional ecosystems and affected communities. In Tocantins, the main environmental agency is NATURINS.

Paiol operates under jurisdiction of Operating Licence (Licença de Operação [LO]) Nº 22-2023 obtained on April 11, 2023 via a state-level simplified environmental permitting regime based on an EA carried out in 2011. The LO will expire in 2027 and will need to be renewed at that time.

Makeup water for the process plant is sourced at up to 240 $m^3$/hr from the Manuel Aves River under authority of Water Use Authorization (Outorga de Direito de Uso de Recursos Hídricos [ORH]) Nº 407/2024. The same permit authorizes the discharge of excess water from the Paiol pit, at up to 150 $m^3$/hr.

Table 17-1 lists the main environmental permits for Paiol issued by NATURATINS. Aura reports that all permits are in good standing.

[3] The RGMPs are available at https://www.gold.org/industry-standards/responsible-gold-mining.

**Table 17-1: Environmental Licences and Permits**

| Nº | Responsible Agency | Permit Nº | Permit Type | Permit Description | Expiration Date |
|---|---|---|---|---|---|
| 1 | NATURATINS | 23-2023 | LO | Paiol Operating Licence | 4/11/2027 |
| 2 | NATURATINS | 111/2021 | DUI | Declaration of insignificant use for water abstraction from the Paiol pit for the construction site | 4/5/2026 |
| 3 | NATURATINS | 347/2022 | DUI | Declaration of negligible use for abstraction near the plant | 2/1/2027 |
| 4 | NATURATINS | 1077/2021 | DUI | Declaration of negligible use for surface water abstraction for use in exploration activities | 7/24/2027 |
| 5 | NATURATINS | 1270-2021 | DDLA | Exemption from environmental licensing for 34.5 kV electrical transmission network | n/a |
| 6 | NATURATINS | 491-2021 | DDLA | Exemption from environmental licensing for 34.5 kV electrical transmission network (water supply) | n/a |
| 7 | NATURATINS | 15/2022 | DDLA | 15 $m^3$ fuel storage tank | n/a |
| 8 | NATURATINS | 7574-2020 | DUI | Declaration of insignificant use, groundwater abstraction, Paiol | 9/18/2025 |
| 9 | NATURATINS | 05-2023 | LO | Water supply | 10/4/2033 |
| 10 | NATURATINS | 407/2024 | ORH | Industrial water supply and discharge of pit water | 12/20/2029 |
| 11 | NATURATINS | 362/2024 | ORH | Construction of tailings embankment (to stage 5) | 7/23/2029 |
| 12 | NATURATINS | 57/2023 | LI | Installation licence for fuel station | 8/28/2026 |
| 13 | NATURATINS | 922/2023 | AEF | Additional surface disturbance | 7/11/2025 |
| 14 | NATURATINS | 923/2023 | AEF | Renewal of licence AEF576 | 7/11/2025 |
| 15 | NATURATINS | 3993/2023 | DUI | Water well permit for irrigation (community) | 6/11/2028 |
| 16 | NATURATINS | 87-DBAP/2023 | AMAS | ART Ambienger | 6/18/2025 |
| 17 | NATURATINS | 1065/2023 | AEF | Paiol dam (renewal of AEF557) | 12/18/2025 |

Notes:

1. LO = Operating Licence (Licença de Operação)
2. DUI = Declaration of insignificant (Decalação de uso Insignificante
3. DDLA = Declaration of Exemption from Environmental Licensing (Declaração de Dispensa de Licenciamento Ambiental)
4. ORH = Water Use Authorization (Outorga de Direito de Uso de Recursos Hídricos)
5. LI = Installation Licence (Licença de Instalação)
6. AEF = Forestry Exploitation Authorization (Autorização de Exploração Florestal)
7. AMAS = Authorization for Management of Wild Animals (Autorização para Manejo de Animais Silvestres)

The Cata Funda and Vira Saia targets are currently the subjects of licencing processes with NATURATINS. Aura has submitted the necessary information for the LP and LI for the development of both pits. These requests are being processed separately by NATURATINS, ensuring that the progress of one process does not interfere with the other.

Aura's expectation is that LP will be issued by the end of 2025 and the LI during 2026.

## 17.4 Mine Closure Planning

Mine closure planning is a legal requirement in Brazil although the provision of financial assurance for closure is not mandated. The most recent mine closure plan (MCP) for the Almas Project is dated November 2022, and was prepared on behalf of Aura by consultancy Mineral Engenharia e Meio Ambiente in accordance with applicable legal requirements.

The MCP considers a nine year process including one year pre-closure, two years of active closure, and six years of post-closure monitoring and maintenance. The MCP addresses the following main topics:

- General background information and description of existing facilities.
- Closure risks and proposed mitigation measures.
- Conceptual decommissioning plan for industrial and civil works.
- Infrastructure demolition, and physical and chemical stability concerns.
- Revegetation measures.
- Monitoring program.
- Post-closure access control measures.
- Cost estimate for closure.

The scope of the MCP includes the Paiol facilities and the Cata Funda satellite pit.

The MCP adopts a conventional approach to mine closure. The MCP does not clearly establish post-closure land use objectives, however, it specifies that disturbed areas will be revegetated to limit erosion and promote physical stability, and that native plants will be planted in "nuclei" to promote the generation of a Cerrado-like environment.

Major closure activities are summarized as follows:

- Civil and industrial facilities will be demolished including concrete foundations. Demolition debris will be disposed of in accordance with regulatory requirements. Equipment will be sold and/or scrapped. Soil covers will be applied to disturbed areas and these will be revegetated.
- The tailings facility will be drained of excess water and the tailings beaches and embankments will be revegetated.
- The pits will be allowed to fill with water, forming pit lakes. Pit slopes above the ultimate water level will be hydroseeded.
- Waste rock dumps will be covered with soil and revegetated.

Aura will implement a post-closure monitoring program including the following major elements:

- Surface water and sediment quality.
- Erosion control.

- Geotechnical monitoring of the TSF and waste rock dumps.
- Noise and vibration.
- Air quality.
- Groundwater in the vicinity of the TSF and open pits.
- Aquatic and terrestrial fauna.

### 17.4.1 Closure Cost Estimate

The 2022 MCP provides undiscounted estimates of closure costs of R$51.6 million and R$5.7 million for the Paiol and Cata Funda sites, respectively, and no estimate for Vira Saia. The total closure cost estimate is R$57.3 million, which includes a contingency of R$3.75 million. At a current exchange rate of US$1.00 = R$5.86, the total closure cost estimate is approximately US$9.8 million.

SLR has not independently verified the closure cost estimate.

## 17.5 QP Opinion

In the SLR QP's opinion, the environmental and social risks at Almas are manageable, and Aura has in place adequate management plans and systems to manage these risks and to maintain compliance with applicable environmental legal requirements. Based on the site visit and review of documentation made available by Aura, the SLR QP is of the opinion that it is unlikely that environmental and social factors will materially affect Aura's ability to operate according to the LOM plan described in this TRS.

The SLR QP notes that management systems for the environmental and social aspects of the Project are evolving and recommends that these systems be further formalized to incorporate a full "Plan-Do-Check-Act" cycle common to international management system standards.

Environmental permitting for the Cata Funda and Vira Saia deposits is in process. The SLR QP has seen nothing to suggest that these approvals will not be obtained in due course. The SLR QP notes that the Cata Funda deposit is close to the community of Almas and hence the permitting process may be more sensitive than that for Vira Saia. The SLR QP recommends that Aura continue active community engagement to address any concerns that arise due to the close proximity of Cata Funda.





# 18.0 Capital and Operating Costs

The capital and operating costs presented in this section include the costs required for mining and processing Mineral Reserves from the Almas Project. The Almas Project includes an operating mine that declared commercial production in Q3 2023, therefore, capital and operating cost estimates were prepared based on year 2024 actuals and current operating budget for 2025. These costs were supplied to SLR by Aura's technical team. The SLR QP considers these cost estimates to be reasonable for the planned production schedule.

All capital and operating costs in this section are expressed in Q4 2024 US dollars and are based on an exchange rate of R$5.84 per US$1.00.

## 18.1 Capital Costs

The capital costs required to achieve the Almas Mineral Reserve LOM production were estimated by Aura and reviewed by SLR. Since Paiol is an operating pit, there are no pre-production capital costs. Capital costs for the Paiol, Cata Funda, and Vira Saia pits are categorized as expansion capital and sustaining capital. Capital costs have been estimated by Aura based on the current budget for 2025 and actuals from year 2024. Based on the SLR QP's review, the sustaining capital costs are estimated to the equivalent of an Association for the Advancement of Cost Engineering (AACE) Class 3 estimate with an accuracy range of -15% to +20%.

The expansion capital costs are for plant expansion phase 2 in year 2025 and total US$4.8 million

Total LOM sustaining capital costs are estimated to be US$74.9 million between years 2025 and 2034. The sustaining capital costs include:

- Mine sustaining
- Mine capitalized waste stripping
- Plant sustaining
- Tailing dams
- Other sustaining

The summary breakdown of the estimated sustaining capital costs required to achieve the Mineral Reserve LOM production is presented in Table 18-1.

**Table 18-1: Sustaining Capital Costs Summary**

| Cost Component | Value (US$ million) |
|---|---|
| Mine sustaining | 6.0 |
| Mine capitalized waste stripping | 50.1 |
| Plant sustaining | 4.1 |
| Tailing dams | 11.2 |
| Other sustaining costs - General | 3.6 |
| **Total Sustaining Capital Cost** | **74.9** |

Mine closure and concurrent reclamation costs for the LOM scenario presented in this TRS are based on Aura's latest estimate from year 2024 for the Almas Project totalling US$14.1 million. SLR notes that this closure cost estimate is higher than the cost estimate dated November 2022 included in subsection 17.4.1 Closure Cost Estimate of this TRS. The SLR QP considers the higher closure and reclamation costs included in this section and in the LOM cashflow to reflect a more realistic approach than the closure estimate from November 2022, given costs have been escalated to 2024 US dollars and have been adjusted to consider costs for the three deposits.

## 18.2 Operating Costs

The operating costs were estimated based on the current budget for 2025 and actuals from year 2024 at the Almas Project. The costs were estimated by Aura and reviewed by SLR. The operating costs are estimated to the equivalent of an AACE Class 3 estimate with an accuracy range of -15% to +20%, although it is noted that AACE does not typically apply to operating costs.

The site operating expenses estimated for mining, processing, and G&A activities for this Mineral Reserve LOM scenario are summarized in Table 18-2. Operating costs total US$680 million over the LOM, averaging US$70 million per year (considering years between 2025 and 2033, which are years at full production).

The unit operating cost over the mine life is US$34.51/t milled:

- Open pit mining costs: US$23.34/t milled, or US$2.48/t mined
- Mine capitalized stripping costs: -US$2.54/t milled
- Mine stockpile reclaiming costs: US$0.10/t milled
- Stockpile Change in Inventory Cost: US$0.71/t milled
- Processing costs: US$9.42/t milled
- General and administration (G&A) and overhead costs: US$3.48/t milled or US$6.8 million per year

The mining costs include all labour, materials and supplies, mining contractors, and technical support to complete open pit mining related activities such as drilling, blasting, loading, and hauling. The processing costs include all labour, operating and maintenance activities, power, reagents, and services to complete processing related activities. The administrative expense includes all labour and support services to complete administrative, finance, human resources, environmental, safety, supply chain, security, site services, camp and kitchen, and travel related activities.

**Table 18-2: Operating Cost Estimate**

| Cost Component | LOM Total (US$ million) | Average Annual[1] (US$ million) | LOM Average (US$/t milled) |
|---|---|---|---|
| Open Pit Mining | 460.0 | 48.7 | 23.34 |
| Mine Capitalized Stripping Costs | (50.1) | (10.0) | (2.54) |
| Mine Stockpile Reclaiming Cost | 2.0 | 0.3 | 0.10 |
| Stockpile Change in Inventory Cost | 14.0 | 4.7 | 0.71 |

| Cost Component | LOM Total (US$ million) | Average Annual[1] (US$ million) | LOM Average (US$/t milled) |
|---|---|---|---|
| Processing | 185.6 | 18.6 | 9.42 |
| G&A and Site Support Costs | 68.5 | 6.8 | 3.48 |
| **Total Site Operating Cost** | **680.1** | **70.4** | **34.51** |

Notes:
1. For fully operational years (2025 – 2033)
2. Sum of individual values may not match total due to rounding.

## 18.2.1 Workforce

### 18.2.1.1 Mining Personnel

As the mine operation is sub-contracted, Aura's labour force is limited to management, grade control, and mine planning, and is presented in Table 18-3.

**Table 18-3: Workforce in the Mining Operation / Support**

| Sector | Job Title | Formation | Quantity |
|---|---|---|---|
| Management | Mine Manager | Mining Engineer | 1 |
| Grade Control | Department Chief | Geologist Sr | 1 |
| | Coordinator | Geologist Full | 1 |
| | Grade Control Technician | Mining Technician | 2 |
| Mine Planning | Department Chief | Mining Engineer Sr | 1 |
| | Mine Planning Engineer | Mining Engineer Full | 1 |
| | Topography Specialist | Surveyor | 1 |
| | Mine Planning Engineer | Mining Technician | 2 |
| Mine Production | Department Chief | Mining Engineer Sr | 1 |
| | Production Engineer | Mining Engineer | 1 |
| | Production Supervisor | Mining Technician | 4 |
| **Total** | | | **16** |

### 18.2.1.2 Process Plant Personnel

Manpower for process operations and maintenance of the Almas process plant are listed in Table 18-4 and Table 18-5.

**Table 18-4: Process Plant Operation Personnel**

| Process Plant Operation | Quantity |
|---|---|
| Plant Operator Level I | 14 |
| Plant Operator Level II | 8 |
| Plant Operator Level III | 9 |

| Process Plant Operation | Quantity |
|---|---|
| Control Room Operator | 4 |
| Plant Supervisor | 5 |
| Mill Manager | 1 |
| Senior Metallurgist | 2 |
| Junior Metallurgist | 1 |
| Mill Coordinator | 1 |
| Metallurgy - Refiner | 1 |
| Trainee | 1 |
| Metallurgy Technician | 1 |
| **Total** | **48** |
| Source: Aura 2024. | |

**Table 18-5: Process Plant Maintenance Manpower**

| Process Plant Maintenance | Quantity |
|---|---|
| Mechanic Assistant | 2 |
| Electrician I | 2 |
| Electrician II | 4 |
| Junior Automation Engineer | 1 |
| Senior Electrical Engineer | 1 |
| Senior Mechanical Engineer | 1 |
| Maintenance Manager | 1 |
| Electrical Inspector | 2 |
| Lube Technician | 1 |
| Millwright I | 5 |
| Millwright II | 9 |
| Millwright III | 3 |
| Maintenance Planner I | 1 |
| Maintenance Planner II | 1 |
| Electrical Supervisor | 1 |
| Mechanical Supervisor I | 2 |
| Mechanical Supervisor II | 1 |
| Maintenance Planning and Control Supervisor | 1 |
| Specialized Mechanical Maintenance Supervisor | 1 |
| Maintenance Technician I | 1 |
| Mechanical Technician III | 1 |

| Process Plant Maintenance | Quantity |
|---|---|
| Specialized Electrical Technician | 5 |
| Specialized Mechanical Technician II | 1 |
| Specialized Automation Technician | 1 |
| **Total** | **49** |

Source: Aura 2024.

# 19.0 Economic Analysis

The economic analysis contained in this TRS is based on the Almas Mineral Reserves, economic assumptions, and capital and operating costs provided by the Aura technical team and reviewed by SLR. All costs are expressed in Q4 2024 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest.

A summary of the key criteria is provided below.

## 19.1 Economic Criteria

### 19.1.1 Production Physicals

- Mine life: 10 years between years 2025 and 2034.
- Open pit peak mining rate: 23,000 ktpa between years 2030 and 2032.
- LOM ore feed to process: 19,709 kt ore at 1.07 g/t Au.
- Processing plant peak processing throughput: 2,000 ktpa.
- LOM Contained Metal:
  - Gold: 680 koz Au
- Weighted average LOM Process Recovery:
  - Gold Recovery: 90%
- LOM Recovered Metal:
  - Gold: 612 koz Au

### 19.1.2 Revenue

- Exchange rate US$1.00 = BRL$5.84.
- Revenue is estimated based on metal prices provided to SLR by Aura, which sourced them from CIBC Analysts Consensus Commodity Price Forecasts from March 2025. The CIBC Analysts Consensus metal price forecast is presented in Table 19-1:

**Table 19-1: Almas Cash Flow Metal Prices**

| Metal Prices | 2025 | 2026 | 2027 | 2028 | 2029- Long Term |
|---|---|---|---|---|---|
| Gold (US$/oz) | 2,668 | 2,621 | 2,490 | 2,363 | 2,212 |

- Payable metals are estimated at 99.9% for gold. This rate is based on actual agreement figures.
- Transportation and Refining charges include the following:
  - Gold refining: US$0.30/oz of payable Au
- The Almas property is subject to the following royalties (see further details in 19.1.4):
  - Paiol at 1.95% NSR: 1.20% NSR mining rights and 0.75% surface royalties (50% of CFEM),

  - Cata Funda at 3.25% NSR
  - Vira Saia at 3.25% NSR
- Almas is subject to a Mining Tax over Sales at 1.8% NSR (treated as a royalty)
- LOM net revenue is US$1,367 million (after Selling Charges and Royalties).
- Revenue is recognized at the time of production.

### 19.1.3 Costs

- Expansion capital costs: US$4.8 million.
- Mine life sustaining capital totals US$75 million.
- Mine closure and reclamation costs in year 2034 total US$14.1 million, based on Aura's latest estimate from year 2024.
- Average operating cost over the mine life is US$34.51/t milled.
  - Open pit mining costs: US$23.34/t milled, or US$2.48/t mined
  - Mine capitalized stripping costs: -US$2.54/t milled
  - Mine stockpile reclaiming costs: US$0.10/t milled
  - Stockpile Change in Inventory Cost: US$0.71/t milled
  - Processing costs: US$9.42/t milled
  - General and administration (G&A) and overhead costs: US$3.48/t milled or US$6.8 million per year
- LOM site operating costs of $680 million.
- Corporate G&A allocation costs of US$500 thousand per year over the LOM.

### 19.1.4 Taxation and Royalties

- Property is subject to different third-party royalties NSR for each deposit:
  - Paiol at 1.95% NSR: 1.20% NSR mining rights and 0.75% surface royalties (50% of CFEM),
  - Cata Funda at 3.25% NSR: 2.50% mining rights and 0.75% surface royalties (50% of CFEM).
  - Vira Saia at 3.25% NSR: 2.50% mining rights and 0.75% surface royalties (50% of CFEM).
- The Brazilian Corporate Income Tax is set at 34% but Aura is currently benefiting from the tax incentives provided by SUDAM, which grants a reduced corporate income tax rate of 15%.
- Almas is subject to a Mining Tax over Sales at 1.8% NSR (treated as a royalty): 1.5% of CFEM and 0.3% FDE (Tocantins Economic Development Fund).
- Total taxes estimated: US$79.3 million.
- SLR has relied on Aura's assumptions and calculations for royalties and taxes applicable to the cash flow.

## 19.2 Cash Flow

SLR has reviewed Aura's Almas LOM cash flow model considering gold as the final saleable product and has prepared its own unlevered after-tax LOM cash flow model based on the information contained in this TRS to confirm the physical and economic parameters of the Project.

The model does not take into account financing costs.

All costs are in Q4 2024 US dollars with no allowance for inflation. An after-tax cash flow summary is presented in Table 19-2.

## Table 19-2: Annual After-Tax Cash Flow Summary

| Calendar Year | | | | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Timeline in Years | | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Time Until Closure In Years | | US$ & Metric Units | LoM Avg / Total | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| **Market Prices** | | | | | | | | | | | | | | |
| Gold, Forecast | | US$/oz | **$2,329** | - | $2,668 | $2,621 | $2,490 | $2,363 | $2,212 | $2,212 | $2,212 | $2,212 | $2,212 | $2,212 |
| **Physicals** | | | | | | | | | | | | | | |
| Total Open Pit Ore Mined | | kt | 17,340 | - | 1,610 | 1,663 | 1,563 | 1,764 | 2,000 | 2,000 | 1,782 | 1,550 | 1,495 | 1,913 |
| Total Waste Mined | | kt | 168,394 | - | 14,039 | 13,336 | 13,408 | 15,645 | 20,984 | 21,007 | 21,169 | 21,455 | 21,324 | 6,027 |
| Total Material Mined | | kt | 185,734 | - | 15,649 | 14,999 | 14,971 | 17,409 | 22,984 | 23,007 | 22,951 | 23,005 | 22,819 | 7,940 |
| Stripping Ratio | | W:O | 9.71 | - | 8.72 | 8.02 | 8.58 | 8.87 | 10.49 | 10.50 | 11.88 | 13.84 | 14.26 | 3.15 |
| Stockpile to Mill | | kt | 1,205 | - | - | - | 205 | - | - | - | - | 450 | 550 | - |
| HL to Mill | | kt | 1,164 | - | 240 | 237.00 | 232.70 | 236 | - | - | 218 | - | - | - |
| Total Material Moved | | kt | 188,103 | - | 15,889 | 15,236 | 15,408 | 17,645 | 22,984 | 23,007 | 23,169 | 23,455 | 23,369 | 7,940 |
| Total Ore Processed | | kt | 19,709 | - | 1,850 | 1,900 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,045 | 1,913 |
| Gold Grade | | g/t | 1.07 | - | 1.03 | 1.00 | 0.97 | 0.96 | 0.99 | 1.03 | 1.07 | 1.19 | 1.14 | 1.37 |
| Contained Gold | | koz | 680 | - | 61 | 61.4 | 62.3 | 61.6 | 63.3 | 66 | 69 | 76 | 75 | 84 |
| Average Recovery, Gold | | % | 90.0% | - | 90.3% | 89.5% | 88.9% | 89.7% | 90.5% | 90.0% | 90.1% | 90.1% | 89.4% | 91.4% |
| Recovered Gold | | koz | 612.5 | - | 55.1 | 54.9 | 55.4 | 55.3 | 57.3 | 59.6 | 62.2 | 68.7 | 67.0 | 76.9 |
| Produced Gold, Total | | koz | 612.5 | - | 55.138 | 54.933 | 55.428 | 55.252 | 57.336 | 59.605 | 62.213 | 68.701 | 66.962 | 76.908 |
| Payable Gold, Total | | koz | 611.9 | - | 55.1 | 54.9 | 55.4 | 55.2 | 57.3 | 59.5 | 62.2 | 68.6 | 66.9 | 76.8 |
| **Cash Flow** | | | | | | | | | | | | | | |
| Gold Gross Revenue | 100% | $000s | 1,424,819 | - | 146,967 | 143,846 | 137,874 | 130,451 | 126,709 | 131,721 | 137,486 | 151,824 | 147,980 | 169,961 |
| Silver Gross Revenue | -- | $000s | - | - | - | - | - | - | - | - | - | - | - | - |
| **Gross Revenue Before By-Product Credits** | **100%** | **$000s** | **1,424,819** | **-** | **146,967** | **143,846** | **137,874** | **130,451** | **126,709** | **131,721** | **137,486** | **151,824** | **147,980** | **169,961** |
| Gold Gross Revenue | | $000s | 1,424,819 | - | 146,967 | 143,846 | 137,874 | 130,451 | 126,709 | 131,721 | 137,486 | 151,824 | 147,980 | 169,961 |
| Silver Gross Revenue | | $000s | - | - | - | - | - | - | - | - | - | - | - | - |
| **Gross Revenue After By-Product Credits** | | **$000s** | **1,424,819** | **-** | **146,967** | **143,846** | **137,874** | **130,451** | **126,709** | **131,721** | **137,486** | **151,824** | **147,980** | **169,961** |
| Mining Cost | | $000s | (460,036) | - | (38,242) | (36,702) | (36,594) | (43,164) | (56,723) | (56,175) | (56,538) | (57,123) | (56,880) | (21,893) |
| Mine Capitalized Stripping | | $000s | 50,106 | - | - | - | - | - | 3,854 | 3,867 | 9,531 | 15,890 | 16,965 | - |
| Stockpile + HL Reclaiming Cost | | $000s | (2,028) | - | (205) | (203) | (375) | (202) | - | - | (187) | (385) | (471) | - |
| Stockpile Change in Inventory Cost | | $000s | (14,031) | - | - | - | (2,387) | - | - | - | - | (5,240) | (6,404) | - |
| Process Cost | | $000s | (185,617) | - | (17,423) | (17,893) | (18,840) | (18,839) | (18,836) | (18,837) | (18,831) | (18,839) | (19,260) | (18,018) |
| Site Support G&A Cost | | $000s | (68,493) | - | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) | (6,849) |
| Sales / TC / RC Charges | | $000s | (184) | - | (17) | (16) | (17) | (17) | (17) | (18) | (19) | (21) | (20) | (23) |
| Production Tax over Sales | 1.8% | $000s | (25,647) | - | (2,645) | (2,589) | (2,482) | (2,348) | (2,281) | (2,371) | (2,475) | (2,733) | (2,664) | (3,059) |
| Third Party Royalties | | $000s | (32,146) | - | (2,866) | (2,805) | (2,689) | (2,930) | (2,840) | (2,622) | (3,119) | (3,960) | (3,894) | (4,422) |
| Subtotal Cash Costs Before By-Product Credits | | $000s | (738,075) | - | (68,248) | (67,059) | (70,232) | (74,350) | (83,693) | (83,004) | (78,487) | (79,260) | (79,478) | (54,265) |
| By-Product Credits | | $000s | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Cash Costs After By-Product Credits** | | **$000s** | **(738,075)** | **-** | **(68,248)** | **(67,059)** | **(70,232)** | **(74,350)** | **(83,693)** | **(83,004)** | **(78,487)** | **(79,260)** | **(79,478)** | **(54,265)** |
| **Operating Margin** | **48%** | **$000s** | **686,743** | **-** | **78,719** | **76,787** | **67,642** | **56,102** | **43,016** | **48,717** | **58,999** | **72,564** | **68,502** | **115,696** |
| Off-site Expenses (Corp. Allocation & Reg. Exploration) | | $000s | (5,000) | - | (500) | (500) | (500) | (500) | (500) | (500) | (500) | (500) | (500) | (500) |
| **EBITDA** | | **$000s** | **681,743** | **-** | **78,219** | **76,287** | **67,142** | **55,602** | **42,516** | **48,217** | **58,499** | **72,064** | **68,002** | **115,196** |
| Depreciation Allowance | | $000s | (99,138) | - | (10,836) | (10,497) | (9,843) | (9,310) | (9,158) | (9,020) | (9,388) | (10,115) | (10,878) | (10,093) |
| **Earnings Before Taxes** | | **$000s** | **582,606** | **-** | **67,383** | **65,790** | **57,299** | **46,291** | **33,358** | **39,197** | **49,110** | **61,949** | **57,124** | **105,103** |
| Effective Income Tax rate | 15.0% | $000s | (79,340) | - | (8,250) | (8,011) | (6,906) | (5,495) | (4,159) | (5,525) | (7,367) | (9,292) | (8,569) | (15,765) |
| **Net Income** | | **$000s** | **503,266** | **-** | **59,133** | **57,779** | **50,393** | **40,796** | **29,199** | **33,672** | **41,744** | **52,657** | **48,555** | **89,338** |
| Non-Cash Add Back - Depreciation | | $000s | 99,138 | - | 10,836 | 10,497 | 9,843 | 9,310 | 9,158 | 9,020 | 9,388 | 10,115 | 10,878 | 10,093 |
| Working Capital | | $000s | 1,846 | - | (11,711) | (37) | 2,495 | 140 | 309 | (26) | (152) | 5,257 | 6,414 | (842) |
| **Operating Cash Flow** | | **$000s** | **604,250** | **-** | **58,258** | **68,239** | **62,730** | **50,246** | **38,666** | **42,666** | **50,980** | **68,028** | **65,847** | **98,589** |
| Expansion Capital | | $000s | (4,803) | - | (4,803) | - | - | - | - | - | - | - | - | - |
| Sustaining Capital | | $000s | (74,988) | - | (2,196) | (6,022) | (2,119) | (2,909) | (6,762) | (6,776) | (12,439) | (16,859) | (17,934) | (970) |
| Closure/Reclamation Costs | | $000s | (14,062) | - | - | - | - | - | - | - | - | - | - | (14,062) |
| **Total Capital** | | **$000s** | **(93,853)** | **-** | **(6,999)** | **(6,022)** | **(2,119)** | **(2,909)** | **(6,762)** | **(6,776)** | **(12,439)** | **(16,859)** | **(17,934)** | **(15,032)** |
| **Cash Flow Adj./Reimbursements** | | **$000s** | **-** | - | - | - | - | - | - | - | - | - | - | - |

| Calendar Year | | | | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Timeline in Years | | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Time Until Closure In Years | | US$ & Metric Units | LoM Avg / Total | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| **LoM Metrics** | | | | | | | | | | | | | | |
| **Economic Metrics** | | | | | | | | | | | | | | |
| **a) Pre-Tax** | | | | | | | | | | | | | | |
| **Free Cash Flow** | | **$000s** | **589,736** | **-** | **59,509** | **70,228** | **67,517** | **52,832** | **36,063** | **41,415** | **45,907** | **60,461** | **56,481** | **99,322** |
| Cumulative Free Cash Flow | | $000s | | - | 59,509 | 129,737 | 197,254 | 250,086 | 286,150 | 327,565 | 373,472 | 433,933 | 490,414 | 589,736 |
| **NPV @ 5%** | **5.00%** | **$000s** | **452,256** | | | | | | | | | | | |
| **b) After-Tax** | | | | | | | | | | | | | | |
| **Free Cash Flow** | | **$000s** | **510,397** | **-** | **51,259** | **62,217** | **60,611** | **47,337** | **31,904** | **35,890** | **38,541** | **51,169** | **47,912** | **83,557** |
| Cumulative Free Cash Flow | | $000s | | - | 51,259 | 113,475 | 174,086 | 221,424 | 253,328 | 289,218 | 327,759 | 378,927 | 426,840 | 510,397 |
| **NPV @ 5%** | **5.00%** | **$000s** | **392,537** | | | | | | | | | | | |
| **Operating Metrics** | | | | | | | | | | | | | | |
| Mine Life | | Years | **10.0** | | | | | | | | | | | |
| Average Daily Mining Rate | | t/d mined | **53,070** | - | 44,711 | 42,854 | 42,773 | 49,741 | 65,667 | 65,735 | 65,574 | 65,730 | 65,198 | 22,687 |
| Average Daily Processing Rate | | t/d processed | **5,630** | - | 5,286 | 5,428 | 5,716 | 5,715 | 5,714 | 5,715 | 5,713 | 5,715 | 5,843 | 5,466 |
| Mining Cost | | $ / t mined | **$2.48** | - | 2.44 | 2.45 | 2.44 | 2.48 | 2.47 | 2.44 | 2.46 | 2.48 | 2.49 | 2.76 |
| Mine Capitalized Stripping | | US$/t mined | **($0.27)** | | - | - | - | - | (0.17) | (0.17) | (0.42) | (0.69) | (0.74) | - |
| Stockpile + HL Reclaiming Cost | | US$/t reclaim | **$0.86** | | 0.86 | 0.86 | 0.86 | 0.86 | - | - | 0.86 | 0.86 | 0.86 | - |
| Stockpile Change in Inventory Cost | | US$/t stock | **$11.64** | | - | - | 11.64 | - | - | - | - | 11.64 | 11.64 | - |
| Processing Cost | | t/d processed | **$9.42** | - | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 | 9.42 |
| Site Support G&A Cost | | t/d processed | **$3.48** | - | 3.70 | 3.60 | 3.42 | 3.42 | 3.42 | 3.42 | 3.43 | 3.42 | 3.35 | 3.58 |
| **Subtotal Direct Operating Costs** | | **t/d processed** | **$34.51** | **-** | **33.90** | **32.45** | **32.51** | **34.52** | **39.28** | **38.99** | **36.45** | **36.27** | **35.65** | **24.44** |
| Refining and Freight Cost | | t/d processed | $0.01 | - | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Production Tax | | t/d processed | $1.30 | - | 1.43 | 1.36 | 1.24 | 1.17 | 1.14 | 1.19 | 1.24 | 1.37 | 1.30 | 1.60 |
| Royalties | | t/d processed | $1.63 | - | 1.55 | 1.48 | 1.34 | 1.46 | 1.42 | 1.31 | 1.56 | 1.98 | 1.90 | 2.31 |
| **Total Operating Cost Before By-Product Credits** | | **t/d processed** | **$37.45** | **-** | **36.89** | **35.29** | **35.11** | **37.17** | **41.85** | **41.50** | **39.25** | **39.62** | **38.86** | **28.36** |
| **Total Operating Cost After By-Product Credits** | | **t/d processed** | **$37.45** | **-** | **36.89** | **35.29** | **35.11** | **37.17** | **41.85** | **41.50** | **39.25** | **39.62** | **38.86** | **28.36** |
| Off-site Admin Expenses (Corporate Allocation) | | t/d processed | **$0.25** | - | 0.27 | 0.26 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.24 | 0.26 |
| **Sales Metrics** | | | | | | | | | | | | | | |
| Au Sales | | koz | **612** | - | 55 | 55 | 55 | 55 | 57 | 60 | 62 | 69 | 67 | 77 |
| Ag Sales | | koz | **-** | - | - | - | - | - | - | - | - | - | - | - |
| Total Au Cash Cost | | $ / oz Au | **1,163** | - | 1,189 | 1,173 | 1,222 | 1,303 | 1,420 | 1,353 | 1,222 | 1,114 | 1,147 | 666 |
| Total Au AISC | | $ / oz Au | **1,316** | - | 1,316 | 1,283 | 1,260 | 1,355 | 1,538 | 1,466 | 1,421 | 1,359 | 1,415 | 861 |
| Avg. LOM Annual Au Sales | | koz/yr | **61.186** | | | | | | | | | | | |

### 19.2.1 Cash Flow Analysis

SLR prepared a LOM unlevered after-tax cash flow model to confirm the economics of the Project over the LOM (between 2025 and 2034). Economics have been evaluated using the discounted cash flow method by considering LOM production on a 100% basis, annual processed tonnages, and gold grades. The associated gold recoveries, gold price, operating costs, treatment and refining charges, expansion and sustaining capital costs, reclamation and closure costs, and income tax and royalties were also considered.

The base discount rate assumed in this TRS is 5% as per Aura's corporate guidance for the Project. Discounted present values of annual cash flows are summed to arrive at Almas Project Base Case NPV. For this cash flow analysis, the internal rate of return (IRR) and payback are not applicable given Almas is already an operating mine; therefore, there is no initial investment to be recovered.

To support the disclosure of Mineral Reserves, the economic analysis demonstrates that Almas's Mineral Reserves are economically viable at the CIBC Analysts Consensus Commodity Price, with a long term price of US$2,212/oz gold. The Project's Base Case undiscounted pre-tax net cash flow is approximately US$590 million, and the undiscounted after-tax net cash flow is approximately US$510 million. The pre-tax NPV at a 5% discount rate is approximately US$452 million and the after-tax NPV at a 5% discount rate is approximately US$393 million.

The SLR QP confirms that SLR has also run the economic analysis using flat reserve metal prices of gold US$2,000/oz. The analysis demonstrates that Almas's Mineral Reserves are also economically viable at these prices.

The World Gold Council Adjusted Operating Cost (AOC) is US$1,163/oz Au produced. The mine life sustaining capital cost is US$153/oz Au, for an All in Sustaining Costs (AISC) of US$1,316/oz Au produced. Mine average annual gold production during the LOM is approximately 61,248 oz Au per year between 2025 and 2034.

## 19.3 Sensitivity Analysis

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

- Gold price
- Gold head grades
- Gold metallurgical recoveries
- Operating costs
- Capital costs (sustaining and closure)

After-tax NPV 5% sensitivities over the Almas Project Base Case have been calculated for -20% to +20% (for head grade), -5% to +5% (for metallurgical recovery), -20% to +20% (for metal prices), and -10% to +15% (for operating costs and capital costs) variations, to determine the most sensitive parameter for the Project.

The sensitivities are shown in Table 19-3 3 and Figure 19-1.





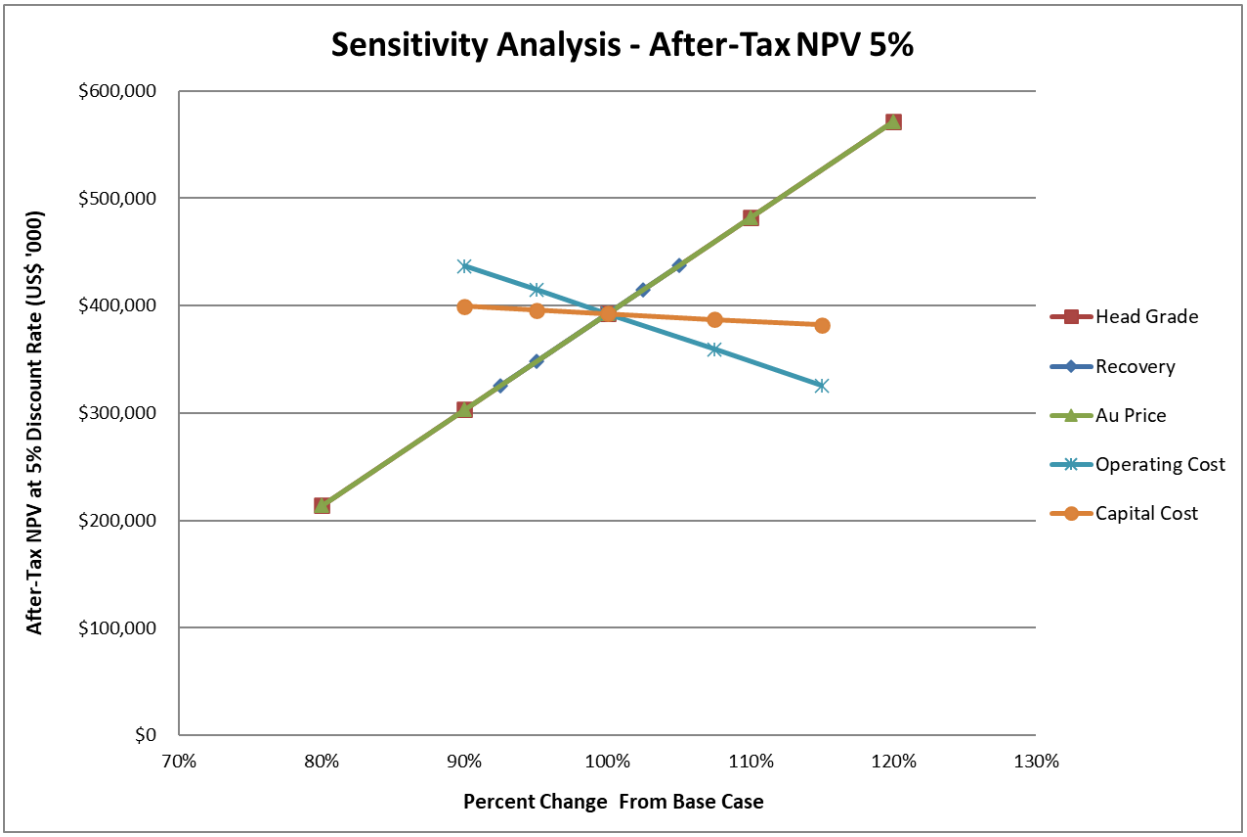
**Table 19-3: After-Tax NPV 5% Sensitivity Analyses**

| Variance | Head Grade (g/t Au) | NPV at 5% (US$000) |
|---|---|---|
| 80% | 0.86 | 213,930 |
| 90% | 0.97 | 303,234 |
| **100%** | **1.07** | **392,537** |
| 110% | 1.18 | 481,840 |
| 120% | 1.29 | 571,144 |
| **Variance** | **Recovery (% Au)** | **NPV at 5% (US$000)** |
| 95% | 85.5% | 347,885 |
| 98% | 83.3% | 325,559 |
| **100%** | **90.0%** | **392,537** |
| 103% | 92.3% | 414,863 |
| 105% | 94.5% | 437,189 |
| **Variance** | **Metal Prices (US$/oz Au)** | **NPV at 5% (US$000)** |
| 80% | 1,863 | 213,906 |
| 90% | 2,096 | 303,222 |
| **100%** | **2,329** | **392,537** |
| 110% | 2,562 | 481,852 |
| 120% | 2,794 | 571,167 |
| **Variance** | **Operating Costs (US$/t)** | **NPV at 5% (US$000)** |
| 90% | 31.06 | 436,989 |
| 95% | 32.78 | 414,763 |
| **100%** | **34.51** | **392,537** |
| 108% | 37.09 | 359,198 |
| 115% | 39.68 | 325,858 |
| **Variance** | **Capital Costs (US$000)** | **NPV at 5% (US$000)** |
| 90% | 82,806 | 399,474 |
| 95% | 87,406 | 396,006 |
| **100%** | **92,007** | **392,537** |
| 108% | 98,907 | 387,334 |
| 115% | 105,808 | 382,131 |





**Figure 19-1: After-Tax NPV 5% Sensitivity Analysis**




The sensitivity analysis at Almas shows that the after-tax NPV at an 5% base discount rate is most sensitive to metal prices, head grades, and metallurgical recoveries, followed by operating costs and capital costs. The SLR QP notes that a 10% reduction in metal prices reduces the after-tax NPV 5% by 23% for the Almas Project Base Case.

# 20.0 Adjacent Properties

Almas is a very mining-active area in Brazil. Several exploration companies maintain land positions near Aura's Almas Gold Project area. Although most of the surrounding mineral claims are in the exploration stage, some are at different stages, such as applying for mining concessions.

Examples of companies which hold adjacent properties are Calango Exploração Mineral S.A. (Calango), Iamgold-Brasil, M & J Mineração, Mineração Santo Expedito, and other small companies. Most of the claims are for gold, copper, or both.

A series of small artisanal mines exist along the length of the Almas Greenstone Belt in the Project area. These are generally surface or shallow underground operations, mining saprolite or quartz veins in weathered rock, operated by a few miners, most often intermittently. It is important to note that there is no hostile climate or other issue between Aura and artisanal miners.

Calango holds several properties in the Almas Gold Project area, especially to the north and east of the town of Almas. Aura is not aware of the nature of the exploration work conducted by Calango on its holdings. Currently, Calango is not active in the district.

M & J's Mineração (former Amarante Mineração) operates a small surface mining operation for gold, approximately 15 km north of the Almas town site. The operation includes several small open pits, a small oxide mill with a cyanide leach plant, and a tailings disposal facility.

The SLR QP has not independently verified this information and this information is not necessarily indicative of the mineralization at the Project.

# 21.0 Other Relevant Data and Information

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

# 22.0 Interpretation and Conclusions

The SLR QPs offer the following conclusions by area.

## 22.1 Geology and Mineral Resources

- The main mineralized deposits at Almas are classified as orogenic, shear-hosted mesothermal gold deposits. These mineralized bodies trend north-south and are shear-hosted in Paleoproterozoic rocks, typically metabasalts and metasediments (greenstones). The shear zone has been mapped to extend 15 km and several mineral occurrences on the property lie within and adjacent to the zone.
- Mineral Resources at Almas have been estimated for three deposits across the property: Paiol, Vira Saia, and Cata Funda. The Paiol Mineral Resources represent the largest proportion of the estimate and were updated in 2024. Vira Saia and Cata Funda are unchanged since 2020 apart from a classification update at Vira Saia. Estimates were completed by Aura and have been audited and adopted by SLR.
- Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300.
- The Mineral Resource estimation for the Paiol deposit is acceptable and represents a reasonable estimate of the economic potential of the mineral deposit. Improvements are warranted, however, and with adjustments to the estimation approach it may be possible to better reflect the deposit characteristics locally.
- The Mineral Resource estimates for the Vira Saia and Cata Funda deposits are also acceptable and represent a reasonable estimate of the economic potential of the mineral deposits. Prior to production consideration, both deposits will require an update to incorporate data from planned and completed drill programs.
- Open pit Mineral Resources exclusive of Mineral Reserves, as at December 31, 2024, and above gold grade thresholds ranging from 0.31 g/t to 0.34 g/t have been estimated as follows:
  - M&I Mineral Resources are estimated to total 12,866 kt averaging 0.67 g/t Au and containing 279 koz Au.
  - Inferred Mineral Resources are estimated to total 3,562 kt averaging 0.88 g/t Au and containing 100 koz Au.
- Sample preparation, security, and analysis adhere to industry standards, ensuring high data quality and integrity. QA/QC results confirm the accuracy and precision of assay data, supporting reliable Mineral Resource estimates.
- No significant sample bias was identified in the review of drill data and assays, ensuring the adequacy of the database for Mineral Resource estimation.
- Exploration to date has focused on near surface prospects, and the potential for discovery of deeper, underground gold targets with vertical extent is high.

## 22.2 Mining and Mineral Reserves

- The Almas Project is host to an open pit mining operation composed of three main gold deposits, including Paiol, Cata Funda, and Vira Saia. The Paiol deposit is currently being mined, with Cata Funda and Vira Saia to complement production in later years.

- Almas has consistently met production targets since production commenced in 2023.
- Mineral Reserves are estimated using a cut-off grade of 0.38 g/t Au for Paiol, 0.40 g/t Au for Vira Saia, and 0.42 g/t Au for Cata Funda.
- The current Mineral Reserve estimates, prepared by SLR, have been classified in accordance with the definitions for Mineral Reserves in S-K 1300. Mineral Reserves as of December 31, 2024, total 19,709 kt grading 1.07 g/t Au and containing 674 koz Au.
- Mineral Reserves are estimated by qualified professionals using modern mine planning software in a manner consistent with industry practice.
- The estimated Mineral Reserves support a LOM plan that extends approximately 10 years to 2034, at a rate of 2.0 Mtpa of ore fed into the plant.
- Measured Mineral Resources and stockpiles were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. Inferred Mineral Resources were not converted to Mineral Reserves and are not included in the LOM plan.
- Dilution and ore losses (mining recovery) are applied before reporting Mineral Reserves.

## 22.3 Mineral Processing

- Process plant throughput has not yet reached the design capacity of 2.0 Mtpa, or 5,479 tpd. In 2024, the average throughput was 4,300 tpd.
- The recovery to date is 2% below the process design value.
- Aura anticipates achieving a 92% gold recovery in 2025.

## 22.4 Infrastructure

- The Project has operated since 2021 and has developed the necessary infrastructure to support current and planned mining activities. Key components include power supply, water management systems, waste handling facilities, operational support buildings, and access roads.
- The Project is connected to the national power grid, which supplies the site's energy needs. No power generator sets are present at the site.
- Process water is sourced by direct pumping from local rivers, which provide reliable flows year-round.
- Potable water is available at the site via 20 L gallons.
- Support facilities include warehouses, maintenance workshops, an assay laboratory, and administrative offices.
- Almas does not have on-site housing. The company maintains a camp in the city of Almas for visitors and temporary needs.
- The site is accessible via paved highways and gravel roads, ensuring year-round access for materials, equipment, and personnel.
- The Project maintains radio, telephone, and internet services, ensuring effective coordination across operational areas. Cell phone services are also available at the site.





- The Project's infrastructure has been progressively maintained and adapted to meet operational requirements while ensuring environmental and regulatory standards compliance.

## 22.5 Environmental and Social Aspects

- In the SLR QP's opinion, the environmental and social risks at Almas are manageable, and Aura has in place adequate plans and systems to manage these risks and to maintain compliance with applicable environmental legal requirements.
- Aura reports that all permits required for current operations are in good standing. The Cata Funda and Vira Saia deposits are currently the subjects of licensing processes, and Aura has submitted the necessary information for the development of both pits. Licences are expected to be issued in 2025 and 2026.
- Testing of ore, waste rock, and tailings samples indicates low potential for the generation of ARD or ML.
- As designed and permitted, the TSF has an ultimate capacity of 15 $Mm^3$ of tailings in storage. Should additional capacity be required, Aura plans to utilize in-pit tailings disposal in the mined-out Vira Saia pit, providing capacity for additional storage of approximately six million cubic metres of tailings.
- Aura has continued with community engagement activities since initiating construction at Paiol, including updating the stakeholder map and communications plan, implementing a socioeconomic diagnostic exercise, and initiating a community investment program focused principally on the town of Almas.
- The mine closure plan is dated November 2022 and includes a closure cost estimate of US$9.8 million. SLR notes that for the economic analysis, closure costs have been inflated to the 2024 value, which corresponds to US$14.1 million. The SLR QP considers the higher closure and reclamation costs to reflect a more realistic approach than the closure estimate from November 2022, given costs have been escalated to 2024 US dollars and have been adjusted to consider closure costs for the three deposits.

## 22.6 Capital and Operating Costs and Economics

- The Almas Project capital and operating cost estimates were prepared based on 2024 actual costs and the current operating budget for 2025. The SLR QP has reviewed the capital and operating costs and considers them appropriate for the remaining mine life.
- The LOM production schedule is based on the December 31, 2024 Mineral Reserves.
- The economic analysis using the production, revenue, and costs estimates presented in this TRS confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves for a 10 year mine life. At the CIBC Analysts Consensus Commodity Price, with a long term price of US$2,212/oz gold, the Project's Base Case undiscounted pre-tax net cash flow is approximately US$590 million, and the undiscounted after-tax net cash flow is approximately US$510 million. The pre-tax NPV at a 5% discount rate is approximately US$452 million and the after-tax NPV at a 5% discount rate is approximately US$393 million.
- The SLR QP confirms that SLR completed the economic analysis using reserve metal prices. The analysis demonstrates that Almas's Mineral Reserves are also economically viable at these prices.





# 23.0 Recommendations

The SLR QPs offer the following recommendations by area.

## 23.1 Geology and Mineral Resources

1 While the estimated Mineral Resources are acceptable, the following process changes are suggested to be tested at the Project:

   a) Develop and execute a standard protocol for the treatment of missing intervals and analytical values with consideration of the underlying reasons and their impact. Industry standard practice is to assign a low (detection limit or zero) value to unsampled intervals because they were deemed uneconomical by the logging geologist during core processing. Apply the protocol during the compositing routine, and composite intervals to a multiple of the common sample length.

   b) Support grade restriction approaches using a combination of statistical and visual tools, including probability plots, histograms, percentiles, and a spatial review of high-grade sample location and continuity. Evaluate whether higher gold caps can be combined with a high yield restriction to limit metal loss and preserve high grades locally.

   c) Develop an interpolation plan which limits visual and statistical grade artifacts.

   d) Evaluate the impact of combining long-term and short-term data during estimation. Consider restricting the influence of production data to local blocks (two benches) and develop a process which allows reconciliation of the resource to grade control model to be undertaken without influence of production data on the resource model.

## 23.2 Mining and Mineral Reserves

1 Improve material (especially ore) tracking system for long-term/low-grade stockpiles.

2 Undertake close follow-up in the infill program for Cata Funda and Vira Saia to ensure relevant data will be available during 2026 and 2027, not causing delay on commissioning these pits.

3 Close follow-up in the Cata Funda and Vira Saia operating licence and mining concession (only Vira Saia).

4 In consideration of the increase of approximately 30% to the cut-off grade since Aura's previous Technical Report (2021) due to production costs, the following strategic actions are suggested for the Project:

   a) Review the future expansion projects to check their viability in a potentially reduced mineral inventory scenario.

   b) Continue to track operating costs closely and assess the main cost levelers to investigate possible opportunities to avoid an additional cut-off grade raise.

## 23.3 Mineral Processing

1 Process plant is not achieving design throughput. Review operating ore characteristics to determine if the grinding circuit, which is a converted single-stage SAG mill, is a bottleneck to mineral processing.



2 Review primary grind size data to understand why the tails grade is increasing, resulting in lower gold recovery.

3 Conduct mineralogical analysis of the plant feed and tails to troubleshoot lower gold recoveries.

## 23.4 Infrastructure

1 Regularly review the required infrastructure on the site, in consideration of future expansion projects.

2 Monitor the Brazilian energy market, as costs are forecasted to increase.

3 Advance the study of the TSF to the detailed design phase.

## 23.5 Environmental and Social Aspects

1 Continue with permitting of the Cata Funda and Vira Saia pits, and apply for an amendment to the permitted water discharge rate as appropriate.

2 Formalize management systems for the environmental and social aspects of the Project to incorporate a full “Plan-Do-Check-Act” cycle, common to international management system standards.

3 Continue active community engagement to address any concerns that arise due to the close proximity of Cata Funda to the community of Almas.

## 23.6 Capital and Operating Costs

1 Enhance cost tracking and financial planning by monitoring real-time expenditures, periodic cost benchmarking against peer operations, and updating sensitivity analyses for gold price scenarios to ensure economic resilience.

2 Ensure capital and operating expenditures remain aligned with the size of the operation and reserve numbers, avoiding overcapitalization.

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# 25.0 Reliance on Information Provided by the Registrant

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

- Information available to SLR at the time of preparation of this TRS.
- Assumptions, conditions, and qualifications as set forth in this TRS.
- Data, reports, and other information supplied by Aura.

For the purpose of this TRS, SLR has relied on ownership information provided by Aura in a legal opinion by Rodrigo Velazquez Rosales entitled Head of Legal (North America) and Head of Compliance, dated March 2025. SLR has not researched property title or mineral rights for the Almas as we consider it reasonable to rely on Aura's legal counsel, who is responsible for maintaining this information.

SLR has relied on Aura for guidance on applicable taxes, royalties, and other government levies or interests applicable to revenue or income from Almas in the Executive Summary and Section 19. As Almas has been in operation, Aura Minerals has experience in this area.

The Qualified Persons have taken all appropriate steps, in their professional opinion, to ensure that the above information from Aura is sound.

Except as provided by applicable laws, any use of this TRS by any third party is at that party's sole risk.

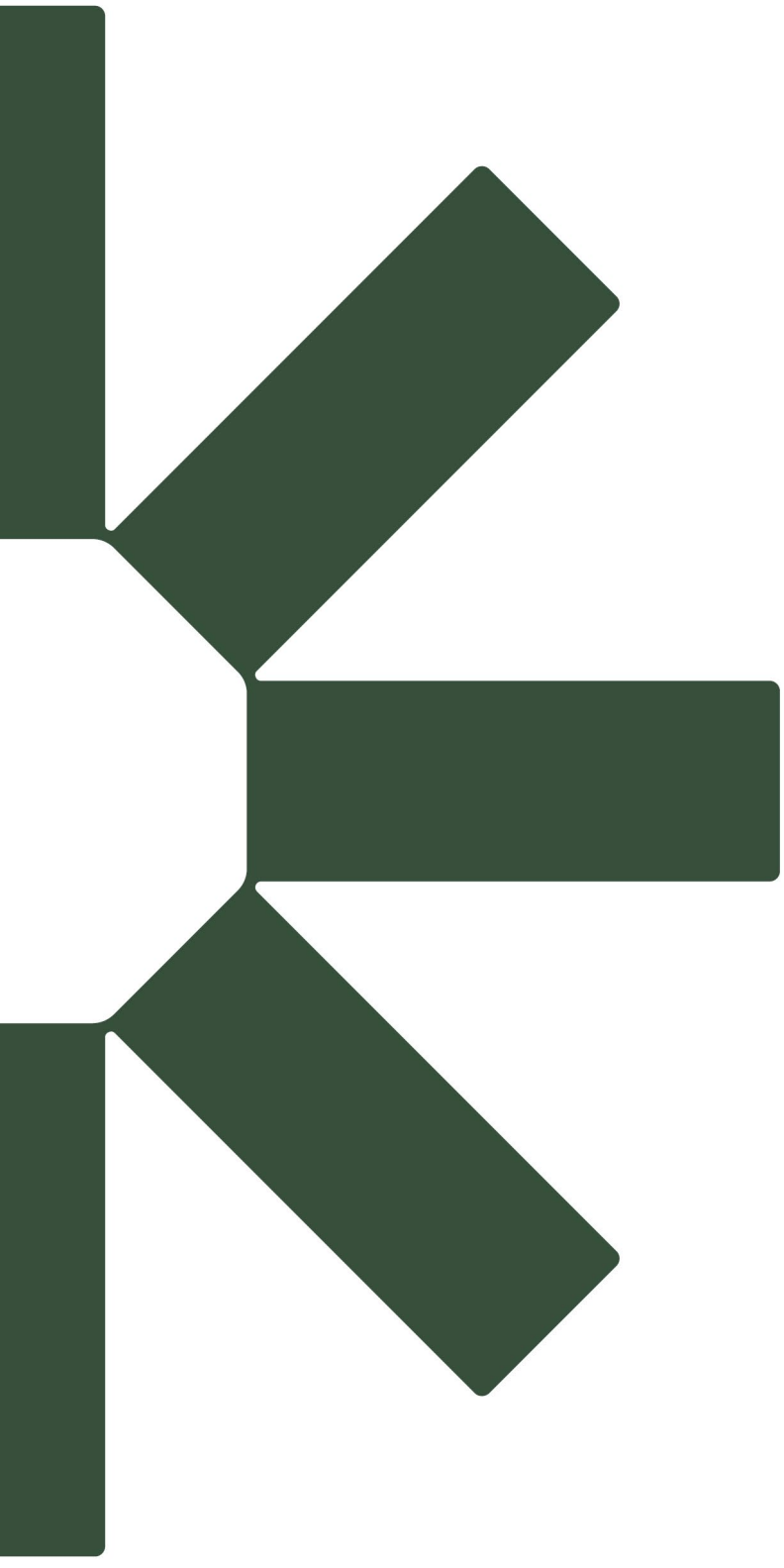
# 26.0 Date and Signature Page

This report titled “S-K 1300 Technical Report Summary for the Almas Project, Tocantins State, Brazil” with an effective date of December 31, 2024 was prepared and signed by:

**(Signed) *SLR Consulting (Canada) Ltd.***

Dated at Toronto, ON
April 10, 2025

SLR Consulting (Canada) Ltd.



Making Sustainability Happen