



# NI 43-101 Technical Report

## Camino Rojo Project, Zacatecas State, Mexico

### Orla Mining Ltd.

Prepared by:

**SLR Consulting (Canada) Ltd.**

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**NI 43-101 Technical Report  
Camino Rojo Project, Zacatecas State, Mexico**

SLR Project No.: 233.065118.00001

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## Forward-looking Statements

This report contains certain "forward-looking information" and "forward-looking statements" within the meaning of Canadian securities legislation and within the meaning of Section 27A of the United States Securities Act of 1933, as amended, Section 21E of the United States Exchange Act of 1934, as amended, the United States Private Securities Litigation Reform Act of 1995, or in releases made by the United States Securities and Exchange Commission, all as may be amended from time to time, including, without limitation, statements regarding the mineral resource estimate; the development plans for the Camino Rojo, including planned drilling and the goals and timing thereof; permitting; future resource expansion; continued metallurgical test work to support a PEA; and other goals and objectives. Forward-looking statements are statements that are not historical facts which address events, results, outcomes or developments that are or may be expected to occur. Forward-looking statements are based on the beliefs, estimates and opinions of the authors of this report on the date the statements are made and they involve a number of risks and uncertainties. Certain material assumptions regarding such forward-looking statements were made, including without limitation, assumptions regarding: the future price of gold and silver; anticipated costs and the ability to fund programs; the ability to carry on exploration, development, and mining activities; tonnage of ore to be mined and processed; ore grades and recoveries; decommissioning and reclamation estimates; currency exchange rates remaining as estimated; prices for energy inputs, labour, materials, supplies and services remaining as estimated; the ability to secure and to meet obligations under property agreements, including the layback agreement with Fresnillo plc; the timing and results of drilling programs; mineral reserve and mineral resource estimates and the assumptions on which they are based; the discovery of mineral resources and mineral reserves; that political and legal developments will be consistent with current expectations; the timely receipt of required approvals and permits, including those approvals and permits required for successful project permitting, construction, and operation of projects; the timing of cash flows; the costs of operating and exploration expenditures; the ability to operate in a safe, efficient, and effective manner; the ability to obtain financing as and when required and on reasonable terms; that activities will be in accordance with public statements and stated goals; and that there will be no material adverse change or disruptions affecting the Project. Consequently, there can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements involve significant known and unknown risks and uncertainties, which could cause actual results to differ materially from those anticipated. These risks include, but are not limited to: uncertainty and variations in the estimation of mineral resources and mineral reserves; risks related to exploration, development, and operation activities; foreign country and political risks, including risks relating to foreign operations; tailings risks; reclamation costs; delays in obtaining or failure to obtain governmental permits, or non-compliance with permits; environmental and other regulatory requirements; loss of, delays in, or failure to get access from surface rights owners; uncertainties related to title to mineral properties; water rights; risks related to natural disasters, terrorist acts, health crises, and other disruptions and dislocations; financing risks and access to additional capital; risks related to guidance estimates and uncertainties inherent in the preparation of economic studies; uncertainty in estimates of production, capital, and operating costs and potential production and cost overruns; the fluctuating price of gold and silver; risks related to the Project; unknown liabilities in connection with acquisitions; global financial conditions; uninsured risks; climate change risks; competition from other companies and individuals; conflicts of interest; risks related to compliance with anti-corruption laws; assessments by taxation authorities in multiple jurisdictions; foreign currency fluctuations; litigation risks; intervention by non-governmental organizations; outside contractor risks; risks



related to historical data; risks related to foreign subsidiaries; risks related to the accounting policies and internal controls; enforcement of civil liabilities; gold industry concentration; shareholder activism; other risks associated with executing the objectives and strategies; as well as those risk factors discussed in Orla's most recently filed management's discussion and analysis, as well as its annual information form dated March 18, 2025, which are available on [www.sedarplus.ca](http://www.sedarplus.ca) and [www.sec.gov](http://www.sec.gov). Except as required by the securities disclosure laws and regulations, the QPs undertakes no obligation to update these forward-looking statements if beliefs, estimates or opinions, or other factors, should change



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## 1.0 Summary

### 1.1 Executive Summary

This Technical Report has been prepared for Orla Mining Ltd. (Orla) by certain Qualified Persons from SLR Consulting (Canada) Ltd. (SLR), Kappes, Cassiday & Associates (KCA), Blue Coast Research Ltd (BCR), and Orla for the Camino Rojo Project (Camino Rojo or the Project) located in Zacatecas State, Mexico.

Camino Rojo is 100% owned and operated by Minera Camino Rojo S.A. de C.V. (MCR), a subsidiary of Orla Mining Ltd. (Orla). Orla is a gold mining company with mining and exploration projects in Mexico, the United States of America, Panama, and Canada. Orla is listed on the Toronto Stock Exchange (TSX: OLA) and the New York Stock Exchange (NYSE: ORLA).

The purpose of this Technical Report is to disclose updated Mineral Resources and Mineral Reserves for the Project, including initial disclosure of the Project's sulphide Mineral Resource estimate. This Technical Report supersedes the previous Technical Report dated January 11, 2021 (KCA 2021) prepared for Orla with respect to the Project.

This Technical Report has been prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (NI 43-101).

The distribution of gold mineralization at the Project is controlled by steep northwest and shallow south dipping polymetallic veins. Pervasive, near surface oxidation extends to approximately 150 metres (m) to 200 m below surface and extends to greater depths along structurally controlled zones of fracturing and permeability. Host rock lithology significantly influences deposit styles, and the Camino Rojo deposit displays transitional mineralization styles, forming a continuum between intermediate sulphidation epithermal and skarn mineralization.

Numerous regional exploration programs have been executed by Orla since the acquisition of the property in October 2017, including mapping, prospecting, diamond drill holes (DDH), rotary air blast (RAB), and reverse circulation (RC) drill programs, geophysical surveys, and soil, rock and biogeochemical sampling programs. Orla is currently executing its planned 2025 regional exploration program, which includes a 7,200 m regional drill program that follows up on positive drill results from 2024 and drill tests six new targets.

The Project includes active open pit mining and heap leach operations that commenced in late 2021 and achieved commercial production in 2022. In 2024, an average heap leach processing rate of approximately 20,000 stacked metric tonnes per day (tpd) was achieved, exceeding the design capacity of 18,000 stacked tpd. Current planning assumes a steady-state stacking rate of 18,900 tpd.

The Project's updated Mineral Resource estimate includes sulphide material with reasonable prospects of eventual economic extraction (RPEEE) using a combination of open pit and underground mining methods. Oxide and transitional materials are to be processed by heap leach processing methods. Sulphide leachable material will be processed by cyanidation using a carbon-in-leach (CIL) flowsheet. Sulphide materials with higher amounts of arsenic and organic carbon will be processed using a flowsheet consisting of flotation, pressure oxidation (POX), and CIL. A separate zinc concentrate can be produced prior to POX.

The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource and Mineral Reserve classification.



Unless otherwise noted, all revenues, costs, and currency in this Technical Report are presented in United States dollars (\$).

## 1.1.1 Conclusions

The QPs offer the following conclusions by area.

### 1.1.1.1 Geology and Mineral Resources

- Prior operators and MCR have met legal requirements to maintain the mining concession titles in good standing. Conditional upon continued compliance with annual requirements, no risks to the validity of title have been identified.
- The Mineral Resources at Camino Rojo have been updated with data collected since the last Mineral Resource estimate, which was dated effective as of January 11, 2021 (KCA 2021). The effective date of the updated Mineral Resource estimate is March 31, 2025.
- The QA/QC protocols currently in place have shown notable improvements during the most recent drilling campaigns. The procedures for sample preparation, security, and analytical testing are generally aligned with industry best practices, supporting the integrity and reliability of assay data. Performance from certified reference materials (CRMs), blanks, and duplicates indicate acceptable levels of accuracy and precision, particularly in the context of the Project's known coarse gold (nugget) effect.
- The QA/QC data continues to be systematically monitored, with timely corrective actions taken as needed. These practices ensure that the assay database remains robust and suitable for use in Mineral Resource estimation, with no material concerns identified that would impact the reliability of the results.
- The mineralization at Camino Rojo is interpreted as an intrusive-related system hosted by clastic sedimentary rocks, exhibiting a polymetallic assemblage dominated by gold, silver, and zinc, with minor lead and copper. The geological and geochemical features observed in the Camino Rojo deposit align with those typically associated with distal oxidized gold skarn systems. Mineralization extends over approximately two kilometres (km) along strike, 0.5 km across strike, and one and 0.5 km vertically.
- There is potential to increase the Mineral Resource base at Camino Rojo, both at depth and along strike, and ongoing exploration efforts are warranted. Orla has an exploration plan in place to extend the Mineral Resource footprint and to support continued infill drilling.
- The application of Net Smelter Return (NSR) cut-off values, in conjunction with the use of an optimized pit shell and underground reporting shapes, ensures that the Mineral Resource estimate meets the requirement for RPEEE. The assumed physical and economic parameters are considered appropriate for the style of mineralization, deposit types, and planned mining and processing methods at Camino Rojo.
- The Project's updated Mineral Resource estimate is reported inclusive of Mineral Reserves. Measured Mineral Resources total 3,062 kilo tonnes (kt) at grades of 0.81 g/t gold (Au) and 16.20 g/t silver (Ag), containing 80 thousand ounces (koz) of Au and 1,595 koz of Ag. Indicated material is estimated at 86,563 kt, grading 1.77 g/t Au, 12.65 g/t Ag, and 0.15% zinc (Zn), containing 4,922 koz Au, 35,206 koz Ag, and 5,217 million pounds (Mlb) Zn. Inferred Mineral Resources total approximately 7,612 kt at grades of 1.91 g/t Au, 12.21 g/t Ag, and 0.16% Zn, containing an estimated 468 koz Au, 2,989 koz Ag, and



26 Mlb Zn. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

- Given the significant differences in reporting methodology, processing assumptions, cut-off grade criteria, mining approaches, and the exclusion of lead, the QP does not consider a direct comparison between the 2021 and 2025 Mineral Resource estimates to be meaningful. The two estimates are based on fundamentally different economic and technical frameworks and should be interpreted within the context of their respective assumptions and project development strategies.

### 1.1.1.2 Mining and Mineral Reserves

- The effective date of the Mineral Reserve estimates is March 31, 2025. Mineral Reserves are classified using CIM (2014) definitions in accordance with the requirements of NI 43-101. Mineral Reserve estimates reflect the reasonable expectation that all necessary permits and approvals will be obtained and maintained.
- To facilitate Mineral Reserve estimation and scheduling activities, the resource block model was re-blocked to a 10 m x 10 m x 10 m cell size. In the QP's opinion, the regularized block model incorporated adequate dilution consistent with the mine's current reconciliation data.
- No additional dilution or ore loss was added to the regularized block model. In the QP's opinion, compositing of assays and estimating blocks with multiple composites introduces some smoothing of model grades that are analogous to dilution and ore loss effects. Additionally, regularizing and re-blocking of a sub-blocked model incorporates increased tonnage and grade dilution.
- Since the start of mining operations, MCR has been following the recommended geotechnical parameters presented in KCA 2021.
- The metal prices used to estimate Mineral Reserves were \$1,900 per ounce of gold and \$23 per ounce of silver. The QP considers these prices to be reasonable based on historical three-year trailing averages, prices used by other gold and silver producing companies for comparable projects, and long-range consensus price forecasts prepared by various bank economists.
- The Life-of-Mine (LOM) plan productivity assumptions are based on similar productivities achieved by the current and prior contractors. All equipment and personnel required to deliver the current LOM plan are either on site or available when required. While total material moved (TMM) requirements are notable higher in 2026 and 2027 compared to recent actuals, in the opinion of the QP, the planned TMM in these years is achievable and notes that it is the mining contractor's contractual obligation to provide the necessary fleet and labour to deliver the LOM plan.
- In the QP's opinion, the operating cost assumptions used for developing the NSR cut-off values and subsequent Mineral Reserve estimates are reasonable and are based on MCR's 2025 budget operating costs and MCR's 2024 Year-End LOM plan.
- The Project's updated open pit, heap leach Mineral Reserve estimates include Proven Mineral Reserves (including stockpiles) of approximately 5,972 kt at grades of 0.53 g/t Au (103 koz contained gold) and 12.3 g/t Ag (2,354 koz contained silver), while Probable



Mineral Reserves total approximately 31,923 kt at grades of 0.73 g/t Au (752 koz contained gold) and 14.3 g/t Ag (14,705 koz contained silver).

- Orla submitted a permit application in November 2024 to support and obtain the necessary permits and permit amendments related to the Fresnillo layback area and east-west pit expansion, which are required for the extraction and processing of the Mineral Reserve estimates tabulated herein. The current Mineral Reserve estimates, at the effective date of March 31, 2025, assume the mining of the areas related to the permit application starting in July 2025.

### **1.1.1.3 Mineral Processing**

- The current processing method at the Project includes run-of-mine (ROM) ore crushing, followed by stacking and heap leaching. The Project currently crushes approximately 18,900 tonnes of ore per day. Pregnant solution from the heap leach is pumped to a Merrill-Crowe plant for metal recovery.
- As of March 31, 2025, realized recoveries for gold are overall in good agreement with predicted production results.
- Relative to the Project's metallurgical test work, actual silver recoveries to date are lower than expected as compared to the recovery model presented in the feasibility study completed by KCA in 2021 (the 2021 FS [KCA 2021]). Although silver recoveries have shown significant improvement over the last two years, there is a risk that projected silver production targets may not be achieved.

### **1.1.1.4 Project Infrastructure**

- In the QP's opinion, the current infrastructure at MCR is suitable and meets the Project's current mining and processing requirements.

### **1.1.1.5 Market Studies and Contracts**

- The main contracts at Camino Rojo relate to the mining contractor, the blasting service provider, and various consumable contracts. The contracts were established based on the LOM plan and the QP considers the terms of the contracts to be reasonable relative to industry norms.

### **1.1.1.6 Environmental, Permitting, and Social Considerations**

- Based on the information available for review, the QP has not identified any known environmental issues that could materially impact the ability to extract the Project's Mineral Resources and Mineral Reserves.
- The QP is not aware of any non-compliance environmental issues raised by the relevant Mexican authorities.
- The existing mine has the environmental permits to explore and operate, and it is in the process of obtaining additional approvals for the transition to underground, including the associated changes in the land use to accommodate the additional areas related to this transition. Conditional upon continued compliance, permits for normal exploration and exploitation activities, as applicable, are expected to be attainable.
- The Project has an Environment, Sustainability, Health and Safety Policy, and several environmental standards, plans, and programs in place.



- The existing mine does not lie within any protected areas (SANAT 2024), however, in January 2024, a new protected area located 13 km east of the Project site was created. This protected area is located in the Mazapil, Concepción de Oro and Salvador municipalities in Zacatecas. The protected area is called the Semidesierto Zacatecano and is listed as a Flora and Fauna Protection Area. The protected area has a total surface of 223,796 ha. The management plan for the protected area has not been released yet, and the buffer areas established around the new protected area are unknown.
- Orla and MCR have developed an environmental and social risk register that helps document track and manage risks (current and emerging social risks). It also has in place a Stakeholder Engagement Plan, a Communication Plan, a Sustainability Risk Committee (CORS), and a grievance mechanism specific to the Project. The risk register does not contain anything that is expected to materially impact the execution of the LOM Plan.
- Orla and MCR have executed agreements with communities within the Project area of influence for the use of the land and for supporting community investment activities.
- Orla and MCR have established policies and practices to enhance the economic benefits of the Project, including local employment, contracting opportunities, and community investment. Overall, Orla and MCR appear to have built and maintained working relationships with the communities surrounding its operations.
- A conceptual Mine Closure Plan (MCP) has been developed for the Project.

#### 1.1.1.7 Capital and Operating Costs

- The Project is currently in the operating phase. Total sustaining capital costs from the second quarter (Q2) of 2025 through 2031 are approximately \$34.4 million.
- The average operating costs for the remaining LOM is \$12.16/t stacked, including mining cost of \$2.06/t mined (\$4.63/t stacked), processing cost of \$4.63/t stacked, rehandling cost of \$0.24/t stacked, and G&A cost of \$3.05/t stacked.

#### 1.1.2 Recommendations

The QPs offer the following recommendations by area.

##### 1.1.2.1 Geology and Mineral Resources

- 1 Continue diamond drilling perpendicular to mineralized zones to better define vein geometry, validate historical downdip drill holes, and increase confidence in areas currently supported primarily by downdip drilling. This approach would also support upgrading areas in the 100 series domain from the Inferred Mineral Resource classification to the Indicated Mineral Resource classification.
- 2 To support the estimation strategy, continue exploration drilling in the 300 series and 500 series high-grade mineralization domains to prove additional resources at depth and better understand grade continuity.
- 3 Investigate the mineralization chronology and metal associations, and based on this analysis, consider extending the gold-only wireframes at depth given that gold is the primary metal contributor.



- 4 Create separate wireframes for silver and zinc to better capture significant grades and reduce reliance on high-grade restrictions.
- 5 Revise sample preparation procedures to better account for coarse gold by:
  - a) increasing crushing protocol from 70% passing 2 mm to 90% passing 2 mm.
  - b) pulverizing one-kilogram samples to 85% passing 75 microns.
  - c) expanding the use of screen metallic analyses.
- 6 Establish routine check assays with an independent accredited (umpire) laboratory.
- 7 Develop deposit-specific Certified Reference Materials (CRMs). These measures are intended to strengthen the overall QA/QC framework and ensure continued reliability of assay results for Mineral Resource estimation.
- 8 To ensure accurate volumetric and tonnage estimates, review sample intervals with anomalous density values and assess the potential causes of errors.
- 9 In future resource model updates, reassess the silver estimation approach as current validation exercises indicate that the current resource model may be overly restrictive. To better reflect the distribution and continuity of silver mineralization, this reassessment should include a review of estimation parameters and assay methodologies.

#### **1.1.2.2 Mining and Mineral Reserves**

1. Regularly assess contractor performance regarding reconciliation and dilution control.
2. As economic conditions dictate, examine opportunities to further optimize the pit and mining schedules.

#### **1.1.2.3 Metallurgical Test Work and Mineral Processing**

##### **Mineral Processing:**

- 1 Continue to closely monitor silver recoveries and production to determine whether a write down of the silver inventory is warranted.
- 2 Consider using the monthly composite column leach tests results for production and inventory calculations.

##### **Metallurgical Test Work:**

- 1 Conduct the following additional metallurgical test work to further develop the Sulphide deposit at Camino Rojo:
  - a) Additional cyanide variability test work on higher grade samples (representing anticipated underground mining grades) from the transition and cyanide leachable areas to refine and optimize recovery estimates.
  - b) Additional flotation and cyanidation test work on samples from Zone 22 to assess best flowsheet arrangements.
  - c) Further POX on samples to further evaluate gold and silver recoveries and reagent consumptions.



#### 1.1.2.4 Project Infrastructure

- 1 Obtain the authorizations necessary to operate another water supply well, which would provide the mine site with an additional 25 L/s of water supply.
- 2 Maintain infrastructure as it ages and conduct regular maintenance and assessments.

#### 1.1.2.5 Environmental, Permitting, and Social Considerations

- 1 Ensure that the additional environmental approvals (including land use change) required for the planned transition to underground mining are obtained. In addition, Orla and MCR should ensure that the Unique Environmental Licence is up to date and considers the planned changes in the Project's facilities (i.e., transition to underground and changes in the footprints and processes).
- 2 Allow sufficient time for planning and completion of environmental studies that will be required for the transition to underground.
- 3 Complete a permitting schedule linked to the Project Execution Schedule.
- 4 Continue engaging with regulators to obtain the formal permits for the domestic wastewater discharges.
- 5 Regularly review and update the existing environmental policies, standards, procedures, management and monitoring plans.
- 6 Undertake additional water supply/water recycling studies to determine alternative options for water supply as a contingency measure.
- 7 Monitor the release of the management plan for the Semi-desierto Zacatecano protected area by the government to understand the management measures in the plan, the buffer areas, and implications for the Project.
- 8 Develop a grievance mechanism procedure specific to Camino Rojo to outline the process, roles and responsibilities, timelines, and socialization of the process with communities. Currently, the Project uses an electronic spreadsheet to document, track, and manage grievances.
- 9 The Project has an environmental and social risk register, as well as a Risk Committee responsible for identifying, registering, and managing ESG risks related to the Project. It is not clear how the risk register informs the Stakeholder Engagement Plan (and management plans). The QP recommends that these two documents be linked together and revisited regularly as social and emerging risks are constantly evolving.

#### 1.1.2.6 Capital and Operating Costs

- 1 Continually monitor actual spending, comparing to budgets and optimize where possible.

### 1.2 Economic Analysis

This section is not required as Orla is a producing issuer, the operations are currently in production, and there is no material expansion of current production included in the LOM plan presented in this Technical Report.

Orla performed an economic analysis of the Camino Rojo Operations using the assumptions, costing and Mineral Reserve estimates presented in this Report and verified that the outcome is a positive cash flow that confirms the economic viability of the Mineral Reserves.



## 1.3 Technical Summary

### 1.3.1 Property Description and Location

The Camino Rojo property is located in the Municipality of Mazapil, State of Zacatecas, Mexico, near the village of San Tiburcio. The property lies 190 km northeast of the city of Zacatecas, 48 km south-southwest of the town of Concepción del Oro, and 54 km south-southeast of Newmont's Peñasquito Mine. The Project area is centred at approximately 244150 E 2675900 N UTM NAD27 Zone 14N.

### 1.3.2 Land Tenure

The property mineral rights are held by Orla's Mexican subsidiary Minera Camino Rojo S.A. de C.V. (MCR) in seven concessions covering 138,639.74889 hectares (ha). Surface rights in the Project area are owned by several Ejidos, which are federally defined agrarian communities. The land that includes the Mineral Resource at Camino Rojo is controlled by the San Tiburcio Ejido. Exploration work has been carried out under the authority of agreements between the project operators and the Ejidos.

On 21 December 2020, Orla announced that it had entered into an agreement (the "Layback Agreement") with Fresnillo, granting Orla the right to expand the Camino Rojo oxide pit onto a portion of Fresnillo's 782 ha. "Guachichil D1" mineral concession, Title 245418, located immediately to the north of Orla's property. The Layback Agreement received Federal Competition Commission (*Comisión Federal de Competencia Económica* or "COFECE") approval in February 2021, and the surface access rights were ceded in December 2022.

### 1.3.3 History

The Camino Rojo deposit was discovered by geologists under contract to Canplats Resources Corporation (Canplats) in mid-2007. The deposit was concealed beneath post-mineral cover in a broad, low relief alluvial valley adjacent to the western flank of the Sierra Madre Oriental. A shallow pit excavated through a thin veneer of alluvium, located adjacent to a stock pond (represa) was the discovery exposure of the deposit. Canplats began concurrent programs of surface geophysics and reverse-circulation (RC) drilling in late 2007 and began core drilling in 2008. Elevated chargeability zones from the surface geophysics were interpreted as large volumes of sulphide mineralized rocks. Drilling by Canplats, and later drilling by Goldcorp Inc. (Goldcorp), confirmed the presence of sulphide mineralization at depth in the Represa zone (now the Camino Rojo deposit), and a deeper sulphide mineralized zone to the southwest at Don Julio (now part of the Camino Rojo Sulphides Zone).

Canplats was acquired by Goldcorp in early 2010. Validation, infill, condemnation, and expansion drilling began in January 2011, mostly focused on the Represa and Don Julio zones, and their immediate surroundings. Airborne gravity, magnetic and TEM surveys were carried out, and RAB and RC drilling tested other exploration targets within the concession.

Orla acquired the property from Goldcorp in 2017. The Camino Rojo Oxide Gold Mine achieved its first gold pour in December 2021 and began commercial production in April 2022.

### 1.3.4 Geology and Mineralization

The Camino Rojo property geology is dominated by siliciclastic and carbonate Cretaceous sedimentary units which are intruded by northeast-southwest and east-west striking mafic to intermediate dikes. The property-scale map pattern is dominated by northeast vergent folds,



commonly cored by limestones of the Cupido Formation. Northeast directed shortening is pre- to post-tectonic with respect to intrusion of dikes and formation of ore-stage polymetallic veins and mantos. Cenozoic extension resulted in the formation of horsts and grabens at Camino Rojo.

The Camino Rojo deposit is gold-dominant, with lesser silver, lead and zinc and displays transitional mineralization styles, forming a continuum between intermediation sulphidation epithermal and skarn mineralization. The Oxide and the Caracol-hosted Sulphide zones exhibit characteristics typical of intermediate sulphidation epithermal deposits, while Zone 22 shows features of distal skarn zones. The Late Cretaceous Caracol Formation is the primary host of Camino Rojo Oxides and Camino Rojo Sulphides (Sulphides) mineralized zones, while Zone 22 extends into the underlying carbonate-rich Indidura, Cuesta del Cura, La Peña and Cupido formations.

The distribution of auriferous mineralization at Camino Rojo is controlled by steep northwest and shallow south dipping polymetallic veins within the siliciclastic hosted Oxide and Sulphide zones. Within the carbonate hosted Zone 22, auriferous mineralization is controlled by disseminated, patchy and massive polymetallic sulphide replacement (manto type) of carbonate strata and sulphide breccias along the margins and crosscutting dioritic dikes. Pervasive, near surface oxidation extends to approximately 150 - 200 m below surface, and extends to greater depths along structurally controlled zones of fracturing and permeability.

### 1.3.5 Exploration and Drilling Status

In addition to regional drilling (101 holes, 33,003 m), Orla has also conducted numerous other regional exploration activities across portions of its mining concessions. This includes mapping, prospecting, geophysical surveys (1,006 km<sup>2</sup> drone magnetometry, 243 km<sup>2</sup> gravity, 346 km<sup>2</sup> induced polarization), soil sampling (15,651 samples), rock sampling (3,213 samples) and biogeochemical sampling (22 samples).

Orla is currently executing its planned 2025 regional exploration program, which includes:

- A drill program totalling 7,200 m, following up on two positive drill results from 2024, and drill testing six new targets pending receipt of required permits.
- Target generation and definition stage activities include prospecting, mapping, soil sampling, rock sampling, and a drone magnetics survey across the Majoma and Miserias target areas.

### 1.3.6 Mineral Resource Estimates

SLR and the QP were engaged to estimate the Mineral Resources at Camino Rojo assuming both open pit and underground mining scenarios, primarily using diamond drill hole data.

Orla provided the drill hole database, which the QP reviewed and verified. The database includes over 1,000 drill holes totaling approximately 506,000 m, with detailed geological, assay, and geotechnical information. Only drill holes within the defined resource area were used in the estimate. Geological models, including lithology, alteration, and geometallurgical domains, were developed in Leapfrog by Orla and reviewed by the QP. Mineralization wireframes were constructed for both low-grade and high-grade mineralization zones, using gold and gold equivalent cut-offs of 0.1 g/t Au or 0.1 g/t AuEq for low-grade and 1 g/t Au or 1 g/t AuEq for high-grade, with AuEq being used below the Caracol Formation to consider the contributing metals at depth. These mineralization wireframes were organized into vein groups and estimation domains, reflecting geological and metallurgical characteristics.



To prevent isolated high-grade assays from skewing the grade estimation, SLR applied capping based on statistical analyses within defined capping domains (MIN100, MIN200, MIN300, MIN500, LG, and OUT). High-grade restrictions were also implemented in lower-grade domains (LG and OUT) to limit the impact of anomalous values. After capping, assays were composited into fixed 1.5 m intervals within mineralized wireframes, with short composites (under 0.45 m) added to the previous interval to maintain consistency in the estimation process.

Grade continuity was evaluated using indicator grade shells and variogram analysis, revealing distinct gold grade trends, particularly in veins MIN103, MIN203, MIN206, and MIN237. These trends guided variogram modelling, with the most reliable results in the OxTrHi domain.

The QP estimated the Camino Rojo grade block model using ID<sup>2</sup> or ID<sup>3</sup> interpolation in three to four passes, with hard boundaries across all domains and variable orientation. A density sub-domaining strategy was established using the high-grade (HG), low-grade (LG), and OUT domains based on oxidation levels (oxide [Ox], transition [Tr], and sulphide [Sx]), resulting in nine density domains, with values ranging from 2.4 g/cm<sup>3</sup> to 2.67 g/cm<sup>3</sup>, that are considered appropriate for the deposit. An octree block model with 5 m parent blocks, sub-blocked to 1.25 m, was built in Leapfrog Edge. The QP deems the model and block size suitable for both open pit and underground mine planning.

Metal prices used for Mineral Resource estimation were \$2,300/oz for gold, \$29/oz for silver, and \$1.25/lb for zinc. NSR cut-off values were defined according to mining and processing methods, including costs and recovery assumptions, with open pit NSR cut-off values at \$7.59/t (leach) and \$17.30/t (Mill – carbon-in-leach [CIL]), and underground NSR cut-off values of \$59.02/t for leach, \$/t 68.73 for CIL and \$76.23/t for CIL with pressure oxidation (POX). Only blocks above these cut-offs within resource pit shells and all blocks within underground resource reporting shapes built with these NSR cut-off values were reported.

Open pit optimization was performed in Whittle using a 10 m x 10 m x 10 m regularized block model and the Pseudoflow algorithm, applying a 45° slope angle, NSR-based revenue inputs, and mining and processing costs of \$2.04/t, \$7.59/t (heap leach), and \$17.30/t (mill). The pit shell incorporated a \$45/t trade-off cost for underground mining. Underground optimization was completed in Deswik's Stope Optimizer using NSR inputs and costs ranging from \$59.02/t to \$76.23/t, depending on processing method. Panel shapes were constrained by geometry and dip, with a two metre minimum thickness, clipped to the pit shell, and overlapping or isolated shapes were removed. An incremental cut-off of \$40/t was applied, and no crown pillar was considered in the Mineral Resource estimate.

The QP classified the Camino Rojo Mineral Resources based on drill hole spacing within key estimation domains (OxTrHi, 100, 200, 300, 500, and LG). Measured material, limited to the OxTrHi domain, required a drill spacing of greater than or equal to 25 m, visual validation with blast hole data, and grade continuity above the 0.25 g/t Au production cut-off. Indicated material was defined by spacing of approximately 25 m to 50 m and Inferred by approximately 50 m to 100 m. Classification also considered drill hole geometry (minimum three holes) and data distribution. Where downdip drill holes lacked perpendicular support within 25 m in the 100 series, Indicated blocks were downgraded to Inferred. CIM (2014) definitions were used for Mineral Resource classification

The QP validated the Camino Rojo block model using visual checks and statistical comparisons to ensure the reliability of domain flagging and interpolated grades. This included comparing block model grades to composite and blast hole assays, evaluating swath plots across estimation methods (ID, OK, NN), and checking volumetric consistency between wireframes and the model. A reconciliation with the production grade control model confirmed good



alignment for gold (2% tonnage, 1% grade, 3% ounces variance), while silver showed a 40% negative variance, attributed to differing assay methods. Overall, SLR concluded the model is robust and suitable for public disclosure.

Mineral Resources for Camino Rojo, with an effective date of March 31, 2025, are presented in Table 1-1.

**Table 1-1: Summary of Mineral Resources – Effective Date of March 31, 2025**

Operation	Processing Type	Category	Tonnage (kt)	Average Grade				Contained Metal				NSR Cut-off Value (\$/t)
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)	
OP	Leach	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86	7.59
		Indicated	33,967	0.76	15.03	-	0.83	831	16,411	-	908	
		<b>Measured + Indicated</b>	<b>37,022</b>	<b>0.77</b>	<b>15.12</b>	-	<b>0.83</b>	<b>911</b>	<b>17,998</b>	-	<b>993</b>	
		Inferred	1,613	0.89	14.38	-	0.97	46	746	-	50	
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-	17.30
		Indicated	2,518	1.74	21.59	-	1.90	141	1,748	-	154	
		<b>Measured + Indicated</b>	<b>2,518</b>	<b>1.74</b>	<b>21.59</b>	-	<b>1.90</b>	<b>141</b>	<b>1,748</b>	-	<b>154</b>	
		Inferred	423	1.91	21.60	-	2.12	26	294	-	29	
	<b>Total OP</b>	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86	7.59 to 17.30
		Indicated	36,485	0.83	15.48	-	0.91	973	18,158	-	1,062	
		<b>Measured + Indicated</b>	<b>39,539</b>	<b>0.83</b>	<b>15.53</b>	-	<b>0.90</b>	<b>1,052</b>	<b>19,746</b>	-	<b>1,147</b>	
		Inferred	2,037	1.10	15.88	-	1.21	72	1,040	-	79	
UG	Leach	Measured	7	1.95	31.45	-	2.11	0.46	7	-	0.50	59.02
		Indicated	1,704	2.90	13.17	-	3.03	159	722	-	166	
		<b>Measured + Indicated</b>	<b>1,711</b>	<b>2.90</b>	<b>13.25</b>	-	<b>3.03</b>	<b>159</b>	<b>729</b>	-	<b>166</b>	
		Inferred	214	2.29	15.08	-	2.44	16	104	-	17	
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-	68.73
		Indicated	12,475	2.07	8.68	-	2.11	832	3,480	-	848	
		<b>Measured &amp; Indicated</b>	<b>12,475</b>	<b>2.07</b>	<b>8.68</b>	-	<b>2.11</b>	<b>832</b>	<b>3,480</b>	-	<b>848</b>	
		Inferred	2,549	1.81	10.19	-	1.85	148	835	-	152	
	Mill-CIL with POX	Measured	-	-	-	-	-	-	-	-	-	76.23
		Indicated	35,900	2.56	11.13	0.35	2.72	2,958	12,847	278	3,142	
		<b>Measured + Indicated</b>	<b>35,900</b>	<b>2.56</b>	<b>11.13</b>	<b>0.35</b>	<b>2.72</b>	<b>2,958</b>	<b>12,847</b>	<b>278</b>	<b>3,142</b>	
		Inferred	2,813	2.57	11.17	0.42	2.75	232	1,010	26	249	
	<b>Total UG</b>	Measured	7	1.95	31.45	-	2.11	0.5	7	-	0.5	59.02 to 76.23
		Indicated	50,079	2.45	10.59	0.25*	2.58	3,949	17,048	278	4,156	
		<b>Measured + Indicated</b>	<b>50,086</b>	<b>2.45</b>	<b>10.59</b>	<b>0.25*</b>	<b>2.58</b>	<b>3,950</b>	<b>17,055</b>	<b>278</b>	<b>4,156</b>	
		Inferred	5,576	2.21	10.87	0.21*	2.33	396	1,949	26	417	
<b>Total</b>	Measured	3,062	0.81	16.20	-	0.87	80	1,595	-	86	7.59 to 76.23	
	Indicated	86,563	1.77	12.65	0.15*	1.87	4,922	35,206	278	5,217		
	<b>Measured + Indicated</b>	<b>89,625</b>	<b>1.74</b>	<b>12.77</b>	<b>0.14*</b>	<b>1.84</b>	<b>5,002</b>	<b>36,801</b>	<b>278</b>	<b>5,304</b>		



Operation	Processing Type	Category	Tonnage (kt)	Average Grade				Contained Metal				NSR Cut-off Value (\$/t)
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)	
		Inferred	7,612	1.91	12.21	0.16*	2.03	468	2,989	26	497	

- Notes:
- CIM (2014) definitions were followed for estimating Mineral Resources.
  - Mineral Resources are estimated in the optimized pit shell at a NSR cut-off value of \$7.59/t for leach material and \$17.30/t for Mill - CIL material, while the underground reporting shapes are using a NSR cut-off value of \$59.02/t for leach material, \$68.73/t for Mill - CIL material and \$76.23/t for Mill – CIL with POX material.
  - Mineral Resources are estimated using a long-term price of \$2,300 per ounce for gold, \$29 per ounce for silver, and \$1.25 per pound for zinc, with an US\$:C\$ exchange rate of 1:1.33.
  - Bulk density varies from 2.40 t/m<sup>3</sup> to 2.67 t/m<sup>3</sup> for the mineralization and estimation domains and 2.0 t/m<sup>3</sup> for the overburden.
  - Metallurgical recoveries vary according to geometallurgical domains and process type (Leach, Mill - CIL, or Mill – CIL with POX) and are either a constant or formula based. Heap leach recoveries range between from 40% to 70% for gold and 11% to 34% for silver, for the open pit and underground scenario. For Mill material, gold and silver recovery recoveries are calculated using grade dependant formulas. The open pit CIL mean recovery is 60% for gold and 22% for silver. The underground CIL mean recovery is 92% for gold and 36% for silver. The underground CIL with POX mean recovery is 85% for gold and 41% for silver. Zn recovery by Mill – CIL with POX is 80%.
  - The NSR is calculated by material type with the following formulas:
    - Heap Leach Material NSR (\$/t) = \$71.98 x Au recovery x Au grade (g/t) + \$0.84 x Ag recovery x Ag grade (g/t).
    - Mill - CIL NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade (g/t).
    - Mill – CIL with POX NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade + \$0.00146 x Zn recovery x Zn grade (ppm)
  - The gold equivalent (AuEq) for by material types are calculated with the following formulas:
    - Heap Leach material: Au grade (g/t) + (\$0.84 x Ag recovery x Ag grade (g/t)) / (\$71.98 x Au recovery).
    - Mill - CIL material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery).
    - Mill – CIL with POX material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery) + (\$0.00146 x Zn recovery x Zn grade (ppm)) / (\$68.34 x Au recovery).
  - Mineral Resources are constrained by an optimized resource pit shell and underground resource panels with a minimum width of 2 m.
  - Mineral Resources are inclusive of Mineral Reserves.
  - Numbers may not add due to rounding.
  - Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves.
- \* Zinc is only considered in the underground CIL with POX scenario, and its grade is averaged over the underground and final total numbers.

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

### 1.3.7 Mineral Reserve Estimates

Mineral Reserves are classified using CIM (2014) definitions in accordance with the requirements of NI 43-101. Mineral Reserve estimates reflect the reasonable expectation that all necessary permits and approvals will be obtained and maintained.

Mineral Reserves are estimated assuming only heap leach processing and open pit mining methods.

To estimate open pit Mineral Reserves, the Project’s updated block model was regularized and re-blocked to a 10 m x 10 m x 10 m cell size. Orla and the QP completed several audits and verification exercises to ensure proper block model transfer and import into Hexagon MinePlan software.

No additional dilution or ore loss was added to the regularized block model. Compositing of assays and estimating blocks with multiple composites introduces some smoothing of model



grades that are analogous to dilution and ore loss effects. Additionally, regularization and re-blocking of a sub-blocked model incorporates increased tonnage and grade dilution.

The pit optimization process was completed using Geovia’s Whittle software package. Only gold and silver are considered in the pit optimization, and the only material types considered are the oxide material with pervasive potassic alteration (KpOx material), oxide material with incipient potassic or phyllic alteration (KiOx), transition material with high (60-90%) oxidation (TrHi), and transition material with low (30-60%) oxidation (TrLo). Given the two products (gold and silver doré) and variable metallurgical recoveries by material type, an NSR cut-off value was used to determine the Mineral Reserve estimates.

The metal prices used to estimate Mineral Reserves were \$1,900 per ounce of gold and \$23 per ounce of silver.

Operating cost assumptions used for developing the NSR cut-off values are based on MCR’s 2025 budget operating costs and MCR’s 2024 Year-End LOM plan. The mining operating cost assumption is based on completing mining operations using a mining contractor.

The Mineral Reserve estimate is presented in Table 1-2 and has an effective date of March 31, 2025.

Orla submitted a permit application in November 2024 to support and obtain the necessary permits and permit amendments related to the Fresnillo layback area and east-west pit expansion, which are required for the extraction and processing of the Mineral Reserve estimates tabulated herein. The current Mineral Reserve estimates, at the effective date of March 31, 2025, assume the mining of the areas related to the permit application starting in July 2025.

**Table 1-2: Mineral Reserves Estimate – Effective Date of March 31, 2025**

Reserves Category	Mass (kt)	Gold (g/t)	Silver (g/t)	Gold (koz)	Silver (koz)
<i>Proven (In Situ)</i>	2,643	0.79	16.2	67	1,374
<i>Proven (Stockpile)</i>	3,329	0.33	9.2	35	980
Proven	5,972	0.53	12.3	103	2,354
Probable	31,923	0.73	14.3	752	14,705
<b>Total Mineral Reserves</b>	<b>37,895</b>	<b>0.70</b>	<b>14.0</b>	<b>854</b>	<b>17,060</b>

Notes:

- The Mineral Reserve estimates have been prepared in accordance with CIM (2014) definitions.
- Rounding as required by reporting guidelines may result in summation differences.
- The estimation of Mineral Reserves may be materially affected by geology, environment, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- koz = 1,000 troy ounces; t = tonne (1,000 kilograms)
- The Mineral Reserve estimates for Camino Rojo have an effective date of March 31, 2025.
- Stephen Ling, P.Eng. of Orla is the qualified person responsible for the Mineral Reserve estimates for Camino Rojo.
- Mineral Reserves are based on prices of \$1,900/oz gold and \$23/oz silver.
- Mineral Reserves are based on a net smelter return (NSR) cut-off value of \$7.85 per tonne
- The NSR value for leach material is as follows:  
 KpOx: NSR (\$/t) = 41.61 x gold (g/t) + 0.072 x silver (g/t), based on gold recovery of 70% and silver recovery of 11%.  
 KiOx: NSR (\$/t) = 33.29 x gold (g/t) + 0.099 x silver (g/t), based on gold recovery of 56% and silver recovery of 15%.  
 TrHi: NSR (\$/t) = 35.67 x gold (g/t) + 0.177 x silver (g/t), based on gold recovery of 60% and silver recovery of 27%.  
 TrLo: NSR (\$/t) = 23.78 x gold (g/t) + 0.223 x silver (g/t), based on gold recovery of 40% and silver recovery of 34%.
- The NSR values account for metal recoveries, refining costs, and refinery payable percentages.



11. Stockpiles are all derived from Camino Rojo mined material and are calculated using reconciled production figures adjusted for mining accuracy. Stockpile grades are calculated from grade control block grades. For the stockpile, no cut-off grade is used for reporting.

### 1.3.8 Mining Methods

The Camino Rojo mine is a conventional open pit mine. Mining operations consist of drilling medium diameter blast holes (approximately 17 cm), blasting with either explosive slurries or ammonium nitrate and fuel oil (ANFO), and loading blasted materials into large, off-road trucks with hydraulic shovels and wheel loaders. Ore is delivered to the primary crusher and waste rock is delivered to a waste rock storage facility (WRSF) southeast of the current pit.

Contract mining services are used at the Camino Rojo open pit and mining is carried out using 100 t capacity haul trucks, with additional equipment, including loading units, sized to match this haulage fleet.

The current LOM plan was developed by MCR and Orla to supply ore to a conventional crushing and heap leach facility with the capacity to process 18,900 tpd.

Since the start-up of mining operations at MCR, selective mining practices and the mine's stockpiling strategy have resulted in a build-up of low-grade stockpiled ore south of the open pit. This low-grade ore will be stacked on the heap leach facility at the end of mine life.

Surface water runoff is diverted around active or planned mining areas via a series of diversion channels and redirected to natural drainage locations at the southern boundary of the property. The main goal of the diversion channels is to avoid contamination of surface water and to avoid inflow into the pit that would affect mining operations. The overall pit condition is considered to be dry; however, occasionally water from mining facilities is collected in ponds and used for operational requirements, such as dust management.

The ultimate pit design includes pit haul roads and sufficient working room for all mining equipment. The pit haul road design width is 25 m, allowing for the construction of a berm and drainage ditch, at a maximum grade of 10%. This will accommodate trucks of approximately 100 t capacity such as the Caterpillar 777 class truck.

Since the start of mining operations, MCR has been following the recommended geotechnical parameters presented in KCA 2021, and the current LOM design uses the KCA 2021 geotechnical parameters. Piteau completes annual geotechnical site visits to assess slope performance in the pit, at stockpile locations, and at the WRSF, and conduct reviews of heap leach pad stability. Additionally, Piteau's annual reviews provide opportunities to train operational staff and further calibrate the assumed geotechnical parameters, such as evaluating the potential for pit slope or face angle steepening.

The waste dump is currently being constructed with a face angle of 36 degrees, 20m height and 50m berms. The remaining capacity for the WRSF is sufficient for the remaining LOM, with 51.4 Mt of storage capacity as of the end of March 2025.

The current LOM plan assumes a supply of ore to the crushing and heap leach facilities at a stacking rate of 18,900 tpd, based on current crusher performance.

From 2025 to 2027, the current LOM plan mining rate ranges from 55,000 tpd to 73,000 tpd on a month-to-month basis, and from 2028 to 2030, the mining rate ranges from 19,000 tpd to 36,000 tpd, including rehandling of the low-grade stockpile.



### 1.3.9 Mineral Processing

Camino Rojo is an open pit heap leach operation which has been in production since late 2021. Ore is crushed at a nominal rate of 18,000 tpd to 80% passing 28 mm using a two-stage closed crushing circuit and conveyor stacked onto a leach pad in 10 m lifts. Lime is added to the material for pH control before being stacked and leached with a dilute cyanide solution. Pregnant solution flows by gravity to a pregnant solution pump box before being pumped to a Merrill-Crowe plant for metal recovery. Gold and silver are precipitated from the pregnant solution via zinc cementation. The precious metal precipitate is dewatered using filters, dried in a mercury retort to remove mercury values, and smelted to produce the final doré product.

Based on ounces recovered to doré, and an estimated inventory of 19,000 oz for gold and 500,000 oz for silver, overall metallurgical recoveries from the start of operations through March 2025 have averaged 63% for gold and 7% for silver. Inventories include metals in solution, in-heap within partially leached ore, and any unleached areas such as newly stacked ore and sideslopes.

Overall, modeled recoveries vs. actual production for gold is in good agreement with reasonable inventory levels. Silver shows a significantly larger variance, and several factors may be contributing to this including slower leach kinetics for silver than expected, insufficient free cyanide in the leach pad to maximize silver recovery, or too high silver recovery estimates. It is likely that the silver recoveries for the initial ores were overestimated, however, it is recommended that the recovery estimates not be changed at this time as silver production has been improving significantly since 2023.

Samples from the Camino Rojo Sulphide deposit have been evaluated by conventional metallurgical test work methods including cyanidation, froth flotation, and pressure oxidation during several different test work programs. The results suggest that material within the deposit is metallurgically variable and requires flexibility in processing arrangements. Distinct zones of cyanide leachable gold are present, coupled with distinct areas of refractory material that requires pre-oxidation ahead of cyanidation in order to maximize gold recovery. The refractory zones are associated with areas of higher arsenic and organic carbon. In areas with elevated zinc, potential exists to produce a zinc concentrate as well.

A geometallurgical review delineated five spatially distinct zones of metallurgical performance. Two zones, transition and sulphide leachable, are considered amenable to conventional cyanidation using a carbon-in-leach (CIL) flowsheet. Average gold and silver recovery from these areas is 92% and 36%, respectively. The three additional zones contain varying amounts of arsenic and organic carbon and may be effectively treated through a combined flowsheet consisting of flotation, pressure oxidation (POX) and CIL. Average gold and silver recovery from the Float-POX-CIL material is 85% and 41% respectively.

### 1.3.10 Project Infrastructure

The MCR operation includes an open pit mine, a WRSF, a low-grade stockpile, a heap leach pad, and two topsoil stockpiles.

Surface infrastructure to support operations is in place, and includes:

- Haulage roads
- Camp facilities
- Site buildings
- Service infrastructure, including water, power, and waste infrastructure



### **1.3.11 Market Studies and Contracts**

No market studies were completed in support of this Technical Report. Gold and silver production can generally be sold to any of a number of financial institutions or refining houses and therefore no market studies are required.

The doré produced at Camino Rojo is shipped, under secure conditions, to refineries. The gold is sold and the settlement price is based on the then-current spot price for gold and silver on public markets.

The main contracts at Camino Rojo relate to the mining contractor, the blasting service provider, and various consumable contracts. The contracts were established based on the LOM plan.

### **1.3.12 Environmental, Permitting, and Social Considerations**

Orla has launched a "Towards 2030 Sustainability Strategy" to ratify its commitment to being a responsible, sustainability-driven company. The Project has an Environment, Sustainability, Health and Safety Policy, and several environmental standards, plans, and programs in place, including among others, a waste rock management plan, a management plan for potentially acid generating materials, an environmental monitoring plan, flora rescue and relocation plan, fauna rescue and relocation plan, waste management plan, a stormwater and sedimentation control plan, a preventive and corrective equipment maintenance program, a health and safety program, a cyanide management plan, an emergency response plan, and a blasting vibration monitoring program (SANAT 2024). SLR understands that Orla has set targets and defined key performance indicators to measure their progress on environmental and social governance (ESG) actions.

The existing mine has the environmental permits to explore and operate, and it is in the process of obtaining additional approvals for mining of the open pit layback, east-west pit expansion and the transition to underground, including the associated changes in the land use to accommodate the additional areas related to this transition.

The Camino Rojo operation does not generate excess water resulting in surface discharge of industrial effluent to the environment (i.e., zero discharge operation). The industrial water is recycled for use in mine operation activities (primary ore processing and road irrigation for dust suppression). Only treated effluent from the domestic wastewater treatment plant is discharged to the environment.

The Project site water supply is sourced exclusively from underground wells, with current valid permits expiring in 2030 and 2050.

As part of the work that supports the updated Environmental Impact Statement (MIA-R 2024), MCR prepared a detailed analysis of compliance with the obligations derived from the authorization contained in the Resolution official letter SGPA/DGIRA/DG/03478 of August 11, 2020. The approval comprises 148 obligations. Of these obligations, there are no known non-compliances, and 31 obligations are not currently applicable (SANAT 2024).

The environmental authorities require the submission of compliance reports as part of the permit requirements where MCR documents the environmental performance of the Project and how the conditions stated in the environmental permits are met. Currently, the Project completes several reports in a semi-annual or annual basis to be submitted to the environmental authorities.

The most recent conceptual MCP for the Project was prepared in 2022. The conceptual MCP addresses final closure actions, and post-closure inspection and monitoring. The closure



schedule includes 4.5 years of closure followed by 10 years of post-closure monitoring. A closure cost estimate was included in the MCP.

### 1.3.13 Capital and Operating Cost Estimates

The Project is currently in the operating phase and all the necessary open pit mining and processing equipment and infrastructure are already in place.

Orla estimates that total sustaining capital costs for the period Q2 2025 through 2031 are approximately \$34.4 million, with this estimate including costs for heap leach pad expansions required to the end of the current mine life. Other process capital costs include upgrades to the power line and the completion of the crushed ore stockpile dome cover. The majority of the sustaining capital is expected to be spent during 2026 and 2027 on leach pad expansions.

Unit operating cost estimates are based on actual operating data and forecasts and include all labour, reagents, consumables, electricity, maintenance, fuel and lubricants, and all other direct operating expenses. Unit mining operating costs are based on existing contracts for contract mining. LOM unit operating costs are presented in Table 1-3.

**Table 1-3: Summary of LOM Unit Operating Costs**

Description	LOM (\$/t ore stacked)
Open Pit Mining	4.63
Rehandle	0.24
Processing	4.24
G&A	3.05
<b>Total</b>	<b>12.16</b>



## 2.0 Introduction

SLR Consulting (Canada) Ltd. (SLR), Kappes, Cassidy & Associates (KCA), and Blue Coast Research Ltd (BCR), were retained by Minera Camino Rojo S.A. de C.V. (MCR), a subsidiary of Orla Mining Ltd. (Orla), to prepare a Technical Report on the Camino Rojo Project, located in Zacatecas State, Mexico. Camino Rojo is 100% owned and operated by Minera Camino Rojo S.A. de C.V. (MCR), a subsidiary of Orla Mining Ltd. (Orla). Orla is gold mining company with mining and exploration projects in Mexico, the United States of America, Panama, and Canada. Orla is listed on the Toronto Stock Exchange (TSX: OLA) and the New York Stock Exchange (NYSE: ORLA).

The purpose of this Technical Report is to support the disclosure of updated Mineral Resources and Mineral Reserve estimates for Camino Rojo with an effective date of March 31, 2025. This Technical Report is prepared in accordance with NI 43-101 Standards of Disclosure for Mineral Projects.

The Camino Rojo property is located in the Municipality of Mazapil, State of Zacatecas, Mexico, near the village of San Tiburcio. The property lies 190 km northeast of the city of Zacatecas, 48 km south-southwest of the town of Concepción del Oro, and 54 km south-southeast of the Peñasquito Mine, which is owned and operated by Newmont Corporation (Newmont).

The distribution of gold mineralization at the Project is controlled by steep northwest and shallow south dipping polymetallic veins. Host rock lithology significantly influences deposit styles, and the Camino Rojo deposit displays transitional mineralization styles, forming a continuum between intermediate sulphidation epithermal and skarn mineralization.

Numerous regional exploration programs have been executed by Orla, including mapping, prospecting, diamond drill holes (DDH), rotary air blast (RAB), and reverse circulation (RC) drill programs, geophysical surveys, and soil, rock and biogeochemical sampling programs, since the acquisition of the property in October 2017. Orla is currently executing its planned 2025 regional exploration program, which includes a 7,200 m regional drill program that follows up on positive drill results from 2024 and drill tests six new targets.

The Project includes active open pit mining and heap leach operations that commenced in late 2021 and achieved commercial production in 2022. In 2024, an average heap leach processing rate of approximately 20,000 stacked metric tonnes per day (tpd) was achieved, exceeding the design capacity of approximately 18,000 stacked tpd. Current planning assumes a steady-state stacking rate of 18,900 tpd.

The Project's updated Mineral Resource estimate includes sulphide material with reasonable prospects of eventual economic extraction (RPEEE) using a combination of open pit and underground mining methods. Oxide and transitional materials are to be processed by heap leach processing methods. Sulphide leachable material will be processed by cyanidation using a carbon-in-leach (CIL) flowsheet. Sulphide materials with higher amounts of arsenic and organic carbon will be processed using a flowsheet consisting of flotation, pressure oxidation (POX), and CIL. A separate zinc concentrate can be produced prior to POX.

### 2.1 Sources of Information

The SLR Qualified Person (QP) responsible for the updated Mineral Resource estimate, Marie-Christine Gosselin, P.Geo., Senior Resource Geologist, visited the site from January 22 to January 25, 2024. While at site, Ms. Gosselin held discussions with site personnel; visited the open pit operation; reviewed core; reviewed data collection and quality assurance and quality



control (QA/QC) procedures; and reviewed geological interpretations, geological modelling, and Mineral Resource estimation procedures.

The SLR QP responsible for environmental studies, permitting, and social aspects, Luis Vasquez, P.Eng., has not visited the Project.

The Orla QP responsible for the Project’s property description, history, geology, exploration, and drilling aspects, Sylvain Guérard, P.Geo., Orla’s Senior VP Exploration, has visited the site several times since 2020, with the most recent site visit from April 15 to 16, 2025. During the most recent site visit, Guérard reviewed core samples and discussed with site personnel open pit mapping, modelling, drilling and results, and regional exploration programs.

The KCA QP responsible for heap leach metallurgy and related mineral processing aspects, Caleb Cook, P.E., visited the Project most recently from April 30 to May 1, 2024. During the site visit, he reviewed the heap leach and processing facilities, reviewed laboratory operating procedures, and met with site metallurgists to discuss metallurgical accounting methods.

The BCR QP responsible for sulphide metallurgy and related mineral processing aspects, Andrew Kelly, P.Eng., has not visited the Project.

The Orla QP responsible for all other aspects of this Technical Report, Stephen Ling, P.Eng., visited the Project most recently from May 27 to May 29, 2025. During Mr. Ling’s site visit, he toured the operations and met with the MCR technical teams.

During the preparation of this report and while on site, discussions were held with personnel from Orla:

- José Texidor, P.Geo., Mineral Resources Manager, Orla Mining
- Stephen Ling, P.Eng., Director of Technical Services, Orla Mining
- Steven Scott, M.Sc., P.Geo., Senior Geologist Global Exploration, Orla Mining
- Blaine Smit, P.Geo., Geologist Global Exploration, Orla Mining
- Sergio Rodriguez, Exploration Geologist, Orla Mining
- Yuri Ordonez, Exploration Geologist, Orla Mining
- Dhio Montiel, Senior Geologist, Orla Mining

**Table 2-1: Qualified Persons and Responsibilities**

QP, Designation, Title	Company	Responsible for
Marie-Christine Gosselin, P.Geo., Senior Resource Geologist	SLR	1.1.1.1, 1.1.2.1, 1.3.6, 11, 12.1, 14, 25.1, 26.1
Sylvain Guérard, P.Geo. Senior VP Exploration	Orla	1.3.1 to 1.3.5, 4 to 10
Stephen Ling, P.Eng. Director of Technical Services	Orla	1.1, 1.1.1.2, 1.1.1.4, 1.1.1.5, 1.1.1.7, 1.1.2.2, 1.1.2.4, 1.1.2.6, 1.2, 1.3.7, 1.3.8, 1.3.10, 1.3.11, 1.3.13, 2, 3, 12.2, 15, 16, 18, 19, 21 to 24, 25.2, 25.4, 25.5, 25.7, 26.2, 26.4, 26.6
Caleb Cook, P.E., Project Engineer and Engineering Manager	KCA	1.1.1.3, 1.1.2.3, 1.3.9, 12.3, 13.1, 17, 25.3, 26.3



<b>QP, Designation, Title</b>	<b>Company</b>	<b>Responsible for</b>
Andrew Kelly, P.Eng., President and Senior Metallurgist	BCR	12.3, 13.2
Luis Vasquez, M.Sc., P.Eng., Principal Hydrotechnical Engineer	SLR	1.1.1.6, 1.1.2.5, 1.3.12, 20, 25.6, 26.5
All		27

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



## 2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. Unless otherwise noted, all revenues, costs, and currency in this Technical Report are presented in United States dollars (\$).

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



### 3.0 Reliance on Other Experts

This Technical Report has been prepared or its preparation supervised by the QPs from SLR, KCA, BCR, and Orla. The information, conclusions, opinions, and estimates contained herein are based on:

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

For the purpose of this Technical Report, the QPs have relied on ownership information provided by Orla's legal counsel in Mexico, Lic. Mauricio Heiras of Chihuahua, Chihuahua State, and this information is relied on in Section 4 and the Summary of this Technical Report (Heiras 2017 to 2021).

The QPs have not researched property title or mineral rights for the Camino Rojo and express no opinion as to the ownership status of the property. The QPs have relied on guidance from Orla on applicable tax rates and their application, the legal details of required royalties payments, and other government levies or interests, applicable to revenue or income from the Camino Rojo Project, in developing the cut-off grades discussed in Section 14.10, Section 15.4, and related disclosure in Sections 1 and 25 of this report.

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



## 4.0 Property Description and Location

### 4.1 Location

The Camino Rojo property is located in the Municipality of Mazapil, State of Zacatecas, Mexico, near the village of San Tiburcio. The property lies 190 km northeast of the city of Zacatecas, 48 km south-southwest of the town of Concepción del Oro, and 54 km south-southeast of Newmont's Peñasquito Mine (Figure 4-1). The Project area is centred at approximately 244,150 E and 2,675,900 N UTM NAD27 Zone 14N.

All geographic references in this Technical Report utilize UTM Zone 14N datum NAD27 unless otherwise stated.

### 4.2 Land Tenure

#### 4.2.1 Mineral Tenure

The Orla QP has relied upon Orla's legal counsel in Mexico, Mauricio Heiras Garibay, Esq., of Chihuahua, for a review of the concession titles and legal framework (Heiras 2017 to 2021).

All minerals' rights in Mexico are the property of the government of Mexico and may be exploited by private entities under concessions granted by the Mexican federal government. The process was first defined under the Mexican Mining Law of 1992 and excludes petroleum and nuclear resources from consideration. The Mexican mining law also requires that non-Mexican entities must either establish a Mexican corporation, or partner with a Mexican entity.

Under the amendment of April 29, 2005, the General Directorate of Mines (*Dirección General de Minas* [DGM]) grants concessions for a period of 50 years, provided the concession is maintained in good standing. In the same amendment no distinction was made between mineral exploration and exploitation concessions. As part of the requirements to maintain a concession in good standing, bi-annual fees must be paid based upon a per-hectare escalating fee, work expenditures must be incurred in amounts determined based on concession size and age, and applicable environmental regulations must be respected.

The current Camino Rojo property consists of seven concessions covering, in aggregate, 138,639.74889 hectares (ha). All concessions were originally staked and titled to Canplats de Mexico S.A. de C.V., whose legal name was subsequently changed to Camino Rojo S.A. de C.V. Camino Rojo S.A. de C.V. subsequently ceded all mining claims to Minera Peñasquito S.A. de C.V., who in turn sold the mining claims to MCR, as discussed in Section 4.2.1.1 of this Technical Report.

Concession information is summarized in Table 4-1, and the concessions are shown in Figure 4-2. The concessions are in good standing with respect to payment of mining taxes (January and July of each year) and filing of assessment reports, and ownership of all seven concessions has been registered to MCR (Heiras 2020, 2021, 2022, 2023, and 2024).

In addition to the claims held directly, MCR has obtained the right to mine waste rock and to mine, and recover for Orla's account, all oxide and transitional material amenable to heap leaching that is within that portion of the open pit extending onto an adjacent mineral concession, as discussed in Section 4.2.1.2 of this Technical Report.



**Table 4-1: Listing of Mining Concessions**

Concession Name	File Number (Expediente)	Title Number	Validity		Area (ha)
			Title Issued Date	Expiration Date	
Camino Rojo	093/28336	230914	06/11/2007	05/11/2057	8,340.7905
Camino Rojo 1	093/28349	231922	16/05/2008	15/05/2058	88,897.3255
Camino Rojo 1 Frac. A	093/28349	231923	16/05/2008	15/05/2058	96.8888
2da. Reducción Camino Rojo 3	8/002-00319	247240	19/01/2024	02/06/2058	9,560
Camino Rojo 2	093/28417	232076	10/06/2008	09/06/2058	17,847.4398
Camino Rojo 4 Reduc. F.1	093/28465	246859	18/12/2019	01/10/2058	96.00
3ra. Reducción Camino Rojo 5	8/002-00317	247272	21/06/2024	01/10/2058	13,797.30829
<b>Total</b>					<b>138,639.74889</b>

#### 4.2.1.1 Orla Control of Mining Concessions via Acquisition from Minera Peñasquito SA de CV

The claims are controlled by Orla by means of its ownership of MCR, which acquired the concessions from Newmont’s Mexican subsidiary, Minera Peñasquito S.A. de C.V. A summary of Orla’s and Newmont’s rights and obligations under the terms of the acquisition agreement is as follows:

Goldcorp, a subsidiary company to Newmont, was granted a 2% net smelter return (NSR) royalty on all metal production from the Project, except for metals produced under the sulphide joint venture option stipulated in the acquisition agreement. On October 27, 2021, the 2% NSR royalty that pertains to oxide material was sold to Maverix Metals Inc. (Maverix)

Orla is the operator of the Project and has full rights to explore, evaluate, and exploit the property.

In the event that a sulphide project is defined through a positive Pre-Feasibility Study outlining one of the development scenarios a) or b) contained herein, Newmont may, at its option, enter into a joint venture for the purpose of future exploration, advancement, construction, and exploitation of the sulphide project.

- Scenario a): A sulphide project where material from the Project is processed using the existing infrastructure of the Peñasquito Mine, Mill and Concentrator facilities. In such circumstances, the sulphide project would be operated by Newmont, who would earn a 70% interest in the sulphide project, with Orla owning 30%.
- Scenario b): A standalone sulphide project with a mine plan containing at least 500 million tonnes (Mt) of Proven and Probable Mineral Reserves using standalone facilities not associated with Peñasquito. Under this scenario, the sulphide project would be operated by Newmont, who would earn a 60% interest in the sulphide project, with Orla owning 40%.

Following exercise of its option, if Newmont elects to sell its portion of the sulphide project, in whole or in part, then Orla would retain a right of first refusal on the sale of the sulphide project.



For as long as Newmont maintains ownership of at least 10% of Orla common shares, Newmont has the right to nominate one director to the board of Orla and to participate in all future equity offerings to maintain its prorated ownership.

Carry forward of assessment work credits will be applied to the Camino Rojo property concessions, thus no expenditures are immediately required to meet assessment work requirements.

#### 4.2.1.2 Orla's Access to a Portion of Fresnillo's Mining Concessions

On December 21, 2020, Orla announced that it had entered into an agreement with Fresnillo plc and two of its Mexican subsidiary companies, granting Orla the right to expand the Camino Rojo oxide pit onto 21.8 ha of Fresnillo's 782 ha "Guachichil D1" mineral concession, Title 245418, located immediately to the north of Orla's property pursuant to a definitive layback agreement (the "Layback Agreement"). The Layback Agreement allows Orla access to oxide and transitional heap leachable Mineral Resources on Orla's property below the open pit outlined in the June 2019 Technical Report (KCA 2019). In addition, the Layback Agreement grants Orla the right to mine from Fresnillo's mineral concession and recover for Orla's account, all oxide and transitional material amenable to heap leaching that are within an expanded open pit. Closing of the Layback Agreement was completed upon receipt of approval from the Mexican Federal Competition Commission (*Comisión Federal de Competencia Económica* or "COFECE") in February 2021.

The Layback Agreement is only with respect to the portion of the heap leach material included in the Mineral Reserve. Any potential development of the Camino Rojo property that includes material outside this agreement within the UG Resources included in the Mineral Resource estimate is dependent on entering into an additional agreement with Fresnillo (or any potential subsequent owner of the mineral titles).

#### 4.2.2 Surface Rights

Surface rights in the Project area are owned by several Ejidos, which are federally defined agrarian communities. The land that includes the Mineral Resource at Camino Rojo is controlled by the San Tiburcio Ejido, comprised of 364 voting members who collectively control 37,154 ha. The legal ownership of surface rights verification and the information contained herein is derived from summary reports prepared by Orla's legal counsel in Mexico, Mauricio Heiras Garibay, Esq. (Heiras 2017 to 2021).

Areas for which MCR controls surface rights, illustrated in Figure 4-3, include both areas with and without mineral rights, with the latter being maintained for possible infrastructure purposes.

Exploration work at the Project has been carried out under the terms of surface access agreements negotiated with the Ejido San Tiburcio and executed on February 26, 2013, and October 31, 2018. Camino Rojo S.A. de C.V. (a Goldcorp subsidiary) executed agreements with the Ejido San Tiburcio that cover the Camino Rojo Mineral Resource. Camino Rojo S.A. de C.V. subsequently passed the rights and obligations of these agreements to Minera Peñasquito S.A. de C.V. (a Goldcorp subsidiary), who subsequently transferred the rights and obligations to MCR. The two agreements currently in effect with Ejido San Tiburcio are listed:

- Previous to Expropriation Occupation Agreement (COPE), executed on February 26, 2013, by and between Camino Rojo S.A. de C.V., in its position of "occupant", and Ejido San Tiburcio, as the owner, with regards to a surface area of 2,497.30 ha. The rights and obligations of this agreement were passed to MCR, and the agreement stipulates that the Ejido San Tiburcio expressly and voluntarily accepts the expropriation of the



Ejido San Tiburcio lands by MCR, in effect converting the Ejido San Tiburcio land to fee simple private land titled to MCR. In the event that the Federal agency responsible for the expropriation process, the Secretary of Agrarian Territorial and Urban Development (*Secretario de Desarrollo Agrario Territorial y Urbano*), denies the petition to cede the Ejido San Tiburcio lands to MCR, the agreement automatically converts to a 30-year temporary occupation agreement. Payment in full was made at the date of signing and no further payments are due. This agreement is valid and expires in 2043 and covers the area of the Mineral Resource discussed in this Technical Report.

- Collaboration and Social Responsibility Agreement (CSRA), executed on February 26, 2013, by and between Camino Rojo S.A. de C.V., in its position of “collaborator”, and Ejido San Tiburcio, as “beneficiary”, with regards to certain social contributions to be provided in favour of this last CSRA. The rights and obligations of this agreement were passed to MCR, and the agreement stipulates that MCR will contribute annually to the Ejido San Tiburcio to be used to promote and execute diverse social and economic development programs to benefit the Ejido San Tiburcio. Additionally, at its discretion, MCR will provide support for adult education, career training, business development assistance, and cultural programs, and scholastic scholarships. The agreement expires when exploration or exploitation activities at the Project end. Annual payments are due on the 29th of June each year. MCR has made all required payments up to the date of this Technical Report, thus this agreement is valid and remains in effect until mine closure or project cancellation.

MCR executed a surface rights agreement with Ejido San Francisco de los Quijano on July 22, 2021. None of the Mineral Resources of Mineral Reserves discussed in this Technical Report, nor proposed infrastructure, is located on Ejido San Francisco de los Quijano land. This Temporary Occupation Agreement (COT) allows MCR to conduct exploration activities on 5,332 ha, as shown in Figure 4-3. The agreement expires on July 22, 2025. A payment is required to keep the agreement in good standing. MCR has made all required payments up to the date of this Technical Report. MCR has made all required payments up to the date of this Technical Report.

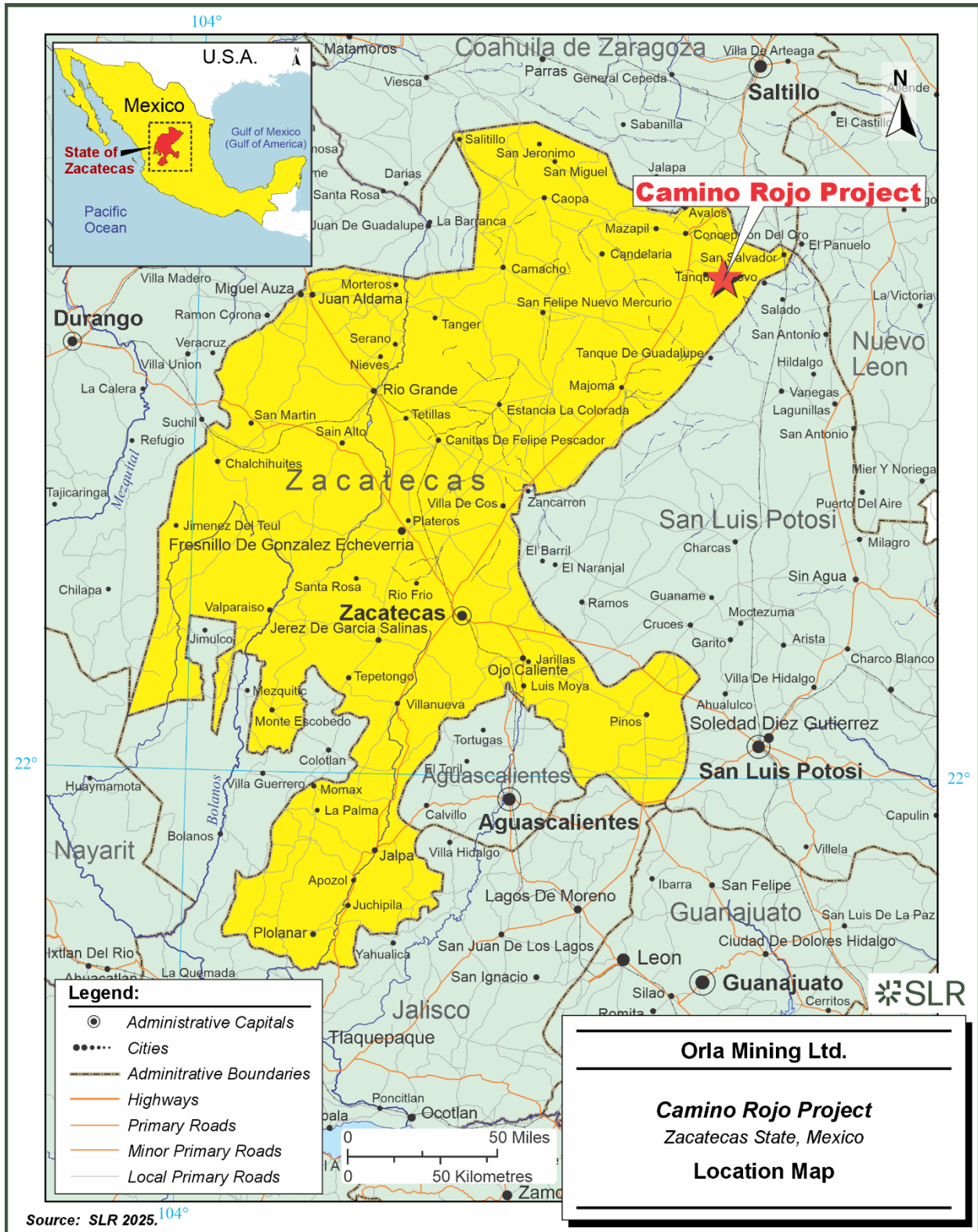
MCR executed a surface rights agreement with Ejido la Pardita on October 24, 2022. None of the Mineral Resources or Mineral Reserves discussed in this Technical Report, nor proposed infrastructure, is located on Ejido La Pardita land. This Temporary Occupation Agreement (COT) allows MCR to conduct exploration activities on 4.205 ha, as shown in Figure 4-3. The agreement expires on August 3, 2025. A payment is required to keep the agreement in good standing. MCR has made all required payments up to the date of this Technical Report.

MCR executed a surface rights agreement with Ejido El Berrendo on March 4, 2024. None of the Mineral Resources or Mineral Reserves discussed in this Technical Report, nor proposed infrastructure, is located on Ejido El Berrendo land. This Temporary Occupation Agreement (COT) allows MCR to conduct exploration activities on 2,631 ha, as shown in Figure 4-3. The agreement expires on August 8, 2026. A payment is required to keep the agreement in good standing. MCR has made all required payments up to the date of this Technical Report.

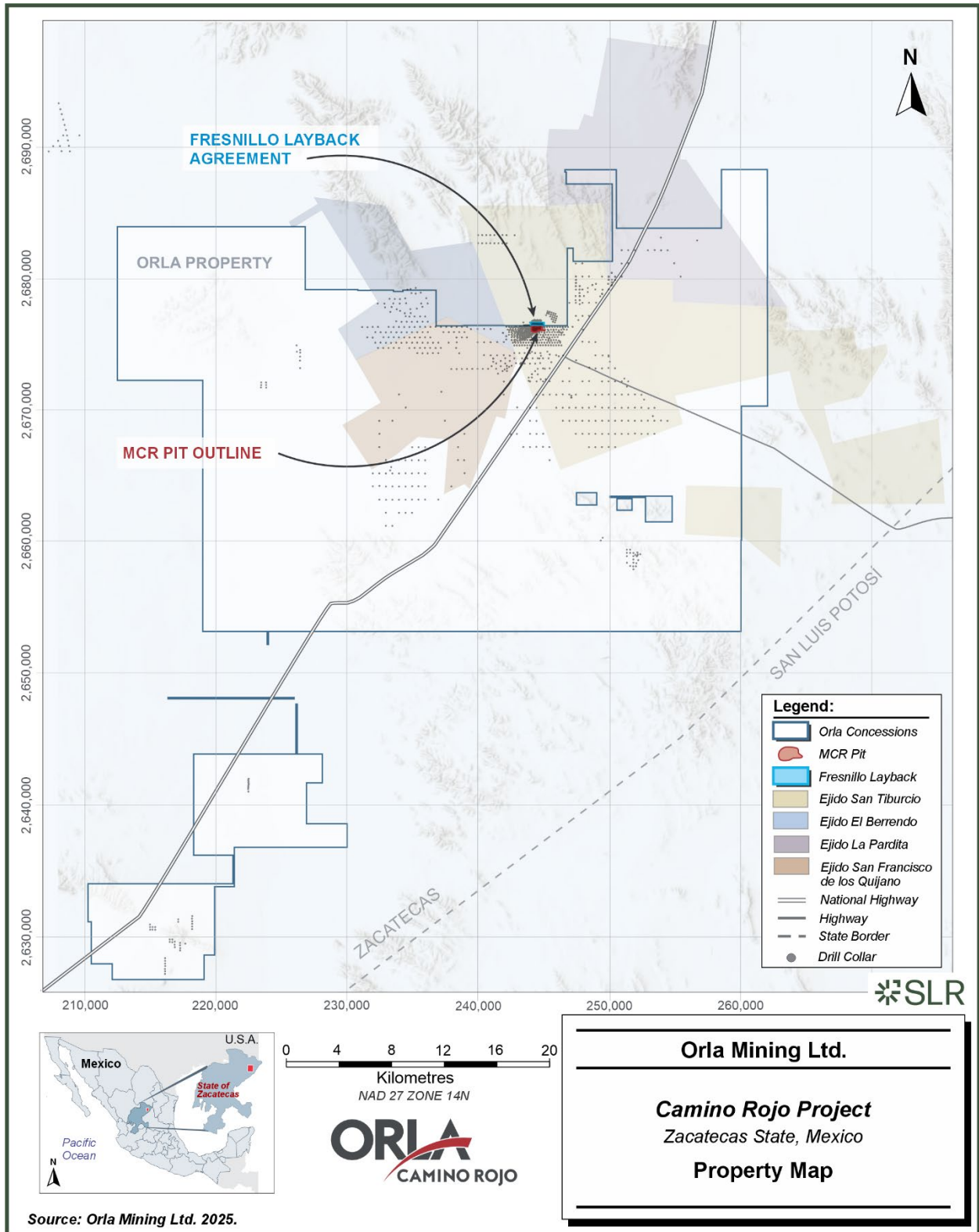
Fresnillo controls surface rights needed for exploration and mining on the “Guachichil D1” mining concession. Pursuant to the Layback Agreement, a portion of surface rights controlled by Fresnillo were ceded by MCR on December 18, 2022, to mine on a portion of the “Guachichil D1” mining concession that covers the area outside of the Orla concession required for the Project as defined in this Technical Report.



**Figure 4-1: Location Map**



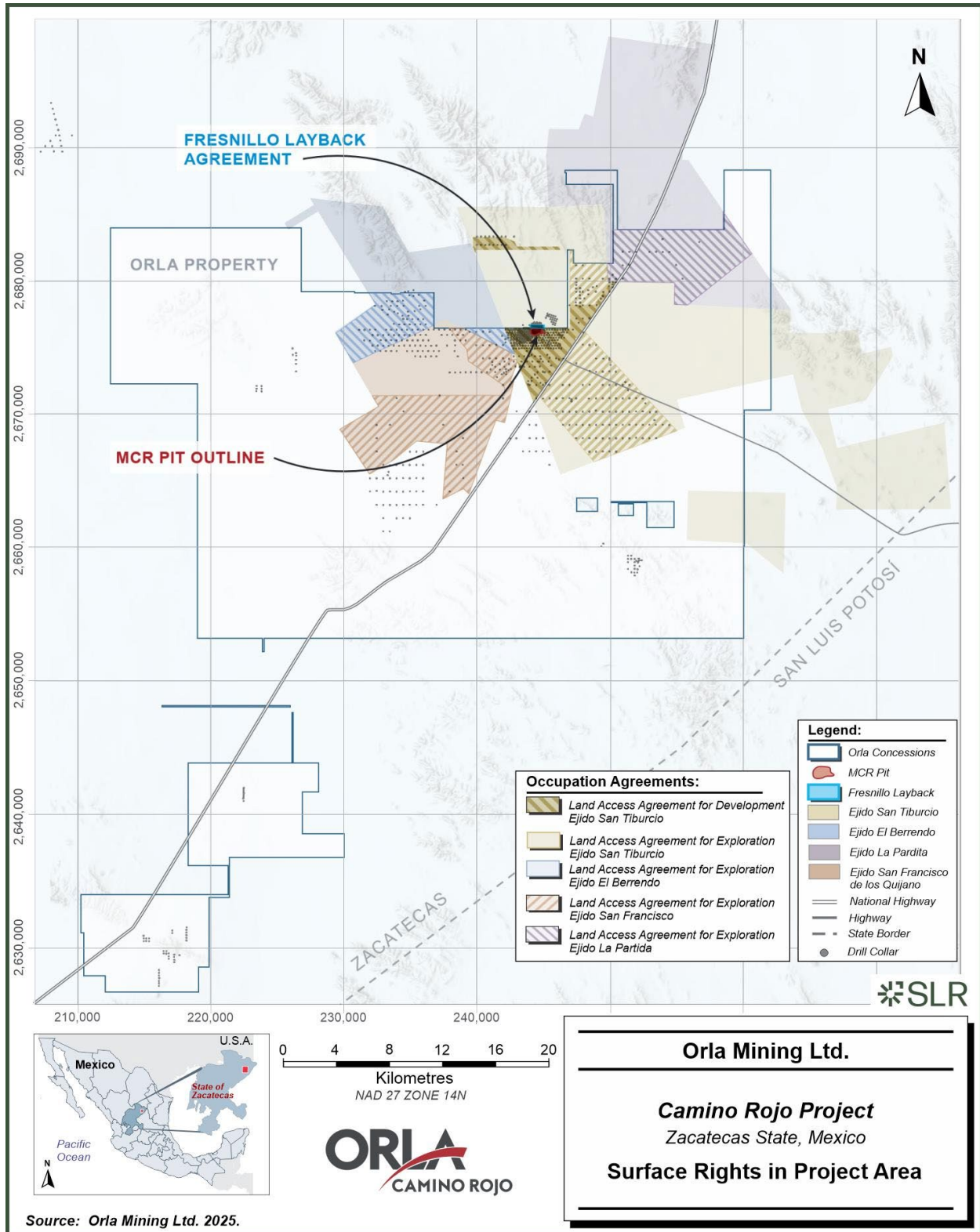
**Figure 4-2: Property Map**



Source: Orla Mining Ltd. 2025.



**Figure 4-3: Surface Rights in Project Area**



Source: Orla Mining Ltd. 2025.



### **4.3 Environmental Encumbrances**

The Orla QP is not aware of any environmental liabilities on the property. Prior to Orla's development of the Project, the property did not contain active or historical mines or prospects, and there were no pre-existing plant facilities nor tailings piles present within the Project area. All exploration work has been carried out by prior operators in accordance with Mexican environmental standards.

### **4.4 Permitting**

The existing mine has the environmental permits to explore and operate, and it is in the process of obtaining additional approvals for mining of the open pit layback, east-west pit expansion and transition to underground mining, including the associated changes in the land use to accommodate the additional areas related to this transition. Section 20.3 provides additional details on permitting requirements and status.

### **4.5 Access, Title, Permit, and Security Risks**

#### **4.5.1 Access Risks**

The Project has had a productive relationship with the surface owners, and in the QP's opinion, no extraordinary risks to Project access have been identified. A valid surface access agreement allows Orla, through its Mexican subsidiary MCR, to explore and develop the Project. Additionally, the Layback Agreement received COFECE approval in February 2021, and the surface access rights were ceded in December 2022.

#### **4.5.2 Title Risks**

Prior operators and MCR have met legal requirements to maintain the mining concession titles in good standing. Conditional upon continued compliance with annual requirements, no risks to the validity of title have been identified.

#### **4.5.3 Environmental Permitting Risks**

MCR has been compliant with Mexican environmental regulations, and conditional upon continued compliance, permits for normal exploration and exploitation activities are expected to be attainable.

#### **4.5.4 Security Risks**

Drug related violence, propagated by members of criminal cartels and directed against other members of criminal cartels, has occurred in the region and has affected local communities. The aggression has not affected the ability of Orla or previous operators to explore the Project.

### **4.6 Royalties**

Under the terms of the acquisition agreement, Newmont acquired a 2% (two percent) NSR royalty on all metal production from the Project, except for metals produced under a sulphide joint venture option as stipulated in the acquisition agreement. On October 27, 2021, the 2% Net Smelter Return (NSR) royalty was sold to Maverix Metals Inc. (which was subsequently acquired and is wholly-owned by Triple Flag Precious Metals Corp).



A 1% royalty is payable to the Mexican government as an Extraordinary Mining Duty, mandated by Federal Law, and applies to precious metal production from all mining concessions, regardless of owner or other royalty encumbrances. This royalty was increased to 1% from 0.5% and is in effect starting in 2025. The increase in this royalty was not reflected in the cut-off values used in preparing Mineral Resource and Mineral Reserve estimates. This is further addressed in Section 21.3.



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

### 5.1 Accessibility

The Project is located in the Municipality of Mazapil, State of Zacatecas, Mexico, situated along a wide, flat valley near the village of San Tiburcio on Mexican Highway 54, a well-maintained, paved highway providing southbound access to the major city of Zacatecas in Zacatecas State, a distance of 203 km, as well as northbound towards Monterrey in Nuevo Leon, a distance of 261 km (Figure 5-1). Both cities have airports with regularly scheduled flights south to Mexico City or north to the USA. The Project is located 48 km south-southwest of the town of Concepción del Oro, which is the nearest population center with basic services, and 54 km south-southeast of Newmont's Peñasquito Mine.

Highways 54 and 62 transect the property. There are also numerous gravel roads within the property linking the surrounding countryside with the two highways. There are very few locations within the property that are not readily accessible by four-wheel drive vehicle.

### 5.2 Climate

The climate is typical of the high-altitude Mesa Central, dry and semi-arid. Annual precipitation for the area is approximately 337 mm, mostly during the rainy season in July, August, and September. Temperatures commonly range from +30° to 12°C in the summer and 24° to -6°C in the winter. Exploration and production activities can be conducted year-round.

### 5.3 Local Resources and Infrastructure

There is a good network of road and rail services in the region. Road access to most of the property is possible via numerous gravel roads from both Highways 54 and 62. In addition, there is a railway approximately 40 km east of San Tiburcio that crosses both highways (Figure 5-1). There is a high voltage powerline transecting the property near San Tiburcio. A new 34.5 kV powerline was completed in March 2021; it has a capacity of 10 MW and connects the Project to the national electric grid at Concepción del Oro.

The Project site is generally flat with adequate space for development of mining and processing facilities. Surface rights over the area required for Project infrastructure development, including access from the adjoining highway, and most of the open pit are subject to a Previous to Expropriation Occupation Agreement (COPE), as described in Section 4.2.2. Surface rights for the part of the pit that is on the Fresnillo mineral concession are subject to the Layback Agreement.

Prior operators purchased ground water from owners of local wells and trucked the water to site for drilling needs. On February 24, 2015, Camino Rojo SA de CV acquired groundwater rights totaling 9,695,900 m<sup>3</sup> per annum for industrial and services uses. These water rights were subsequently transferred to Minera Peñasquito SA de CV and then assigned to MCR. The water rights acquired by MCR grant permission to construct and extract water from up to 26 wells in the Project area. Currently, MCR has four wells in production for water extraction and another well undergoing permitting review.

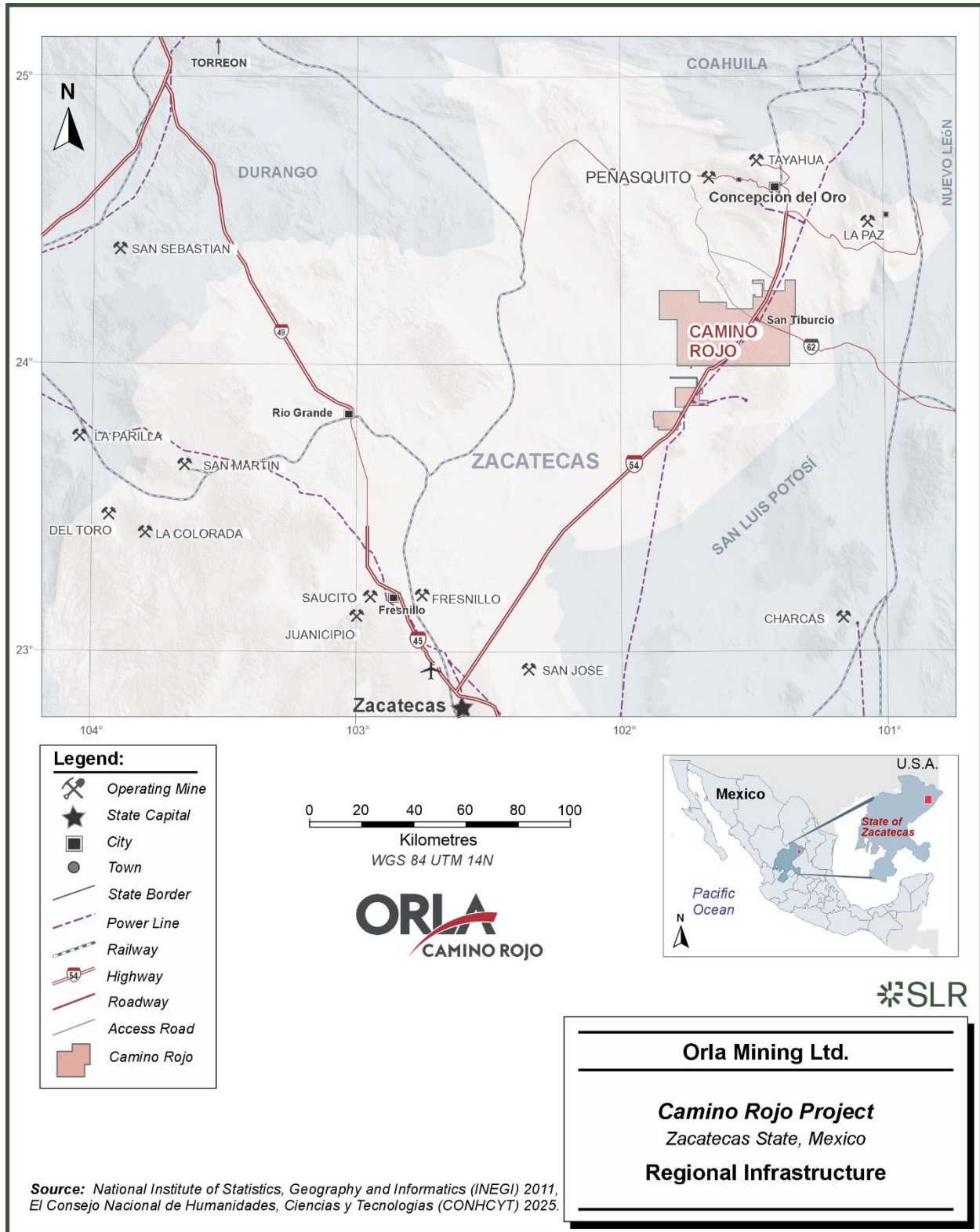
Most exploration and operating supplies may be purchased in the nearby historical mining cities of Zacatecas, Fresnillo, and Saltillo. Experienced mining personnel are available locally and from the nearby mining towns of Concepción del Oro and Mazapil.



Potential waste disposal areas, heap leach pad areas, process plant sites and infrastructure facilities are discussed in Sections 16.5, 17.1, and 18.0 of this Technical Report.



**Figure 5-1: Regional Infrastructure**



## 5.4 Physiography

The broad valley around San Tiburcio is bounded to the north by the low rolling hills of Sierra La Arracada and Sierra El Barros, to the east by Sierra La Cucaracha, and to the south by the Sierra Los Colgados. The terrain is generally flat. Bedrock exposures are rare, limited to road cuts, borrow pits or creek beds. The elevations within the property range from approximately 1,850 MASL to 2,460 MASL, and relief is low.

The vegetation is dominated by the scrub bushes creosote bush and tar bush, with lesser cacti, maguey, sage and coarse grasses with rare yucca (Figure 5-2). The natural vegetation is used to locally graze domestic livestock, principally goats. Wild fauna is not abundant, but several varieties of birds, rabbits, coyote, lizards, and snakes inhabit the area.

**Figure 5-2: View of Typical Topography and Vegetation at Camino Rojo**



## 6.0 History

### 6.1 Prior Ownership

Orla's mining concessions comprising the Camino Rojo property were originally staked to the benefit of Canplats de Mexico, S.A. de C.V., a subsidiary of Canplats Resources Corporation (Canplats), in 2007. In 2010, Goldcorp Inc. (Goldcorp) acquired 100% of the concession rights held by Canplats through its subsidiary Minera Peñasquito SA de CV. Orla's subsidiary, MCR, acquired the Project from Goldcorp in 2017.

### 6.2 Exploration and Development History

The Camino Rojo gold-silver-lead-zinc deposit was discovered in mid-2007, approximately 45 km south-southwest of Concepción del Oro, and was originally entirely concealed beneath post-mineral cover in a broad, low relief alluvial valley adjacent to the western flank of the Sierra Madre Oriental. Mineralized road ballast, placed on a dirt road near San Tiburcio, Zacatecas, was traced to its source by geologists Perry Durning and Bud Hillemeier from La Cuesta International, working under contract to Canplats. A shallow pit excavated through a thin veneer of alluvium, located adjacent to a stock pond (Represa), was the discovery exposure of the deposit. Following a rapid program of surface pitting and trenching for geochemical samples, Canplats Resources began concurrent programs of surface geophysics (resistivity and induced polarization) and RC drilling in late 2007, which continued into 2008.

The initial drilling was focused on a 450 m by 600 m gold in rock geochemical anomaly named the Represa zone. Diamond drilling began in 2008. The geophysical survey defined two principal areas of high chargeability: one centred on the Represa zone and another one kilometre to the west named the Don Julio zone. Drilling demonstrated that the Represa and Don Julio zones are part of the same mineralized zone, which crops out at Represa and plunges to the west. The elevated chargeability zones were interpreted as large volumes of sulphide mineralized rocks. Drilling by Canplats, and later drilling by Goldcorp, confirmed the presence of extensive sulphide mineralization at depth in the Represa zone, and much lower quantities of sulphide minerals at Don Julio.

By August of 2008, Canplats drilled a total of 92 reverse circulation (RC) and 30 DD holes, for a total of 23,988 m and 16,044 m, respectively, mainly focused in the Represa zone. The surface access and permission to continue drilling were cancelled in early August 2008, by the San Tiburcio Ejido, Zacatecas. Nevertheless, in November 2008, Canplats published an independent Mineral Resource estimate for the Represa zone.

In October 2009 Canplats publicly released a Preliminary Economic Assessment (PEA) of the Project (Blanchflower 2009), which has been superseded by later work and technical studies, is no longer current, and, accordingly, should not be relied upon.

Canplats was acquired by Goldcorp in early 2010. Validation, infill, condemnation, and expansion drilling began in January 2011. By the end of 2015, a total of 279,788 m of new core drilling in 415 drill holes and 20,569 m of new RC drilling in 96 drill holes was completed in the Represa and Don Julio zones and their immediate surroundings. An additional 31,286 m of shallow rotary air blast (RAB)-style, RC drilling in 306 drill holes was completed, with most of the RAB drilling testing other exploration targets within the concession. Airborne gravity, magnetic and transient electromagnetic (TEM) surveys were also carried out, the results of which are in the archives of MCR.



As of the end of 2015 a total of 295,832 m in 445 DDH, 44,557 m in 188 RC drill holes, and 31,286 m of RAB drilling had been completed.

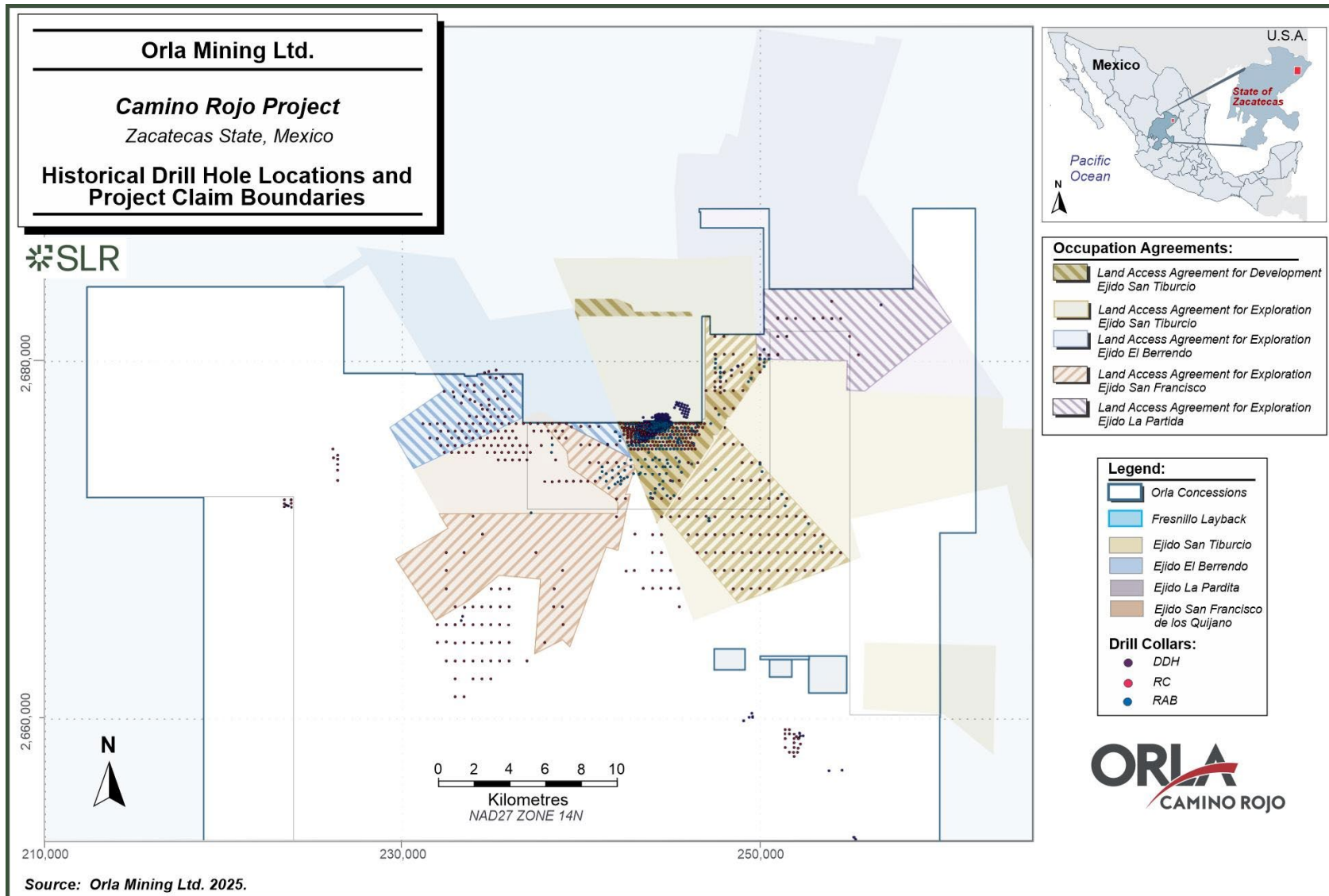
There were no exploration or drilling activities carried out from the end of 2015 up to and including October 2017, when the project was acquired by Orla through its subsidiary, MCR.

Locations of historical drill holes and the Project claim boundaries are summarized in Figure 6-1.

Canplats, Goldcorp, and Orla conducted metallurgical tests which are discussed in Section 13.1 of this Technical Report.



**Figure 6-1: Historical Drill Hole Locations and Project Claim Boundaries**



## **6.3 Historical Resource Estimates**

### **6.3.1 Canplats**

Minorex Consulting Ltd. prepared a Mineral Resource estimate for Canplats in 2009 (Blanchflower 2009) that was publicly disclosed in a Technical Report prepared in accordance with the disclosure standards of NI 43-101. Since the effective date of the 2009 Mineral Resource estimate, significant additional drill hole data has become available, rendering the 2009 estimate obsolete. The 2009 resource estimate is historical in nature, has not been verified by the authors and should not be relied upon. Orla is not treating the historical estimate as a current estimate.

### **6.3.2 Goldcorp**

Goldcorp publicly disclosed Mineral Reserve and Mineral Resources on Camino Rojo with an effective date of June 30, 2016 (Goldcorp 2017); this Mineral Resource and Mineral Reserve estimate is no longer current. The key assumptions, parameters, and methods used by Goldcorp to prepare the historical estimate are unknown. The 2016 reserve and resource estimates are historical in nature, have not been verified by the QP, and should not be relied upon. Orla is not treating these historical estimates as current estimates.

## **6.4 Past Production**

The Camino Rojo open pit, heap leach operation achieved its first gold pour in December 2021 and began commercial production in April 2022. As of December 31, 2024, the mine has produced 371,000 oz of gold.



## 7.0 Geological Setting and Mineralization

### 7.1 Sources of Information

The following geological discussion is derived from a variety of peer-reviewed professional papers focused on the regional geology (Mitre-Salazar 1989; Centeno-Gracia 2005; Aranda-Gomez 2006; Nieto-Samaniego 2007; Loza-Aguirre 2008; Tristán-González 2009; Barboza-Gudiño 2010; Weiss 2010; Ortega-Flores 2015; Cruz-Gámez 2017), a Master's of Science thesis from the University of Nevada-Reno that details the deposit geology (Sanchez 2017), geologic maps published by the Servicio Geológico Mexicano, field and diamond drill core observations by Dr. Matthew Gray (Gray 2016 and 2018) and Dr. Anthony Longo (Longo 2017; Longo and Edwards 2017), and regional stratigraphy from previously published Technical Reports (Blanchflower 2009).

### 7.2 Regional Geology

The Camino Rojo deposit is located beneath a broad pediment of predominantly Tertiary and Quaternary alluvium and sedimentary rocks (Figure 7-1a and Figure 7-1b) along the boundary between the Mesa Central physiographic province and the Sierra Madre Oriental fold and thrust belt near the pre-Laramide continental-margin. The oldest rocks are Triassic metamorphic continental rocks overlain by Early to Middle Jurassic red beds. Upper Jurassic to Upper Cretaceous marine facies rocks overlie the red beds at a disconformity and comprise a package of shelf carbonate rocks comprising the Zuloaga to Cuesta del Cura Formations and the basin-filling flysch sediments of the Indidura and Caracol Formations (Nieto-Samaniego 2007, Ortega-Flores 2015). The deposit lies within the southern extent of the northwest striking San Tiburcio fault zone (Weiss 2010).

A Permo-Triassic tectono-volcanic arc in the eastern Sierra Madre Oriental represents the first Pacific-directed subduction and tectonism in Central Mexico (Centeno-Gracia 2005). Erosion of the eastern Triassic highlands shed siliciclastic material westward and turbidites off the continental shelf into the Triassic basin plains. These marine clastic rocks, the Triassic Zacatecas and El Alamar Formations (Cruz-Gámez 2017) were subsequently metamorphosed to phyllites and schists (Nieto-Samaniego 2007) then eroded before continental siliciclastic rocks or red beds were deposited atop an angular unconformity in the Early Jurassic (Nazas Formation and later La Joya Formation) (Barboza-Gudiño 2010). A disconformity atop Lower Jurassic continental rocks preceded deposition of marine carbonate rocks belonging to the Zuloaga and La Caja Formations in the Late Jurassic. Following a cessation of volcanism, arc magmatism flared up in the west along the Guerrero arc and continued through the Late Cretaceous. Deposition of the shelf carbonate rocks progressed into the Early Cretaceous with the Taraises, Cupido, La Peña and Cuesta del Cura Formations. Upper Cretaceous flysch sediments of the Caracol Formation were derived from the erosion of the western Guerrero arc and were deposited in the back-arc basin atop the carbonate rocks. The Mesozoic marine sediments were deformed during the Laramide orogeny from the Late Cretaceous to the Paleocene forming the Sierra Madre Oriental fold and thrust belt (Nieto-Samaniego 2007).

By the late Paleocene, northeast of the Mesa Central, a flexural bend in the fold and thrust belt deflected the Mesozoic strata into a series of west- and northwest-trending fold axes and faults (Tristán-González 2009). South of the westward deflection, the fold belt strikes south to southeast. By early Eocene, the initial pulse of extensional tectonics produced north-northeast (NNE) to north-northwest (NNW) normal and strike-slip faults that bound mountain ranges (Matehuala fault zone) and deformed the southeast-trending fold belt along the eastern



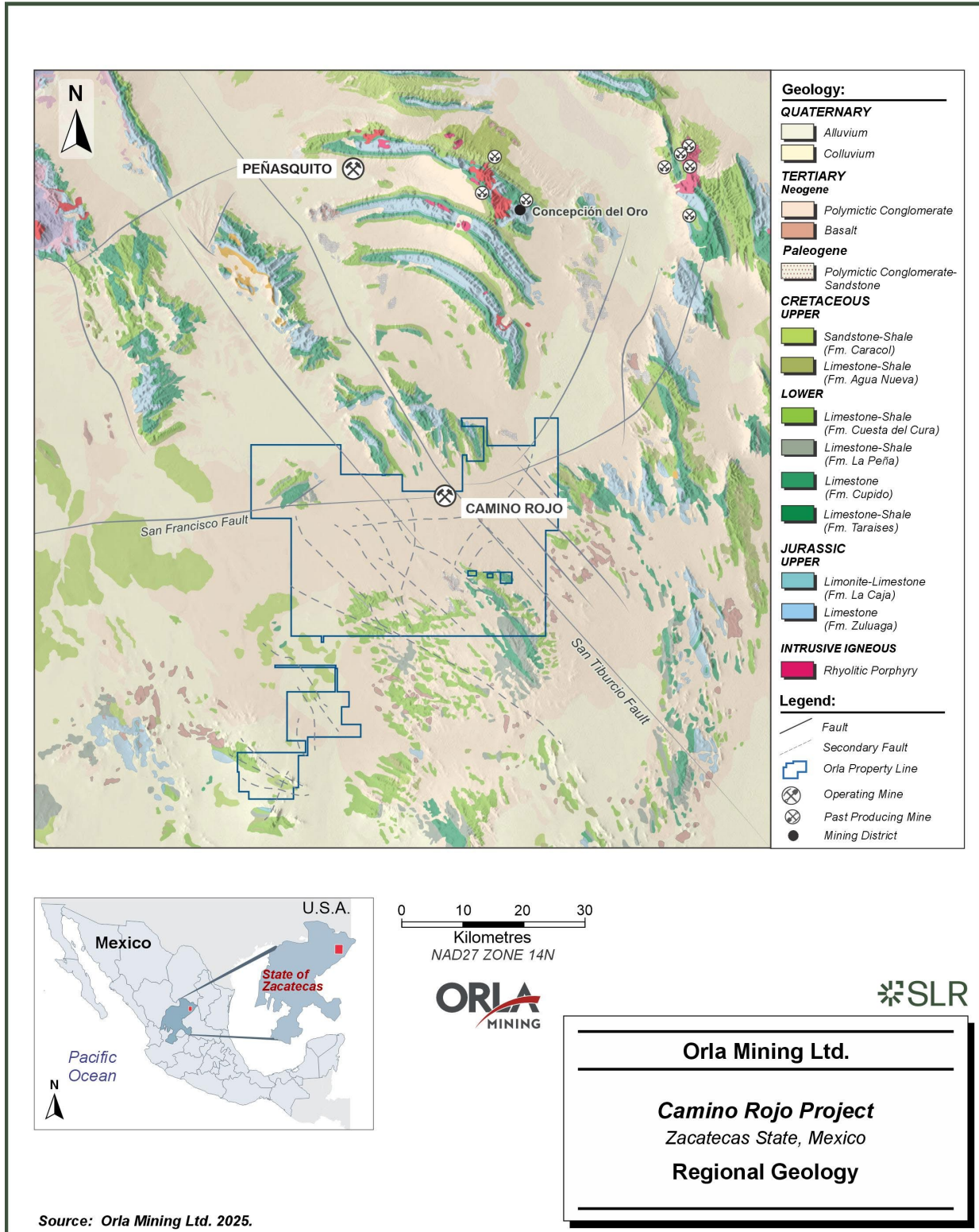
boundary of Mesa Central (Loza-Aguirre 2008). By the middle Eocene, ranges in the fold and thrust belt were displaced and truncated by northwest-striking high angle faults that translated through the Mesa Central and feature both normal and strike-slip displacement (Nieto-Samaniego 2007; Tristán-González 2009). Subsequent pulses of extension occurred from the early Oligocene to the Miocene and the Pliocene to the Quaternary that reactivated existing faults in conjunction with basaltic fissure volcanism and isolated monogenetic basaltic cinder cones (Aranda-Gomez 2006).

The northwest faults include two major fault systems that localized middle Eocene to Oligocene magmatic activity and define the southern and northern boundaries of Mesa Central. The southern fault zone known as the San Luis-Tepehuanes fault system separates the Sierra Madre Occidental from Mesa Central and localizes numerous mineral deposits (Nieto-Samaniego 2007, Loza-Aguirre 2008). The northern fault zone known as the San Tiburcio lineament and fault zone extends for more than 185 km and features both left-lateral strike-slip and normal displacement (Mitre-Salazar 1989). The fault truncates west-trending anticlinal axes in the flexural bend of the Sierra Madre Oriental and may crosscut the NNE-trending Matehuala fault zone that bounds the eastern Mesa Central. Anticlinal fold axes and faults parallel the San Tiburcio fault zone, and granitic intrusive rocks and dacitic to andesitic dikes are localized along portions of its extensive strike length.

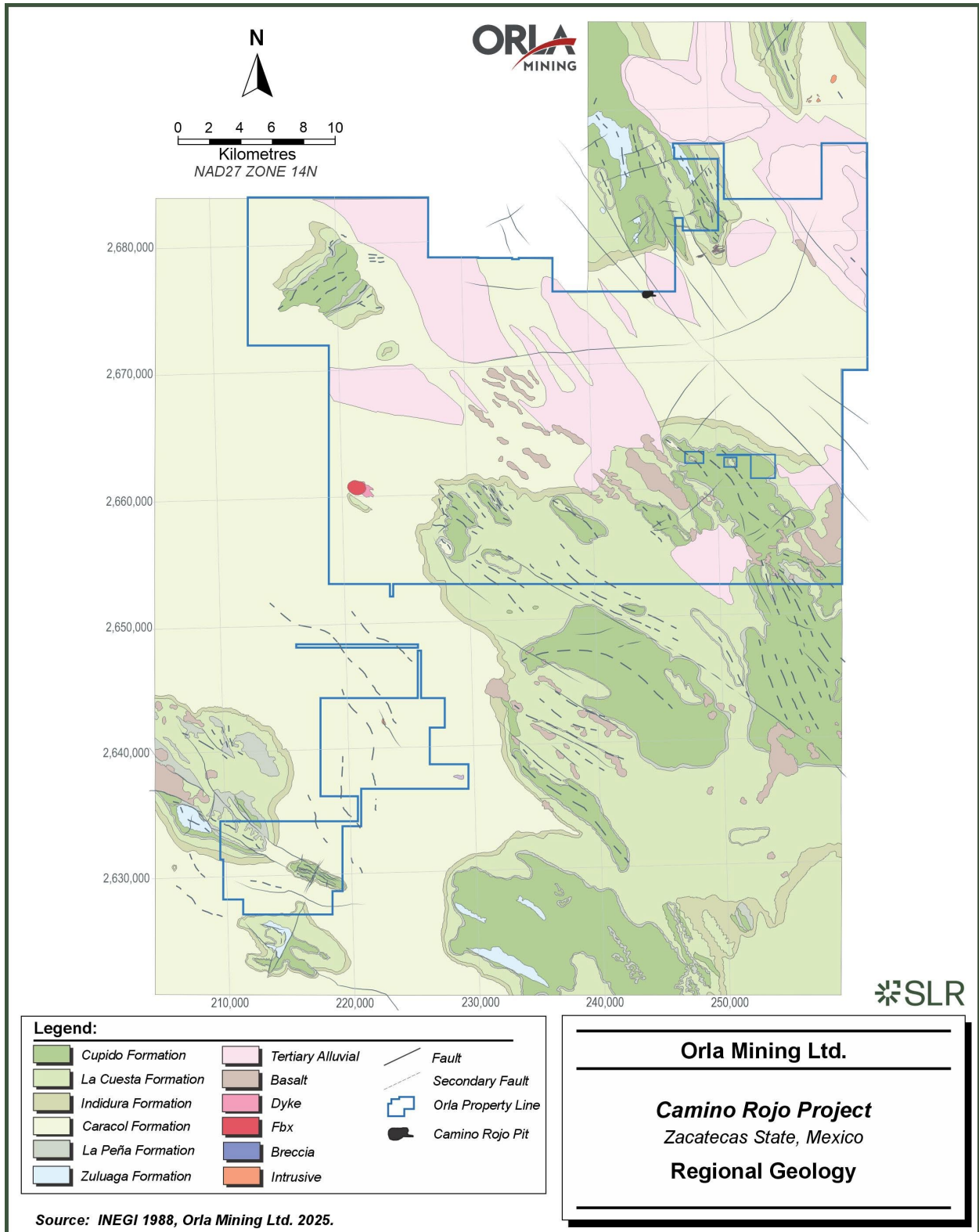
Mineralization styles in the region include polymetallic and copper-gold skarn and limestone manto (replacement) silver-lead-zinc sulphide ores. The nearest significant producing mines or past producers are Newmont's Peñasquito mine, located 53 km north-northwest of Camino Rojo, and various mines of the Concepción del Oro district, 47 km north-northeast of Camino Rojo. The Peñasquito mine exploits gold-silver-lead-zinc mineralization hosted in igneous diatreme-breccias and the surrounding Caracol Formation. Peñasquito mineralization gives way at depth to copper-gold sulphide breccias in garnet skarn, within limestone beneath the Caracol Formation (Rocha-Rocha 2016). In the Concepción del Oro district polymetallic and copper-gold skarn deposits and limestone-hosted manto (replacement) silver-lead-zinc sulphide deposits adjacent to Late Eocene igneous intrusions were mined (Buseck 1966). Although there are similarities in mineralization styles and metal assemblages between Camino Rojo and these other regional deposits, they are not necessarily indicative of the current or any potential mineralization within the Camino Rojo property.



**Figure 7-1a: Regional Geology**



**Figure 7-1b: Regional Geology**

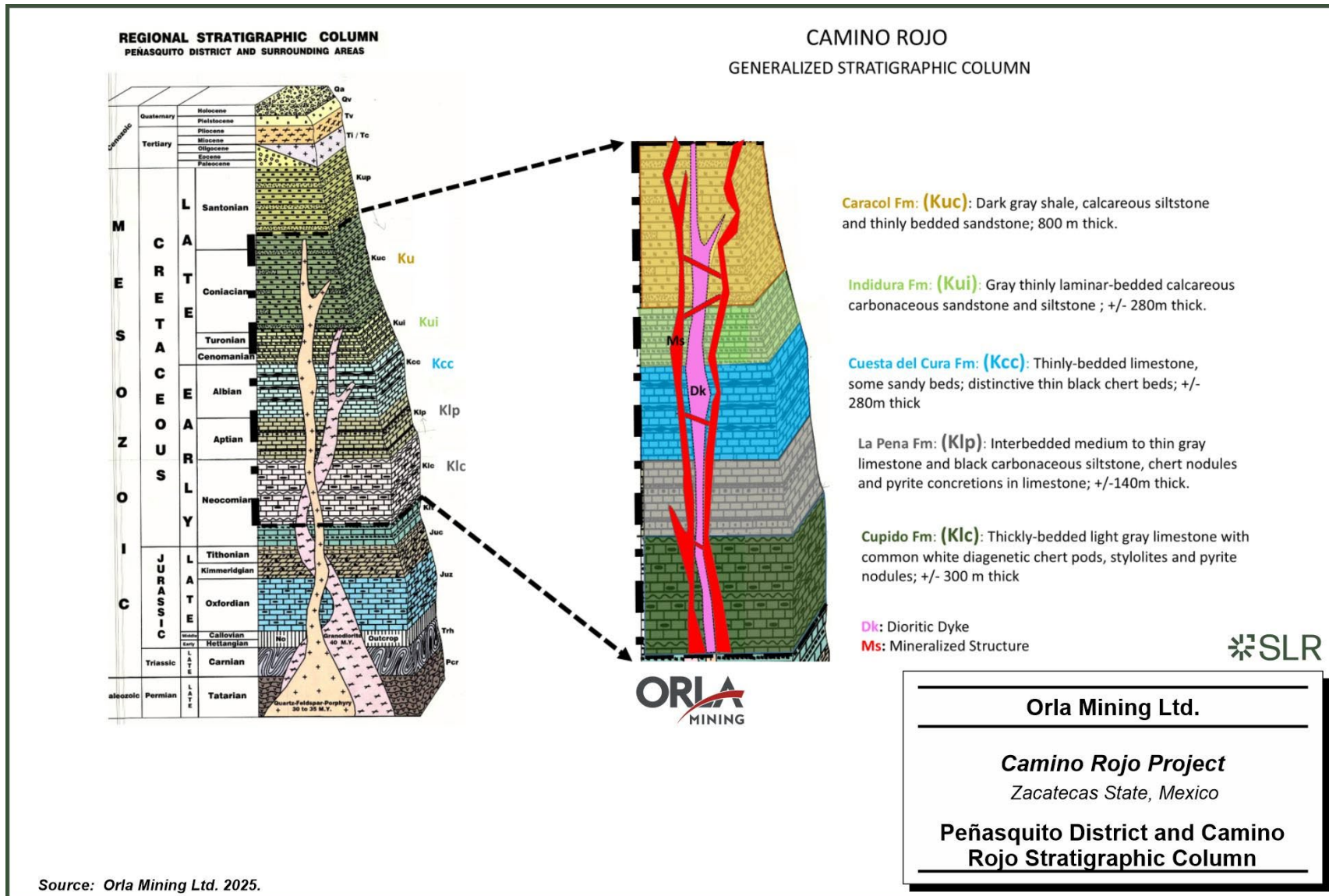


### 7.3 Property Geology

The Camino Rojo property geology is dominated by siliciclastic and carbonate Cretaceous sedimentary units which are intruded by northeast-southwest and east west striking mafic to intermediate dikes (Figure 7-2). The property-scale map pattern is dominated by northeast vergent folds, commonly cored by limestones of the Cupido Formation. Northeast directed shortening is pre- to post-tectonic with respect to intrusion of dikes and formation of ore-stage polymetallic veins and mantos. Cenozoic extension resulted in the formation of horsts and grabens at Camino Rojo. Grabens are infilled with up to 200 m of rhyolitic tuffs and basalts.



Figure 7-2: Peñasquito District and Camino Rojo Stratigraphic Column

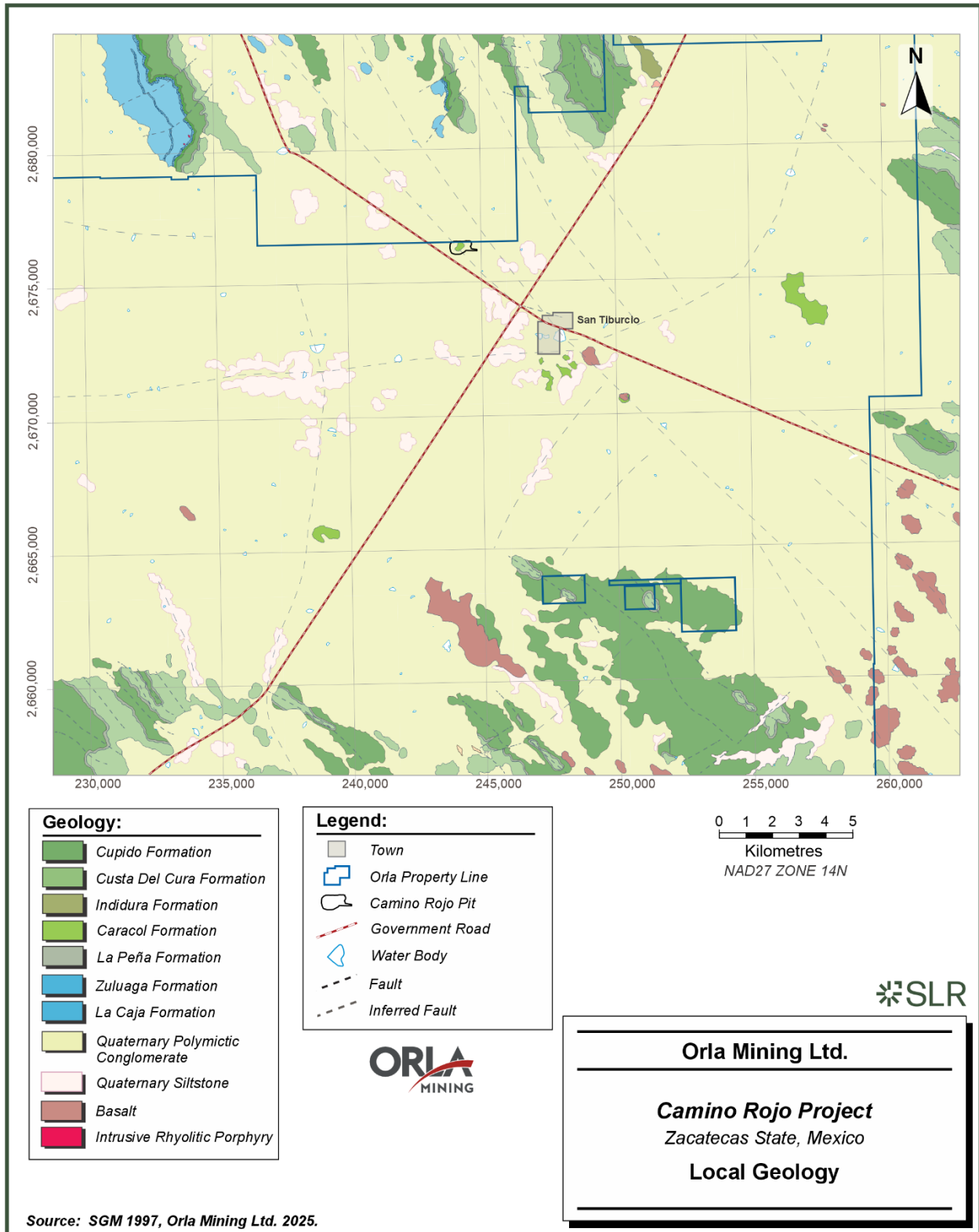


### 7.3.1 Rock Types

The Late Cretaceous Caracol Formation is the primary host of the Camino Rojo Oxides and Camino Rojo Sulphides mineralized zones. Recent drilling has extended gold-silver-zinc mineralization through the entire sedimentary sequence that has been drill tested to date. Drilling within the carbonate stratigraphy beneath the Caracol Formation has identified Au-Ag-Zn-(Pb)-(Cu) mineralization associated with massive sulphide replacement (mantos) and skarn-style alteration. The mineralization that extends beneath the Caracol Formation is referred to as Zone 22. The local geology is summarized in Figure 7-3. The deposit stratigraphy, known from current diamond drilling, is discussed in the paragraphs below (oldest to youngest).



**Figure 7-3: Local Geology, Camino Rojo Deposit**




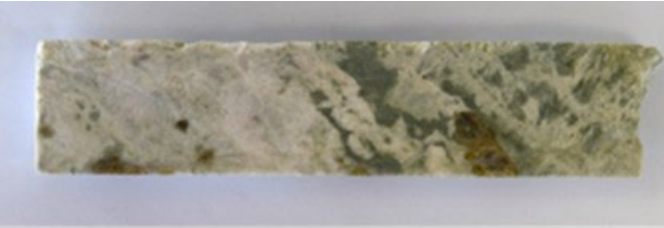



Source: SGM 1997, Orla Mining Ltd. 2025.



### 7.3.1.1 Cupido Formation

The Early Cretaceous Cupido Formation is characterized by light and dark gray medium to thick bands of fine-grained limestones with interbedded silty layers. At the property scale, the Cupido Formation commonly occurs as the core of anticlines. Below the Camino Rojo deposit, diamond drilling indicates the formation is at least 300 m thick. The upper contact with La Peña formation is transitional, with increasing chert content and the appearance of black chert nodules and disseminated epigenetic pyrite.

**Figure 7-4: Cupido Formation Mineralization**





<p>a) Unaltered</p>  <p>CRSX24-43A_1537.45m, massive limestone, light recrystallized horizons, chlorite in fractures and presence of hornfels.</p>	
<p>b) Altered</p>  <p>CRSX24-40_1405.30 m pervasive strong silicification and skarn alteration: garnet + pyroxene + wollastonite.</p>	 <p>CRSX24-45A_1373.95m skarn alteration: garnets &gt; wollastonite, oxidation in fractures, and weak chlorite in fractures</p>
 <p>CRSX24-45A_1378.20m, skarn alteration: garnet + pyroxene + wollastonite</p>	
<p>c) Mineralized</p>  <p>CRSX24-36C_1447m massive sulphide manto: pyrite-sphalerite-chalcopyrite</p>	



### 7.3.1.2 La Peña Formation

The mid-Early Cretaceous La Peña Formation is characterized by gray limestones interbedded with calcareous siltstone, shale, and chert. Bedding ranges from medium-bedded at the bottom to thin-bedded at the top of the formation. Typical thickness across the property is less than 100 m. The upper contact with the Cuesta del Cura Formation is gradational, with decreasing chert bands.

**Figure 7-5: La Peña Formation**

a) Unaltered	b) Altered
	
CRSX24-45A_1269.10m massive limestone with local strongly marbled layers	CRSX24-36A_1245.35m pervasive strong skarn alteration: garnet + wollastonite > pyroxene; strong silicification and chloritization.
c) Mineralized	
	
CRSX24-25F_1135.85m semi-massive sulphide manto: arsenopyrite-pyrite > pyrrhotite	CRSX24-37_1275.20m massive sulphide manto: pyrite-pyrhotite-chalcopyrite

### 7.3.1.3 Cuesta del Cura Formation

The mid Cretaceous Cuesta del Cura Formation features thin- to medium-bedded grey limestone with wavy laminations and locally discontinuous layers of black shale and chert. Thicknesses in excess of 280 m are reported for the Cuesta del Cura Formation regionally; drilling at Camino Rojo deposit indicates a thickness of approximately 125 m. Contact with the overlying Indidura Formation is gradational, marked by thinning of limestone and chert beds.



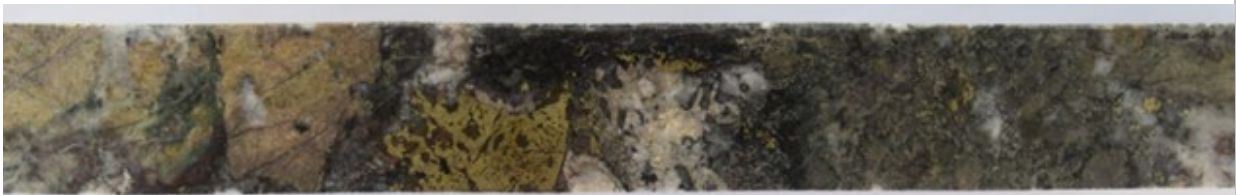
**Figure 7-6: Cuesta del Cura Formation**

a) Unaltered



CRSX24-36A\_990.05m granular limestone with laminar horizons

b) Altered

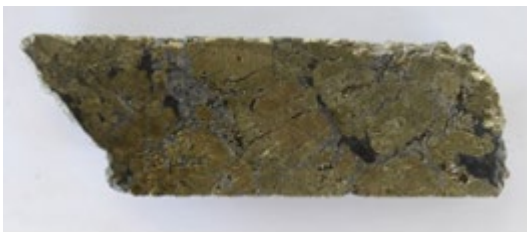


CRSX24-25G\_1086.05m pervasive strong skarn alteration: garnet + pyroxene; weak argillization



CRSX24-25G\_1090.00m pervasive strong skarn alteration: garnet + pyroxene; weak argillization

c) Mineralized



CRSX24-36D\_1015.62m massive sulphide manto: pyrite-sphalerite-galena-arsenopyrite



CRSX24-38A\_971.40m massive sulphide manto: quartz-pyrite-sphalerite-chalcopryrite-calcite, with white clays.



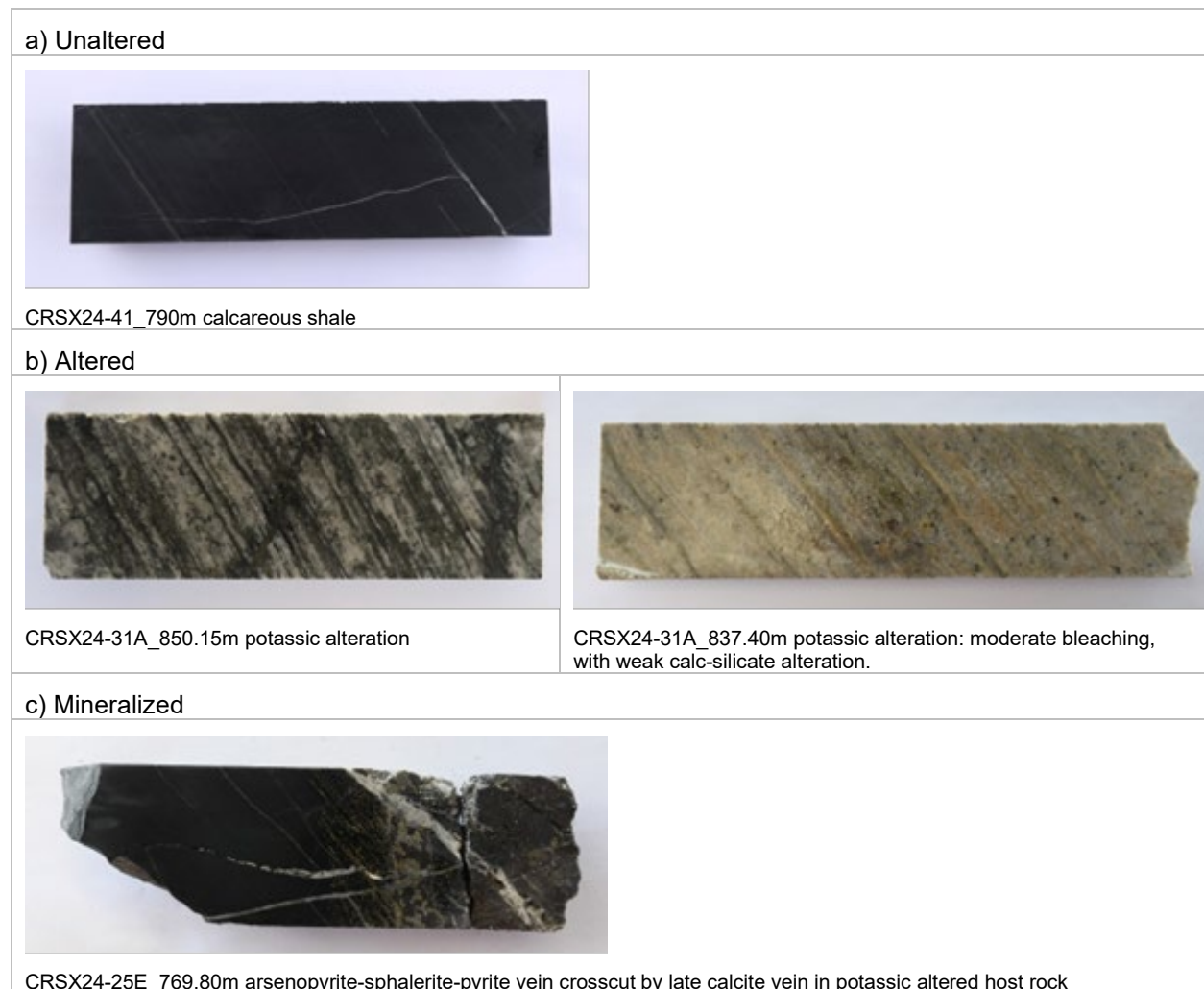
CRSX23-22C\_1045.85m massive sulphide manto: pyrite-arsenopyrite-pyrrhotite-sphalerite-galena-chalcopryrite



### 7.3.1.4 Indidura Formation

The Late Cretaceous Indidura Formation is characterized by thin-bedded calcareous shale, grey shaley limestone and siltstone. Across the Camino Rojo property, estimated thicknesses range from 100 m to 220 m; with a thickness of approximately 200 m. The contact with the overlying Caracol Formation is gradational, with the upper contact of the Indidura Formation located at the bottom of the last occurrence of sandstone.

**Figure 7-7: Indidura Formation**

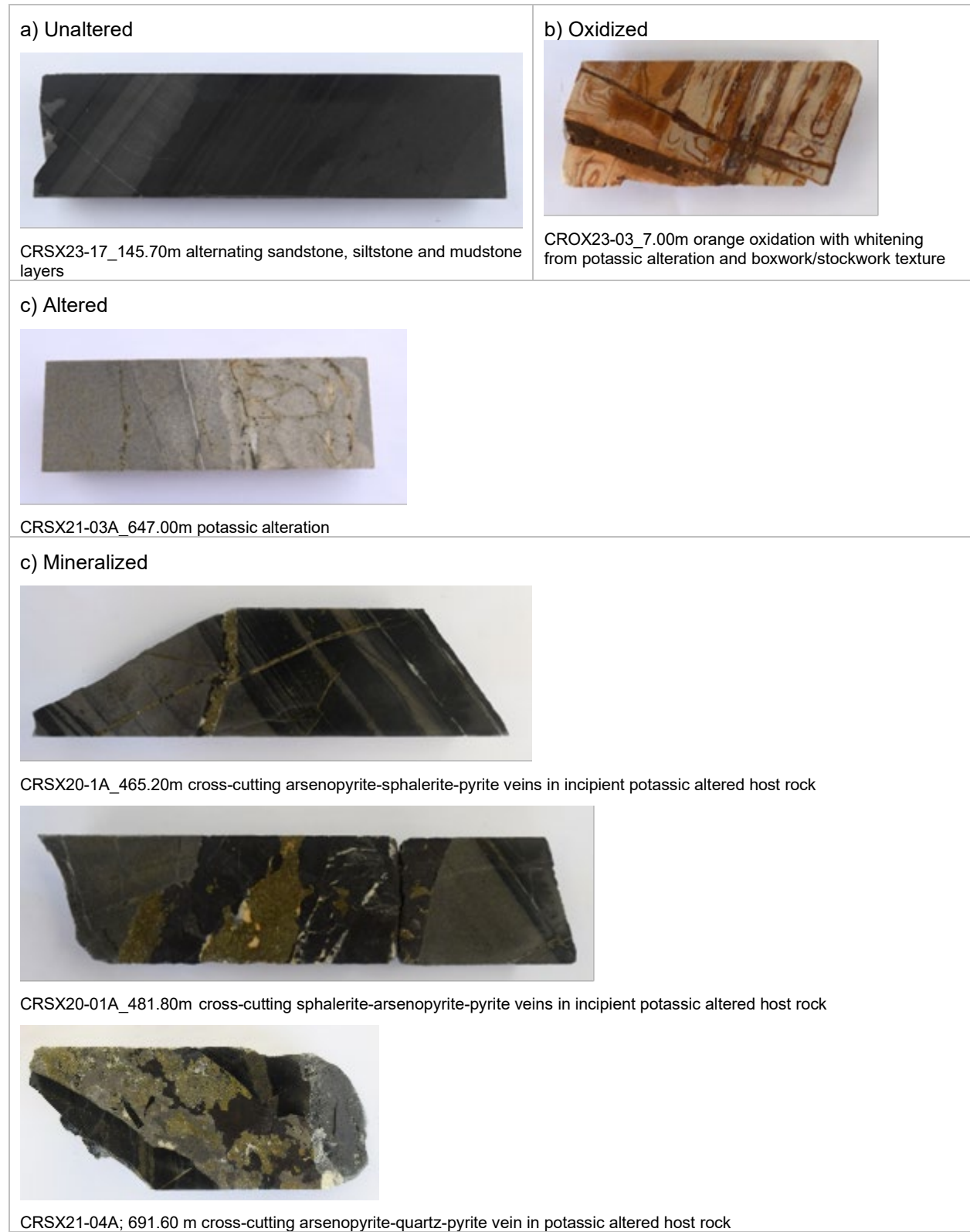


### 7.3.1.5 Caracol Formation

The mid-Late Cretaceous Caracol Formation is 600 m to 800 m thick, and consists of thinly interlayered carbonaceous and calcareous siltstones, silty mudstones, and fine-grained calcareous sandstone. Sandstone layers typically display cross-laminations. At Camino Rojo this sequence hosts most of the currently defined polymetallic mineralization. Similarly, at the Peñasquito deposit, the bulk of diatreme breccia-, manto-, stockwork- and vein-mineralization is hosted in the Caracol Formation (Rocha & Rocha 2016).



**Figure 7-8: Caracol Formation**

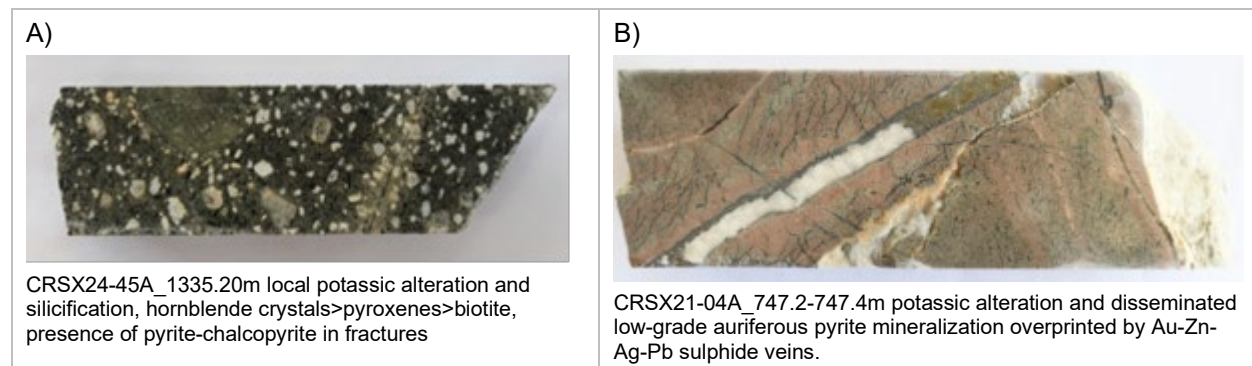


### 7.3.1.6 Intrusive Rock Types

Hornblende-biotite quartz-monzodiorite porphyry, fine-grained hornblende-plagioclase porphyry, and plagioclase-biotite porphyry are the dominant intrusive rock types identified on the Camino Rojo property (Figure 7-9). Zircon dating from the dikes give a crystallization age of 73.7 (±4.28) Ma (Sanchez, 2017). The dikes are black to dark grey in outcrop, occurring as vertical dikes striking northeast-southwest or east-west. Country rocks are typically weakly hornfelsed within 1-2 m of the contact and may be locally brecciated; dike contacts typically have centimetre-scale chill margins. Dikes may be locally chloritized and/or sericitized. Crosscutting relationships constrain these intermediate dikes to late Cretaceous or younger.

Mapping by the Servicio Geológico Mexicano (2014) identified porphyritic syenite approximately 12 km northwest of Camino Rojo. The syenite is weakly chloritized and sericitized and the contact with calcareous country rock is argillized and silicified.

**Figure 7-9: Hornblende-Biotite Quartz-Monzodiorite Porphyry**



### 7.3.1.7 Post-mineral Cover

Isolated outcrops of basalt unconformably overly the Cretaceous sedimentary sequence across the Camino Rojo property. The basalts are black to dark grey when fresh, weathering to light to dark reddish ochre. Flows range from massive to flow banded with a maximum thickness of up to 80 m. The basalts may be vesicular or amygdaloidal and locally contain plagioclase and olivine phenocrysts. Basalt flows occur as northwest-southeast trending bodies, inferred to be structurally controlled by grabens associated with Miocene extension.

Miocene or younger polymictic conglomerates and Quaternary polymictic gravel-conglomerate unconformably overly the basalts and Cretaceous sedimentary sequence. These conglomerates may exceed 200 m thickness when infilling Miocene grabens.

## 7.3.2 Alteration

Sedimentary bedrock across the Camino Rojo property is typically unaltered to weakly altered. The Caracol Formation may exhibit weak sericite, albite, or chlorite; dendritic manganese is common on bedding planes. Within carbonate formations, recrystallization and the formation of black stylolites are the most common types of alteration. Carbonate units may be crosscut by hydrothermal breccias with a calcite matrix, commonly with limonite, goethite, or hematite staining.

Within the Camino Rojo Deposit, contact metamorphism is associated with the intrusion of dioritic dikes. Within the Sulphides Zone, hornfels alteration is characterized by recrystallization



and hardening of siliciclastic layers. Within Zone 22, limestones have been converted to white and gray marbles.

Within the Sulphides Zone, pervasive potassic (adularia) alteration accompanied by decarbonization and formation of pervasive disseminated fine-grained pyrite (Longo 2017; Longo and Edwards 2017; Sanchez 2017) may have been contemporaneous with contact metamorphism. Martinez-Esparza (2020) dated hydrothermal potassic feldspar from the sulphides using  $Ar^{40}/Ar^{39}$  methods, returning ages of  $68.31 \pm 0.19$  Ma and  $70.3 \pm 0.10$  Ma, indicating pervasive hydrothermal alteration is within error of the crystallization age of zircons collected from dioritic dikes.

Within the sulphides, potassic alteration is divided into pervasive (Kp;  $\geq 4$  wt% K) and incipient (Ki;  $<4$  wt% K) domains. Visually, the Kp is characterized by bleaching of sandstone to mudstone graded beds, resulting in a distinctive tan to white colour. The Ki domain is characterized by black and dark grey graded beds with pervasive weak illite-sericite alteration. Strong potassic alteration within the Ki, only identifiable through geochemical data, is restricted to fractures and bedding. Illite-sericite has been identified as part of the background alteration surrounding the Kp/Ki domains.

The Kp domain is enriched in potassium and depleted in calcium and sodium relative to the Ki domain and unaltered Caracol formation. In addition to potassium, metasomatic fluids are interpreted to have mobilized organic carbon. Within the core of the Kp alteration domain, organic carbon values are typically low ( $<0.1$  wt%), increasing towards the Kp-Ki contact. Within the Ki and unaltered Caracol, organic carbon values are typically greater than 0.2 wt%.

Within Zone 22, intrusion of dioritic dikes likely resulted in the alteration of the carbonate units via contact metamorphism of limestone to marble. Recrystallization of limestones extends up to 150 m on either side of the dike zone. Prograde skarn alteration may have begun at this time and continued through or was renewed during subsequent metasomatic and mineralizing events. Prograde skarn alteration, consisting of wollastonite - garnet - sericite - pyrite, has completely overprinted any early contact metamorphism of the limestones. Prograde skarn alteration may be equivalent to early potassic alteration in the overlying Caracol Formation. Prograde skarn alteration likely contributed to advancing the marble front to the current extent. The skarn front extends up to 125 m on either side of the dike zone. Within the skarn envelope, marbles are typically coarse-grained with buff or tan coloured calc-silicates, transitioning from white to grey with distance from the dike zone. Beyond the marble front, limestones are cut by calcite veins and stylolites. Retrograde skarn, consisting of epidote – chlorite  $\pm$  amphibole  $\pm$  quartz, commonly with quartz filled vugs, overprints prograde skarn alteration.

### 7.3.3 Mineralization and Structure

The Camino Rojo property is in the eastern part of the Mexican Fold and Thrust Belt (MFTB). Bedrock mapping across the property has identified northeast vergent folds with moderate southwest dipping axial planes and gentle northwest-southeast plunging fold axes. Open pit mapping at Camino Rojo has identified folding within the Caracol Formation characterized by northeast vergent similar folds with thickening of mudstone layers in fold hinges. Sandstone layers tend to form similar folds with extensional features (e.g., fractures and tension gashes) on the outside of fold hinges. Short limbs are commonly steeply dipping or overturned and may be sheared out, commonly with centimetre-thick clay matrix cataclasite. Reverse faults with southwest side up sense of movement have also been identified within the open pit. Property-scale reverse faults have not been identified.



The San Tiburcio Lineament (STL) is a major regional fault corridor that can be traced over a strike length of approximately 300 km. The STL is northwest-southeast striking and is interpreted as being the result of a sinistral ductile shear, the age and tectonic history of which is debated. Two possible interpretations include: (1) the STL is the result of reactivation of the Mojave-Sonora megashear during the Laramide orogeny (Mitre 1989) and (2) the STL originated during the Laramide orogeny (syntectonic with the MFTB) and was re-activated during the Miocene (Sorto Araiz and García Ortíz 2012) and subsequently during extension in the Central Mesa. In the Camino Rojo area, there are second order lineaments striking northwest-southeast, e.g., the Guanamero, Los Lobos and Camino Rojo faults.

Historical workings in the Camino Rojo area are described by Sorto Araiz and García Ortíz (2012). Historical workings around Camino Rojo are typically small, with strike lengths less than 30 m and depths less than 20 m. The historical workings exploited stratabound decimetre-scale veins with erratic Ag-Pb-Zn mineralization in carbonate stratigraphy.

Recent drilling at exploration targets on the Camino Rojo property have intercepted narrow high-grade gold mineralization at Guanamero, located approximately seven km northeast of the Camino Rojo open pit (Orla 2023).

Within the Sulphides Zone at Camino Rojo, the earliest phase of gold mineralization, Stage 1, is associated with pervasive potassic alteration and disseminated fine-grained pyrite. Disseminated pyrite formed preferentially in muddy sandstone to mudstone parts of graded beds. Gold grades are typically <0.4 g/t Au. No other metals are known to be associated with this phase of gold mineralization. Within Zone 22, Stage 1 gold mineralization is not well preserved, with few examples of potassic alteration and disseminated pyrite in siliciclastic intervals having been identified.

The main stage of gold mineralization, Stage 2, overprints Stage 1 pyrite mineralization. The Dike Zone, the steep northwest dipping, northeast-southwest striking structure intruded by dioritic dikes, and the Bx1 fault breccia, a moderate to steep northwest dipping, northeast-southwest striking brittle fault, have been identified as important deposit-scale structures that influenced the distribution of Stage 2 polymetallic sulphide veins. In the open pit, the Dike Zone and Bx1 intersect. Moving down plunge to the southwest, the Dike Zone and Bx1 diverge, with a separation of approximately 300 m at the base of the sulphides.

Within the sulphides, Stage 2 is controlled by mutually crosscutting moderate to steep northwest and shallow south-southwest dipping intermediate sulphidation veins. Where the Dike Zone and BX1 intersect, Stage 2 veins crosscut dioritic dikes. Moving down plunge, Stage 2 veins both crosscut and locally exploit the margins of dioritic dikes. Stage 2 veins consist of pyrite-arsenopyrite and pyrite-sphalerite-galena (Sanchez 2017). Where Stage 2 veins crosscut dioritic dikes, potassic alteration haloes with decreased Stage 1 pyrite content are evident. Within siliciclastic rocks, the potassic alteration halo is not visually obvious although a millimetre-scale halo of decreased Stage 1 pyrite content is common. Stage 2 veins crosscut northeast vergent folds in the Caracol Formation, locally exploiting structures associated with folding (e.g., hinge zones, extension gashes, etc.). No significant post-Stage 2 structures (e.g., offsetting of structural domains) associated with northeast vergent folding have been identified at this time.

Within Zone 22, Stage 2 mineralization consists of fine- to coarse-grained disseminated, patchy, and massive auriferous pyrrhotite-sphalerite-pyrite as carbonate bedding replacements and as steep veins or breccias along the margin of and within dioritic dikes. Zone 22 polymetallic sulphide mineralization occurring as bedding replacement appears to follow northeast vergent folding of carbonate stratigraphy. Crosscutting relationships in the sulphide mineralization indicates main stage gold mineralization is syn- to post-tectonic with respect to northeast



vergent folding. It is unclear whether the mantos exploited bedding that had already been deformed by northeast vergent folding or were folded after formation.

The youngest metalliferous event identified at Camino Rojo are Stage 3 low sulphidation veins. Within the Sulphide Zone mineralization, Stage 3 mineralization consists of colloform banded quartz veins, drusy-coxcomb quartz veins and polymictic quartz cement hydrothermal breccia with pyrite-galena-sulphosalts with moderate to high gold and silver values (Longo 2017; Longo and Edwards, 2017). Within Zone 22, a younger phase of gold and silver mineralization, consisting of disseminated to patchy chalcopyrite-pyrrhotite associated with retrograde skarn alteration, has been identified. This younger phase of gold-silver mineralization is tentatively correlated with Phase 3 mineralization in the Sulphides based on crosscutting relationships. Stage 3 veins overprint and locally exploit Stage 2 structures.

Post-mineralization structures consist of unmineralized calcite veins in both the Sulphides and Zone 22 and brittle faults. The Bx1 Fault was reactivated as a normal fault. This interpretation is supported by the inclusion of Stage 2 vein fragments as clasts within Bx1 clay matrix cataclasis and slicken lines indicating northwest side down sense of movement. The youngest structures identified at the Camino Rojo Deposit are steep northwest and southeast striking fault breccias and crush breccias. These youngest structures are interpreted to be syn-tectonic with Miocene extension.

#### **7.3.4 Oxidation**

Oxidation ranges from complete oxidation in the uppermost parts of the deposit, to unoxidized in the sulphides and Zone 22. The transition between oxidized and unoxidized mineralization underlies or surrounds oxide mineralization. Oxidation within transition zones is controlled by faulting, fracturing and permeability of strata.

Oxidation is nearly complete in the uppermost parts of the deposit, generally extending from surface to depths of 150 to 200 m. The transitional zone of mixed oxide/sulphide extends as deep as 650 m below surface where oxidizing fluids penetrated along the Dike Zone and Bx1 structures.

Within the oxide open pit and Sulphides Zone, sandy layers of the Caracol Formation are preferentially oxidized, creating a stratigraphically interlayered sequence of oxide and sulphide material at the centimetre-scale, with oxidation along structures affecting all strata. Incomplete oxidation in the transition zone may result in nearly complete oxidation of the gold bearing parts of the rock, resulting in metallurgical characteristics more like oxide than sulphide hosted gold mineralization.

No oxidized material has been defined in Zone 22.

#### **7.3.5 Conclusions**

The distribution of auriferous mineralization at Camino Rojo is controlled by steep northwest and shallow south dipping polymetallic veins within the siliciclastic hosted oxide and sulphide zones. Within the carbonate hosted Zone 22, auriferous mineralization is controlled by disseminated, patchy and massive polymetallic sulphide replacement of carbonate strata and sulphide breccias along the margins and crosscutting dioritic dikes. Pervasive, near surface oxidation extends to approximately 150 to 200 m below surface and extends to greater depths along structurally controlled zones of fracturing and permeability.



## 8.0 Deposit Types

The observed geological and geochemical characteristics of the gold-silver-lead-zinc deposit at Camino Rojo are consistent with an intermediate sulphidation-state (IS) epithermal and a distal oxidized gold skarn deposit. The main characteristics of these deposits include:

- Intermediate Sulphidation Epithermal (Hedenquist et al. 2000):
  - Typically associated with andesite-rhyodacite (diorite-granodiorite/monzogranite)
  - Typically veins, breccia or disseminated bodies
  - Sulphide mineralogy comprised of pyrite, Au-Ag sulphides, sphalerite, galena
  - Alteration consists of clays, sericite, alunite
- Distal Oxidized Gold Skarn (Meinert et al. 2005):
  - Typically found in lithologies containing some limestone, but deposits are not restricted to limestones.
  - Formed by regional or contact metamorphic processes by metasomatic fluids, often of magmatic origin.
  - Typically, zoned deposits with a general pattern of garnet and pyroxene minerals proximal to the mineralizing heat and fluid source, and distal zones of bleached marble.
  - Low total sulphide content.
  - Sulphide mineralogy comprised of pyrite, pyrrhotite, chalcopyrite, sphalerite, and galena.
  - Highest gold grades are associated with late, relatively lower temperature mineralizing events, often with potassium feldspar and quartz gangue.
  - May be transitional to epithermal deposits.

Host rock lithology significantly influences deposit style, accounting for the differences in mineralization styles observed between the upper and lower parts of the Camino Rojo deposit as currently defined. The Camino Rojo deposit is gold-dominant, with lesser silver, lead, and zinc and displays transitional mineralization styles, forming a continuum between intermediate sulphidation epithermal and skarn mineralization. The oxide and the Caracol-hosted sulphide mineralization exhibit characteristics typical of intermediate sulphidation epithermal deposits, while Zone 22 shows features of distal skarn zones.

Skarn deposits often exhibit predictable patterns of mineral zoning and metal zoning. Application of skarn zoning models to exploration allows for inferences about the possible lateral and depth extents of the mineralized system at the Camino Rojo deposit and can be used to guide further exploration drill programs.



## 9.0 Exploration

Orla continues to conduct exploration activities across parts of its mining concessions. Numerous regional exploration activities have been executed, including mapping, prospecting, diamond (DDH), RAB, and RC drill programs, geophysical surveys, and soil, rock and biogeochemical sampling since the acquisition of the property in October 2017. A summary of all activities undertaken from acquisition through to the end of 2024 are presented in Table 9-1.

**Table 9-1: Summary of Regional Exploration Programs 2018–2024**

Regional Exploration Programs	2018	2019	2020	2021	2022	2023	2024	Total
DDH Drilling (m)	0	0	0	0	600	13,668	4,873	<b>19,141</b>
DDH Drilling (Number of samples assayed)	0	0	0	0	0	8,174	3,115	<b>11,289</b>
RAB Drilling (m)	0	0	0	9,167	600	0	0	<b>9,767</b>
RAB Drilling (Number of samples assayed)	0	0	0	3,916	661	0	0	<b>4,577</b>
RC Drilling (m)		2537	5,334	0	5992	0	0	<b>13,862</b>
RC Drilling (Number of samples assayed)	556	77	3,732	0	4245	0	0	<b>8,610</b>
Drone MAG (km <sup>2</sup> )	0	77	0	322	232	207	167	<b>1,006</b>
Induced Polarization (km <sup>2</sup> )	46	60	78	90	40	0	31	<b>346</b>
Gravimetry (km <sup>2</sup> )	0	106	0	0	0	71	65	<b>243</b>
Soil Samples	132	12	0	2,223	5,334	5,153	2,797	<b>15,651</b>
Rock Samples	684	499	295	241	554	566	374	<b>3,213</b>
Biogeochemistry Samples	0	0	0	0	0	22	0	<b>22</b>

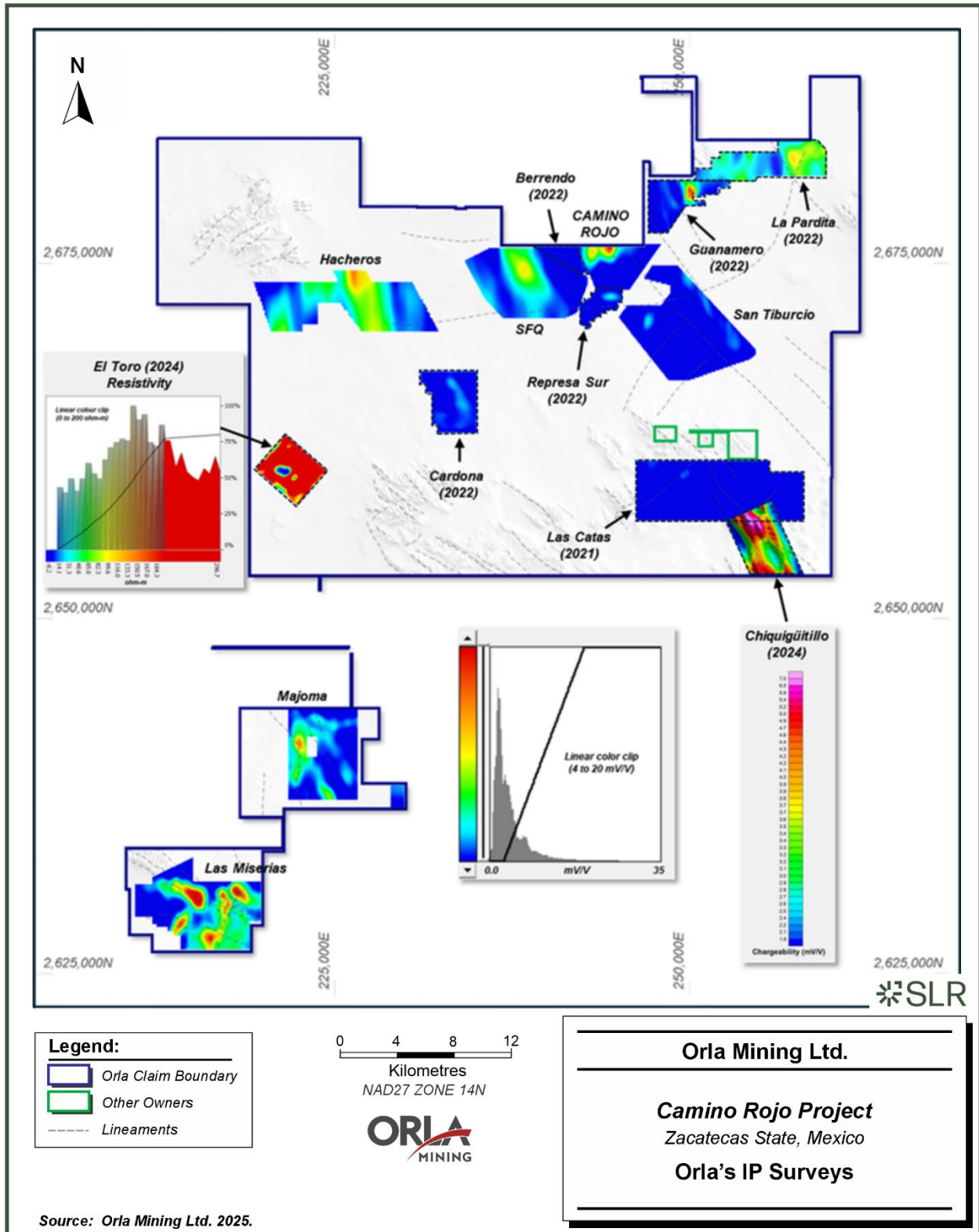
Induced polarization (IP) geophysical surveys, totalling 346 km<sup>2</sup>, have been completed in various areas across the property, as illustrated in Figure 9-1. Generally, the grids were designed with 200 / 400 / 800 m line separation and stations every 100 m. Dipole spacing was selected to search for features at depths greater than 100 m to 200 m.

A total of 1,006 km<sup>2</sup> of drone magnetometer (MAG) surveys has been flown across the property, as illustrated in Figure 9-2. The grids were designed with north-south trending flight lines 100 m apart, and the average survey elevation was 35 m. Additionally, 243 km<sup>2</sup> of gravity surveys have been completed across the property, illustrated in Figure 9-3. The grids were designed with 200 m line separation and stations every 200 m.

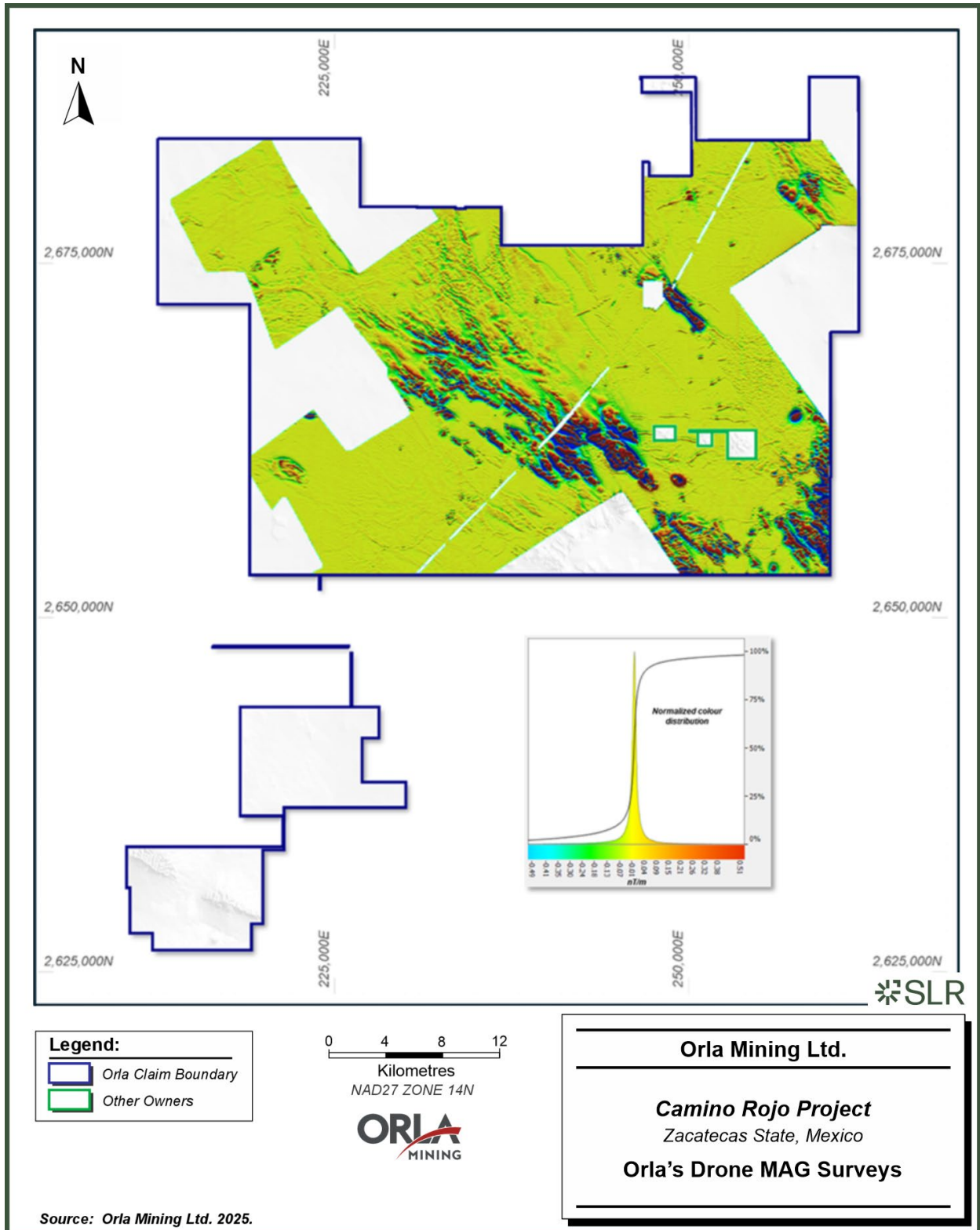
The locations of the regional RAB and DDH drill hole collars are shown in Figure 9-4 and Figure 9-5, respectively. The locations for soil and rock samples are shown in Figure 9-6 and Figure 9-7, respectively.



**Figure 9-1: Orla's IP Surveys (2018–2024)**



**Figure 9-2: Orla’s Drone MAG Surveys (2019–2024)**



**Legend:**  
 [Blue outline] Orla Claim Boundary  
 [Green outline] Other Owners

0 4 8 12  
 Kilometres  
 NAD27 ZONE 14N



**Orla Mining Ltd.**  

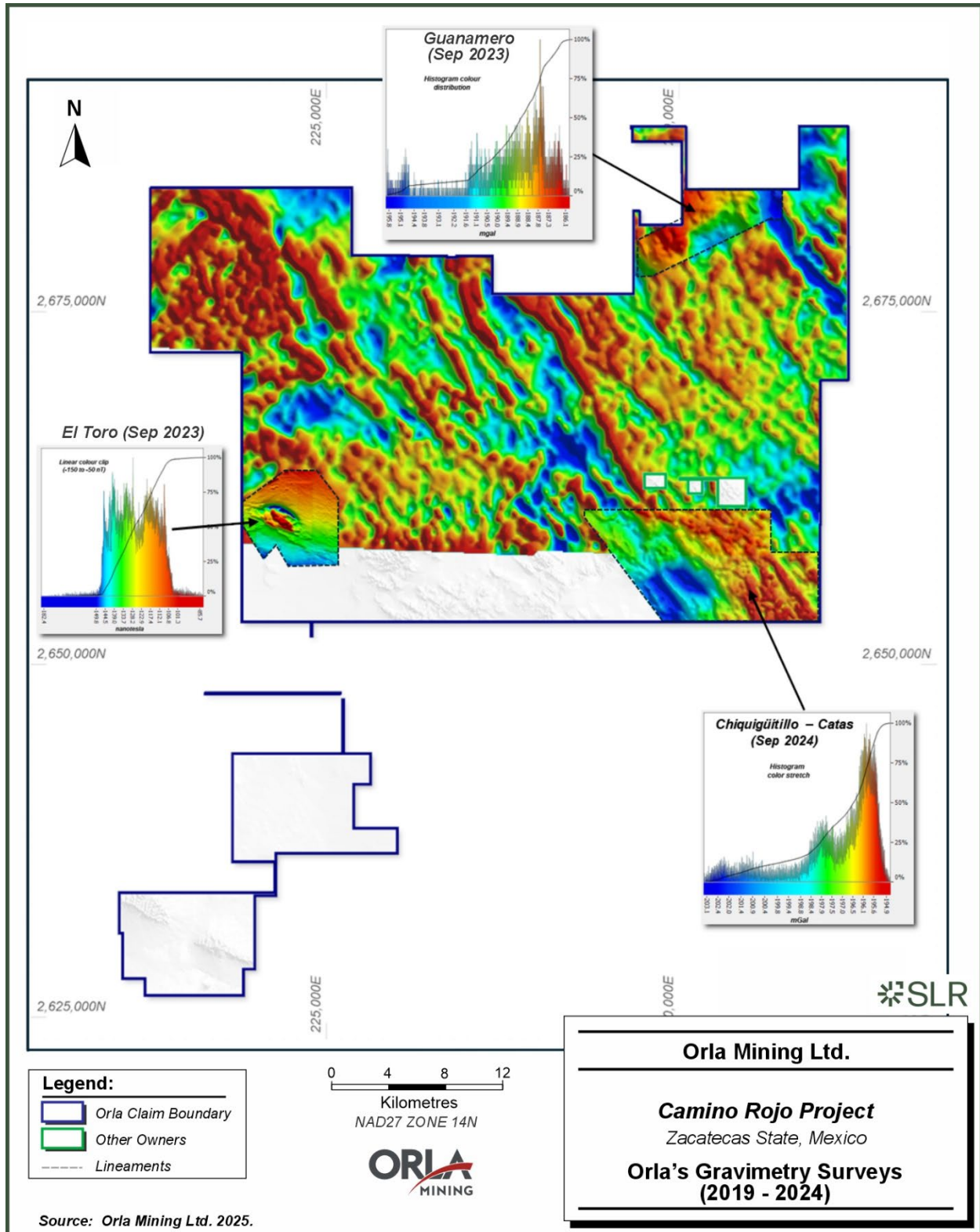

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**Camino Rojo Project**  
 Zacatecas State, Mexico  
**Orla’s Drone MAG Surveys**

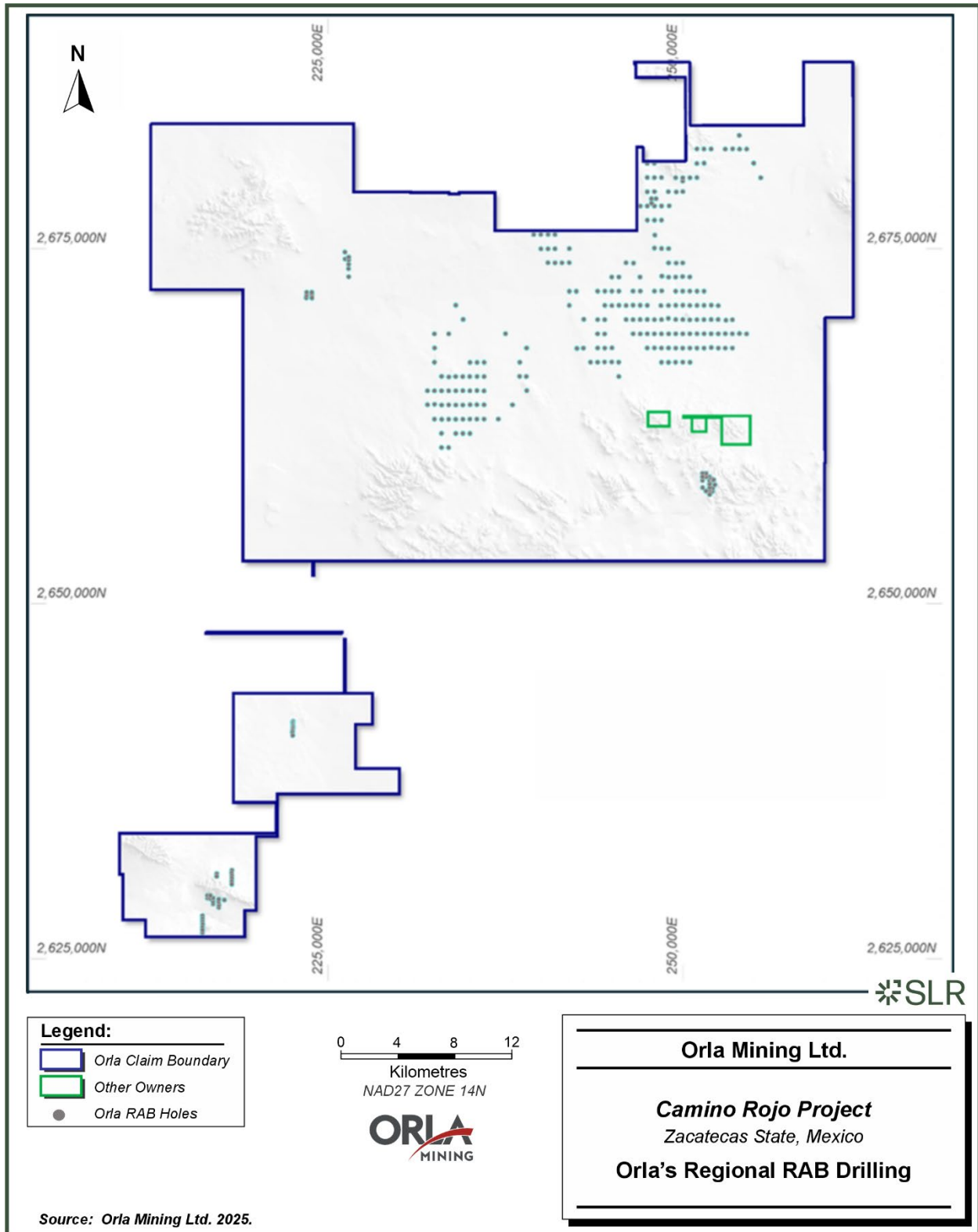
Source: Orla Mining Ltd. 2025.



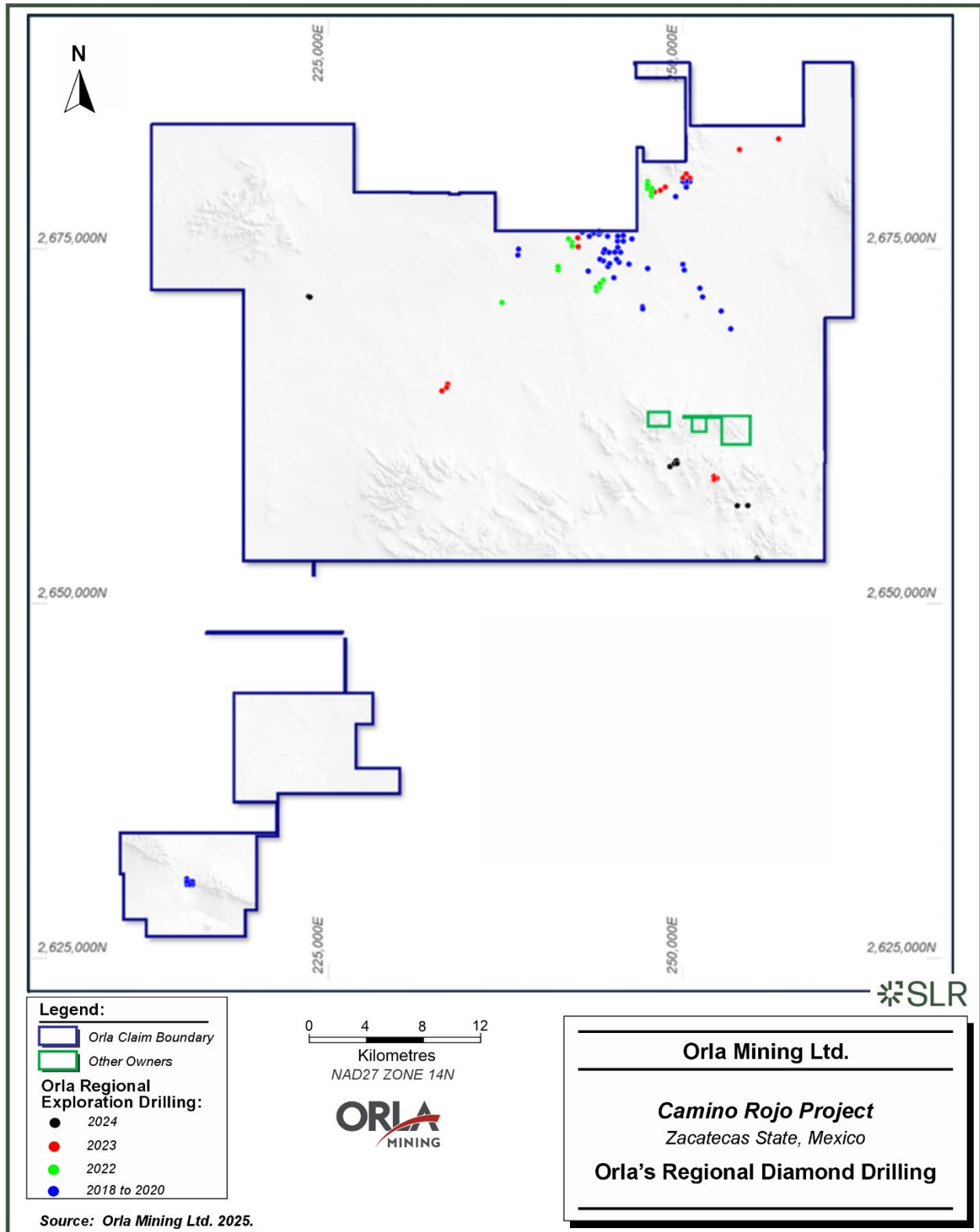
**Figure 9-3: Orla’s Gravimetry Surveys (2019–2024)**



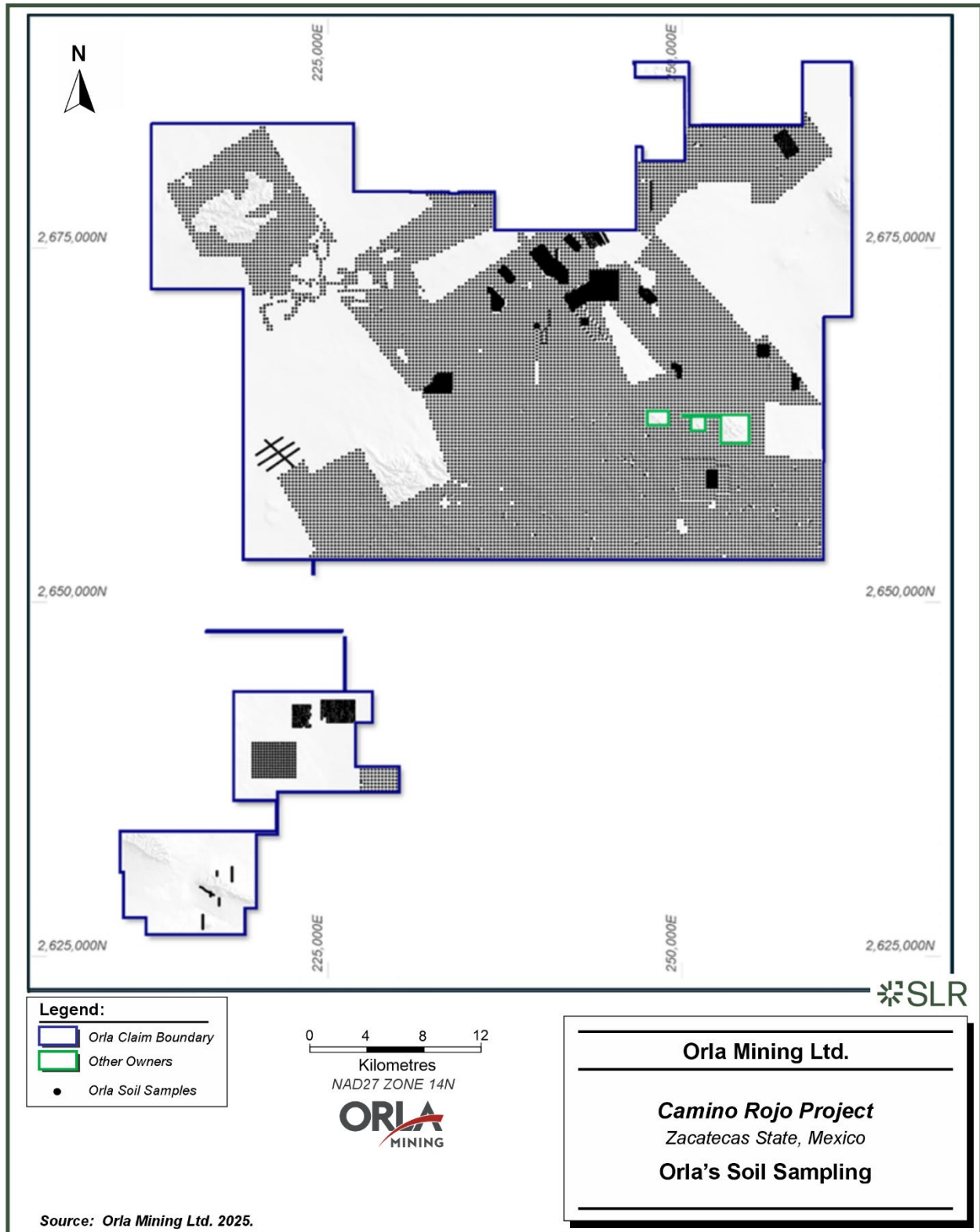
**Figure 9-4: Orla’s Regional RAB Drill Hole Collars (2021–2022)**



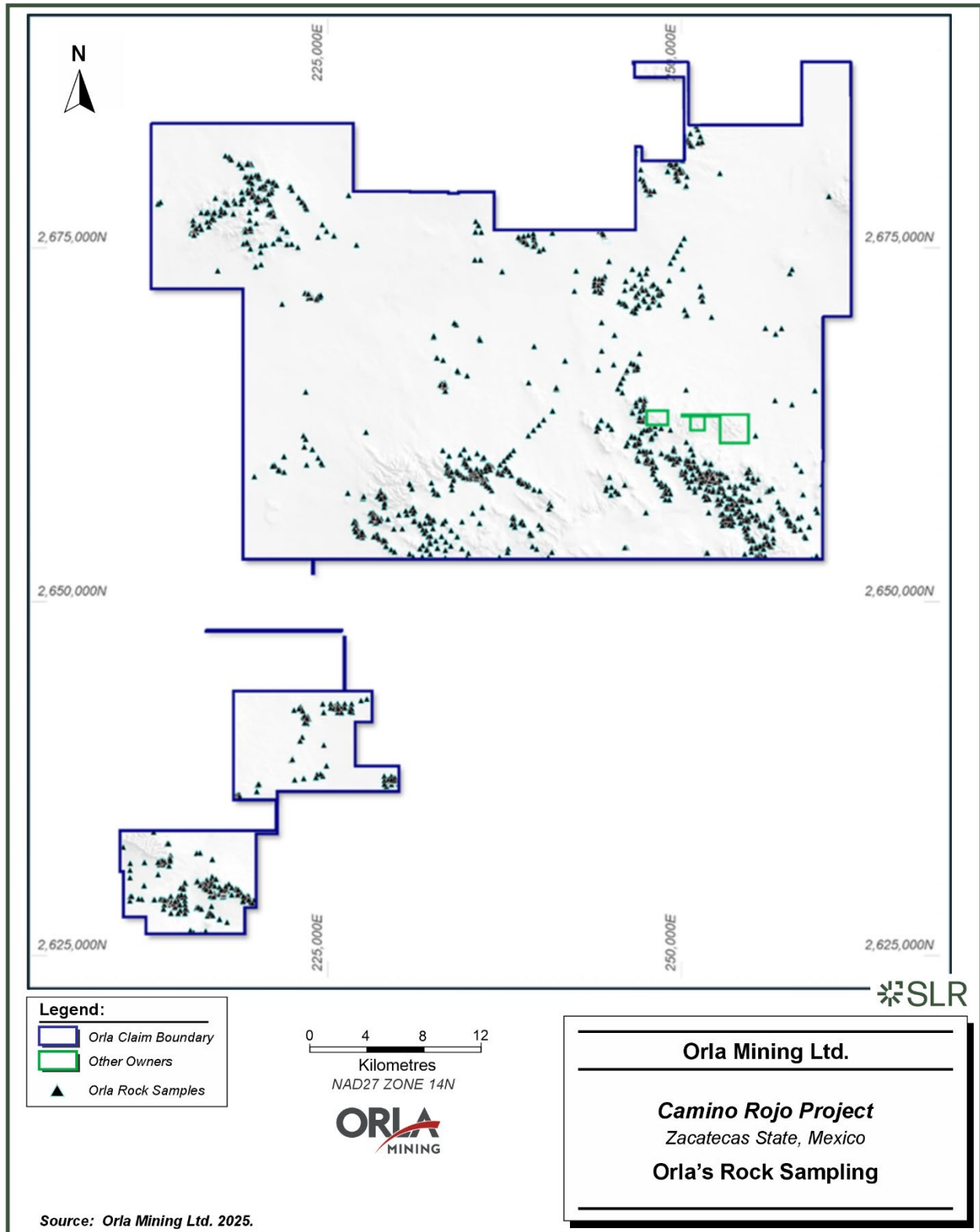
**Figure 9-5: Orla’s Regional DDH Drill Hole Collars (2022–2024)**



**Figure 9-6: Orla's Soil Sampling Locations (2018–2024)**



**Figure 9-7: Orla's Rock Sampling Locations (2018–2024)**



Extensive soil samples (15,651) have been collected across the property (Figure 9-6). Anomalous gold (>0.2 g/t) is often associated with elevated arsenic (>100 ppm) and zinc (>300 ppm). The sampling grids have 250 m x 250 m spacing between stations and line, and infill lines have 100 m x 100 m spacing. Ten anomalous areas have been identified through soil sampling. Additionally, over 3,351 rock chip samples have been collected, and seven anomalous areas have been identified. Anomalous pathfinder elements include As (>1000 ppm), Sb (>100 ppm), Mn (>2,000 ppm), Ba (>400 ppm), and Mo (>25 ppm). In 2023, a small orientation biogeochemical survey was conducted over the Camino Rojo deposit footprint. Twenty-two samples of Gobernadora plant (*Larrea tridentata*) and Mezquite (*Prosopis*) were collected from five lines 200 m apart and 100 m between samples.

The rock and soil samples are sent to the ALS Minerals (ALS) sample preparation facility in Zacatecas, Mexico. Sample analysis is performed in the ALS laboratory in Vancouver, British Columbia, Canada (independent laboratory). For rock samples, gold results are obtained by ALS using fire assay fusion and an atomic absorption spectroscopy (AAS) finish (Au-AA23). Samples also undergo multi-element analysis, including silver, copper, lead, and zinc, using an Aqua Regia digestion (ME-ICP61) or a four-acid digestion (ME-MS61L) for soil samples.

Orla is currently executing its planned 2025 regional exploration program, which includes the following:

- A 7,200 m regional drill program, following up on two positive drill results from 2024 and drill testing six new targets. Some permits have been received, with others pending application or approval.
- Pending permit approvals.
- Target Generation and Definition stage activities include prospecting, mapping, soil sampling, rock sampling and a drone survey across the Majoma-Miserias target areas.

The eight regional targets planned to be tested by Orla are briefly described below:

- Hacheros: bleached and highly fractured Indidura Formation, with Fe-oxides and carbonate veinlets along fractures. Follow-up on a positive drill hole result from 2024.
- Lago Azul: prospective northwest-southeast trending structure with some Ag-epithermal characteristics. Follow-up on a positive drill hole result from 2024.
- Guanamero East: alteration at Caracol Formation contacts with abundant intermediate dikes as potential heat/fluid source of the alteration. Au mineralization intercept in historical drilling.
- Berrendo: a colluvium covered area where geochemical anomalies and alteration were identified in historic RAB drill holes. Northeast magnetic highs, NNW faults with Mn-calcite veining. Alteration zones in Caracol Fm. include chlorite +/- Mn-calcite, or sericite-K-feldspar or K-illite-chlorite.
- La Sierrita: northeast trending oxidized hydrothermal calcite veins, soil anomalies, boiling textures and polyphasic breccia with altered clasts.
- Potrero: Northwest-trending San Tiburcio structure in Caracol Fm. Au mineralization intercept along northeast trend from historical drilling.
- Majoma: phyllic alteration and proximity to potential intrusive source in Caracol Fm. Subtle high-level magnetic anomalies have been identified through MAG drone survey. Soil sampling and IP anomaly.



- Las Miserias: geochemical anomalies in rocks and soil samples have been observed. Mapping and analysis of historical RAB drilling has identified silicified and breccia-type structure with evidence of hydrothermal and oxide minerals.



## 10.0 Drilling

### 10.1 General

The drill hole database for the Camino Rojo property contains 1,630 drill holes and 528,015 m of drilling, as summarized in Table 10-1 and illustrated in Figure 10-1 and Figure 10-2.

- During 2007 and 2008 Canplats drilled 121 holes, comprising 92 RC holes and 29 DDH holes, for 39,831 m of drilling.
- Between 2011 and 2015 Goldcorp drilled 779 holes for 328,587 m of drilling. These were 95 RC holes, 306 RAB holes, and 378 DDH holes. The 2015 holes and some of the late 2014 holes were drilled for geotechnical investigations.
- Orla drilling includes all drilling conducted between 2018 to 2024, including resource drilling, regional exploration, condemnation, etc., as further detailed in Table 10-2.

**Table 10-1: Summary of Camino Rojo Drilling, 2007 to 2024**

Year	Company	RC Drilling		RAB Drilling		DDH Drilling		Total	
		Holes	Metres	Holes	Metres	Holes	Metres	Holes	Metres
2007	Canplats	12	2,367					12	2,367
2008	Canplats	80	21,621			29	15,843	109	37,464
<b>2007-08</b>	<b>Canplats</b>	<b>92</b>	<b>23,988</b>			<b>29</b>	<b>15,843</b>	<b>121</b>	<b>39,831</b>
2011	Goldcorp	91	18,447	138	10,008	124	54,249	353	82,704
2012	Goldcorp	4	1,116	160	18,514	38	35,606	202	55,236
2013	Goldcorp					134	110,305	134	110,305
2014	Goldcorp			8	2,764	79	75,478	87	78,242
2015	Goldcorp					3	2,100	3	2,100
<b>2011-15</b>	<b>Goldcorp</b>	<b>95</b>	<b>19,563</b>	<b>306</b>	<b>31,286</b>	<b>378</b>	<b>277,738</b>	<b>779</b>	<b>328,587</b>
2018	Orla	27	7,129			49	4,718	76	11,847
2019	Orla	23	5,451					23	5,451
2020	Orla	22	5,577			7	3,435	29	9,012
2021	Orla	1	371	283	9,197	8	2,644	292	12,212
2022	Orla	30	6,892	20	600	36	12,867	86	20,360
2023	Orla	1	494			139	57,848	140	58,342
2024	Orla					84	42,374	84	42,374
<b>2018-24</b>	<b>Orla</b>	<b>104</b>	<b>25,914</b>	<b>303</b>	<b>9,797</b>	<b>323</b>	<b>123,886</b>	<b>730</b>	<b>159,598</b>
<b>Total</b>	<b>Total</b>	<b>291</b>	<b>69,465</b>	<b>609</b>	<b>41,083</b>	<b>730</b>	<b>417,467</b>	<b>1,630</b>	<b>528,016</b>

\*Note: Table reports one less Canplats core hole, one less Goldcorp RC hole and 37 less Goldcorp core holes compared to historical drilling reported in Section 6.0, as some of the historical drilling was outside the current project area and are not included in the Camino Rojo drillhole database.



## 10.2 Drilling by Owner

### 10.2.1 Canplats

The Canplats drilling was conducted during 2007 and 2008. It is reported the RC holes were drilled by Tiger Drilling de Mexico, S.A. de C.V. and Layne de Mexico, S.A. de C.V. (Layne). The rigs used drilled holes of either 4.75 in or 5.5 in (12 cm or 14 cm) diameter. Most of the core holes are HQ (63.5 mm) and drilled by Major Drilling International Inc. Four PQ (85.0 mm) holes were drilled to collect metallurgical samples and three of them have assays for individual samples in the SLR database (CRM-006, CRM-014, and CRM-020). There are no assays available for CRM-038.

It was previously reported that Canplats did not complete downhole surveys for the RC holes, however, Goldcorp was able to re-enter most of the holes and complete the surveys resulting in 67 of the Canplats RC holes having detailed downhole survey information.

Core and RC logging procedures for Canplats drilling were described by Blanchflower (2009). For RC drilling, Canplats sampling personnel extracted spoon size splits from each drill interval at the rig's cyclone splitter, washed away the fine fraction with a strainer, and placed the washed splits into divided plastic chip trays. Canplats geologists subsequently logged the RC cuttings in the office and storage building, describing each interval on paper log forms with codes for lithology, alteration, mineralization and fracturing. The logged information was later captured into electronic spreadsheet files.

Core was logged prior to hydraulic splitting and sampling. Canplats geologists used paper logging forms to record descriptions of colour, lithology, alteration, mineralization, bedding, and fracture and fault angles to the core axis. Descriptions used a combination of alpha-numeric codes and normal text and included hand-drawn graphical sketches. The logged information was later captured into electronic spreadsheet files for import into the drill hole database.

The Canplats drilling discovered and partially delineated the oxide mineral deposit that occurs at the northeast end of the Camino Rojo deposit, in the Represa zone. The drilling also discovered the deeper sulphide deposit to the southwest, in the Don Julio zone. This data was used to develop a Mineral Resource estimate and PEA level study for the Represa zone by Canplats during 2009.

### 10.2.2 Goldcorp

The Goldcorp drilling was conducted from 2011 to 2015. The RC drilling was conducted by Layne and G4 Drilling. The RC holes were 4.75 inches to 5.125 inches in diameter (12 cm to 13 cm). The core holes were drilled by Layne, BD Drilling, and Boart-Longyear and were generally HQ core. In addition to the core and RC holes, 306 RAB holes were drilled. The average depth of these holes was only about 100 m, and they were mostly peripheral to the main deposit area. Downhole surveys were conducted for the core and RC drilling but not for the RAB holes. They were assumed to be vertical.

Most of the holes are orientated north with an approximate 60° dip. This is an optimal orientation for the bedding, which dips moderately to the south/southeast. This direction is less optimal for moderate to steep northwest dipping structures and intercepts with narrow veins at low to very low angles to the core axis have been observed in many holes indicating that some of the mineralization was drilled down dip. There are two sections with holes directed to the south drilled by Goldcorp.



Goldcorp RC chip logging was recorded on paper log forms by Goldcorp geologists at the RC drill sites, concurrent with drilling. Washed fines and chips from each interval were examined and logged, and a spoon-sized split was placed into divided chip trays for future reference. As of the date of this Technical Report, the chip trays are available for inspection. The Goldcorp geologists described and recorded the lithology, alteration, fracture/fault zones, oxidation class, percent oxidation by volume, estimated percent and type of iron oxides, estimated percent sphalerite, galena, pyrite, and other sulphides, calcite, other veins, and colour. Descriptive text and a graphic sketch column were also recorded. These data were later transferred into electronic spreadsheet files for import into the drill hole database.

Core logging by Goldcorp was carried out on whole core, prior to any core cutting or sampling. All core was brought by Goldcorp personnel to the core logging shelter, rinsed with water, and measured from run blocks to determine core depths contained in each core box. Goldcorp geologists logged lithology, alteration, fracture/fault zones, oxidation class, and percent oxidation by volume. Graphical sketch columns for lithology, bedding, fracture and fault angles to core axes, and mineralization were also recorded. Estimated percentages of sulphide and gangue minerals, as well as their mode of occurrence were recorded as text. Logged information was later transferred into electronic spreadsheet files for import into the drill hole database. Core was also photographed prior to splitting. In 2012, the logging was modified to include fields for estimated percentages of various sulphide minerals. During 2010, Goldcorp geologists re-logged the Canplats RC drill cuttings to visually determine the degree of oxidation of each drill interval in terms of percent oxidation of the rock by volume. The Goldcorp drilling further delineated both the oxide and sulphide Mineral Resources.

### 10.2.3 Orla

#### Procedure

Orla has conducted drilling programs from 2018 through to the effective date of this Technical report. RC drilling has been conducted by Layne® (2018), Ecodrill Ltd. (2020), and Globexplore® (2022). RAB drilling has been conducted by Globexplore (2021–2022). Core drilling has been conducted by BD Drilling (2018), Ecodrill (2020–2024), Intercore (2023–2024), Globexplore (2023–present) and Major Drilling Group International Inc. (2024–present). Core is usually HQ, and for RC a 5 ¼” (13.34 cm) diameter face return bit with shroud is used.

For core holes, core logging by Orla personnel was conducted on unsplit whole core. Lithology, structure, alteration, oxidation, and mineralization data were recorded on paper drill logs, then transcribed into an electronic database from 2018 to 2021. RQD (rock quality designation) and core recovery information was similarly captured. During 2021, paper logging was replaced by electronic logging using Geobank software; in 2023 Orla switched to MX Deposit software. Drill core was photographed prior to sampling.

For RC, RC chips were logged by Orla geologists. Lithology, alteration, oxidation, and mineralization data were recorded on paper drill logs, then transcribed into an electronic database. During 2021, paper logging was replaced by logging electronically with Geobank software. Drill cuttings were sampled by splitting the sample at the drill rig with a cyclone, or in the case of wet samples, with a rotary splitter. Depending on recovery, a ½ or ¼ split was sent for assay and the remaining sample preserved and stored in warehouses in San Tiburcio.

Gyroscopic downhole surveys were completed for both diamond core and reverse circulation drill holes by Silver State Surveys Inc., supported by their Concepción del Oro, Zacatecas office.



## **Orla Drilling 2018 – 2019**

In 2018 and 2019, Orla conducted various small drilling campaigns, including clay exploration, condemnation, geotechnical, metallurgy, and water well drilling. In 2018, a Camino Rojo deposit infill program consisting of 803 m across six holes was executed, and 619 m across two holes targeting the BX1 structure were also drilled. In 2019, a regional exploration program drilled 2,537 m across eight holes.

## **Orla Near-Mine Drilling Programs 2020-2025**

### 2020 Program

In 2020, Orla initiated a 'Phase 1' 6,079 m directional drilling program on the Camino Rojo Sulphides Zone, consisting of 15 holes spaced 100 m to 250 m apart and drilled to the south. Following the 2017 acquisition of the property from Goldcorp, Orla's technical team identified the potential for higher-grade (>2 g/t Au) sulphide mineralization within the Caracol Formation based on geological evaluation of the existing data. The team observed that the historical south-to-north drilling had intersected north-dipping veins at highly oblique angles. The team concluded that to further the evaluation of the potential mining scenarios for the Camino Rojo Sulphides Zone, additional drill data would be required to provide confirmation of grade and geometry of the sulphide vein mineralization. The 2020–2021 program was designed as a proof-of-concept program to determine if southeast oriented drilling perpendicular to the moderate to steep northwest dipping mineralized vein sets would confirm or improve upon historical results. The program used directional drilling techniques to avoid re-drilling the barren hanging wall of the deposits, providing closely spaced intercepts ranging from 10 m to 50 m apart on three sections, targeting some of the best mineralized parts of the deposit. All drill holes targeted the Dike fault zone and sulphide vein sets, which had been interpreted as a key control on mineralization.

### 2021 Program

During 2021, Orla's near-mine exploration efforts at Camino Rojo - coinciding with the first year of oxide mine production – were focused on the continuation of the Phase 1 sulphide drilling (described above). The sulphide program initiated in 2020 was completed in April 2021 and confirmed the continuity and geometry of the higher-grade gold mineralization (> 2 g/t Au), obtained geotechnical information required to evaluate potential underground mining scenarios, and provided material for geological model refinement and metallurgical studies.

### 2022 Program

Phase 2 of the sulphide directional drilling program began in April 2022, with 9,174 m in 21 holes at spaced at 150 m to 200 m line spacing. The program was designed to infill between the Phase 1 north-to-south drill holes, reducing the spacing between the south-azimuth drill holes to 150 m to 200 m. The results were again positive, returning wide higher-grade domains associated with identifiable structures in the deposit. Vein domains - areas of high vein concentrations - were recognized and coincided with higher grade mineralization. The vein domains were defined by combining the Orla oriented diamond drill core data with approximately 70,000 m of historical vein density and orientation data recovered from paper logs and digitized within the main zone of potassic alteration (Kp). These vein domains became an important guide for the mineralization wireframes used in the underground resource estimation.



Select holes from the Phase 2 program were extended to test the down plunge continuity of the Caracol hosted Camino Rojo Sulphide Zone. These holes returned encouraging and significant results, such as 4.02 g/t Au over 22.9 m in hole CRSX22-07 and marked the emergence of the 'Zone 22' as a potential extension of the Camino Rojo gold system. At the time, most of the gold mineralization at Camino Rojo had been defined in the Caracol Formation, but this recent drilling, compiled historical drilling data and the updated geological model indicated that mineralization extended deeper into the underlying Indidura and Cuesta del Cura formations. The deeper gold mineralization is hosted by manto-type semi-massive to massive pyrrhotite-sphalerite ± pyrite sulphide replacement of bedding, commonly within skarn and calc-silicate alteration flanking the steep northwest dipping dioritic dike. Gold mineralization may also occur in association with patchy sulphide mineralization within the skarn alteration.

### 2023 Program

In 2023, Orla executed two near-mine drilling programs: a near-mine oxide (including Layback) program and 'Phase 3' that targeted the Camino Rojo Sulphides Zone (including Zone 22). The near-mine oxide program drilled 6,502 m, split between 3,464 m in 24 holes on the Fresnillo Layback Area including confirmation (twinning) of historical Fresnillo holes and 3,038 m in 15 holes was completed targeting the extension of oxide gold mineralization on Orla's property. Results from the Layback Area program confirmed historical Fresnillo drill results and the continuity of oxide hosted gold mineralization immediately north of and adjacent to the oxide pit. The assay results were consistent with the thicknesses and grades reported in historical Fresnillo drill data (Internal Orla memo 2023; IMC memo 2023). For the near-pit oxide extension drilling, Orla's approach was to test along strike and down dip of key structures controlling oxidation to define additional oxide gold mineralization. Results identified significant structurally controlled oxide gold mineralization up to 50 m below and up to 15 m southeast of the ultimate oxide pit boundaries at the time but did not result in expansion of the resource pit.

The Phase 3 follow up sulphide infill program drilled 37,677 m in 68 holes at 50 m spacing, with 20% testing Zone 22. Phase 3 drilling consisted of south-oriented drilling that reduced the overall drill spacing to 25 m to 30 m (including historical drill holes) within the Camino Rojo Sulphides Zone. Additionally, a new drill section was executed, including 2,607 m in four directional drill holes. This Zone 22 program was aimed at continuing to define the extent, grade and style of mineralization down-plunge of the Camino Rojo deposit. Deep extension drilling beyond the limits of the 2021 open pit confirmed polymetallic mineralization in the Indidura and Cuesta del Cura Formations 450 m down-plunge. The results validated historical intercepts, reinforced confidence in the newly defined geological model and confirmed the presence of significant polymetallic semi-massive to massive sulphide mineralization.

### 2024 Program

In 2024, a 35,462 m Zone 22 drill program totalling 52 holes was executed with two objectives: 1) to infill the down-plunge extension of the mineralized system, enhancing the understanding of the geometry, continuity, and endowment potential of mineralization along the projection of the Dike Zone, and 2) to step out broadly, further evaluating the upside potential of the mineralized system both down dip and down plunge. Increased drill density in Zone 22, along with positive drill results extended known mineralization beyond the previous mineral resource down-plunge by 600 m and 500 m along strike, parallel to the dike structure. The deepest down-plunge holes intersected mineralization up to 900 m from the previous resource limit. This high-grade polymetallic semi-massive to massive sulphide mineralization remains open at depth, and some intersections highlighted notable copper mineralization (e.g. up to 4.95% Cu over 1.2 m in



CRSX24-36A) indicating new Cu-Au-Ag skarn mineralization associated with a potential new mineralized trend (vector).

2025 Program

Orla is currently advancing a 15,000 m drill program with the goal of upgrading and expanding the upper part of the Zone 22 resource by the end of 2025.

**Other Drilling**

In addition to the near mine drilling programs, Orla has also completed geotechnical, metallurgical, condemnation, regional exploration, water exploration, and development drilling, totalling 159,226 m. All drilling completed by Orla from 2018 to 2024 is summarized in Table 10-2.

**Table 10-2: All Drilling Completed by Orla, 2018 to 2024**

Drilling Purpose	Drill Hole Type	Total Number of Holes	Total Metres (m)
Clay Exploration	DDH	5	56
Condemnation	RC	7	1,768
Geotechnical	DDH	3	740
Geotechnical – Infrastructure	DDH	21	370
Metallurgy	DDH	14	2,289
<b>Resource Drilling</b>			
Near-Mine Oxide	RC	13	1,228
Near-Mine Oxide	DDH	42	6,912
Oxide (BX01)	DDH	12	2,521
Oxide (Layback)	DDH	24	3,465
Infill/Sulphide	DDH	104	52,930
Zone 22	DDH	52	35,462
<b>Sub-total Resource Drilling</b>		<b>247</b>	<b>102,518</b>
Regional Exploration			
	RC	55	13,862
	DDH	46	19,141
	RAB	303	9,797
Water Wells	RC/rotary	29	9,057
<b>Total Drilling</b>		<b>730</b>	<b>159,597</b>

Clay exploration drill holes indicated that clay required for leach pad and pond construction was present, but adequate amounts were unable to be confirmed.

Condemnation drill holes verified that the proposed sites for Project infrastructure would not impede development of Mineral Resources.



Geotechnical drill holes provided the information necessary to determine pit slope stabilities and design criteria for the process plant, leach pad, waste storage facilities, and ponds, and confirmed that the proposed locations for each are suitable.

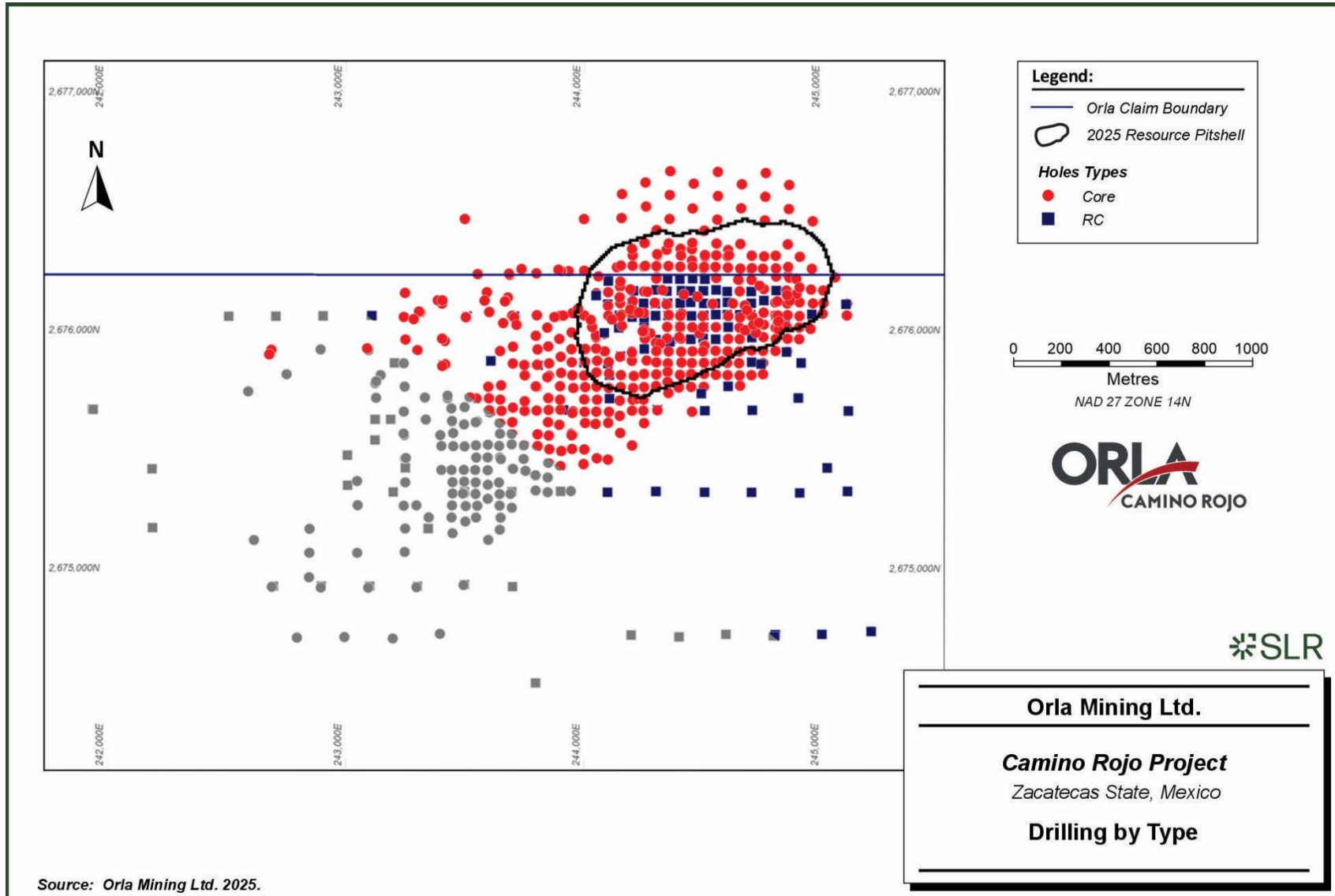
Metallurgical drill holes provided material for testing as described in Section 13.0 of this Technical Report.

The Regional Exploration drill holes were part of regional exploration programs as described in section 9.0 of this Technical Report.

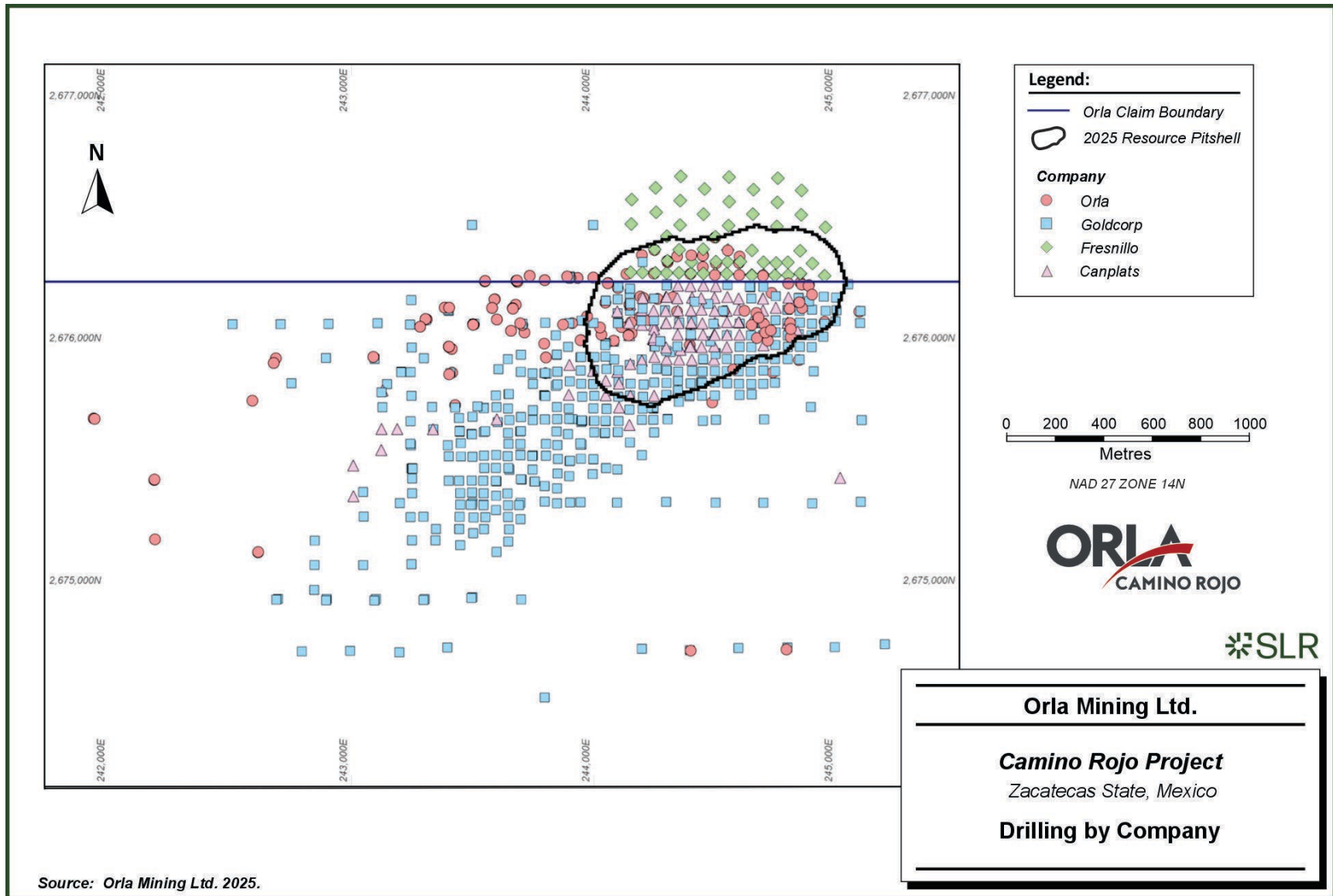
The water exploration, monitoring, and development drill holes provided information needed for hydrogeologic modeling.



Figure 10-1: Drilling by Type



**Figure 10-2: Drilling by Company**



## 10.3 Sampling

### 10.3.1 Canplats and Goldcorp Sampling

Goldcorp sample intervals were consistently 1.5 m for core, RC, and RAB drilling. For Canplats RC drilling, about 20% of the sample intervals were 1.0 m and 80% were 2.0 m intervals. Canplats core samples tended to be 2.0 m intervals, but about 30% of the intervals were shorter and of random length. According to the Canplats 2009 Technical Report (Blanchflower 2009), the geologist could adjust the sample intervals to correspond with geologic contacts.

For the RC drilling by Canplats and Goldcorp a splitter was used at the drill rig and the sample collected in the field. For drill core, both Canplats and Goldcorp split the samples at secure facilities and bagged them for shipment to the sample preparation laboratories.

There is no recovery information for Canplats drilling or for any of the RC or RAB drilling. The recovery for Goldcorp core was very high, generally above 90% and the overall average was about 96%.

### 10.3.2 Orla Sampling

Drill core was sampled by cutting the core with a diamond saw and sending half of the core for assay and retaining half of the core in the core box for archive. Sample intervals were generally 1.5 m long, except where geologic contacts or lack of recovery required a different sample length. Sampling was conducted in secure facilities at the Project core logging facility in San Tiburcio.



## 11.0 Sample Preparation, Analyses, and Security

### 11.1 Sample Preparation and Analysis

Geological staff from Canplats oversaw the sampling and analysis during the drilling campaigns in 2007 and 2008. Goldcorp took over supervision for the drilling activities from 2011 to 2015, and Orla has been managing the process since the 2018 drilling campaign.

The ALS Chemex laboratory (ALS), located in North Vancouver, British Columbia, has served as the primary assay laboratory for routine surface and drill sample assaying in the Canplats, Goldcorp, and Orla drilling and sampling programs. All assays were conducted at ALS, which is certified under ISO 9001:2000 and 2008, and accredited under ISO 17025:2005. ALS operates independently of Canplats, Goldcorp, and Orla.

Sample preparation occurred at the ALS laboratory located in Zacatecas, following the PREP-31 standard procedure:

- Samples were dried at 105°C, coarse crushed to 70% passing (P<sub>70</sub>) a 10-mesh screen (-2.0 mm), riffle split (200 g to 250 g), and pulverized to 85% passing (P<sub>85</sub>) a 200-mesh screen (-75 µm).
- Gold was assayed using a 30-gram fire assay fusion, with Atomic Absorption finish (ALS Chemex Code Au-AA23). Over-limits for gold were automatically re-assayed using a 30-gram fire assay fusion with gravimetric finish (method code Au-GRA21).
- A total of 34 other elements were determined using a multielement inductively coupled plasma – atomic emission spectroscopy (ICP-AES) instrument and four-acid sample digestion (method code ME-ICP61). Over-limits for silver, copper, zinc, and lead were automatically determined by ICP-AES and four-acid digestion (method code ME-OG62) for ore-grade samples.

RAB-style RC samples collected between 2011 and 2014 were analyzed using ALS's ME-MS61m method. This technique involves four-acid digestion, ICP-AES, mass spectrometry, and cold-vapor atomic absorption to detect 48 elements plus mercury. Most RAB holes are situated around the edges of the main deposit area. In 2024, samples with more than 1% sulphide content were tested using the Au-SCR21 screen fire assay.

Limits of detection (LoD) for ALS are summarized in Table 11-1.

**Table 11-1: Laboratory Limits of Detection (LoD)**

Laboratory	Element	Primary Method	Lower Detection Limit	Upper Detection Limit	Secondary Method <sup>1</sup>	Secondary Method - Lower Detection Limit
ALS	Au	Au-AA23	<0.005 ppm	>10.0 ppm	Au-GRA21	<0.05 ppm
	Ag	ME-ICP61	<0.5 ppm	>100 ppm	ME-OG62	<1 ppm
	Cu	ME-ICP61	<1 ppm	>10.000 ppm	ME-OG62	<0.001%
	Pb	ME-ICP61	<2 ppm	>10.000 ppm	ME-OG62	<0.001%
	Zn	ME-ICP61	<2 ppm	>10.000 ppm	ME-OG62	<0.001%

Notes:

1. When the upper detection limit of the primary method is reached, samples are assayed with a secondary method of analysis to obtain an accurate representation of the high grades of the samples.



## 11.2 Sample Security

### 11.2.1 Canplats and Goldcorp Sample Security

Canplats core and RC samples were trucked approximately 5 km from the field to a secure warehouse in San Tiburcio. Drill cores were halved, bagged, sealed with plastic ties, and stored in a locked facility overseen by company geologists. Before shipment, bags were grouped into labeled, sealed nylon sacks.

These sacks were hand-delivered by company staff to the ALS Chemex lab in Guadalajara, Jalisco.

Under Goldcorp, samples were transported twice daily to the same warehouse. Each afternoon, sealed core bags were packed into numbered rice sacks and stored securely. Once or twice a week, these were picked up by a contracted truck and delivered to ALS Chemex for processing.

Orla assumed control of the former Goldcorp facility in San Tiburcio, which now securely stores core samples, assay pulps, and RC chip trays. The site is enclosed and protected by locked gates.

### 11.2.2 Orla Sample Security

Orla personnel transport core boxes to the company's secure storage facilities in San Tiburcio at the conclusion of each drill shift. The core is labeled, photographed, logged, and sampled under the supervision of staff geologists. The geologists define the intervals for sampling, after which the drill core is split following established procedures.

Following cutting, half of the core is placed in a plastic sample bag, while the other half is returned to the core box. Each sample is tagged and bagged, with quality control (QC) samples inserted into the sampling sequence.

Samples destined for assay are packaged into shipping bags and dispatched directly to the ALS sample preparation facility in Zacatecas. Sampled holes, rejects, and pulps are retained after analysis in storage facilities at the site.

## 11.3 Density Sampling and Measurement

At the Camino Rojo mine, a total of 10,090 density measurements were conducted in the core shack by trained personnel. Prior to analysis, each sample undergoes documentation, including photography and descriptive logging, before its submission for density measurement. This data integrates into the main geological database, accompanied by a corresponding label on the sample's storage box.

The water immersion technique is used for density measurements, supplemented by paraffin wax treatment for porous samples. The logging geologist identifies and isolates samples of interest, typically measuring between 10 cm to 15 cm in length. Sampling frequency is set at roughly 25 m intervals within waste rock and 10 m within ore zones, guided by lithologic or geological domain variations.

## 11.4 Quality Assurance and Quality Control

Orla employs quality assurance (QA) and quality control (QC) protocols to ensure the integrity of sample data. The implemented QA practices include standardized operating procedures as well as maintaining data management and transfer systems, while the implemented QC includes monitoring the sampling performance, sample preparation, and analytical processes. Analysis of



QC data is performed to assess the reliability of all sample assay data and the confidence in the data used for resource estimation.

## 11.4.1 Quality Control Insertion Rates

### 11.4.1.1 Canplats (2007–2008)

During Canplats period, blanks and commercial certified reference materials (CRMs) were inserted into drilling sample streams at a rate of approximate of 5% or 1 in 20. The control database includes 1,098 coarse blank sample results with multi-elemental assays and 1,074 CRMs, derived from four types with different grade ranges, certified by Shea Clark Smith, Nevada, US. Two of these (CR\_Std\_5 and CR\_Std\_6) were certified for gold, while the other two were certified for silver, lead, and zinc.

Additionally, in 2007–2008, Canplats conducted a check assay verification, sending 151 samples along with pulp duplicates, blanks, and CRMs, to Assayers Canada, located in Vancouver, BC. This umpire laboratory was accredited under ISO 9001:2008 at the time and was later acquired by SGS.

Only 15 field duplicates records were found within the QC database provided to SLR, and no pulp or coarse duplicates were found in this review.

### 11.4.1.2 Goldcorp (2011–2015)

The QA/QC program implemented by Goldcorp included the use of blanks, standards, and field duplicates to monitor preparation and analytical stages in the laboratory. A total of 13,193 quality control samples were inserted into the sample stream, accounting for approximately 7% of the total samples.

A total of 7,225 blank samples was inserted at a rate of 1 in 25 for coarse blanks. These samples consisted of fragments of unaltered calcareous siltstone and sandstone of the Caracol Formation, from a burrow pit near Tanque Nuevo, Zacatecas, approximately 60 km northeast of Camino Rojo. For RC blanks, the Caracol material was hand-crushed to coarse gravel size, and for core drilling blanks, the material was broken into fragments similar to drill core size.

A total of 5,762 CRM samples were inserted every 1 in 50 samples, always immediately following a blank sample. Four CRMs, CDN-ME-15, CDN-ME-16, CDN-ME-1307, and CDN-ME-GS-P7H, were sourced by CDN Resource Laboratories in Vancouver, British Columbia, and three were in-house reference materials, PEN1850OX, PEN1850T, and STDCR14-01, all prepared at SGS Minerals in Durango, Mexico.

Some 57 field duplicates were taken from quarter core fractions and were added every 100<sup>th</sup> sample, labeled with a "B" suffix. In addition, 149 pulp duplicates were added within the Goldcorp QA/QC program, conforming to 0.1% in that period.

### 11.4.1.3 Orla (2018–2024)

Orla implemented a more robust QA/QC program during its drilling campaigns, which included 826 coarse blank, 825 CRM, 1,606 field duplicate, 415 coarse duplicate, and 422 pulp duplicate samples as well as 48 pulp duplicate check assays from blast holes sent to Bureau Veritas Laboratories in British Columbia, Canada, a third-party laboratory (independent of Orla) in 2019, accredited by SCC and holding certification ISO/IEC 17025.

Blank samples, consisting of unmineralized post-mineral volcanic rocks, were inserted at a rate of 1:50, ideally following visible gold or high-grade mineralization intervals.



Ten different CRMs sourced either by CND Resource Laboratories or Rocklabs of New Zealand were inserted every 50 samples. CRMs OXC145, OXD127, OXI121, OXI145 from Rocklabs were certified for gold and CRMs CDN-ME-1404, CDN-ME-1414, CDN-ME-1704, CDN-ME-1706, CDN-ME-2103, and CDN-ME-1409 were certified for gold plus the multi-element ICP spectrum.

Field duplicates were inserted into the sample stream at a rate of one in 50 and were selected and taken from either a split of the RC drilling chips or quartered drill core, which was later increased to half drill core samples. A total of 1,606 field duplicates were inserted blindly. Coarse duplicates were also inserted into the sample stream at a rate of one coarse duplicate every 100 samples. Pulp duplicates were inserted at the same rate.

The QA/QC sample insertion rates and failure criteria used during the Orla drilling campaigns are summarized in Table 11-2.

Table 11-3 presents the number of QC submittals from 2007 to 2025.

**Table 11-2: Orla Control Sample Insertion Rate and Failure Criteria**

Control	Insertion Rate	1 in	Limits	Error Tolerance	Labeling
CRM	2%	50	3 x SD	<5% Bias	XX33 & XX99
Blank	2%	50	2-3 x LoD	<10% Failure Rate	Do not have a fixed numbering
Field Duplicate	2%	50	30%	<10% pairs	XX00 or XX50
Coarse Duplicate	1%	100	20%	<10% pairs	XX25DUP
Pulp Duplicate	1%	100	10%	<10% pairs	XX75REP

**Table 11-3: Camino Rojo QC Insertion Rates: 2007 to 2025**

QC Control	Canplats		Goldcorp		Orla	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
Primary Sample	34,502	94%	187,176	93%	42,371	91%
Blank	1,098	3%	7,225	4%	826	2%
CRM	1,074	3%	5,762	3%	825	2%
Field Duplicate	15	0%	57	0%	1,606	3%
Coarse Duplicate	0	0%	0	0%	415	1%
Pulp Duplicate	0	0%	149	0%	422	1%

The QP has conducted a comprehensive review of the quality control database and has summarized findings, categorized by control types and company periods, in the following sections.

#### 11.4.2 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.



Specific pass/fail criteria were used based on setting the CRM acceptance limits at the mean  $\pm 3$  standard deviations (SD) as a failure limit threshold.

#### 11.4.2.1 Canplats (2007–2008)

During the initial Canplats drilling campaigns, the CRMs used did not include gold certification for CR\_Std\_10 and CR\_Std\_11, only for silver, lead, and zinc. However, as Canplats transitioned to using CR\_Std\_5 and CR\_Std\_6, gold was included as a certified element. During this period, 22 potential mislabeling cases were identified, where the nominal values of the CRMs matched different CRMs or blank samples. This is illustrated in the Z-score plot, which shows a significant number of failures during this timeframe (Figure 11-1).

In general, CRM biases are within the acceptable threshold, though failures are slightly higher for gold in CR\_Std\_6, as detailed in Table 11-4. Additionally, lead shows a negative bias, resulting in a significant number of outliers starting in June 2008. The QP does not consider these observations to be material.

#### 11.4.2.2 Goldcorp (2011–2015)

Throughout Goldcorp campaigns, seven different CRMs were used. Despite some significant failures, the number of occurrences was relatively low compared to the total samples, with 24 potential mislabeling cases observed during this period.

The CRMs inserted during this timeframe covered a range from low to high gold grades. The QP considers the results observed for these CRMs, with biases ranging from -1.2% to 1.1%, to be good with an acceptable failure rate of less than 4% for gold. Figure 11-2 provides an example of the results for CRM CDN-ME-15.

Regarding other elements, including silver, copper, lead, and zinc, all seven CRMs demonstrated excellent performance, with biases within a 5% variation and a failure rate well within acceptable limits.

#### 11.4.2.3 Orla Mining (2021–2024)

The ten types of CRMs inserted during Orla mining phases demonstrated significantly better performance and improved monitoring protocols for failures, as noted in Figure 11-1 and Table 11-4. The performance of these CRMs was notably good, with biases around -1% to 1% and insignificant or non-existent failures exceeding the upper and lower bounds, as shown in Figure 11-3 (CDN-ME-1706).

Orla's QA/QC quarterly reports indicate continuous monitoring of failures and re-runs in the laboratory when necessary.

**Table 11-4: Camino Rojo Certified Reference Material Performance (2007–2025)**

Company	CRM	Element	Year Range	No. Samples	Mean (ppm)	EV	SD	No. Failures	Bias (%)	Failures (%)
Canplats	CR_Std_10	Ag	2007 - 2008	62	191.63	197.73	8.42	0	-3.1	0.0
		Pb	2007 - 2008	66	1,184.39	1221.59	75.61	4	-3.0	6.1
		Zn	2007 - 2008	62	3,222.26	3328.52	230	0	-3.2	0.0
	CR_Std_11	Ag	2007 - 2008	55	79.58	80.31	2.82	1	-0.9	1.8
		Pb	2007 - 2008	55	368.02	385.96	13.29	9	-4.7	16.4
		Zn	2007 - 2008	55	977.29	968.54	50.18	0	0.9	0.0



Company	CRM	Element	Year Range	No. Samples	Mean (ppm)	EV	SD	No. Failures	Bias (%)	Failures (%)
	CR_Std_5	Ag	2008 - 2008	506	29.52	28.4	1.6	10	4.0	2.0
		Au	2008 - 2008	490	0.57	0.55	0.04	33	3.0	6.7
		Pb	2008 - 2008	506	1,695.18	1750	50	53	-3.1	10.5
		Zn	2008 - 2008	506	6,281.13	6450	260	14	-2.6	2.8
	CR_Std_6	Au	2008 - 2008	414	1.48	1.46	0.11	36	1.1	8.7
		Pb	2008 - 2008	420	3,051.48	3012.92	365.91	4	1.3	1.0
		Zn	2008 - 2008	419	2,873.15	2784.48	140	12	3.2	2.9
Goldcorp	1850OX	Ag	2011 - 2015	1,078	34.02	34	1.2	18	0.1	1.7
		Au	2011 - 2015	1,078	0.27	0.27	0.01	4	-1.6	0.4
		Cu	2011 - 2015	1,081	141.22	150	9	3	-5.9	0.3
		Pb	2011 - 2015	1,078	4,454.28	4400	203	1	1.2	0.1
		Zn	2011 - 2015	1,078	20,384.97	21000	1300	2	-2.9	0.2
	1850T	Ag	2011 - 2014	1,571	18.62	19	1	38	-2.0	2.4
		Au	2011 - 2014	1,571	0.22	0.22	0.01	45	-0.1	2.9
		Cu	2011 - 2014	1,571	177.49	180	12	2	-1.4	0.1
		Pb	2011 - 2014	1,571	2,218.06	2200	131	1	0.8	0.1
		Zn	2011 - 2014	1,571	4,020.6	3900	252	2	3.1	0.1
	CDN-ME-1307	Ag	2014 - 2018	451	55.41	54.1	1.55	21	2.4	4.7
		Au	2014 - 2018	451	1.01	1.02	0.04	5	-0.9	1.1
		Cu	2014 - 2018	451	5,501	5370	100	69	2.4	15.3
		Pb	2014 - 2018	451	8,798.54	8640	180	35	1.8	7.8
		Zn	2014 - 2018	451	7579.53	7460	130	47	1.6	10.4
	CDN-ME-15	Ag	2011 - 2012	813	33.95	34	1.85	18	-0.1	2.2
		Au	2011 - 2012	813	1.4	1.39	0.05	28	1.1	3.4
		Cu	2011 - 2012	813	133.32	140	5	22	-4.8	2.7
		Pb	2011 - 2012	813	3,945.83	4130	220	2	-4.5	0.3
		Zn	2011 - 2012	813	2,512.03	2510	130	2	0.1	0.3
	CDN-ME-16	Ag	2014 - 2015	882	32.07	30.8	1.1	55	4.1	6.2
		Au	2014 - 2015	882	1.47	1.48	0.07	35	-0.6	4.0
		Cu	2014 - 2015	882	6,830.31	6710	180	35	1.8	4.0
		Pb	2014 - 2015	882	8,659.12	8790	200	40	-1.5	4.5
		Zn	2014 - 2015	882	8,176.88	8070	200	30	1.3	3.4
	CR14-01	Ag	2014 - 2014	687	11.76	11.5	0.89	3	2.2	0.4
		Au	2014 - 2014	687	0.21	0.21	0.03	18	-0.4	2.6
		Cu	2014 - 2015	698	165.3	170.5	13.16	11	-3.1	1.6
Pb		2014 - 2014	687	1,356.86	1313.8	72.58	1	3.3	0.2	
Zn		2014 - 2014	687	2,024.49	1927	136.88	0	5.1	0.0	
GS-P7H	Au	2014 - 2015	266	0.79	0.8	0.02	7	-1.2	2.6	
Orla	CDN-ME-1404	Ag	2018 - 2023	123	59.65	60.1	1.6	0	-0.8	0.0



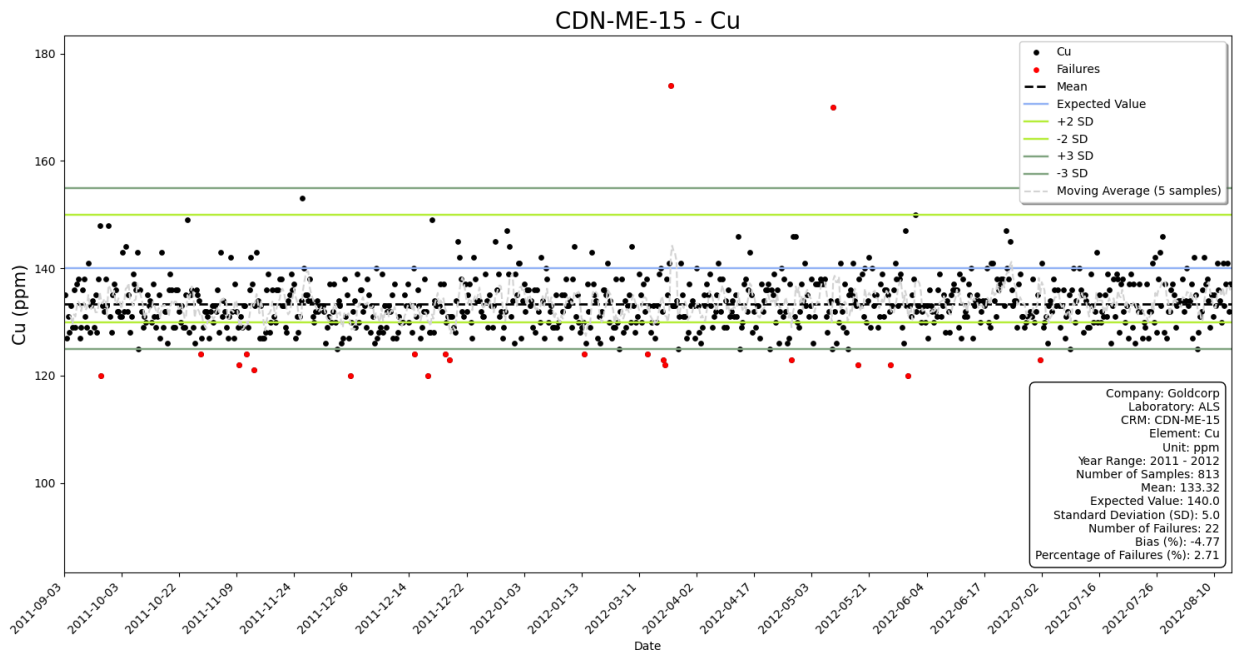
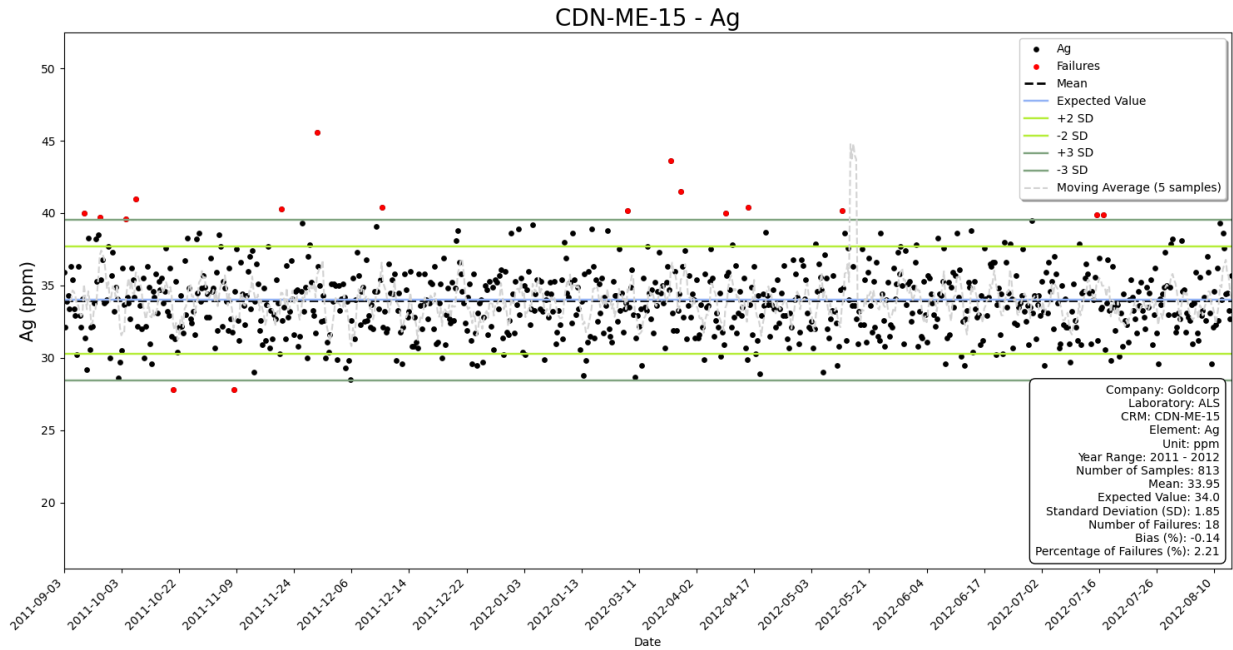
Company	CRM	Element	Year Range	No. Samples	Mean (ppm)	EV	SD	No. Failures	Bias (%)	Failures (%)
		Au	2018 - 2023	123	0.89	0.89	0.03	0	0.7	0.0
		Cu	2018 - 2023	123	4,851.63	4868	109	1	-0.3	0.8
		Pb	2018 - 2023	123	3,742.03	3762	97	1	-0.5	0.8
		Zn	2018 - 2023	123	20,648.78	20600	380	1	0.2	0.8
	CDN-ME-1414	Ag	2018 - 2022	42	18.73	18.8	0.5	0	-0.4	0.0
		Au	2018 - 2022	42	0.29	0.29	0.03	0	1.0	0.0
		Cu	2018 - 2022	42	2,199.29	2210	47	1	-0.5	2.4
		Pb	2018 - 2022	42	1,050.48	1041	28	1	0.9	2.4
		Zn	2018 - 2022	42	7,334.52	7269	155	2	0.9	4.8
	CDN-ME-1704	Ag	2023 - 2024	193	11.6	11.6	0.65	0	0.0	0.0
		Au	2023 - 2024	193	1	0.99	0.04	0	0.1	0.0
		Cu	2023 - 2024	193	6,949.48	6920	140	0	0.4	0.0
		Pb	2023 - 2024	193	484.41	490	15	0	-1.1	0.0
		Zn	2023 - 2024	193	7,940	8000	200	0	-0.8	0.0
	CDN-ME-1706	Ag	2023 - 2024	253	11.9	11.7	0.6	0	1.7	0.0
		Au	2023 - 2024	253	2.06	2.06	0.08	0	-0.1	0.0
		Cu	2023 - 2024	253	8,261.38	8310	120	4	-0.6	1.6
		Pb	2023 - 2024	253	632.75	630	20	0	0.4	0.0
		Zn	2023 - 2024	253	2,819.68	2840	81.44	0	-0.7	0.0
	CDN-ME-2103	Ag	2024 - 2024	87	99.42	101	2.5	0	-1.6	0.0
		Au	2024 - 2024	87	1	0.99	0.06	0	1.1	0.0
		Cu	2024 - 2024	87	3,560.34	3570	65	0	-0.3	0.0
		Pb	2024 - 2024	87	2,212.07	2220	35	0	-0.4	0.0
Zn		2024 - 2024	87	4,280.46	4280	110	0	0.0	0.0	
OxC145	Au	2018 - 2022	6	0.21	0.21	0.01	0	2.5	0.0	
OxC152	Au	2023 - 2024	49	0.21	0.22	0.01	0	-0.6	0.0	
OxD127	Au	2018 - 2022	26	0.46	0.46	0.01	0	-0.1	0.0	
Oxi121	Au	2018 - 2024	44	1.79	1.83	0.05	1	-2.3	2.3	

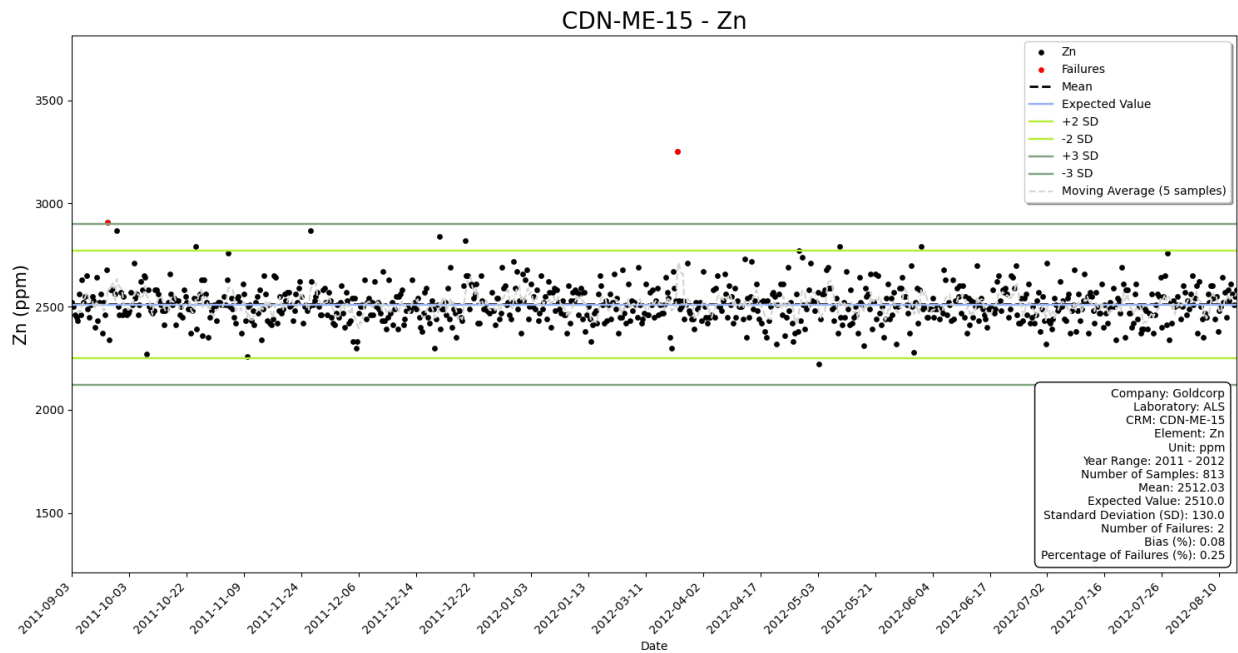
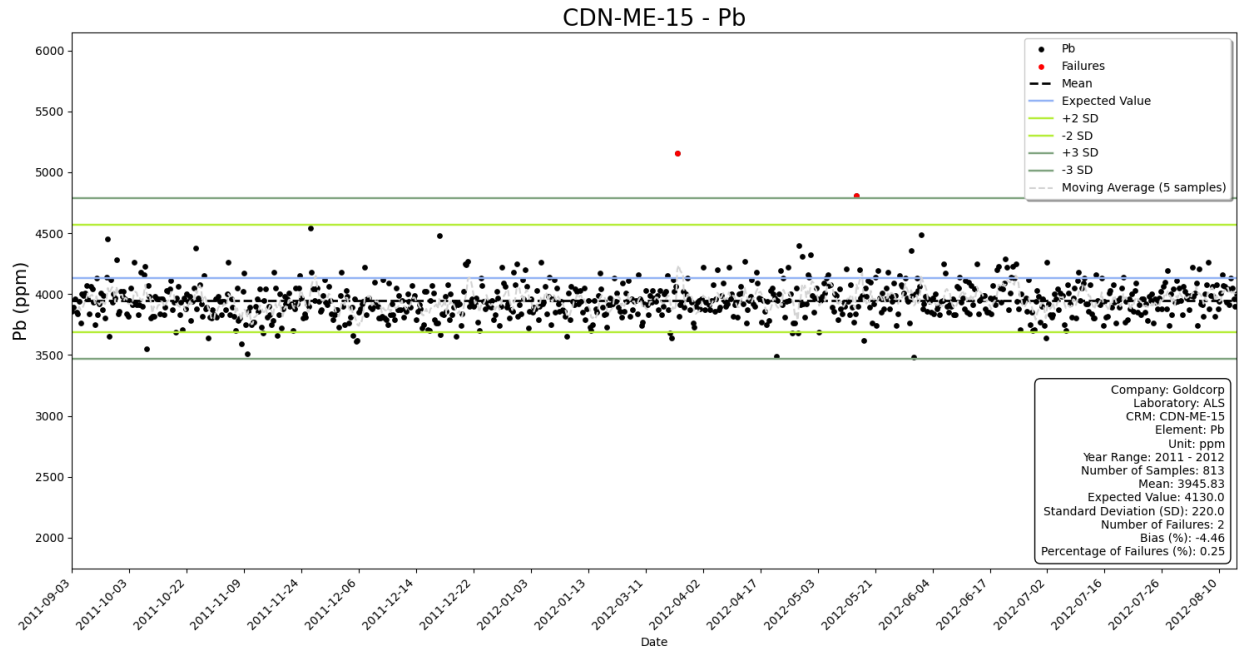
**Notes:**

EV: expected value  
 SD: Standard deviation  
 Unit (Au, Ag, Cu, Pb, Zn): ppm

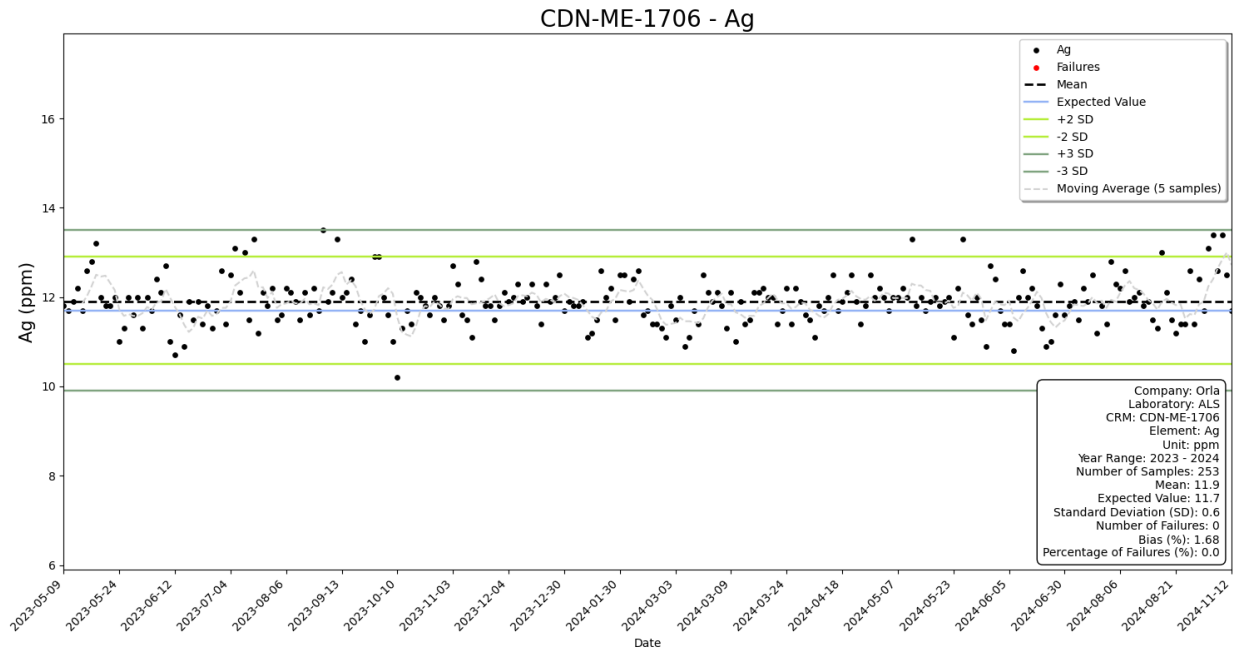
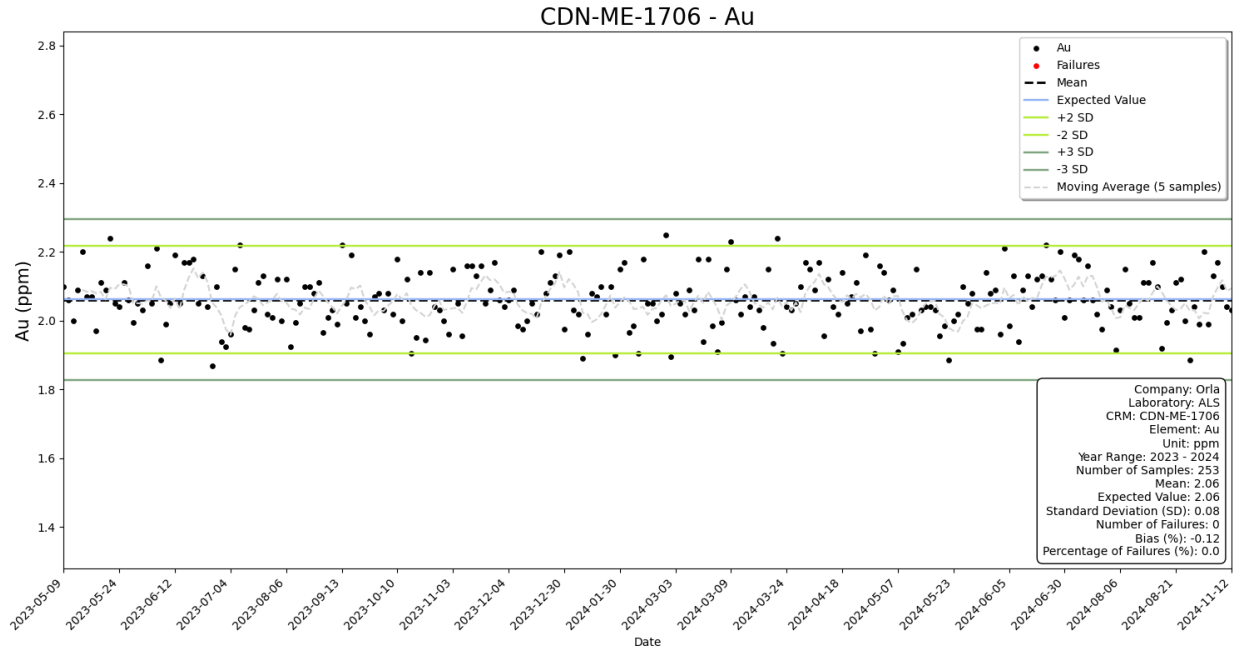


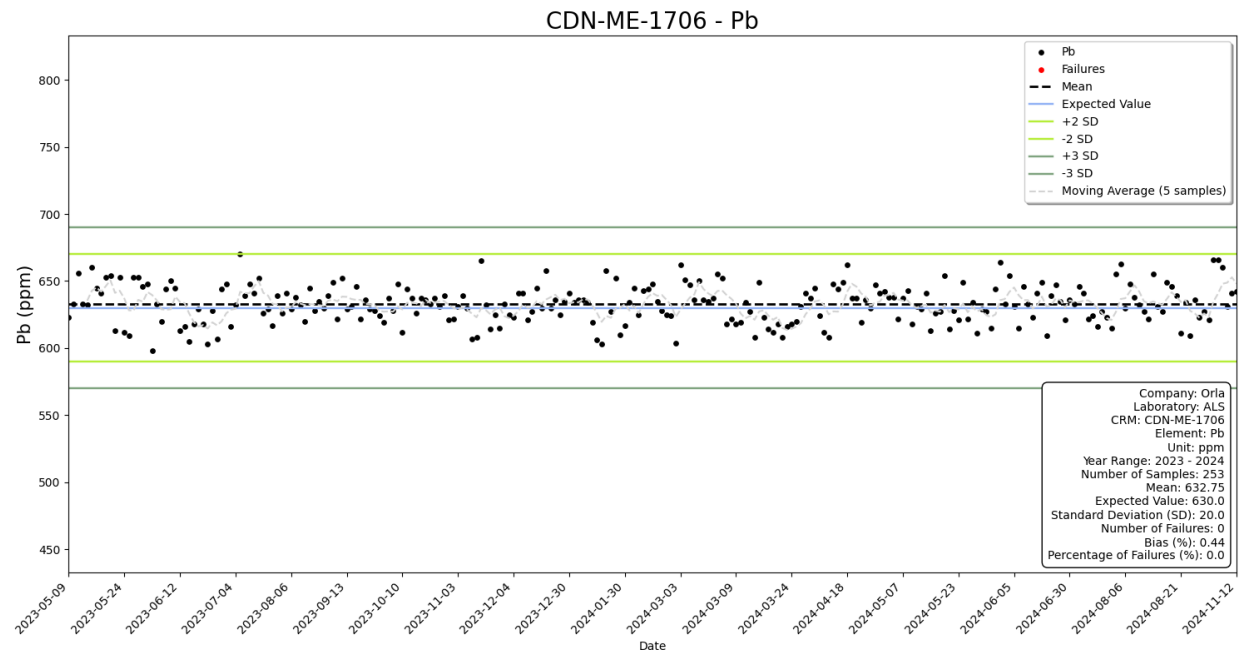
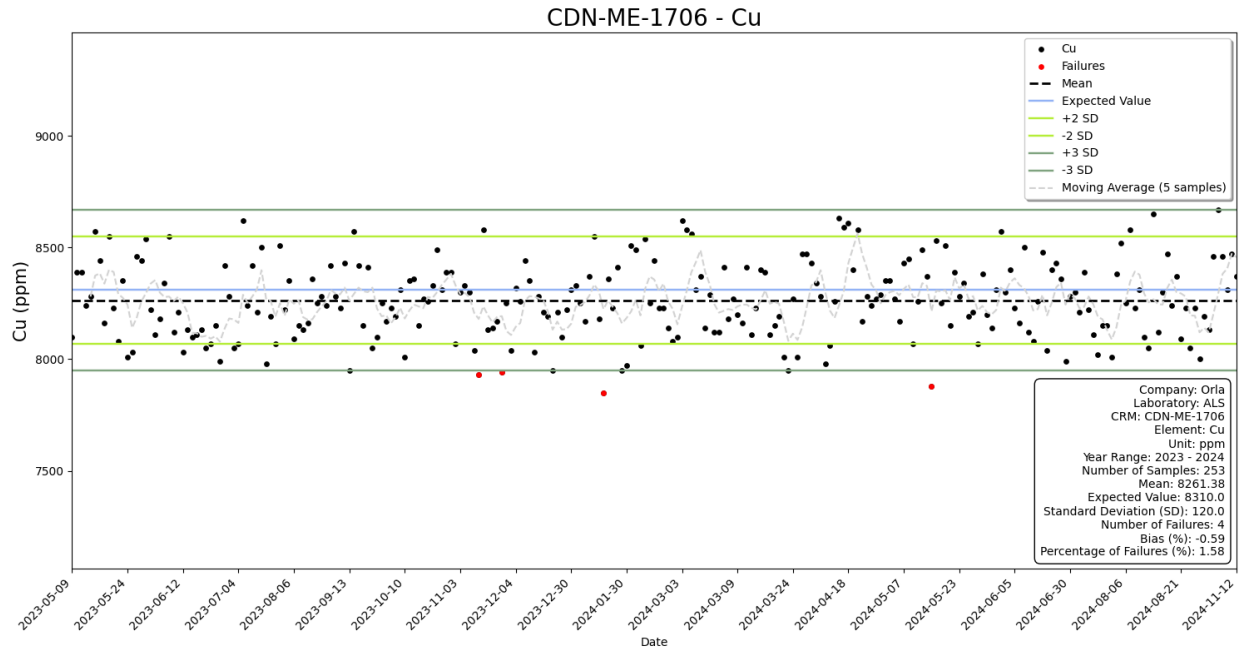


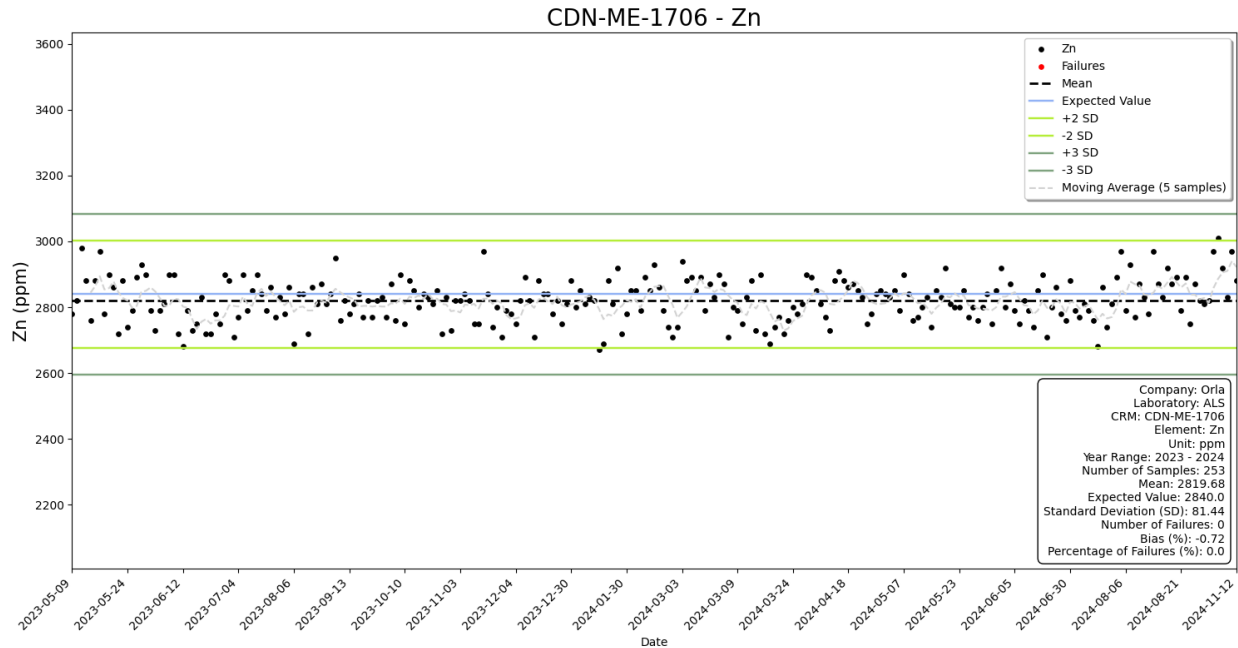




**Figure 11-3: Control Charts of CRM CDN-ME-1706 Results for Au-Ag-Cu-Pb-Zn for Orla (2023–2024)**







### 11.4.3 Blank Material

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors.

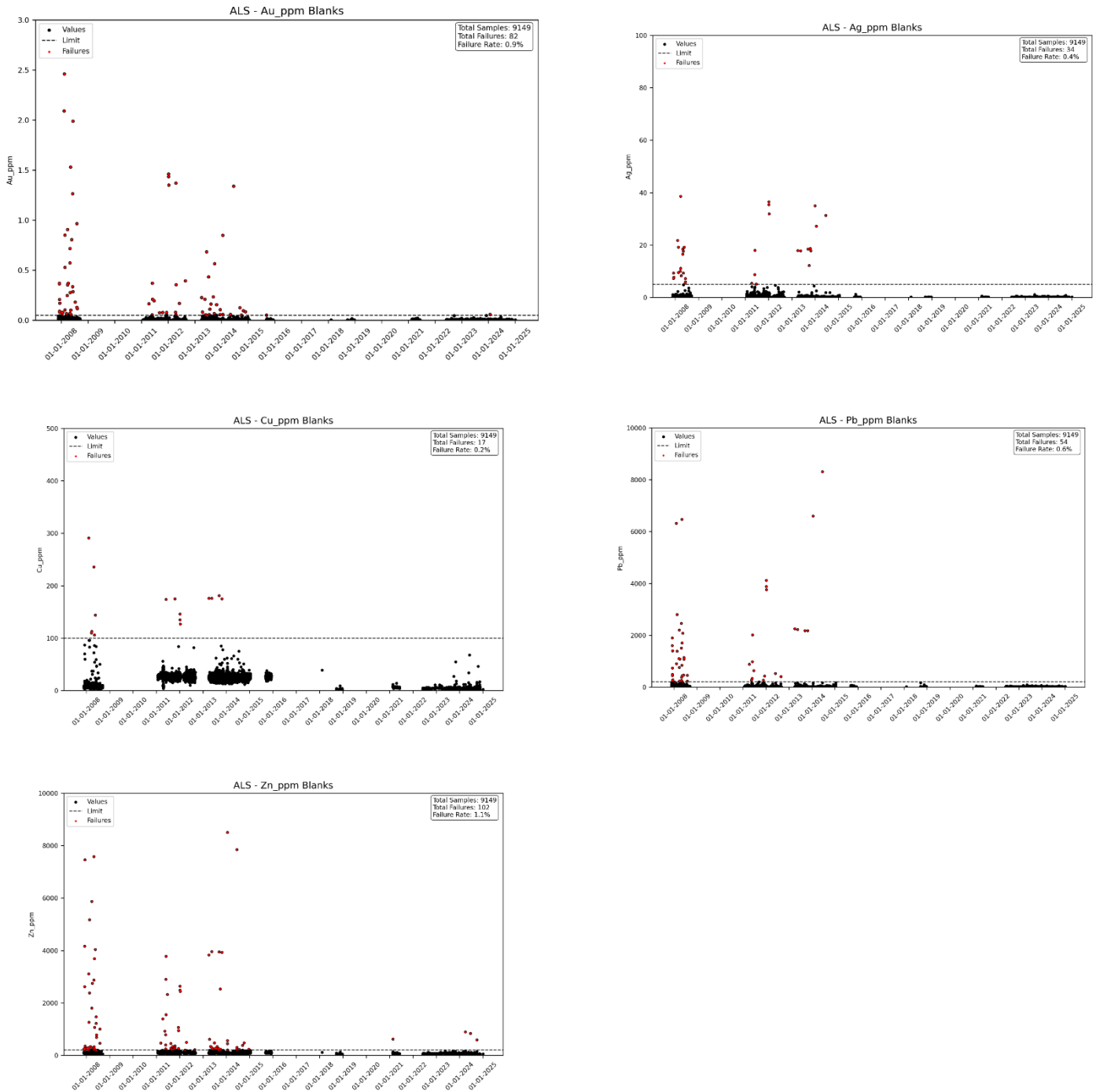
Field blank samples consisted of barren material collected from different quarry locations during various drilling campaigns, with expected analyte concentrations below 0.005 ppm Au.

SLR has reviewed 9,149 coarse blank samples used throughout both DDH and RC drilling campaigns between 2007 and 2024. A threshold limit of ten times the Limit of Detection (LoD) for gold and silver was considered as failure criteria, and 100 times LoD for other base metals including copper, lead, and zinc, due to the significantly low LoD for the assay method used (ICP-AES).

SLR noted that the materials used during the Goldcorp phases up until 2015 exhibited a higher frequency of failures across all elements. Despite this, the overall number of rejected samples was minimal (less than 1%) compared to the accepted samples over time, and this did not affect the reliability of the assay results. An improvement was noted from 2018 during Orla drilling campaigns, due to continuous monitoring of laboratory results, as illustrated in Figure 11-4.



Figure 11-4: Coarse Blank Samples: 2007–2024



### 11.4.4 Duplicates

A description of the different types of duplicates used by Camino Rojo is provided in Table 11-5.

**Table 11-5: Duplicate Types and Descriptions**

Duplicate	Description
Field	A sample collected at the same time and from the same location as an original sample, such as a sample taken from a quarter of the original drill core sample interval. Since 2021, a duplicate sample has been taken from the second half of the drill core sample.
Coarse	Preparation duplicates - The second sample obtained from splitting the coarse crushed rock during sample preparation (better than 70% passing - 2 mm or 10 mesh).
Pulp	Assay (lab) duplicates - The second sample obtained from splitting the pulverized material during sample preparation.

A database with 2,664 sample pairs collected between 2008 and 2024 was reviewed by SLR using statistical analysis, scatter plots, and HARD plots. Table 11-6 details the criteria for duplicate failures at Camino Rojo and presents the results obtained.

In 2024, SLR detected a wide pair dispersion for gold among all duplicate types. In 2025, Orla investigated this dispersion using a screening metallic analysis, which revealed a nuggety sample distribution (Sanfurgo 2025). Sanfurgo (2025) recommended additional tests, including changing the crushing protocol from 70% passing to a minimum of 90% passing 2 mm, and expanding screen tests to explore gold reporting to different size fractions.

SLR recommends changing the current sample preparation protocol from PREP-31 to PREP-31D for exploration samples:

- **Core and rock sample (PREP-31):** Crush to 70% passing 2 mm, riffle split a 250 g portion, and pulverize the split to better than 85% passing 75 microns.
- **Core and rock samples containing high-grade or coarse gold (PREP-31D):** Crush to 90% passing 2 mm, riffle split a 1 kg portion and pulverize the split to better than 85% passing 75 microns.

SLR has relaxed the acceptable HARD Index thresholds for gold to 40% for field duplicates, 30% for coarse duplicates, and 20% for pulp duplicates for review purposes. This adjustment was applied to calibrate the analysis with the observed coarse gold effect in the duplicates, found in the study by Sanfurgo (2025). The limits for field, coarse, and pulp duplicates for other elements (i.e., silver, copper, lead, and zinc) remain at the acceptable limits of 30%, 20%, and 10%, respectively.

**Table 11-6: Camino Rojo Duplicates Precision – HARD Index (2008 to 2024)**

Duplicate Type	No. Samples	Threshold Limit		Failures Tolerance	HARD Index				
		Au	Ag/Zn/Pb/Cu		Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Field	1,013	<40%	<30%	<10%	12.5%	16.5%	6.8%	14.7%	12.8%
Coarse	259	<30%	<20%	<10%	9.6%	6.7%	0.5%	6.5%	2.4%



Duplicate Type	No. Samples	Threshold Limit		Failures Tolerance	HARD Index				
		Au	Ag/Zn/Pb/Cu		Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Pulp	262	<20%	<10%	5%<x<10%	12.3%	13.5%	4.5%	20.1%	3.3%

### 11.4.4.1 Field Duplicates

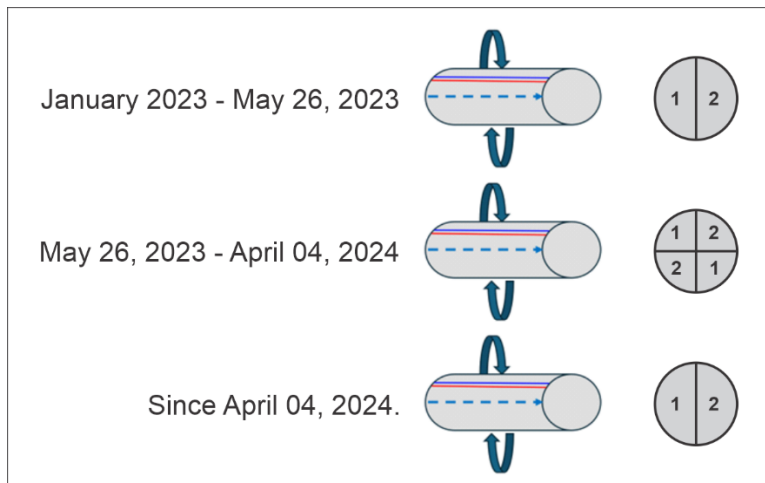
During Canplats and Goldcorp phases between 2007 and 2015, field duplicates were taken from a rig split of the RC drilling chips or quartered drill core.

During Orla drilling phases between 2018 and 2022, field duplicates were splits of RC chips or quartered drill core, taken from the same material as the original sample, and submitted blind.

In 2023, drilling activities involved the utilization of smaller diameter holes, resulting in samples of reduced weight, potentially influencing the variability observed in field duplicate results.

From January [1] to May 26, 2023, duplicate samples were split, with one half sent for routine analysis and the other used as a field duplicate. Samples from highly fractured areas were quartered instead. Between May 26, 2023, and April 4, 2024, the sampling method was modified to divide the samples further, intending to better homogenize the duplicates. However, no significant change in results was observed. On April 4, 2024, the original sampling approach was reinstated without quartering the samples, as illustrated in Figure 11-5.

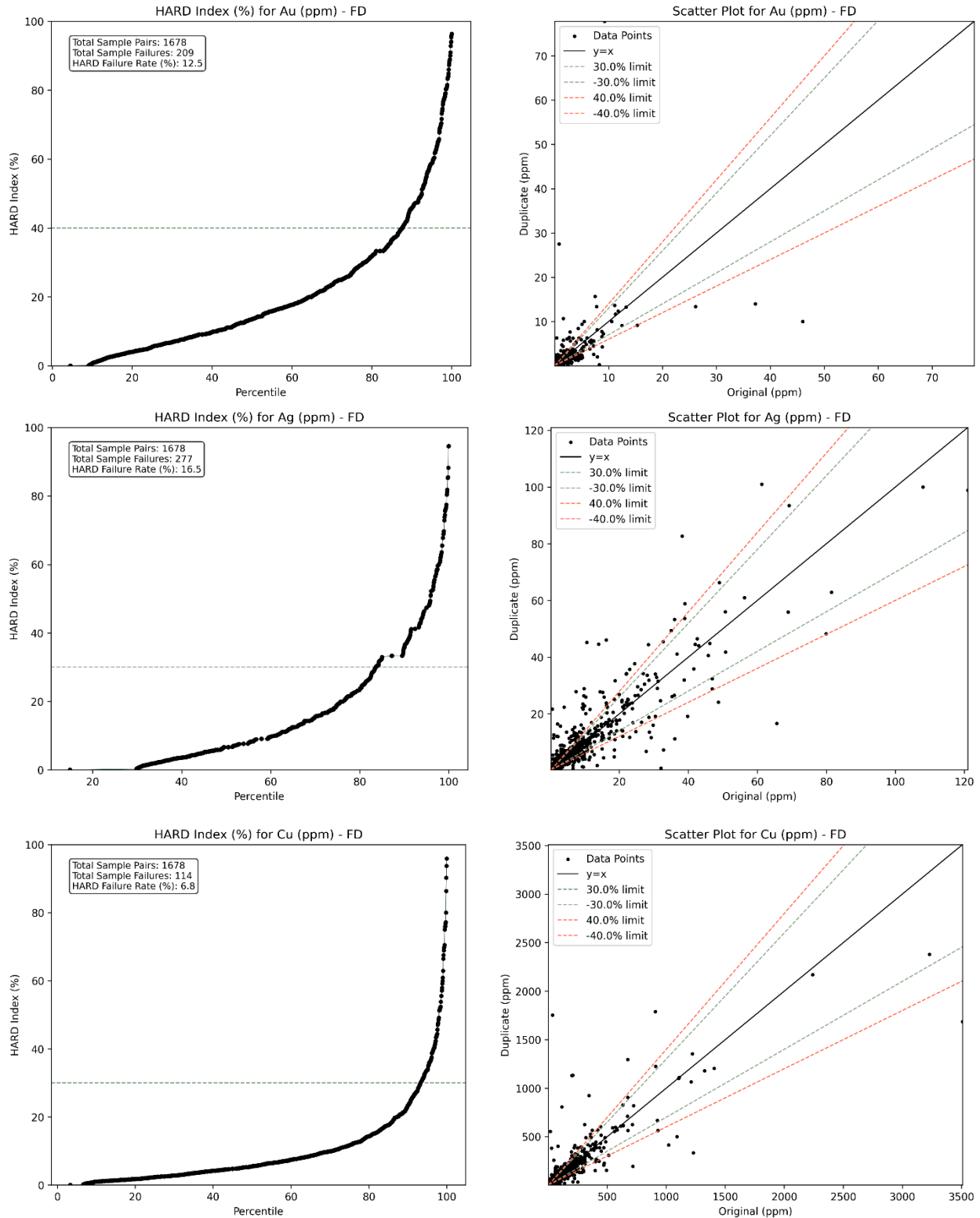
**Figure 11-5: Field Duplicate Sampling Method**

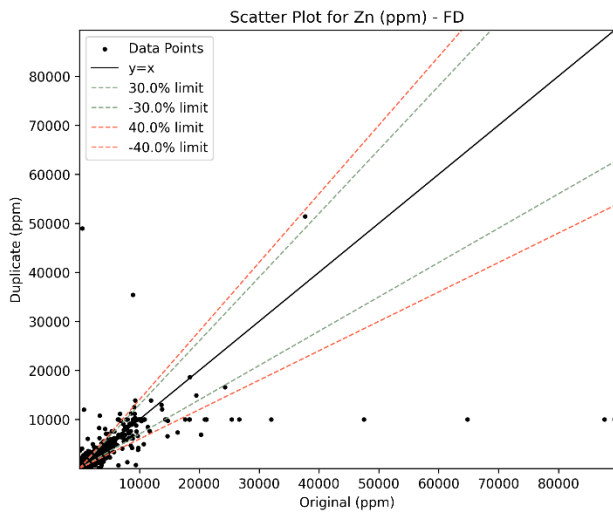
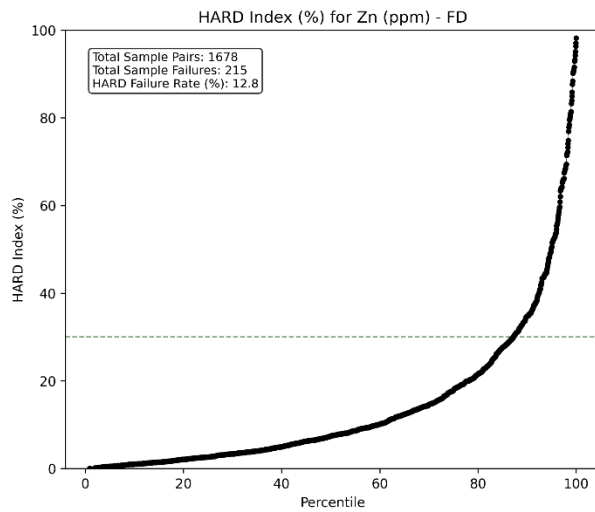
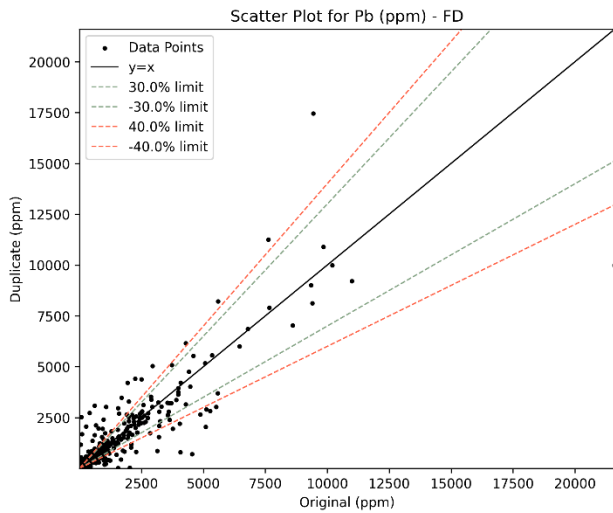
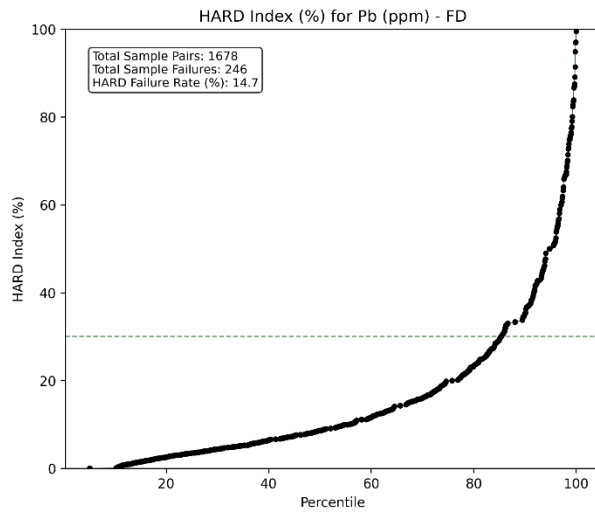


SLR observed that field duplicates exhibited poor precision across all elements, likely due to in situ mineralization variability. Additionally, the inherent coarse gold effect in the Camino Rojo deposit may also contribute to this issue; however, the QP is of the opinion that the rejected failure rates are not significant (<17%), and the adjusted threshold limits for gold provide a more realistic scenario for controlling coarse gold. Figure 11-6 presents field duplicate scatter plots and HARD plots for gold, silver, copper, lead, and zinc.



**Figure 11-6: Field Duplicate Scatter and HARD plots for Au-Ag-Cu-Pb-Zn (2008 to 2024)**





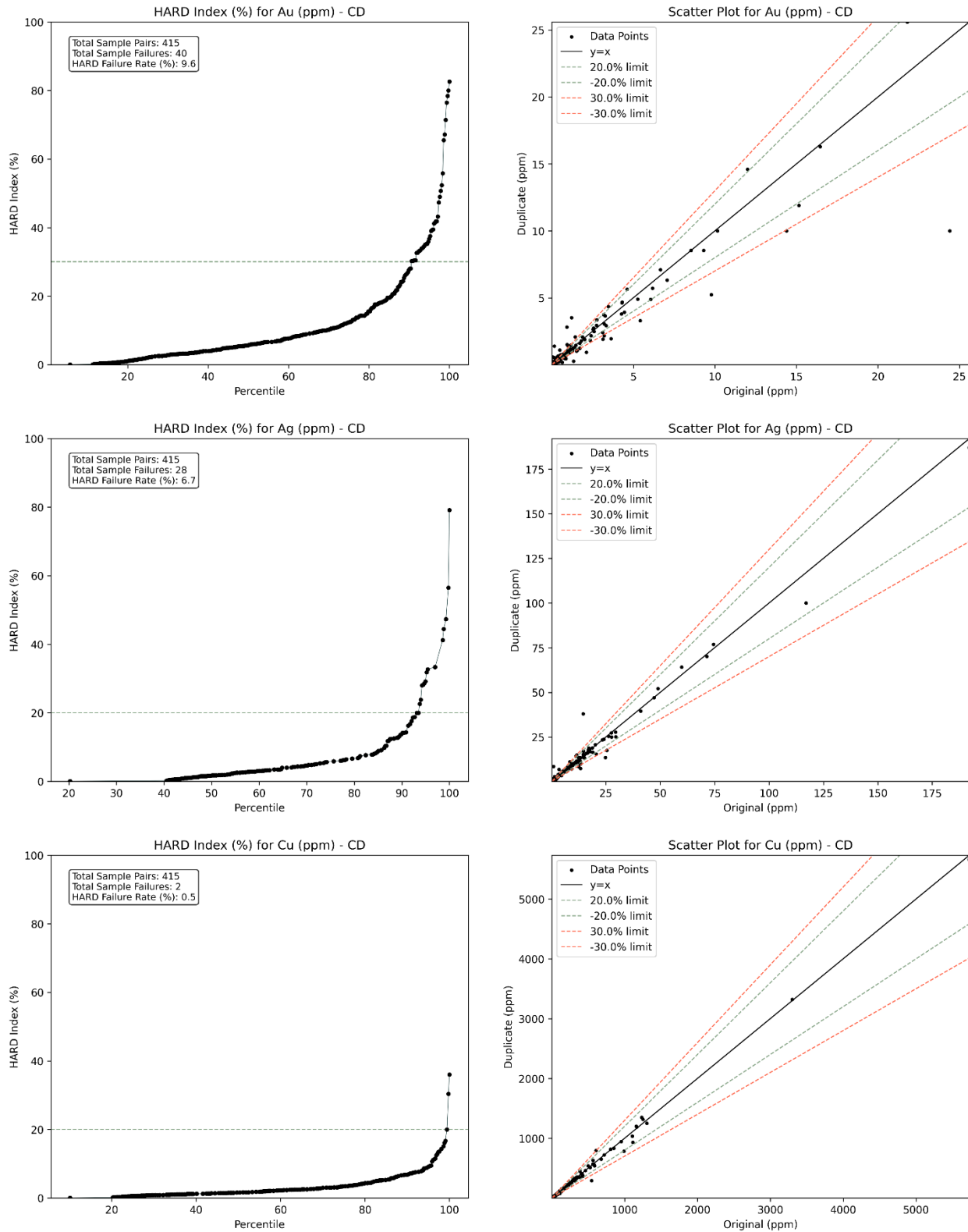
### 11.4.4.2 Coarse Duplicates

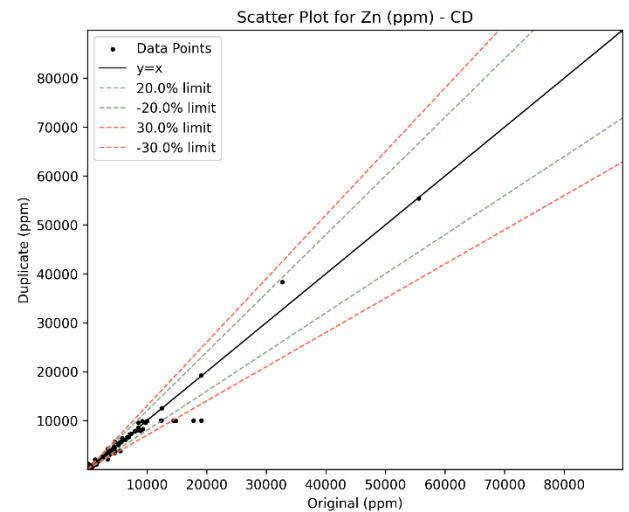
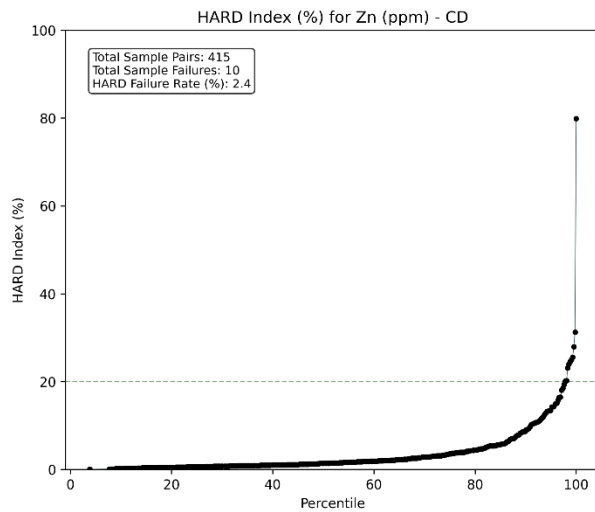
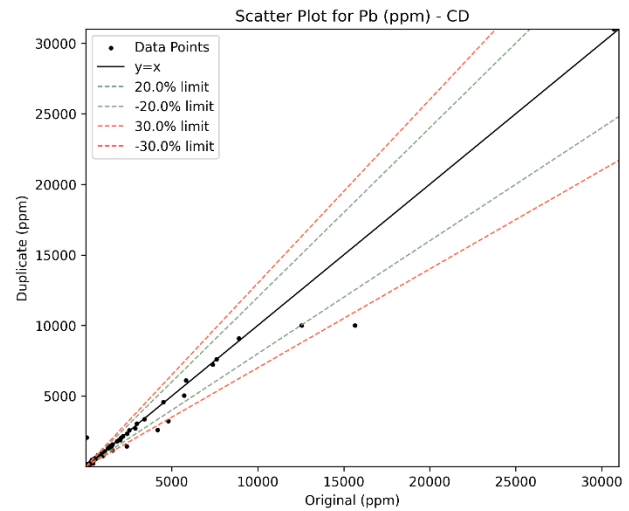
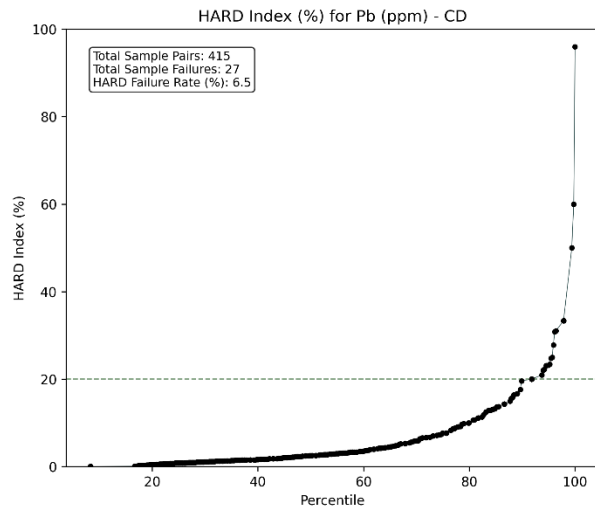
Coarse duplicate results showed accurate fits within a 20% threshold for silver, copper, lead, and zinc. Strong correlations were observed, and HARD rates for these elements remained below 10%. Three samples with zinc grades over 10,000 ppm (detection limit of primary method of analysis) were not rerun, and partial results are insufficient for comparison. The QP recommends using a subsequent assaying method to properly analyse samples that reach the detection limit of the primary method, which would provide proper data for comparison between coarse duplicate pairs.

Gold coarse duplicate pairs exhibit moderate scattering across all grade ranges, likely influenced by the deposit's nugget effect. HARD plots indicate that approximately 91% of the sample pairs are below a 30% relative difference, demonstrating acceptable precision levels for gold in coarse duplicates, as illustrated in Figure 11-7.



**Figure 11-7: Coarse Duplicate Scatter and HARD plots for Au-Ag-Cu-Pb-Zn (2008 to 2024)**





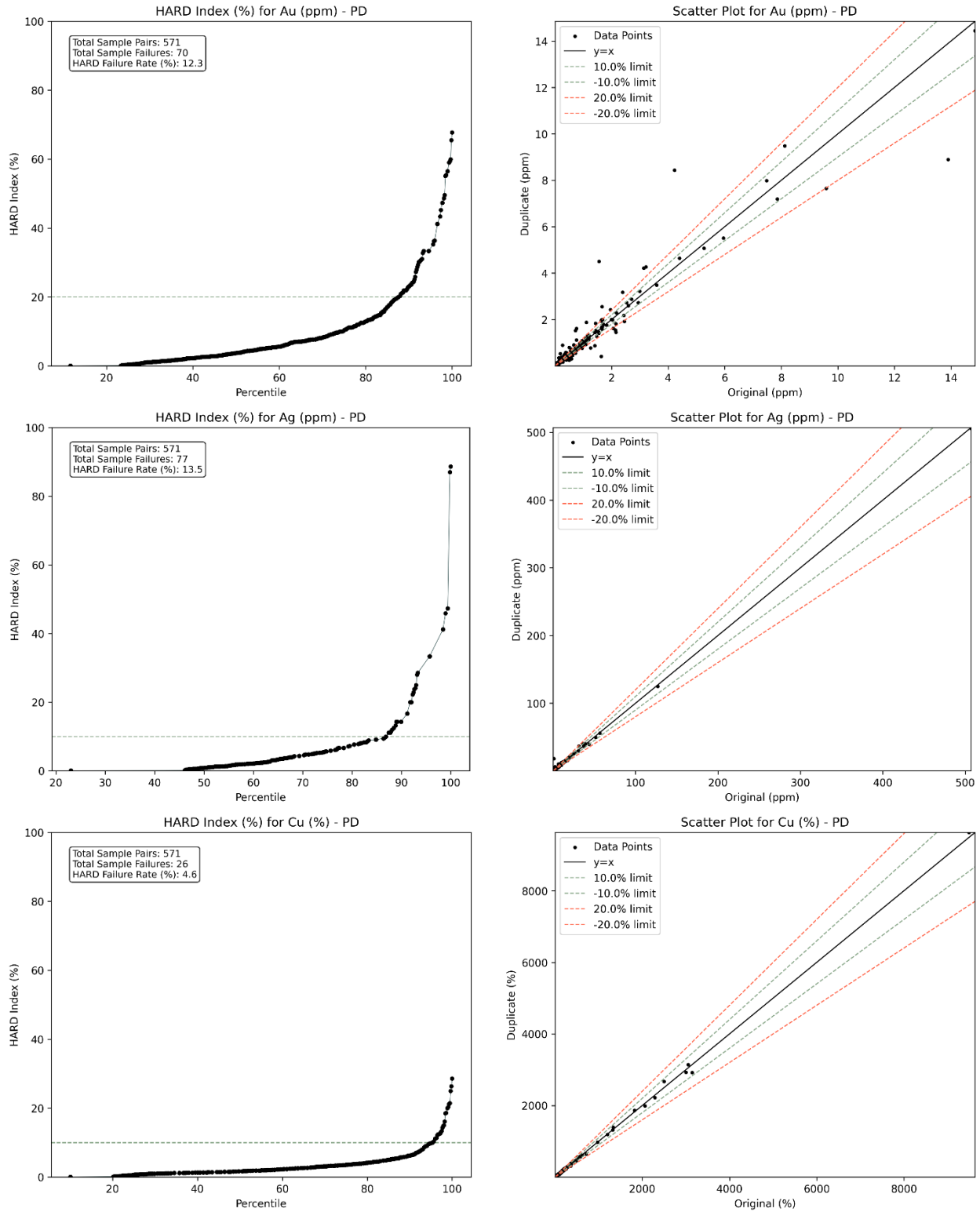
### 11.4.4.3 Pulp Duplicates

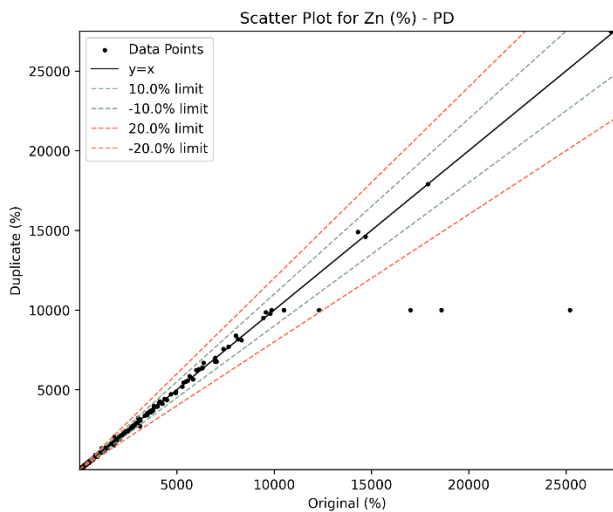
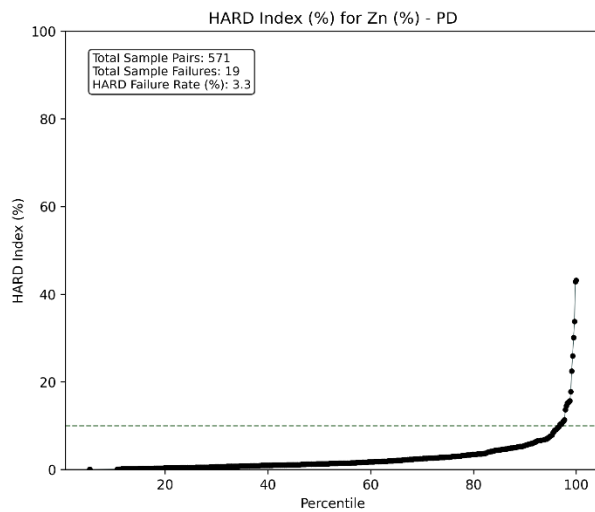
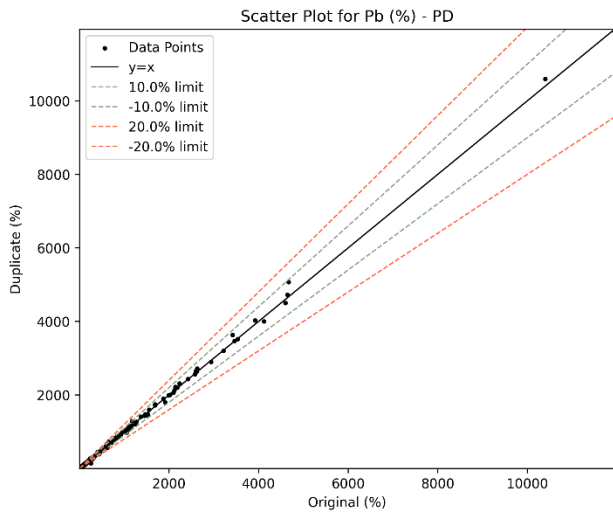
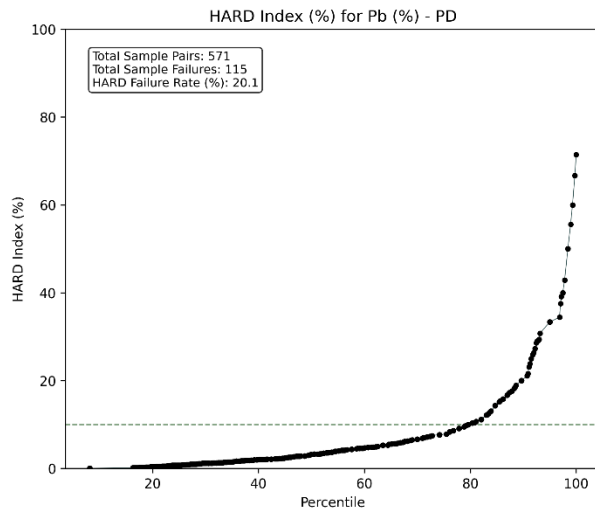
Pulp duplicate pairs displayed moderate dispersion for gold in the scatter plots, reinforcing the presence of a coarse gold effect. HARD plots show that 88% of the sample pairs are below a 20% relative error difference, which is considered an acceptable rate. The QP recommends implementing gold screen metallic fire assays within the existing analytical protocol to reduce variability in high-grade gold samples.

For silver, copper, lead, and zinc, excellent correlations were observed, with most results aligning closely to the 45-degree line, except for a few zinc samples with partial assay results, as illustrated in Figure 11-8.



**Figure 11-8: Pulp Duplicate Scatter and HARD plots for Au-Ag-Cu-Pb-Zn (2008 to 2024)**





### 11.4.5 Check Assays

Assayers Canada, an independent laboratory, conducted check assays on the same pulp samples previously assayed by ALS in 2008. A total of 152 check assays were selected from either drill core or RC pulp samples, which underwent fire assay for gold and ICP analysis for silver, copper, lead, and zinc.

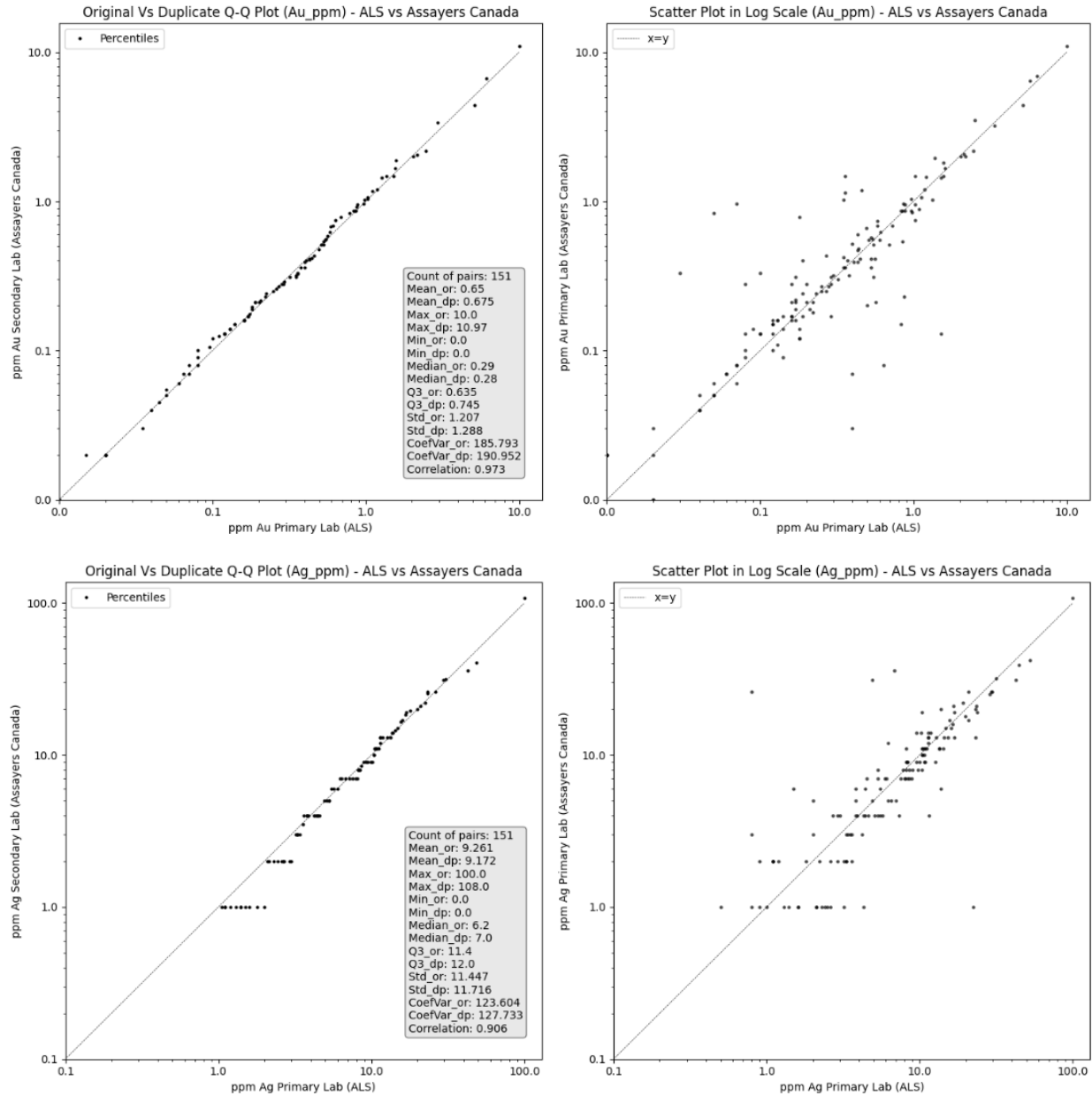
The check assay results exhibited considerable variability across all gold grade ranges (Figure 11-9, likely due to the coarse gold effect in the Camino Rojo deposit). Silver, lead, and zinc showed good correlations, although some scattering was observed in all elements, especially at lower concentration grades (less than 10 ppm Ag, and less than 400 ppm Zn and Pb).

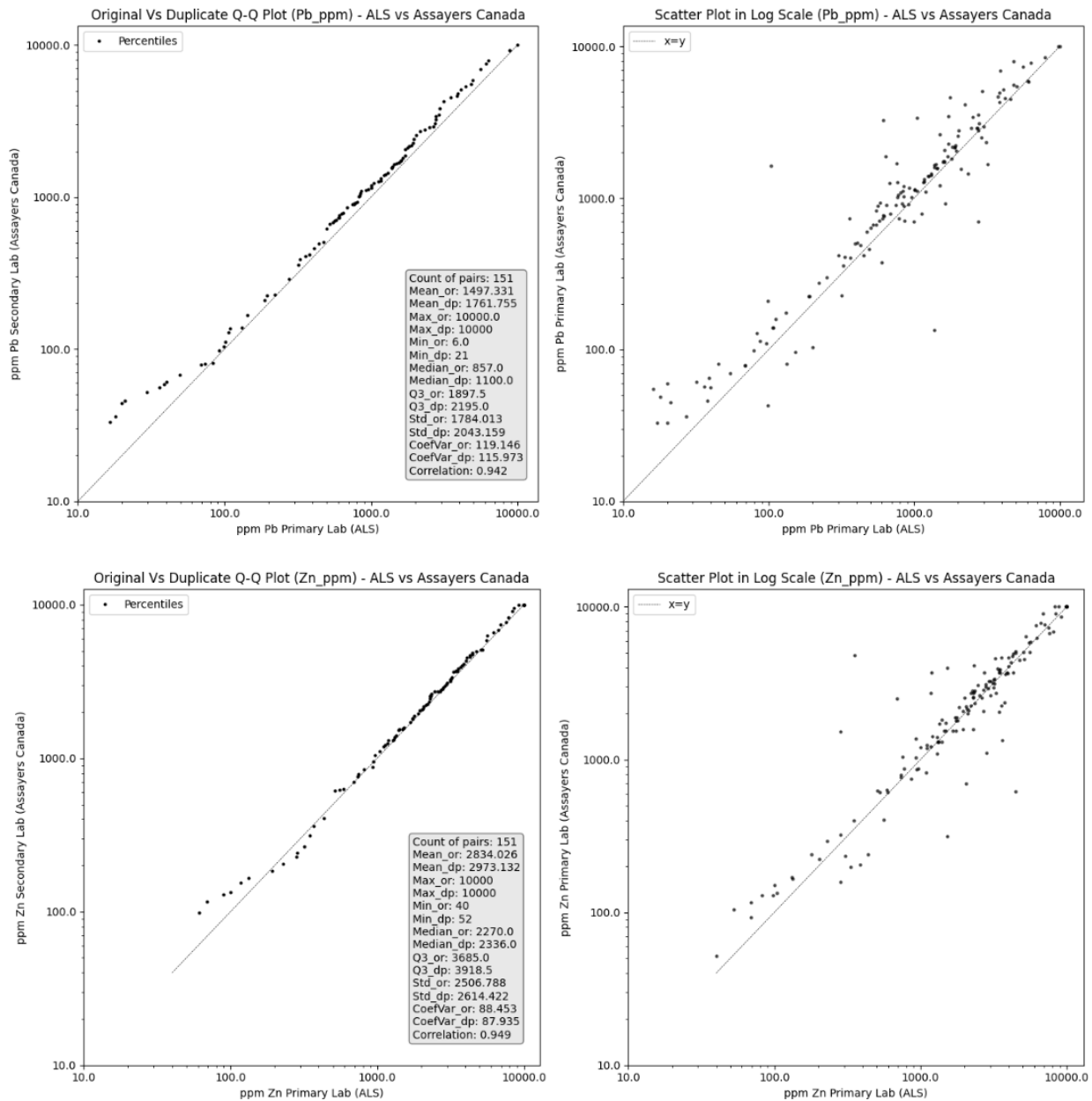
In 2019, an additional 48 pulp check assays from blasthole samples were submitted to Bureau Veritas, which returned strong correlations with the original ALS assay results.

The QP recommends implementing a periodic check assay program for drill hole samples at a third-party laboratory to continuously monitor the performance of the primary laboratory. The check assay programs should also include control samples.



**Figure 11-9: Check Assay Scatter and Q-Q plots: ALS vs. Assayers Canada (2007/2008)**





## 11.5 QA/QC Conclusions and Recommendations

The QP is of the opinion that the protocols in place have been improved during the recent drilling phases, and a more continuous correction of biases in a timely manner has been observed. In general, good performances were achieved from CRMs and blanks, and acceptable precision rates from duplicates, considering the gold nugget effect at the Project, however, some improvements are recommended for the QA/QC program, including revising the existing sample preparation protocol, as follows:

- 1 The sampling procedure for pulp duplicates, with an insertion rate of 1%, is adequate; however, the selection of samples should be non-random and specifically targeted to mineralized zones.



- 2 Change the sample preparation protocol from crushing to P<sub>70</sub> 2 mm to P<sub>90</sub> 2 mm and pulverize one kilogram samples to P<sub>85</sub> 75 microns, as evidence of coarse gold effect in duplicates is observed and confirmed by the recent gold screen metallic analysis undertaken on core duplicate samples.
- 3 Incorporate screen tests to explore gold reporting to different size fractions including screen meshes #2, #4, #10, and #150, to investigate the size distribution of the coarse gold fraction.
- 4 Continue gold screen metallic analysis for all sample types that report economic gold grades, including RC, blast hole, and core samples. Use the results to modify and optimize the sample preparation procedures accordingly.
- 5 Implement a check assay program with an umpire laboratory as a routine procedure, submitting pulp samples with representative grade distributions of the mineralization along with control samples.
- 6 Develop in-house reference standards for transitional and sulphide mineralization.
- 7 Continue to monitor QA/QC data to quickly identify and correct any deviations and keep detailed records of QA/QC procedures, tests, results, and corrective actions for accountability and traceability.



## 12.0 Data Verification

### 12.1 Mineral Resources

The SLR QP conducted cross-checks between the Camino Rojo assay database and ALS assay certificates, comparing values for Au, Ag, Pb, Cu, and Zn with the assay database records. The review found no significant discrepancies.

A detailed review encompassed a total of 607 drill holes, using data from 3,087 assay certificates spanning from 2007 to 2024, which included 225,444 core samples. Additionally, data from 135 RC drill holes were reviewed, comprising 171 certificates, with 16,337 samples cross-checked. Overall, the SLR QP verified 93% of the core and RC assays in the drill hole database.

Only minor discrepancies were detected during the cross-checking of drill hole samples, including seventeen samples from drill hole CRSX22-13, showing inconsistencies in gold values between the original certificate ZA22369755 and the database entries under certificate ZA23028924. Both certificates have identical gold grades, which differ from those in the assay database. It is recommended to investigate these discrepancies and correct them accordingly in the assay database. Conversely, values for other elements were consistent with the original certificates.

For the RC samples, nine minor discrepancies were found exclusively with Pb overlimit measurements. Despite these findings, the discrepancies were deemed non-material due to the overall similarity between the certificate and database values.

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

**Table 12-1: Summary of Assay Verification for Gold, Silver, Copper, Lead and Zinc**

Drilling Type	Year	No. Samples*	No. Samples Compared	% Samples Compared	N Discrepancies				
					Au	Ag	Cu	Pb	Zn
RC	2007	1,440	1,433	100%	-				
	2008	9,047	8,986	99%	-	-	-	-	-
	2011	3,721	3,651	98%	-	-	-	-	-
	2012	671	665	99%	-	-	-	-	-
	2014	186	183	98%	-	-	-	-	-
	2018	826	819	99%	-	-	-	-	-
	2022	605	600	99%	-	-	-	-	-
DDH	Historical	15,797	-	-	-	-	-	-	-
	2008	8,044	8,044	100%	-	-	-	-	-
	2011	26,729	26,729	100%	-	-	-	-	-
	2012	24,976	24,976	100%	-	-	-	-	-
	2013	55,502	55,502	100%	-	-	-	-	-
	2014	66,236	66,066	100%	-	-	-	-	-



Drilling Type	Year	No. Samples*	No. Samples Compared	% Samples Compared	N Discrepancies				
					Au	Ag	Cu	Pb	Zn
	2015	9,329	9,329	100%	-	-	-	-	-
	2018	626	626	100%	-	-	-	-	-
	2021	2,441	2,441	100%	-	-	-	-	-
	2022	3,350	3,350	100%	-	-	-	-	-
	2023	16,352	16,056	98%	18	-	-	-	-
	2024	14,032	12,280	88%	-	-	-	-	-
	2025	45	45	100%	-	-	-	-	-
<b>Total RC and Core</b>		<b>259,955</b>	<b>241,781</b>	<b>93%</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>-</b>

Notes:

(\*) This number of samples accounts for valid gold values and excludes empty values.

## 12.2 Mineral Reserves

The Orla QP for Mineral Reserves prepared checklists for the open-pit Mineral Reserves process to ensure that all relevant aspects have been considered in the estimations and workflow. The checklists include a list of factors to consider, based on the CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2019) and are completed and signed for every Mineral Reserves update by the Qualified Persons and reviewers.

## 12.3 Metallurgical Testing and Recovery Methods

The KCA QP reviewed the available metallurgical test work data supporting the metallurgical recoveries, production data, assumptions used in the LOM plan and reviewed sustaining and operating cost forecasts for the process plant. Additionally, during the site visit the KCA QP reviewed the heap leach and processing facilities, reviewed laboratory operating procedures and met with site metallurgists to discuss metallurgical accounting methods.

The BCR QP reviewed the available metallurgical test work data supporting the metallurgical recoveries used for the Sulphide portion of the Mineral Resource estimate.



## 13.0 Mineral Processing and Metallurgical Testing

### 13.1 Heap Leach and Cyanidation Test Work

The Project is currently in operation as an open pit mine with a heap leach operation for recovery of gold and silver values. Historical metallurgical test work programs on material from the Project that were commissioned by the prior operators, Canplats and Goldcorp, between 2009 and 2015, as well as test work programs carried out by Orla between 2019 and 2020, evaluated the amenability of the material to heap leaching for the recovery of gold and silver. These test work programs are summarized in Table 13-1. Since the start of operations in 2021, routine column and bottle roll leach tests have been completed on monthly production composites at Camino Rojo’s onsite lab.

**Table 13-1: Summary of Camino Rojo Test Programs**

Report	Provider	Sponsor	Description
An Investigation into the Amenability of 21 Camino Rojo Samples to Leaching & Flotation Processes, August 2009	SGS Mineral Services	Canplats	Bottle Roll, Column Leach and Flotation Test Work on Drill Core Samples of Oxide, Sulphide and Transition Material
Camino Rojo Project Report on Metallurgical Test Work, April 2010	KCA	Canplats	Cyanide shake tests on individual core intervals and column leach testing and characterization (whole rock analysis, multi-element analysis, percolation and agglomeration) on 16 composite samples of Oxide, Sulphide and Transition Material
Camino Rojo Project Report on Metallurgical Test Work, May 2012	KCA	Goldcorp	Head analyses, bottle roll leach testing, agglomeration testing and column leach testing on 14 composite samples from half split HQ core.
Camino Rojo Final Report, March 2014	Blue Coast Research	Goldcorp	Variability on small scale gravity, flotation and leach testing plus flotation flowsheet development and mineralogical analysis
Camino Rojo Variability, May 2014	Hazen Research	Goldcorp	Grinding, flotation and cyanide leaching tests on sulphide and transition material
Camino Rojo Project Report on Metallurgical Test Work, October 2014	KCA	Goldcorp	Direct and carbon-in-leach (CIL) bottle roll tests on 34 cut and broken core intervals from eight drill holes
Camino Rojo Project Report on Metallurgical Test Work, August 2015	KCA	Goldcorp	Head analyses, preg-robbing test work, direct and CIL bottle roll leach tests and column leach tests on 13 composites from broken HQ core



Report	Provider	Sponsor	Description
Camino Rojo Project Kp, Ki, TrSx(H), TrHi and TrLo Composites Report on Metallurgical Test Work, June 2019	KCA	Orla	Head analyses, physical characterization, bottle roll leach tests, agglomeration tests, column leach tests and diagnostic leach tests on composite samples from PQ core material
Camino Rojo Project TrLo Composite (AAO) Report of Metallurgical Test Work, December 2020	KCA	Orla	Preliminary oxidative treatment work to evaluate alkaline atmospheric oxidation (AAO) as a pre-treatment for heap leach material

### 13.1.1 Heap Leach and Cyanidation Test Work (2009–2020)

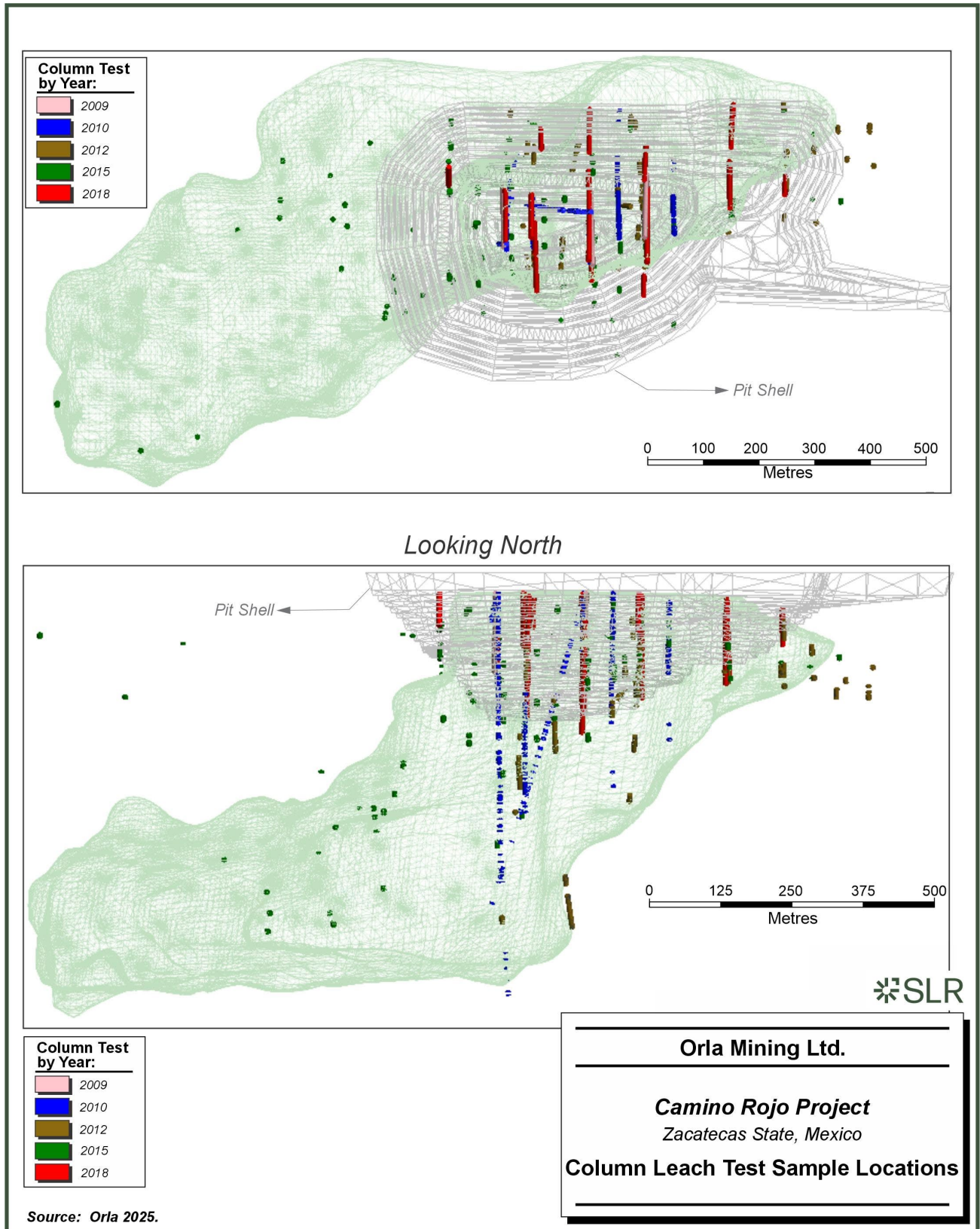
Heap leach and cyanidation test work completed between 2009 and 2019 includes 107 column leach tests and 164 bottle roll leach tests. This test work formed the recovery estimates for gold and silver and reagent requirements for the Camino Rojo operation. Only tests on representative samples were used for the recovery analysis; this included 85 column leach tests (41 on oxide material with pervasive potassic alteration (KpOx material), seven on oxide material with incipient potassic or phyllic alteration (KiOx), 16 on Trans-Hi (or TrHi) material, and 21 Trans-Lo (or TrLo) material) and 54 bottle roll leach tests with direct correlations with the column leach tests.

Sample locations for the historical heap leach test work are presented in Figure 13-1.

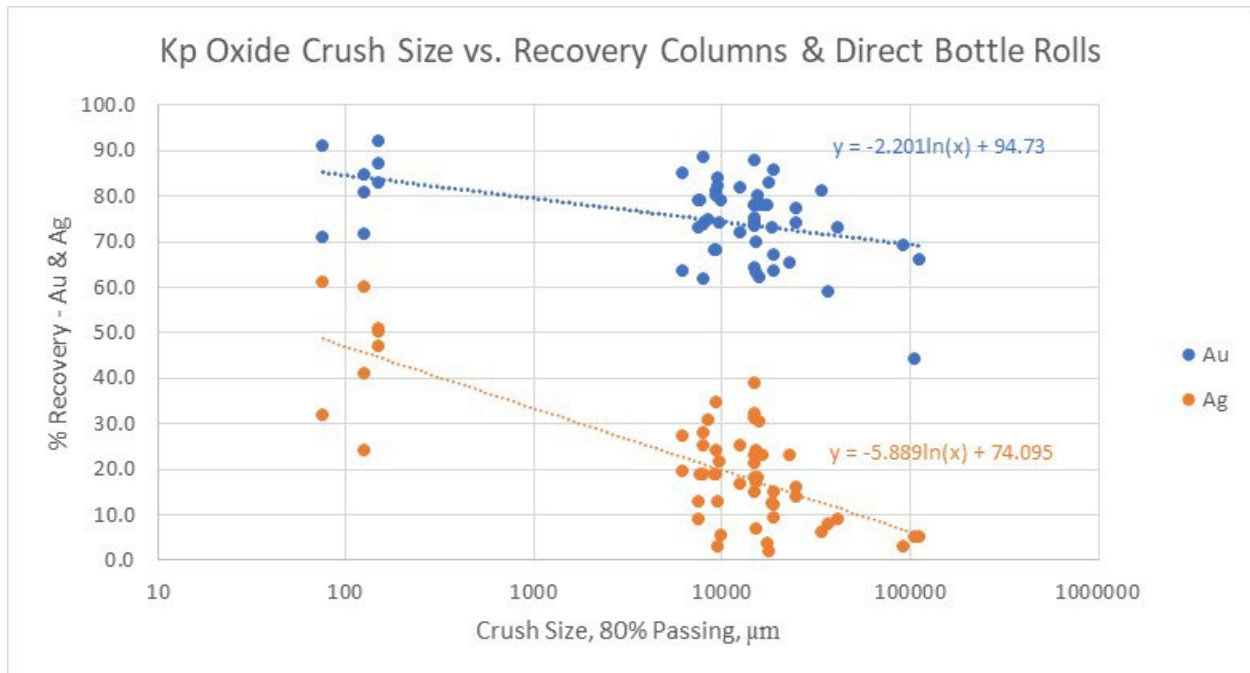
Recoveries for gold and silver versus the 80% passing material crush size for KpOx, KiOx, Trans-Hi, and transition low (Trans-Lo) material are presented in Figure 13-2 through Figure 13-5, respectively.



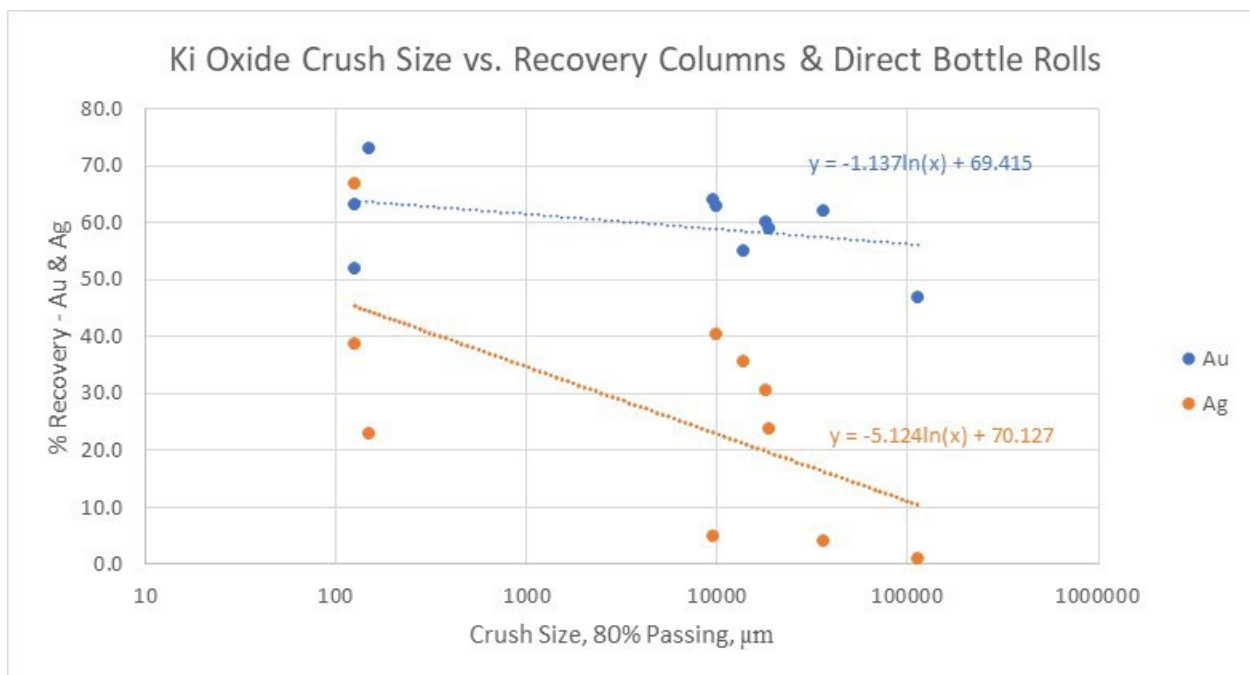
**Figure 13-1: Column Leach Test Sample Locations**



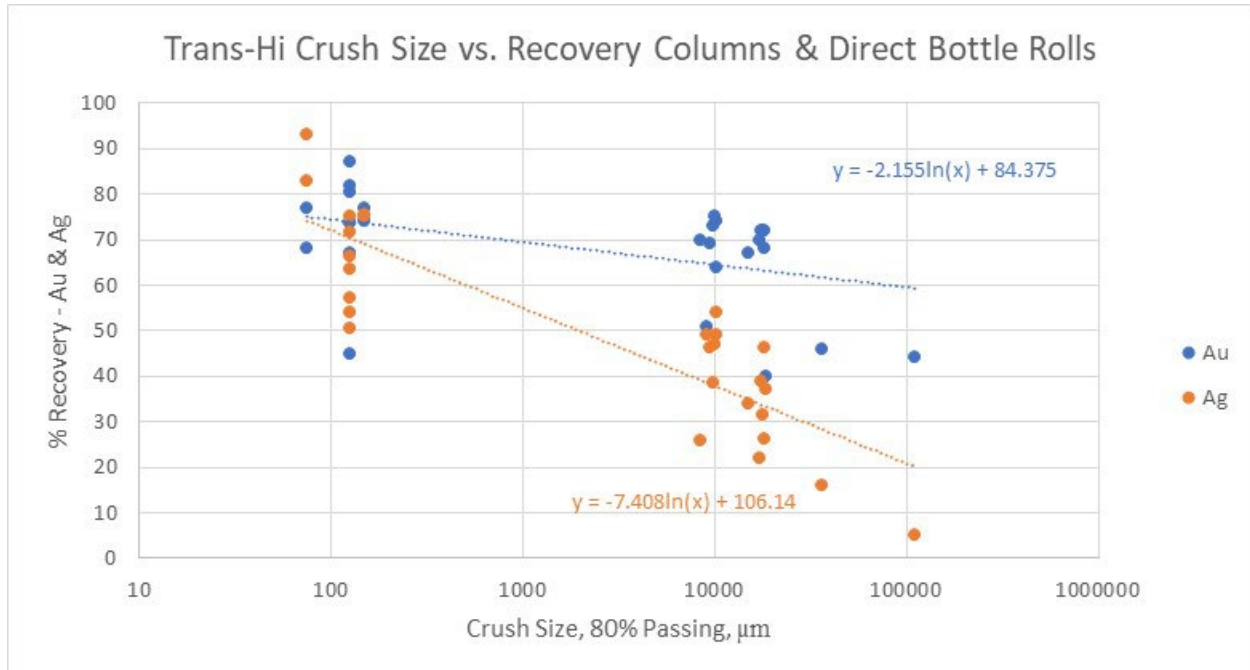
**Figure 13-2: KpOx Recovery vs. Crush Size**



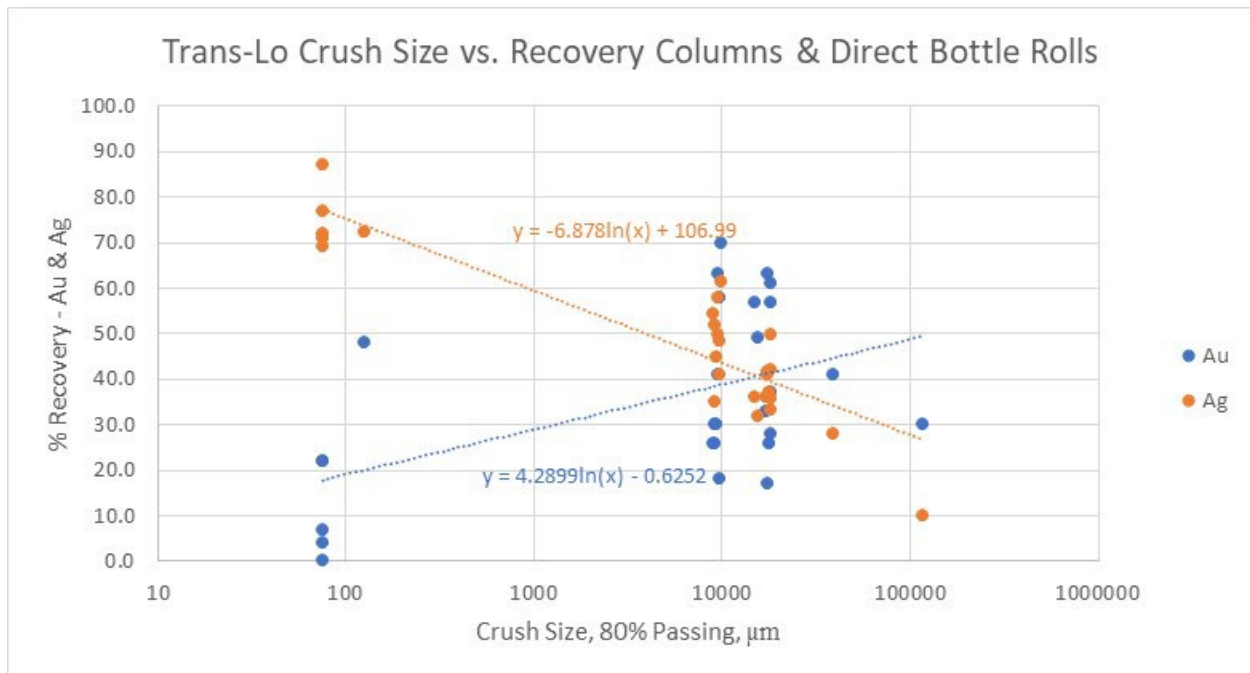
**Figure 13-3: KiOx Recovery vs. Crush Size**



**Figure 13-4: TrHi Recovery vs. Crush Size**



**Figure 13-5: TrLo Recovery vs. Crush Size**



Results from the historical test work generally showed improved recoveries with finer crushing with decreasing recovery improvements for gold at crush sizes finer than  $P_{80}$  25 mm. Silver recoveries were significantly more sensitive to crush size than gold recoveries.

A crushed product size of 100% passing 38 mm ( $P_{80}$  approximately 28 mm) was selected to minimize crushing requirements and recover most of the recoverable gold and silver. Estimated



recoveries by material type at P<sub>80</sub> 28 mm, including a 2% field deduction for gold and 3% field deduction for silver, from the historical test work is presented in Table 13-2.

**Table 13-2: Estimated Recoveries by Material Type for P<sub>80</sub> 28 mm Crush Size**

Material Type	Au	Ag
KpOx	70%	11%
KiOx	56%	15%
Trans-Hi (TrHi)	60%	27%
Trans-Lo (TrLo)	40%	34%

Cyanide consumption and minimum lime addition were calculated based on the averages from the column leach tests and are presented in Table 13-3 and Table 13-4, respectively. Field cyanide consumptions were estimated at 35% of the lab consumptions.

**Table 13-3: Projected Field Cyanide Consumptions by Material Type**

Material Type	NaCN Cons. (kg/t)
KpOx	0.32
KiOx	0.38
Trans-Hi (TrHi)	0.37
Trans-Lo (TrLo)	0.37
Wt. Avg., All	0.35

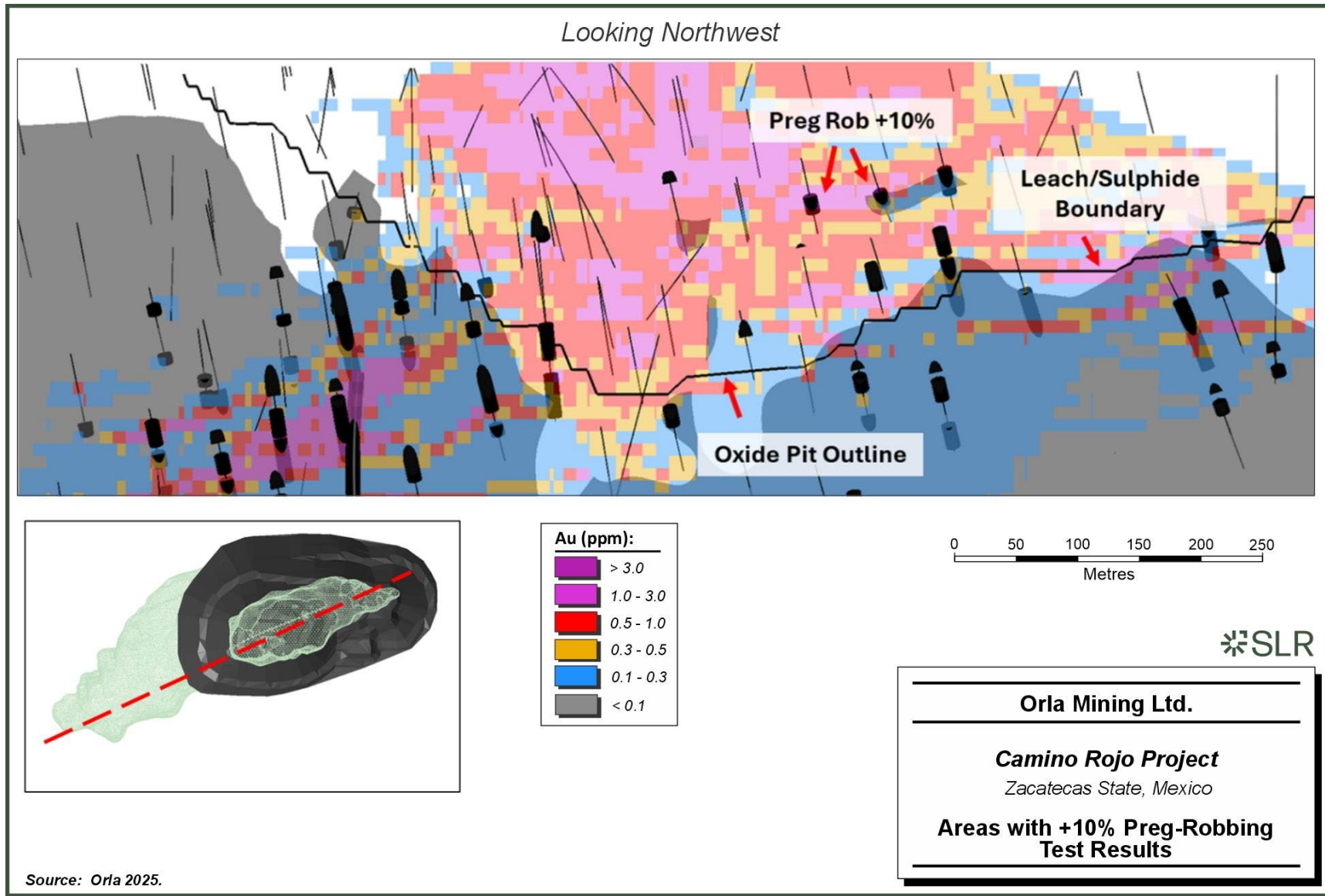
**Table 13-4: Projected Field Lime Consumptions by Material Type**

Material Type	Quicklime Cons. kg/t
KpOx	1.26
KiOx	1.16
Trans-Hi (TrHi)	1.24
Trans-Lo (TrLo)	1.32
Wt. Avg. All	1.25

Preg-robbing material was identified in some the historical test work and presents a low to moderate risk to the overall Project. A detailed investigation by Orla into the preg-robbing material along with preg-robbing test work completed by KCA indicated that the preg-robbing material will most likely not be encountered until later in the Project life and can be mitigated by proper ore control. Identified preg-robbing material with respect to the pit is presented in Figure 13-6.



**Figure 13-6: Areas with +10% Preg-Robbing Test Results**



Key results and design parameters from the 2009–2019 test work are as follows:

- Crush size of 100% passing 38 mm (P<sub>80</sub> 28 mm).
- Estimated gold recoveries (including 2% field deduction) of:
  - 70% for KpOx
  - 56% for KiOx
  - 60% for Trans-Hi (TrHi)
  - 40% for Trans-Lo (TrLo)
- Estimated silver recoveries (including 3% field deduction) of:
  - 11% for KpOx
  - 15% for KiOx
  - 27% for Trans-Hi (TrHi)
  - 34% for Trans-Lo (TrLo)
- Design leach cycle of 80 days
- Agglomeration with cement not required for permeability or stability
- Average cyanide consumption of 0.35 kg/t ore
- Average lime consumption of 1.25 kg/t ore

### 13.1.2 Alkaline Atmospheric Oxidation Test Work (2020)

Results from the 2020 KCA test work program summarized herein were extracted from the KCA laboratory report titled “Camino Rojo Project TrLo Composite (AAO) Report of Metallurgical Test Work” dated December 2020 (KCA 2020).

Preliminary oxidative treatment test work was conducted by KCA in 2020 to evaluate an alkaline atmospheric oxidation (AAO) process as a pre-treatment for heap leach material. The AAO process is designed to oxidize sulphide material by agglomerating the material with cement and soda ash and circulating an alkaline solution through the material along with air sparging. The alkaline solution is circulated for several weeks before being rinsed with water followed by normal cyanide leaching. The preliminary AAO test program included two column leach tests on Trans-Lo material crushed to -9.5 mm (one with AAO pre-treatment and one without). Results for the AAO column leach tests are presented in Table 13-5.

**Table 13-5: AAO Column Leach Test Results**

KCA Sample No.	Description	Calculated Head (g/t Au)	Extracted (g/t Au)	Weighted Avg. Tail Screen (g/t Au)	Extracted (% Au)	Calc'd Head (g/t Ag)	Extracted (g/t Ag)	Weighted Avg. Tail Screen (g/t Ag)	Extracted (% Ag)	Calc'd Tail P <sub>80</sub> Size (mm)	Days of Leach	Cons. NaCN (kg/Mt)	Addition Cement (kg/Mt)
85104 A	TrLo Composite (AAO)	0.896	0.624	0.272	70%	18.15	11.77	6.38	65%	6.11	105	2.32	4.03
85104 A	TrLo Composite	0.847	0.516	0.331	61%	18.68	11.71	6.97	63%	7.08	97	2.74	4.07

Notes:  
 Calc'd: Calculated

KCA Sample No.	Description	Calculated Head (g/t Au)	Extracted (g/t Au)	Weighted Avg. Tail Screen (g/t Au)	Extracted (% Au)	Calc'd Head (g/t Ag)	Extracted (g/t Ag)	Weighted Avg. Tail Screen (g/t Ag)	Extracted (% Ag)	Calc'd Tail P <sub>80</sub> Size (mm)	Days of Leach	Cons. NaCN (kg/Mt)	Addition Cement (kg/Mt)
Cons.: Consumption													

The AAO pre-treated column achieved 11% higher recovery compared to the column without pre-treatment suggesting that there may be an opportunity to increase recoveries on transition and mixed sulphide material with AAO pre-treatment. Additional test work is required to confirm these results and optimize reagent requirements for the process and will need to be completed before any evaluations of potential economic benefits can be made.

### 13.1.3 Production Column and Bottle Roll Test Work

Since October 2021, routine bottle roll and column leach tests have been completed on composites from the crushed product overland conveyor. Bottle roll tests are typically performed on weekly and monthly composites, and column tests are performed on monthly composites in duplicate. As of the end of March 2025, 106 column leach tests have been completed or are in progress along with 245 bottle roll leach tests.

For the column leach tests, the composite samples are screened to determine the P<sub>80</sub> crush size, assayed for gold and silver, then leached for approximately 90 days. Results for the 82 completed columns are presented in Table 13-6.

**Table 13-6: Monthly Production Composite Column Leach Tests**

Identification	Crush Size (mm)	Head Assay (g/t)		Calculated Head (g/t)		Tails Assay		Days of Leach	Metal Extraction (g/t)		Consumption		% Recovery	
		Au	Ag	Au	Ag	Au	Ag		Au	Ag	CN	Lime	%Au	%Ag
Oct-21 prueba 1	38.6	0.607	14.74	0.624	11.65	0.195	11.22	97	0.429	0.43	627	1,250	68.8	3.7
Oct-21 prueba 2	38.6	0.607	14.74	0.642	11.04	0.184	10.53	97	0.457	0.51	580	1,250	71.3	4.6
Nov-21 prueba 1	38.2	0.642	8.58	0.724	11.39	0.216	11.09	97	0.509	0.30	488	1,250	70.2	2.6
Nov-21 prueba 2	38.2	0.642	8.58	0.821	11.90	0.276	11.62	97	0.545	0.28	670	1,250	66.4	2.3
Dic-21 prueba 2	23.6	0.859	14.33	0.821	12.39	0.307	12.13	87	0.514	0.26	632	1,250	62.6	2.1
Dic-21 prueba 2	22.8	0.859	14.33	0.803	10.74	0.233	10.44	163	0.056	0.03	1,598	1,250	71.0	2.7
Dic-21 3/4" prueba 1	17.5	0.859	14.33	0.863	10.32	0.199	9.96	90	0.095	0.07	1,788	1,380	77.0	3.5
Ene-22 prueba 1	36.7	0.699	10.43	0.708	10.67	0.250	10.15	87	0.458	0.53	756	1,250	64.7	4.9
Ene-22 prueba 2	36.7	0.699	10.43	0.751	10.55	0.280	9.99	87	0.471	0.56	754	1,250	62.7	5.3
Feb-22 prueba 1	32.2	1.257	12.36	0.948	11.13	0.263	10.89	87	0.684	0.24	711	1,350	72.2	2.1
Feb-22 prueba 2	32.2	1.257	12.36	0.925	10.86	0.254	10.58	87	0.671	0.29	740	1,350	72.5	2.6
Mar-22 prueba 1	30.0	0.866	11.62	0.830	11.16	0.245	10.91	87	0.584	0.25	698	1,380	70.4	2.3
Mar-22 prueba 2	30.0	0.866	11.62	0.833	10.88	0.235	10.66	87	0.598	0.22	779	1,380	71.8	2.0
Abr-22 prueba 1	26.8	0.716	10.69	0.765	10.07	0.194	9.85	90	0.571	0.22	762	1,380	74.6	2.2
Abr-22 prueba 2	26.8	0.716	10.69	0.662	10.06	0.183	9.88	90	0.479	0.18	719	1,380	72.4	1.8
May-22 prueba 1	27.9	0.661	11.27	0.642	10.55	0.230	10.36	91	0.413	0.20	738	1,380	64.3	1.9
May-22 prueba 2	27.9	0.661	11.27	0.656	10.53	0.240	10.34	91	0.416	0.19	675	1,380	63.5	1.8
Jun-22 prueba 1	31.4	0.792	14.00	1.011	12.36	0.293	12.13	90	0.718	0.23	761	1,380	71.0	1.8
Jun-22 prueba 2	31.4	0.792	14.00	0.975	13.48	0.245	13.24	90	0.730	0.24	680	1,380	74.9	1.8
Jul-22 prueba 1	25.9	0.812	10.94	0.926	12.52	0.304	12.32	90	0.622	0.20	650	1,380	67.2	1.6
Jul-22 prueba 2	25.9	0.812	10.94	0.920	12.71	0.293	12.51	90	0.627	0.19	700	1,380	68.2	1.5
Ago-22 prueba 1	28.8	0.883	6.85	0.923	9.50	0.253	9.22	91	0.671	0.28	652	1,380	72.6	2.9
Ago-22 prueba 2	28.8	0.883	6.85	0.966	10.19	0.278	9.91	91	0.688	0.27	562	1,380	71.2	2.7



Identification	Crush Size (mm)	Head Assay (g/t)		Calculated Head (g/t)		Tails Assay		Days of Leach	Metal Extraction (g/t)		Consumption		% Recovery	
		Au	Ag	Au	Ag	Au	Ag		Au	Ag	CN	Lime	%Au	%Ag
Sep-22 prueba 1	27.1	0.889	8.26	0.807	10.13	0.189	9.88	90	0.618	0.25	426	1,380	76.5	2.5
Sep-22 prueba 2	27.1	0.889	8.26	0.803	9.33	0.203	9.05	90	0.599	0.28	423	1,380	74.7	3.0
Oct-22 prueba 1	33.6	0.775	11.18	0.872	9.57	0.257	9.42	90	0.615	0.15	533	1,380	70.5	1.6
Oct-22 prueba 2	33.6	0.775	11.18	0.813	9.40	0.245	9.26	90	0.568	0.14	567	1,380	69.8	1.5
Nov-22 prueba 1	28.9	0.694	13.96	0.811	12.32	0.184	11.99	90	0.627	0.32	611	1,380	77.3	2.6
Nov-22 prueba 2	28.9	0.694	13.96	0.862	12.33	0.204	11.99	90	0.658	0.34	450	1,380	76.3	2.7
Dic-22 prueba 1	27.9	0.670	16.49	0.674	14.22	0.195	13.75	90	0.480	0.47	566	1,380	71.1	3.3
Dic-22 prueba 2	27.9	0.670	16.49	0.686	13.08	0.127	12.64	90	0.559	0.44	518	1,380	81.5	3.4
Ene-23 prueba 1	28.2	0.630	13.35	0.648	12.61	0.177	12.19	90	0.471	0.42	529	1,730	72.7	3.3
Ene-23 prueba 2	28.2	0.630	13.35	0.678	12.61	0.195	12.32	90	0.483	0.28	466	1,730	71.3	2.2
Feb-23 prueba 1	29.0	0.690	17.69	0.780	14.98	0.226	14.45	90	0.554	0.53	584	1,730	71.0	3.5
Feb-23 prueba 2	29.0	0.690	17.69	0.741	16.23	0.207	15.74	90	0.535	0.49	593	1,730	72.1	3.0
Mar-23 prueba 1	29.5	0.728	6.86	0.678	12.68	0.167	12.31	90	0.511	0.37	514	1,730	70.5	2.9
Mar-23 prueba 2	29.5	0.728	6.86	0.747	9.48	0.167	9.12	90	0.580	0.36	543	1,730	69.8	3.7
Abr-23 prueba 1	27.9	0.531	16.87	0.743	12.26	0.160	11.73	90	0.584	0.52	674	1,730	65.9	4.3
Abr-23 prueba 2	27.9	0.531	16.87	0.763	12.83	0.151	12.28	90	0.612	0.55	712	1,730	69.1	4.3
May-23 prueba 1	27.5	0.608	7.78	0.735	7.05	0.167	7.19	90	0.417	0.73	640	1,730	71.4	9.3
May-23 prueba 2	27.5	0.608	7.78	0.746	6.76	0.164	7.19	90	0.412	0.69	596	1,730	71.5	8.8
Jun -23 prueba 2	25.0	0.751	3.73	0.952	4.58	0.334	4.24	90	0.618	0.34	549	1,726	64.9	7.5
Jun-23 prueba 3	25.0	0.751	3.73	0.936	4.33	0.286	4.02	90	0.650	0.31	549	1,726	69.4	7.2
Jul -23 prueba 1	28.0	0.891	8.22	0.863	7.26	0.267	6.53	90	0.596	0.74	445	1,709	69.1	10.2
Jul-23 prueba 2	28.0	0.891	8.22	0.921	7.08	0.282	6.38	90	0.640	0.70	463	1,707	69.4	9.9
Pueba p80 23 mm 1	23.0	0.777	7.98	0.882	5.37	0.167	4.60	90	0.715	0.77	394	1,721	81.1	14.3
Pueba p80 23 mm 2	23.0	0.777	7.98	0.830	5.95	0.162	5.18	90	0.668	0.77	363	1,719	80.5	13.0



Identification	Crush Size (mm)	Head Assay (g/t)		Calculated Head (g/t)		Tails Assay		Days of Leach	Metal Extraction (g/t)		Consumption		% Recovery	
		Au	Ag	Au	Ag	Au	Ag		Au	Ag	CN	Lime	%Au	%Ag
Ago -23 prueba 1	23.7	0.861	5.67	0.883	5.90	0.171	5.03	90	0.712	0.87	338	1,696	80.6	14.8
Ago -23 prueba 2	23.7	0.861	5.67	0.925	4.87	0.190	4.14	90	0.734	0.73	289	1,699	79.4	15.0
Sep -23 prueba 1	24.9	0.772	6.06	0.961	6.35	0.211	5.63	90	0.751	0.72	537	3,631	78.1	11.3
Sep -23 prueba 2	24.9	0.772	6.06	0.960	6.19	0.199	5.43	90	0.761	0.76	482	3,606	79.2	12.3
Oct -23 prueba 1	24.3	0.678	7.99	0.694	7.76	0.167	6.59	90	0.527	1.17	177	4,275	75.9	15.0
Oct -23 prueba 2	24.3	0.678	7.99	0.709	8.52	0.193	7.45	90	0.516	1.07	273	4,208	72.8	12.6
Sep-23 prueba 3	24.3	0.427	8.28	0.585	7.27	0.126	6.41	90	0.460	0.86	275	1,853	78.5	11.9
Jul -23 prueba 3	24.3	0.649	5.44	0.670	6.39	0.182	5.78	90	0.487	0.60	339	1,930	72.8	9.4
Nov -23 prueba 1	24.5	0.569	10.40	0.678	6.49	0.192	5.92	90	0.486	0.57	235	4,197	71.7	8.8
Nov -23 prueba 2	24.5	0.569	10.40	0.693	6.30	0.134	5.49	90	0.559	0.81	218	4,161	80.6	12.9
Dic -23 prueba 1	26.4	0.748	6.22	0.643	5.10	0.171	3.89	90	0.472	1.20	217	4,141	73.5	23.6
Dic -23 prueba 2	26.4	0.748	6.22	0.617	5.24	0.128	3.955	90	0.489	1.29	222	4,130	79.3	24.6
Ene -24 prueba 1	29.3	0.755	10.27	0.812	10.324	0.201	8.288	90	0.612	2.04	254	1,968	75.3	19.7
Ene -24 prueba 2	29.3	0.755	10.27	0.793	10.934	0.182	9.021	90	0.611	1.91	282	1,930	77.0	17.5
Feb -24 prueba 1	25.1	0.660	16.43	0.622	11.709	0.091	8.929	90	0.532	2.78	316	1,884	85.4	23.7
Feb -24 prueba 2	25.1	0.660	16.43	0.605	14.693	0.090	12.024	90	0.515	2.67	322	1,900	85.2	18.2
Mar-24 prueba 1	26.1	0.747	20.47	0.657	12.345	0.142	8.545	90	0.514	3.80	352	1,917	78.3	30.8
Mar-24 prueba 2	26.1	0.747	20.47	0.681	15.471	0.170	11.775	90	0.512	3.70	357	1,978	75.1	23.9
Abr-24 prueba 1	24.7	0.664	8.05	0.730	7.973	0.186	6.727	90	0.544	1.25	269	1,996	74.5	15.6
Abr-24 prueba 2	24.7	0.664	8.05	0.749	8.534	0.194	7.174	90	0.555	1.36	332	1,986	74.1	15.9
May-24 prueba 1	24.7	0.521	17.52	0.783	14.537	0.203	11.358	90	0.579	3.18	360	2,069	74.0	21.9
May-24 prueba 3	24.7	0.521	17.52	0.804	12.626	0.226	9.339	90	0.578	3.29	503	2,008	71.9	26.0
Jun-24 prueba 1	24.5	0.673	8.85	0.824	10.802	0.248	7.870	90	0.576	2.93	509	1,757	69.9	27.1
Jun-24 prueba 2	24.5	0.673	8.85	0.813	11.590	0.222	8.531	90	0.591	3.06	377	1,856	72.7	26.4
Jul-24 prueba 1	24.6	1.052	12.76	1.021	10.364	0.235	8.191	90	0.786	2.17	479	1,870	77.0	21.0



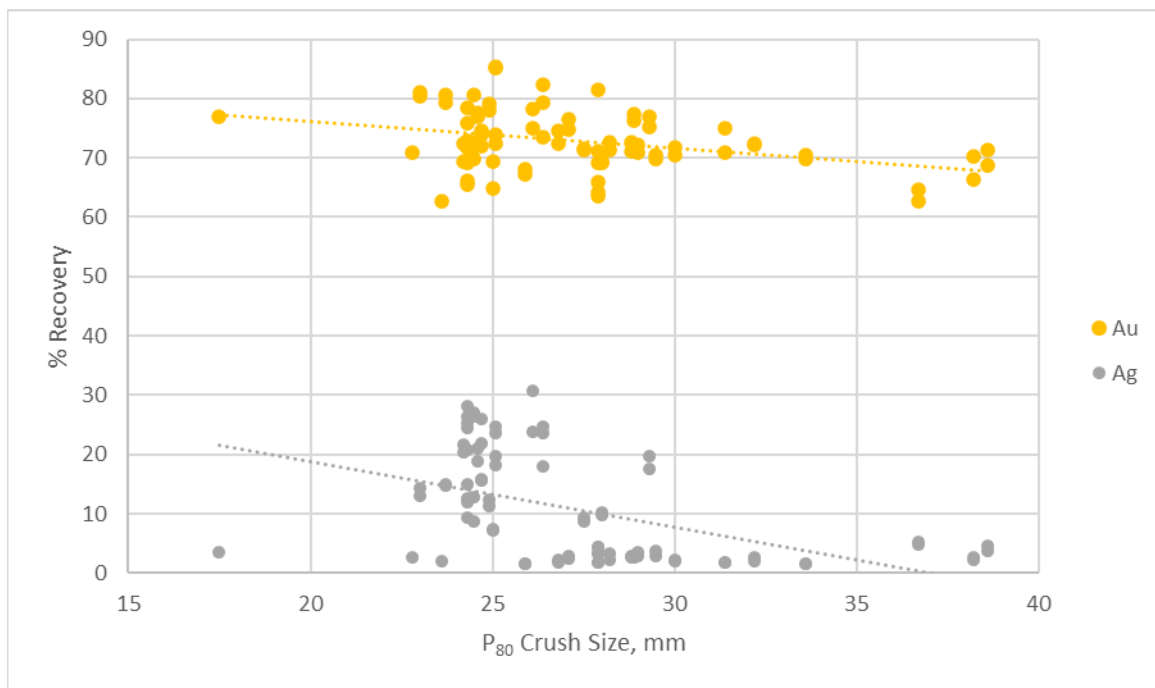
Identification	Crush Size (mm)	Head Assay (g/t)		Calculated Head (g/t)		Tails Assay		Days of Leach	Metal Extraction (g/t)		Consumption		% Recovery	
		Au	Ag	Au	Ag	Au	Ag		Au	Ag	CN	Lime	%Au	%Ag
Jul-24 prueba 2	24.6	1.052	12.76	1.026	11.961	0.231	9.698	90	0.795	2.26	424	1,861	77.5	18.9
Ago-24 prueba 1	25.1	0.658	11.36	0.692	11.102	0.181	8.901	90	0.512	2.20	472	1,808	73.9	19.8
Ago-24 prueba 2	25.1	0.658	11.36	0.717	10.461	0.197	7.893	90	0.519	2.57	505	1,831	72.5	24.6
Sep-24 prueba 1	24.3	0.703	11.87	0.869	10.675	0.246	8.057	90	0.623	2.62	523	1,810	71.7	24.5
Sep-24 prueba 2	24.3	0.703	11.87	0.879	12.519	0.248	9.912	90	0.630	2.61	522	1,779	71.7	20.8
Oct-24 prueba 1	24.3	0.990	18.53	0.883	12.478	0.304	9.190	90	0.579	3.29	531	2,031	65.5	26.4
Oct-24 prueba 2	24.3	0.990	18.53	0.847	14.007	0.260	10.462	90	0.586	3.54	514	2,046	69.2	25.3
Oct-24 prueba 3	24.3	0.990	18.53	0.921	12.600	0.312	9.050	90	0.610	3.55	1,711	2,921	66.2	28.2
Nov-24 prueba 1	24.2	0.724	15.69	0.796	14.381	0.220	11.462	90	0.576	2.92	492	1,789	72.4	20.3
Nov-24 prueba 2	24.2	0.724	15.69	0.840	14.713	0.257	11.524	90	0.583	3.19	532	1,797	69.4	21.7



The average recoveries for gold and silver from the monthly composite column leach tests are 72.8% and 10.8%, respectively. To date, approximately 84% of the ore processed (including the heap leach pad overliner) has been classified as KpOx material and 13% KiOx material, and these recovery estimates are in line with the previous recovery estimates for gold and lower than expected for silver. Similar to the previous test work, the production column test work shows a slight correlation between crush size and recovery with higher recoveries at finer product sizes, as shown in Figure 13-7.

Lime addition for the production column leach tests averaged 1.9 kg/t; cyanide consumptions averaged 0.55 kg/t, which corresponds to an estimated field consumption of 0.19 kg/t. Compared to the historical estimates, the production cyanide consumption is lower than predicted and the lime addition is higher.

**Figure 13-7: Production Column Leach Tests Crush Size vs. Recovery**



For the bottle roll tests, 96-hour leach tests are typically performed on weekly and monthly composites on material as received from the crushing circuit or further crushed to 9.5 mm (3/8"). The average gold recovery for the bottle roll tests was 61.5% and the average silver recovery was 31.5%. Gold recoveries were consistently lower compared to the column leach tests on the same material with significantly higher silver recoveries in the bottle roll tests. It is the QP's opinion that the lower gold recoveries are a function of the reduced leach time compared to the column tests; it is unclear why the silver recoveries are significantly higher. Average monthly column composite recoveries versus recoveries for monthly bottle roll composites are shown in Table 13-7.



**Table 13-7: Average Monthly Production Column Recoveries vs. Monthly Composite Bottle Roll Recoveries**

Month	Column Recovery, %		Bottle Roll Recovery, %	
	Au	Ag	Au	Ag
Oct-21	70.0	4.2	47.2	12.8
Nov-21	68.3	2.5	39.8	12.6
Dec-21	66.8	2.4	59.7	19.5
Jan-22	63.7	5.1	36.2	21.5
Feb-22	72.4	2.4	40.5	23.0
Mar-22	71.1	2.1	47.9	24.3
Apr-22	73.5	2.0	52.5	25.4
May-22	73.5	2.0	40.1	18.9
Jun-22	72.9	1.8	62.0	38.9
Jul-22	67.7	1.6	75.1	41.5
Aug-22	71.9	2.8	69.0	24.7
Sep-22	75.6	2.7	67.8	29.4
Oct-22	70.2	1.6	71.8	24.6
Nov-22	76.8	2.7	63.9	25.2
Dec-22	76.3	3.3	68.8	39.8
Jan-23	72.0	2.8	61.6	37.8
Feb-23	71.6	3.3	68.5	27.1
Mar-23	70.2	3.3	69.4	34.8
Apr-23	67.5	4.3	71.2	34.7
May-23	71.4	9.0	76.7	37.7
Jun-23	67.1	7.3	60.1	30.0
Jul-23	69.3	10.0	66.5	31.6
Aug-23	80.0	14.9	75.5	25.8
Sep-23	78.6	11.8	64.8	19.3
Oct-23	74.4	13.8	62.7	23.5
Nov-23	76.2	10.8	60.6	26.4
Dec-23	76.4	24.1	62.4	33.0
Jan-24	76.2	18.6	56.2	34.0
Feb-24	85.3	21.0	73.8	34.2
Mar-24	76.7	27.4	72.5	39.3
Apr-24	74.3	15.8	66.5	33.8



Month	Column Recovery, %		Bottle Roll Recovery, %	
	Au	Ag	Au	Ag
May-24	73.0	24.0	77.3	39.4
Jun-24	71.3	26.8	58.0	41.3
Jul-24	77.3	20.0	63.7	26.2
Aug-24	73.2	22.2	61.4	34.3
Sep-24	71.7	22.7	55.3	39.8
Oct-24	67.0	26.6	58.3	36.9
Nov-24	70.9	21.0	55.2	36.0

### 13.1.4 Heap Leach and Cyanidation Test Work Conclusions

Based on the results of the previous and ongoing site production test data, along with site production data presented in Section 17.2, the QP recommends the following updated key design parameters for heap leaching:

- Crush size of 100% passing 35 mm ( $P_{80}$  25mm).
- Estimated gold recoveries (including 2% field deduction) of:
  - 70% for KpOx
  - 56% for KiOx
  - 60% for Trans-Hi
  - 40% for Trans-Lo
- Estimated silver recoveries (including 3% field deduction) of:
  - 11% for KpOx
  - 15% for KiOx
  - 27% for Trans-Hi
  - 34% for Trans-Lo
- Design leach cycle of 90 days.
- Average cyanide consumption of 0.30 kg/t ore.
- Average lime consumption of 4.0 kg/t ore.
- Preg-robbing has not been a material issue during production and is not expected to present any significant risks to the project.

The updated production parameters consider using the same recoveries for gold and silver as the previous estimates. Realized recoveries for gold are in close agreement with the predicted recoveries and are supported by the onsite production column results. Silver recoveries, both realized and predicted from the production columns, have been consistently lower than anticipated; however, a recent uptick in produced silver suggests that this may be a result of slower than anticipated silver leach kinetics and increased silver production may be anticipated as leaching continues on higher lifts. For this reason, it is the QP’s opinion that reducing the silver recoveries may be premature at this time.



The target crush size has been changed to a  $P_{80}$  of 25 mm, which has been routinely achieved by the crushing circuit on site, to maximize the potential recoveries. Reagent requirements and leach cycle design have also been adjusted based on the production data and monthly composite columns, with cyanide consumption being reduced to 0.30 kg/t, lime additions being increased to 4.0 kg/t and the leach cycle being increased to 90 days.

## 13.2 Sulphide Test Work

### 13.2.1 2009 SGS Mineral Services – Sulphide Flotation

SGS Mineral Services in Durango, Mexico, completed a flotation program on sulphide material on behalf of Canplats. Lead-zinc flotation tests were performed on 14 transition and sulphide composites from Camino Rojo drill holes CRD-005, CRD-009, CRD-012, CRD-013, CRD-015, CRD-022 and CRD-023 at grind sizes of 80% passing 200 Mesh (74  $\mu\text{m}$ ).

Findings from this flotation program showed three tests with recoveries of lead to lead rougher concentrate in excess of 85%, two additional tests indicated lead recoveries in excess of 70%. Apart from these tests the lead grades were mostly low and considerable upgrading would be necessary to make a marketable concentrate. Recoveries of zinc to a zinc rougher concentrate were modest. Two tests recorded recoveries in excess of 75%. Results indicate that considerable upgrading of both zinc and lead rougher concentrate would be required to produce a marketable concentrate.

### 13.2.2 2010 to 2013 Blue Coast Research

Test work conducted at BCR over 2012 and 2013 consisted of a variability study, a small gravity program, and flotation flowsheet development. The majority of the test work completed was performed on sulphide material from the western part of the deposit.

Gold mineralogy was undertaken using both optical and Dynamic-SIMS techniques. Results indicated that gold was significantly linked to both pyrite and arsenopyrite. Higher gold values were associated with higher arsenic values. The Dynamic-SIMS work also indicated the presence of solid solution gold within arsenopyrite and pyrite indicating the presence of refractory gold within sulphides. Some of the arsenopyrite concentrates were leached in various CIL tests, with and without a 45 minute regrind. Regrinding of the concentrate yielded little additional gold recovery from the concentrates reinforcing that a portion of the gold is in solid solution within the sulphides.

A singled extended Gravity Recoverable Gold (GRG) test and nine smaller-scale GRG tests, at nominal primary grind sizes of approximately 100  $\mu\text{m}$ , resulted in gold recovery to gravity concentrates ranging from 12% to 48%. These results suggest that a portion of gold at Camino Rojo is amenable to recovery via gravity concentration techniques.

Flotation test work evaluated conditions required to produce sequential lead, zinc, and arsenopyrite concentrates. Test work culminated in four locked cycle tests (LCTs) with variable results. Results are summarized in Table 13-8 through Table 13-. Lead concentrate grades ranged from 29.9% Pb to 47% Pb at lead recoveries of nearly 30% to a high of 87%. At these concentrate grades, additional cleaning will be necessary to produce a marketable lead concentrate. Zinc concentrate grades ranged from 43% to 49.9% at zinc recoveries between 74% and 92%. Gold and silver reported to the lead, zinc, and arsenopyrite concentrates to varying degrees. The highest recovery and concentrate grades were observed in samples with the highest head grades.



**Table 13-8: LCT-1 Locked Cycle Test Results (Composite, WE MC1)**

Product	Assays						% Distribution					
	Pb (%)	Zn (%)	As (%)	Ag (g/t)	Au (g/t)	S (%)	Pb	Zn	As	Ag	Au	S
Pb Clnr 3 Conc	29.9	0.3	0.1	2432.5	187.9	9.5	29.5	0.1	0.1	26.7	16.9	0.3
Zn Clnr 3 Conc	3.9	42.9	0.1	436.8	40.6	30.1	22.6	73.8	0.8	28.4	21.6	5.0
AsPy Rougher	0.4	1.1	0.4	38.2	2.5	4.4	23.4	18.9	31.0	24.5	13.3	7.2
Rougher Tail	0.0	0.0	0.1	1.8	0.5	3.1	24.5	7.2	68.2	20.4	48.2	87.6
Feed	0.09	0.31	0.07	8.30	1.01	3.28	100	100	100	100	100	100

**Table 13-9: LCT-2 Locked Cycle Test Results (Composite, WE MC2)**

Product	Assays							Distribution (%)						
	Pb %	Zn %	As (%)	Ag (g/t)	Au g/t	S %	C %	Pb	Zn	As	Ag	Au	S	C
Carbon Pre-float Conc	0.3	0.2	0.050	39	1.6	3.0	7.3	2.3	0.3	0.3	3.2	1.0	0.5	1.6
Pb Clnr 3 Conc	35.4	7.3	0.160	2103	217	15.5	12.0	69.5	4.0	0.3	50.4	40.1	0.8	0.7
Zn Clnr 3 Conc	0.7	49.9	0.068	122	8.7	29.8	4.0	4.2	85.9	0.4	9.2	5.1	4.8	0.8
AsPy Clnr 2 Conc	0.4	1.0	4.08	52	14.7	24.9	2.9	5.0	3.9	50.1	8.7	18.9	8.9	1.2
AsPy Clnr 1 Tail	0.06	0.04	0.491	10.8	2.69	17.8	1.89	3.7	0.8	28.2	8.4	16.2	29.7	3.7
Rougher Tail	0.01	0.02	0.020	1.5	0.17	1.88	2.64	15.3	5.0	20.7	20.1	18.6	55.4	92.0
<b>Feed</b>	<b>0.08</b>	<b>0.29</b>	<b>0.091</b>	<b>6.7</b>	<b>0.87</b>	<b>3.14</b>	<b>2.65</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Table 13-10: LCT-1 Locked Cycle Test Results (Composite, WE High Silver Comp)**

Product	Assays						% Distribution					
	Pb (%)	Zn (%)	As (%)	Ag (g/t)	Au (g/t)	S (%)	Pb	Zn	As	Ag	Au	S
Pb Clnr 3 Conc	47.7	2.6	0.2	10210	6.3	12.8	79.8	4.6	2.1	65.0	17.4	6.6
Zn Clnr 3 Conc	6.0	42.4	0.2	3404	1.5	29.0	12.6	91.9	3.5	27.0	5.2	18.7
AsPy Rougher Conc	0.6	0.3	2.0	240	7.0	27.2	3.1	1.4	80.1	4.8	60.4	43.8
Rougher Tail	0.1	0.03	0.03	12.4	0.1	1.5	4.5	2.0	14.3	3.2	17.0	30.9
<b>Feed</b>	<b>1.28</b>	<b>1.24</b>	<b>0.17</b>	<b>338</b>	<b>0.78</b>	<b>4.17</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>



**Table 13-11: LCT-2 Locked Cycle Test Results (Composite, WE High Silver Comp)**

Product	Assays						% Distribution					
	Pb (%)	Zn (%)	As (%)	Ag (g/t)	Au (g/t)	S (%)	Pb	Zn	As	Ag	Au	S
Pb Clnr 2 Conc	47.1	3.2	0.2	9486	7.1	13.4	87.1	6.1	3.2	66.0	22.7	7.7
Zn Clnr 3 Conc	3.0	49.5	0.2	2758	1.2	31.3	5.2	90.3	3.4	18.3	3.7	17.1
AsPy Rougher Conc	1.0	0.5	2.1	975	6.1	7.7	3.3	1.8	63.1	12.1	34.6	7.8
Rougher Tail	0.1	0.0	0.0	13.3	0.3	3.1	4.4	1.8	30.3	3.6	39.1	67.4
Feed	1.28	1.24	0.14	341	0.75	4.16	100	100	100	100	100	100

### 13.2.3 2014 Hazen Research

Hazen Research (Hazen) was commissioned to conduct flotation and cyanide leaching studies of sulphide and transitional material. According to Goldcorp identification, samples were designated as three ore types based on mineralization characteristics: PBC (lead mineralization), ZNC (zinc mineralization) and ASC (arsenic mineralization). Some 112 composites were tested. Standard flotation methods yielded recoveries of approximately 90% Au, 74% to 81% Ag, 83% to 90% Zn, and 82% to 91% Pb for sulphide material, and recoveries of 60% to 67% Au, 56% to 63% Ag, 35% Zn, and 48% Pb for transition material (Stepperud and Giddings 2014).

Some samples contained elevated levels of organic carbon resulting in greater potential for preg-robbing effects during cyanidation. Higher gold recoveries were observed during carbon-in-leach (CIL) tests as opposed to direct cyanidation. Because of the high preg-robbing potential (PRP) of some of the composite samples, carbon-in-leach (CIL) was selected for the 48 hour variability tests. These variability test results noted:

- PBC Composites: Gold extractions ranged from 5.3% (PBC67) to 92.4% (PBC8)
- ZNC Composites: Gold extractions ranged from 7.0% (ZNC79) to 91.9% (ZNC107)
- ASC Composites: Gold extractions ranged from 9.2% (ASC126) to 53.7% (ASC118)

Generally, high gold extraction was associated with low PRP values.

### 13.2.4 2015 SGS Canada Inc. – Comminution Testing

Comminution testing occurred at SGS Vancouver in 2015 (Sun and Lang 2015). A total of 23 half HQ composites and two full PQ composites were selected for testing. The HQ samples were selected based on four spatial quadrants, alteration, and oxidation. The PQ samples were selected based on their respective oxidation levels which included one near sulphide composite and one highly oxidized composite. JK Drop Weight (Axb), SMC, Abrasion Index (Ai), Crusher Work Index (CWI), Bond Ball Mill Work Index (BWi), Bond Rod Work Index (RWi), SPI, Point Load Index (PLI), and Unconfined Compressive Strength (UCS) tests were performed. It should be noted that only two relevant crusher work indices were obtained from testing data, as shown in the summary of results in Table 13-12 below.



**Table 13-12: Comminution Test Results Summary**

	SMC A x b	SPI® (Min)	CWI (kWh/t)	RWI (kWh/t)	BWI (kWh/t)	Ai (g)	UCS (kN)	PLI <sub>1550</sub>
Average	38.8	99.8		15.9	14.5	0.123		7.20
Min	63.7	34.4	9.4	10.9	8.6	0.017	251.3	2.69
Max	27.6	145.9	10.5	19.1	19.0	0.276	522.3	15.35
Rel. Std. Dev.	21.1	29.2		15.0	21.4	73.7		45.9

Source: SGS 2015.

Notes: Min and Max Values refer to the softest and hardest for the grindability tests

Additionally, comminution results are provided by alteration type in Table 13-13. These alterations are: Pyrite-Carbonate (PC), Incipient Potassic Hornfels (IH), and Potassic Hornfels (HF). Samples were also grouped by Sulphide and Transition material. The PQ core samples are included with the Transition material.

**Table 13-13: Comminution Test Results by Rock Type**

Rock Type	A x b	SPI (min)	RWI (kWh/t)	BWI (kWh/t)	Ai (g)
PC SC	41.6	93.0	14.5	12.8	0.061
IH SC	31.0	132.1	18.4	16.7	0.150
HF SC	30.6	128.3	18.4	18.1	0.243
<b>Sulphide</b>	<b>34.4</b>	<b>118.1</b>	<b>17.1</b>	<b>15.7</b>	<b>0.143</b>
PCTC	50.5	57.2	12.1	9.6	0.024
IHTC	40.7	92.0	15.3	13.2	0.061
HFTC	39.1	99.4	16.7	16.2	0.200
PQ	38.0	87.5	15.6	15.3	0.133
<b>Transition</b>	<b>42.8</b>	<b>82.9</b>	<b>14.8</b>	<b>13.3</b>	<b>0.104</b>

Source: SGS 2015.

### 13.2.5 2020 Blue Coast Research – Metallurgical Test Program

The 2020 test work evaluated 21 variability samples selected from predominantly sulphide and transition material. The variability composite head grades averaged 1.9 g/t Au, 11 g/t Ag, 0.19% As, and 0.35% Zn. Organic carbon averaged 0.09%. The head grades varied within the dataset with gold grades ranging from 0.2 g/t to 10.8 g/t. Organic carbon grade ranged from 0.01% to 0.29%. Significant preg-robbing potential was noted with several of the variability samples. A master composite was built comprising of equal portions of 20 of the 21 samples. The master composite was used for some limited optimization of both cyanidation and flotation conditions.

The master composite flotation work indicated that selective arsenopyrite flotation can be achieved on the master composite while recovering approximately 80% of the gold to a rougher concentrate. It was observed in the master composite and some variability composites that zinc preferentially floats ahead of arsenopyrite. Up to 80% of the zinc was recovered to the first



rougher concentrate at a grade of 14% Zn. No zinc cleaning tests were conducted during this study to determine if this zinc could be upgraded to a potentially marketable concentrate.

Highlights from the variability flotation test work are listed:

- On average, gold recovery to overall rougher concentrate was 72%. Silver, arsenic and zinc recoveries were 61%, 56% and 80% respectively.
- Gold recovery ranged from a low of 29% to a high of 97%, silver recovery ranged from 33% to 94%, arsenic from 10% to 96%, and zinc from 9% to 99%.
- The average mass pull to combined rougher concentrate was 10% and ranged from 1% to 34%.
- On average, the gold grade to rougher concentrate was 16 g/t Au, and the sulphur grade was 14% S.
- The average zinc recovery to the first rougher concentrate was 44% at a grade of 8% Zn. Zinc recovery ranged from a low of 2% to a high of 94%, suggesting some composites were highly amenable to zinc flotation, while others were not. The grade of the first rougher concentrate ranged from a low of <1% Zn to a high of 22% Zn.

The master composite cyanidation study noted that gold recovery was insensitive to primary grind size between a p80 of 75µm and 125µm. Increasing the concentration of sodium cyanide (NaCN) from 1.0 g/L to 2.0 g/L also did not impact gold recovery. The study did not that extending the cyanidation residence time from 48 hours to 72 hours had a positive effect with an average increase to gold recovery of approximately 6%. The presence of activated carbon was necessary due to the presence of preg-robbing organic carbon in the composite. Approximately 55-60% of the gold appears recoverable by convention cyanidation processes. Silver recovery was 35%. Sodium cyanide consumption during the master composite work ranged from 1.3 kg/t to 2.5 kg/t, and lime consumption ranged from 0.4 kg/t to 0.7 kg/t.

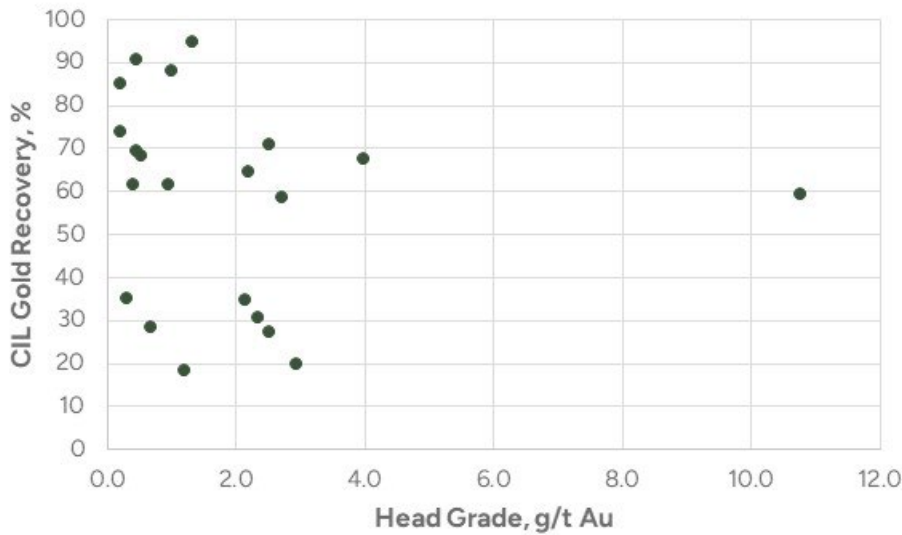
Expanding the cyanidation study to the 21 variability samples highlighted the following key observations:

- Gold extraction averaged 58%, ranging from a low of 18% to a high of 95%, suggesting that a high degree of variability exists in the degree of refractoriness of Camino Rojo sulphide ores. Lower gold recovery is broadly associated with samples containing higher arsenic and organic carbon.
- Silver recovery averaged 44%, ranging from 26% to 81%.
- The average gold and silver recoveries from the variability dataset line up well with the optimized master composite CIL recoveries, which is to be expected.
- NaCN consumption averaged 1.6 kg/t, ranging from 1.4 kg/t to 2.2 kg/t. Lime consumption averaged 0.6 kg/t, ranging from 0.4 kg/t to 1.0 kg/t.

The relationships between various feed constituents (gold, arsenic, and organic carbon) and CIL bottle roll recovery are summarized in Figure 13-8 through Figure 13-10.

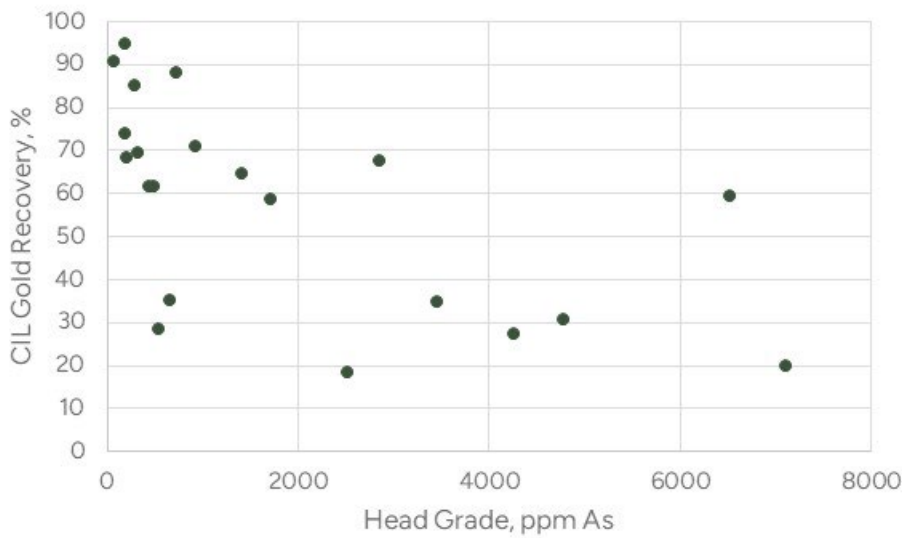


**Figure 13-8: Relationship between Gold Head Grade and CIL Bottle Roll Recovery of Variability Samples**



Source: Middleditch 2020.

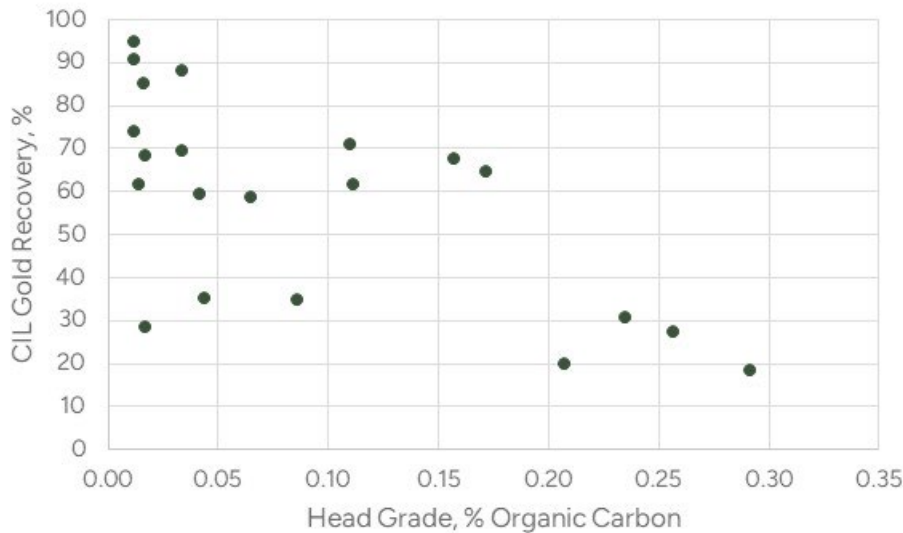
**Figure 13-9: Relationship between Arsenic Grade and CIL Bottle Roll Recovery of Variability Samples**



Source: BCR 2020.



**Figure 13-10: Relationship between Organic Carbon Content and Gold Recovery of Variability Samples**



Source: BCR 2020.

### 13.2.6 2022 Blue Coast Research – Metallurgical Test Program

BCR conducted a metallurgical test program in 2022. The program evaluated two master composites, 33 variability samples, and two samples that were submitted for comminution test work only. Test work including whole rock CIL, flotation, and some limited comminution testing.

Comminution tests included BWi tests and SMC tests on three samples. BWi results were relatively consistent and ranged from 20.2 kWh/tonne to 20.6 kWh/tonne. The Axb results from the SMC tests ranged from 28.6 to 30.9. Both types of tests indicate that the material is hard.

Whole rock CIL tests displayed a wide range of gold extractions, ranging from a low of 1.2% to a high of 98.1%. The average recovery of all tests was 58.3%. Some material is clearly amenable to direct cyanidation. Samples with elevated arsenic and higher quantities of organic carbon respond less favourably to direct cyanidation. The lowest direct cyanidation recoveries came from samples with organic carbon greater than 0.2%, suggesting that preg-robbing behaviour may be a limiting factor.

**Table 13-14: Summary of Direct Cyanidation Bottle Roll Results**

Test ID	Sample ID	Sample Type	Primary Grind (p80, µm)	Recovery (%)	
				Au	Ag
CN-1	OPLC Comp	OPLC Master Comp	116	85.4	36.9
CN-2	372768	OPLC Variability Sample	126	72.8	50.4
CN-3	373854	OPLC Variability Sample	121	81.5	40.1
CN-4	373927	OPLC Variability Sample	136	47.6	54.6
CN-5	373930	OPLC Variability Sample	126	81.3	65.7
CN-6	373941	OPLC Variability Sample	117	98.1	55.1



Test ID	Sample ID	Sample Type	Primary Grind (p80, µm)	Recovery (%)	
				Au	Ag
CN-7	372754	OPLC Variability Sample	121	77.0	36.2
CN-8	372759	OPLC Variability Sample	128	73.7	37.0
CN-9	373876	OPLC Variability Sample	119	92.3	25.8
CN-10	372846	OPLC Variability Sample	107	79.5	36.4
CN-11	373859	OPLC Variability Sample	138	83.1	31.8
CN-12	OPLC(Sxox)_01(1)	SxOx Variability Sample	174	79.0	34.4
CN-13	OPLC(Sxox)_03A(1)	SxOx Variability Sample	111	57.7	44.5
CN-14	OPLC(Sxox)_03A(2)	SxOx Variability Sample	126	88.4	46.3
CN-15	OPLC(Sxox)_03A(3)	SxOx Variability Sample	115	95.2	44.5
CN-16	OPLC_04B(1)	Variability Sample	116	44.8	35.6
CN-17	OPMC_01	Variability Sample	112	56.0	25.2
CN-18	OPMC_02(1)	Variability Sample	111	73.2	27.8
CN-19	OPMC_04B(1)	Variability Sample	117	44.0	17.6
CN-20	OPMC_04B(2)	Variability Sample	138	36.1	48.4
CN-21	UGLC_01	Variability Sample	118	82.3	38.2
CN-22	UGLC_02	Variability Sample	102	70.2	18.5
CN-23	UGLC_04B	Variability Sample	108	61.1	24.9
CN-24	UGMC_01	Variability Sample	131	57.3	32.0
CN-25	UGMC_02(2)	Variability Sample	114	53.6	19.4
CN-26	UGMC_04B	Variability Sample	118	73.5	37.5
CN-27	Master Comp 2	Master Comp 2	96	67.1	24.0
CN-30	OPHC-01	Variability Sample	75	24.5	19.1
CN-31	OPHC-02(1)	Variability Sample	84	10.5	17.9
CN-32	OPHC-02(2)	Variability Sample	148	13.0	17.0
CN-33	OPHC-04B(1)	Variability Sample	111	19.2	19.8
CN-34	OPHC-04B(2)	Variability Sample	126	31.0	19.1
CN-35	UGHC-01	Variability Sample	103	24.8	22.8
CN-36	UGHC-02	Variability Sample	123	39.1	34.4
CN-37	UGHC-04B	Variability Sample	81	1.2	19.3
CN-39	S2B-HC Comp	Variability Sample	~120	19.6	21.7

Source: BCR 2022.

Flotation test work evaluated two basic flowsheet arrangements. First a sequential flowsheet was considered which recovered free gold, zinc, and arsenopyrite/pyrite into separate concentrates. Second a bulk sulphide flowsheet was tested which floated all sulphides and



corresponding gold into a single combined concentrate. In both flowsheets, for situations where elevated organic carbon is present, a carbon pre-float could be toggled on or off to remove excess organic carbon from the circuit ahead of gold-sulphide flotation. This reduces some potential for downstream preg-robbing behaviour and allows for reduced flotation reagent consumption.

An example of the sequential flowsheet is highlighted in Table 13-15 below. A zinc concentrate was produced grading 54% Zn at 65% zinc recovery. The zinc concentrate also contains 60 g/t Au representing 9% of the total gold. 29% of the gold reported to a gold rougher, and a further 48% reported to the arsenopyrite concentrate. The arsenopyrite concentrate would require oxidative pretreatment ahead of cyanidation to enable gold extraction.

**Table 13-15: Example of Sequential Au-Zn-Asy Flotation (F-16)**

Product	Mass	Assays							% Distribution						
	%	Au (g/t)	Ag (g/t)	Zn (%)	As (%)	Fe (%)	S (%)	Corg (%)	Au	Ag	Zn	As	Fe	S	Corg
Carbon Pre-float	2.7	1.1	26	0.3	0.14	4.1	2.6	1.07	1.3	5.8	2.4	1.2	2.1	1.5	28.4
Au Rougher	1.6	43.6	295	0.7	0.28	5.3	4.3	0.19	29.1	38.1	3.7	1.3	1.6	1.4	2.9
Zn Cleaner 3 Conc	0.4	60.7	223	54.5	0.31	10.8	34.1	0.05	9.4	6.7	65.3	0.3	0.7	2.7	0.2
AsPy Conc	11.4	9.9	25	0.7	2.43	6.8	5.1	0.09	47.7	23.7	25.6	82.9	14.8	12.4	10.1
Rougher Tails	84.0	0.35	4	0.01	0.06	5.05	4.59	0.07	12.5	25.6	3.0	14.3	80.8	82.0	58.4
Calculated Head	100	2.4	12	0.3	0.33	5.3	4.7	0.10	100	100	100	100	100	100	100

Source: BCR 2022.

As an alternative to the sequential flotation sequence, the simpler bulk flotation flowsheet was also evaluated. Gold recoveries to sulphide concentrate in these tests ranged from 48% to 93%, with an average gold recovery from optimized tests of 85% to 89% observed for low and high carbon composites respectively. Varying amounts of pyrite were allowed to report into the bulk sulphide concentrate during these tests. Enabling an increased amount of pyrite to float into the sulphide concentrate allows for higher gold recoveries.

### 13.2.7 2022 Sherritt Technologies – Pressure Oxidation Test Work

BCR prepared two concentrate samples and submitted them to Sherritt Technologies for pressure oxidation (POX) amenability testing. Feed 1 was produced from material containing lower organic (non acid leachable: C<sub>NAL</sub>) carbon. Feed 2 was produced from material containing higher proportions of organic carbon. The resulting concentrate also contained more organic carbon (C<sub>NAL</sub>, 0.33%). Characteristics of both feed types are presented in Table 13-16.

**Table 13-16: Chemical Composition of Camino Rojo Flotation Concentrates**

Element	Units	Feed 1	Feed 2
Au	g/t	9.97	11.2
Ag	g/t	49.8	27.4
Al	%	6.03	4.65
As	%	1.92	1.31
Cd	%	0.02	0.01



Element	Units	Feed 1	Feed 2
Ca	%	3.5	3.45
C	%	1.18	1.57
C <sub>NAL</sub>	%	0.13	0.33
Cl	%	0.01	0.004
Co	%	<0.005	<0.005
Cu	%	0.08	0.08
Fe	%	8.1	15
Mg	%	1.02	0.87
Mn	%	0.05	0.05
Ni	%	0.08	0.05
Si	%	22.2	17.2
S	%	7.11	16.5
S (SO <sub>4</sub> )	%	0.06	0.02
S (S <sub>2</sub> <sup>-</sup> )	%	7.05	15.4
Zn	%	1.92	1.05

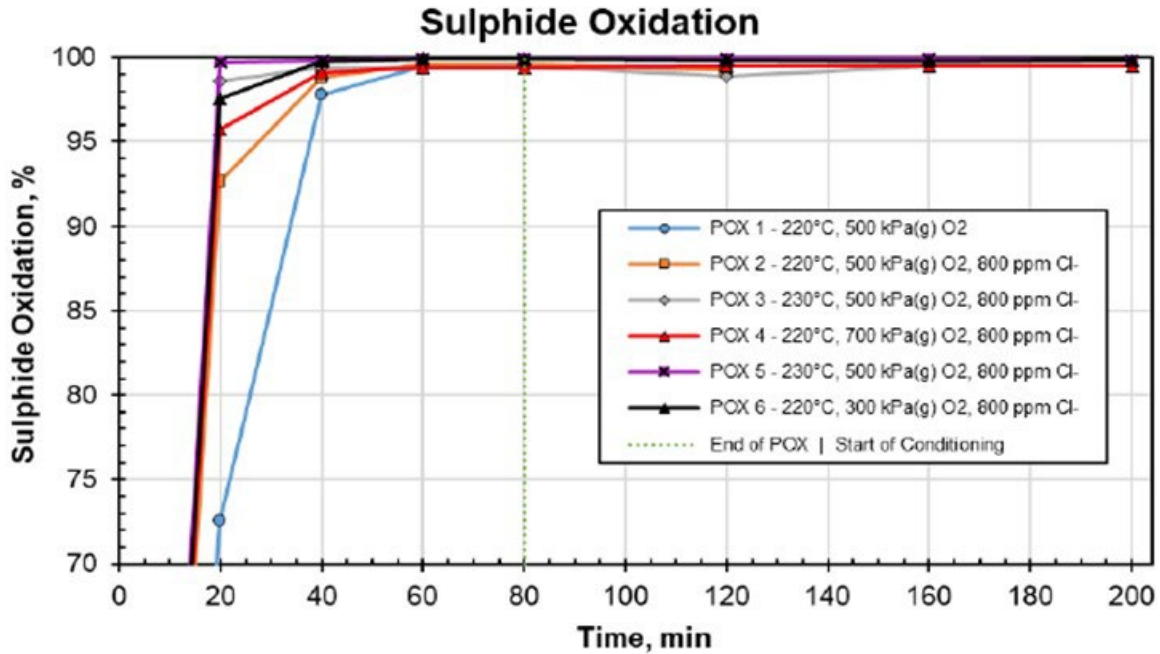
Source: Sherritt 2022.

Sherritt conducted six batch POX tests. Each POX test was conducted in a 4 L autoclave with a 2.5 L slurry volume. Tests evaluated different temperatures (220°C to 230°C) and oxygen overpressures (300 kPa to 700 kPa O<sub>2</sub>). The impact of chlorides in the process water was also tested. Site water at Camino Rojo may be expected to contain elevated chloride levels averaging 800 ppm. Tests 1 through 4 were conducted on Feed 1. Test 5 and 6 were conducted on Feed 2.

Sulphide oxidation throughout each of the six tests was very good. Oxidation rates of 99% were observed in all tests. The presence of 800 ppm chloride notably increased the oxidation kinetics. Sulphide oxidation kinetics were fast even with the milder conditions employed in Test 6.



**Figure 13-11: Sulphide Oxidation in POX Tests**



Source: Sherritt 2022.

CIL tests were conducted on all POX kinetic and conditioning samples to determine gold and silver extractions. Gold extractions in excess of 95% were noted in all tests with the exception of POX Test 6, which employed milder oxidation conditions. For both feed materials, the best POX conditions were noted as 230°C and 500 kPa O<sub>2</sub> overpressure. These conditions resulted in gold extractions of 98% for Feed 1 and 96% for Feed 2.

The excellent gold leach performance each Feed sample is encouraging and indicates that POX followed by CIL may be an appropriate method for recovering gold from refractory zones of the Camino Rojo sulphide deposit. The higher organic carbon content of Feed 2 resulted in only a moderate reduction in gold recovery. Test results are summarized in Table 13-17.

**Table 13-17: Gold Extractions from POX Tests**

POX TEST ID	POX Test 1	POX Test 2	POX Test 3	POX Test 4	POX Test 5	POX Test 6
Material	Feed 1	Feed 1	Feed 1	Feed 1	Feed 2	Feed 2
Temperature	220°C	220°C	230°C	220°C	230°C	220°C
O <sub>2</sub> Pressure (kPa <sub>(g)</sub> )	500	500	500	700	500	300
Chloride (ppm)	0	800	800	800	800	800
Time, min	Gold Extractions (%)					
20	94.5	91.3	92.8	91.2	79.8	81
40	97	92.4	94.5	91.2	86.9	79.1
60	97.7	93.7	96.8	94.4	93.4	86.1
80	98.6	95.6	98.1	96	95.6	88.6



POX TEST ID	POX Test 1	POX Test 2	POX Test 3	POX Test 4	POX Test 5	POX Test 6
Cond. 40	98.7	96.7	98.6	96.2	96.1	91.4
Cond. 80	--	--	98.2	96.9	96.2	91.9
Cond. 120	--	--	98.7	96.9	95.8	92.5

Source: Sherritt 2022.

Silver CIL extractions from POX residues were notably poor, typically less than 20%. CIL tests on unoxidized POX feed material had silver recoveries of 41.6% and 41.9% for Feed 1 and Feed 2, respectively. The lower silver recoveries from POX residues are likely due to the formation of silver jarosite during pressure oxidation and conditioning. Jarosite formation locks silver into the solids and prevents its extraction during cyanide leaching. The addition of a lime boil circuit to the process flowsheet before CIL can decompose jarosites, liberating silver and improving overall silver recovery; however, the lime boil may also liberate other metals (such as arsenic) which may then require further stabilization.

### 13.2.8 2023 to 2024 Blue Coast Research – Metallurgical Test Program

Test work conducted at BCR during 2023 and 2024 evaluated 37 variability composites and two master composites. Variability tests included both cyanidation and flotation work, while the master composite work was carried out to optimize some of the flotation test work parameters. The 37 composites were selected from within the main deposit, while three samples (VAR 1, VAR 2 and Ext\_03) were taken from Zone 22. Head grades were generally higher than previous studies reflecting the potential for an underground resource. Head grades of variability composites are summarized in Table 13-18.

**Table 13-18: Head Assays for Variability Samples**

Sample	Au (g/t)	Ag (g/t)	As (%)	Fe (%)	Pb (%)	Zn (%)	C <sub>tot</sub> (%)	C <sub>org</sub> (%)	S <sub>tot</sub> (%)	S <sub>2</sub> (%)	Preg-rob (%)
Method	FA	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	ELTRA	HCl-ELTRA	ELTRA	HCl-ELTRA	
VAR 1	5.35	12.19	0.30	5.93	N/A	1.67	4.96	<0.03	5.28	4.18	3
VAR 2	1.58	7.32	0.31	6.76	N/A	0.89	5.97	<0.03	5.95	5.56	2
(S1a)_1	1.63	4.56	0.03	2.32	0.01	0.09	1.43	<0.03	2.20	2.05	2
(S1a)_2	0.57	1.92	0.06	2.96	0.00	0.09	1.36	<0.03	3.05	2.82	NIL
(S1a)_3	3.76	7.86	0.11	3.49	0.02	0.23	2.67	0.20	3.36	3.31	100
(S1b)_1	1.59	14.10	0.15	4.46	0.20	0.25	2.31	0.33	3.43	3.41	100
(S1b)_2	1.21	2.45	0.15	3.26	0.02	0.07	2.38	0.26	1.58	1.59	100
(S1b)_3	0.97	13.81	0.13	3.36	0.26	0.30	2.01	0.18	1.32	1.32	100
(S2a)_1	3.05	5.61	0.34	4.95	0.01	0.09	1.47	0.14	4.47	4.32	100
(S2a)_2	3.15	12.31	1.19	4.89	0.23	0.61	0.99	<0.03	4.11	3.77	2
(S2a)_3	1.06	9.25	0.23	3.68	0.08	0.38	1.65	0.03	2.62	2.53	NIL
(S2a)_4	2.62	11.09	0.28	5.57	0.07	0.64	1.46	0.04	5.65	5.44	NIL
(S2a)_5	1.88	5.95	0.25	3.93	0.03	0.30	0.97	0.08	2.85	2.76	18



Sample	Au (g/t)	Ag (g/t)	As (%)	Fe (%)	Pb (%)	Zn (%)	C <sub>tot</sub> (%)	C <sub>org</sub> (%)	S <sub>tot</sub> (%)	S <sub>2</sub> (%)	Preg-rob (%)
Method	FA	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	ELTRA	HCl-ELTRA	ELTRA	HCl-ELTRA	
(S2a)_6	2.33	12.29	0.19	5.49	0.03	0.60	1.25	0.09	5.52	5.03	50
(S2a)_7	3.59	22.31	0.51	7.37	0.19	0.43	0.76	0.04	8.35	8.83	94
(S2a)_8	5.28	7.62	0.70	6.62	0.01	0.15	1.20	0.07	7.57	7.43	36
(S2a)_9	1.71	5.49	0.39	4.40	0.00	0.16	1.35	0.15	4.49	4.46	100
(S2a)_10	1.78	11.64	0.11	3.59	0.19	0.43	3.05	0.13	3.50	3.43	98
(S2a)_11	4.98	6.86	0.13	0.88	0.01	0.05	1.63	0.12	3.85	3.79	100
(S2b)_1	3.55	25.64	0.36	4.50	0.50	0.62	1.72	0.19	4.30	4.30	98
(S2b)_2	3.54	25.09	0.52	5.39	0.32	0.61	2.40	0.30	4.84	4.85	99
(S2b)_3	4.59	13.02	0.43	5.12	0.13	0.44	0.64	0.22	5.22	5.03	99
(S2b)_4	1.55	6.59	0.20	3.57	0.08	0.28	1.53	0.29	2.59	2.44	100
(S2b)_5	1.77	11.66	0.15	3.83	0.21	0.27	2.32	0.23	2.18	2.18	100
(S2b)_6	2.17	11.19	0.36	4.40	0.10	0.40	2.56	0.35	3.56	3.43	100
(S2b)_7	1.75	24.23	0.23	4.29	0.35	0.55	2.67	0.38	2.89	2.67	99
(S2b)_8	5.46	15.39	0.71	9.22	0.06	0.11	1.31	0.25	10.59	10.89	99
(S2b)_9	1.47	6.50	0.34	4.09	0.03	0.20	1.90	0.28	3.03	2.96	100
(S2b)_10	2.18	10.50	0.38	4.16	0.11	0.43	2.29	0.35	3.27	3.10	100
(S2b)_11	1.54	14.26	0.29	4.06	0.20	0.18	2.22	0.29	2.27	2.19	100
(S2b)_12	3.38	16.21	0.20	4.29	0.27	0.29	1.71	0.21	3.92	3.74	99
(S2b)_13	1.41	15.34	0.17	4.24	0.20	0.34	2.96	0.39	2.90	2.88	100
Ext_03	4.47	32.37	1.08	10.41	0.11	2.39	5.87	0.03	9.93	9.02	NIL
(T)_1	2.58	18.12	0.24	5.30	0.10	0.79	0.42	<0.03	5.79	5.54	NIL
(T)_2	1.88	13.26	0.09	7.03	0.10	0.25	0.74	<0.03	0.04	0.04	NIL
(T)_3	4.29	11.04	0.17	5.79	0.04	0.20	2.52	0.03	0.94	0.94	2
(T)_4	3.94	5.45	0.04	3.20	0.02	0.20	1.58	0.04	0.71	0.66	NIL

Source: BCR 2024.

Notes: C<sub>tot</sub> – total carbon, C<sub>org</sub> – organic carbon

Each composite was subjected to a standard variability cyanidation test. Each test was conducted using a CIL protocol, with 15 g/L of activated carbon being added to the bottle roll. A primary grind size of approximately 80% passing 125 µm was used and sodium cyanide concentration was maintained at 1.0 g/L throughout the test. pH was maintained between 10.5 and 11 through the addition of lime. As observed in earlier test programs, gold recovery was variable with the lowest gold recoveries observed in the samples with highest preg-rob values. A summary of CIL bottle roll test results is presented in Table 13-19.



**Table 13-19: Variability CIL Bottle Roll Results**

Test ID	Composite	Particle Size (um)	Au Recovery (%)	NaCN Consumption (kg/t)	CaO Consumption (kg/t)	Preg Rob %
CN-1	VAR 1	123	96	1.28	0.65	3
CN-2	VAR 2	121	82	1.21	0.66	2
CN-3	(S1a)_1	116	90	1.47	0.62	2
CN-4	(S1a)_2	113	90	1.38	0.45	0
CN-5	(S1a)_3	107	48	1.32	0.73	100
CN-6	(S1b)_1	122	19	1.45	0.91	100
CN-7	(S1b)_2	124	3	1.35	0.88	100
CN-8	(S1b)_3	114	39	1.25	0.58	100
CN-9	(S2a)_1	123	40	1.35	0.93	100
CN-10	(S2a)_2	134	62	1.71	0.72	2
CN-11	(S2a)_3	126	69	1.53	0.77	0
CN-12	(S2a)_4	125	70	1.62	0.61	0
CN-13	(S2a)_5	121	80	1.80	0.79	18
CN-14	(S2a)_6	135	80	1.82	0.43	50
CN-15	(S2b)_1	116	46	1.80	0.50	98
CN-16	(S2b)_2	133	29	1.70	0.59	99
CN-17	(S2b)_3	125	31	1.14	0.81	99
CN-18	(S2b)_4	117	29	1.48	0.76	100
CN-19	(S2b)_5	121	27	1.34	0.76	100
CN-20	(S2b)_6	119	14	1.24	0.79	100
CN-21	(T)_1	120	71	0.28	0.67	0
CN-22	(T)_2	116	93	1.14	0.58	0
CN-23	(T)_3	118	89	1.29	0.68	2
CN-24	(T)_4	118	98	1.49	0.50	0
CN-25	(S2a)_7	124	62	1.66	0.48	94
CN-26	(S2a)_8	117	71	1.28	0.70	36
CN-27	(S2a)_9	131	32	1.01	0.47	100
CN-28	(S2a)_10	134	62	1.15	0.62	98
CN-29	(S2a)_11	113	44	1.52	0.63	100
CN-30	(S2b)_7	131	12	0.91	0.74	99
CN-31	(S2b)_8	123	34	1.15	0.66	99
CN-32	(S2b)_9	117	13	1.14	0.82	100



Test ID	Composite	Particle Size (um)	Au Recovery (%)	NaCN Consumption (kg/t)	CaO Consumption (kg/t)	Preg Rob %
CN-33	(S2b)_10	124	18	0.96	0.82	100
CN-34	(S2b)_11	121	14	1.18	0.76	100
CN-35	(S2b)_12	121	48	1.89	0.50	99
CN-36	(S2b)_13	118	12	1.00	0.91	100
CN-37	Ext_03	129	86	2.14	0.74	NIL

Source: BCR 2024.

Flotation test work on the variability samples used a sequential gold and arsenopyrite flotation scheme. Total gold recovery for these tests averaged 40% for samples with higher organic carbon to 78% for samples with lower organic carbon. The exclusion of the carbon pre-float step from these tests likely resulted in poor flotation performance as flotation reagents are adsorbed onto organic carbon. It is the QP’s opinion that these specific tests are not representative of the potential flotation performance within the Camino Rojo sulphide deposit.

Follow up flotation work was conducted on Master Composites made up of low organic carbon (S2a) and higher organic carbon (S2b). The addition of the carbon pre-float stage greatly improved performance of downstream flotation. Combined gold recovery to gold and arsenopyrite (or bulk sulphide) concentrates improved to 92% to 94% for the low carbon composite (S2a) and 90% for the higher carbon composite (S2b).

Small scale gravity tests were conducted on each Master Composite, where the sample was ground to a nominal size of 80% passing 125 µm before being concentrated in laboratory scale Knelson centrifugal gravity concentrator. The Knelson concentrate was then upgraded over a shaking table to produce a combined tip and middling fraction representing approximately 1.5% of the overall feed mass. Gold recovery to these gravity products was 65% for the low carbon composite (s2a) and 43% for the high carbon composite (s2B). This suggests that gravity could still play a role in a potential flowsheet.

Three samples from Zone 22 were tested during this program. Whole ore CIL gold extraction from this material ranged from 82% (VAR-2) to 96% (VAR-1). Zinc grades were often higher in the samples, and zinc flotation was often very good. Open circuit zinc cleaner test work on VAR-1 and Ext\_03 displayed zinc recovery of 90% and 94% respectively at zinc concentrate grades ranging from 51% to 52% Zn.

### 13.2.9 Camino Rojo Sulphides – Summary of Metallurgical Test Work

The Camino Rojo sulphide deposit is metallurgically complex and benefits from some flexibility in processing options. Distinct zones of cyanide leachable gold are present, coupled with distinct areas of refractory material, requiring pre-oxidation ahead of cyanidation. The refractory zones are associated with areas of higher arsenic and organic carbon. In areas with elevated zinc, potential exists to produce a zinc concentrate as well.

A geometallurgical review of the available data was carried out which delineated five spatially distinct zones of metallurgical performance. These included cyanide leachable zones and refractory zones. These areas were defined as:

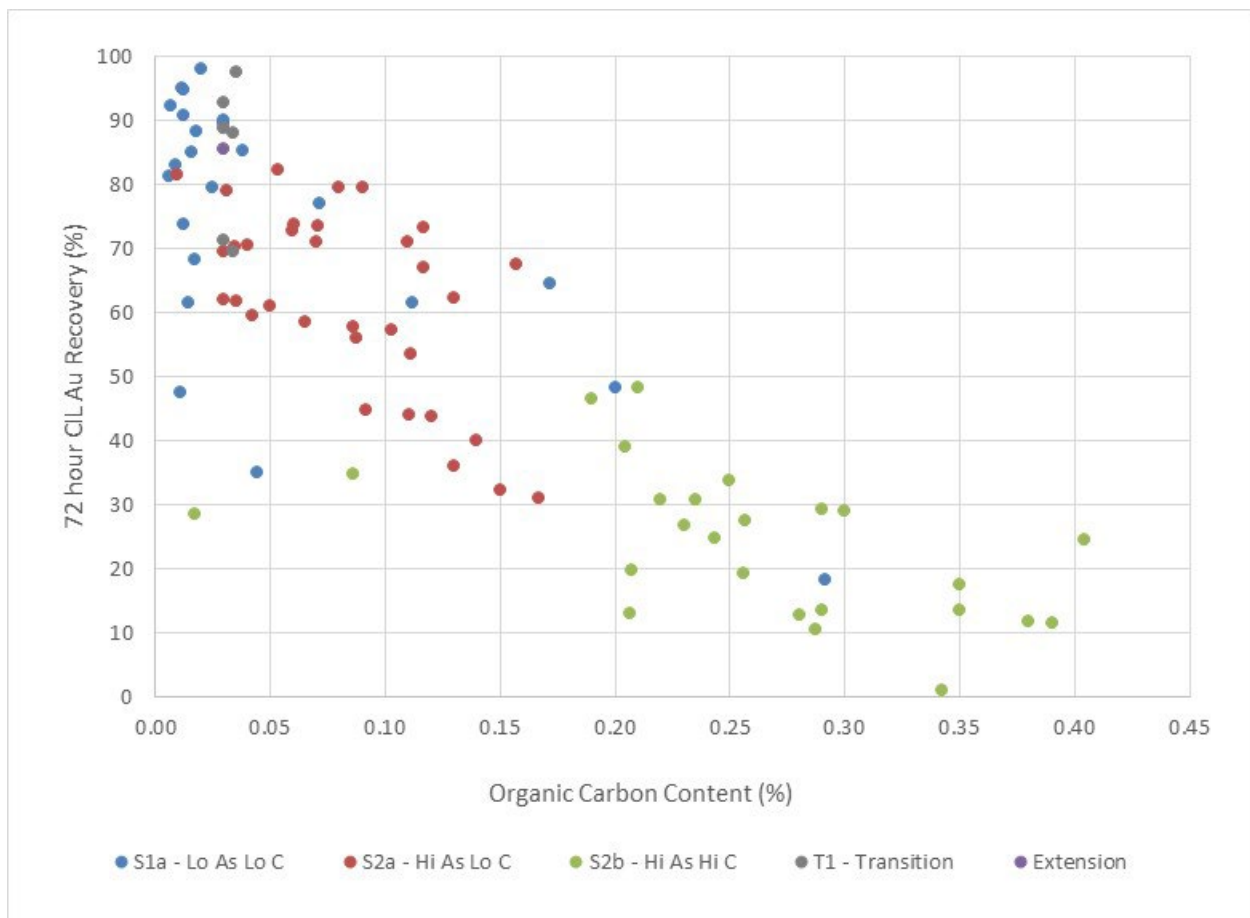
- Leachable
  - Transition (T) – transition material



- Sulphide Leachable (S1a) – outside of the arsenic vein system with generally higher CIL gold extractions
- Refractory
  - High Arsenic Low Organic Carbon (S2a)
  - High Arsenic High Organic Carbon (S2b)
  - Moderate/Variable Arsenic High Organic Carbon (S1b)

When samples are characterized by their respective geometallurgical units, a clear trend may be observed in the CIL gold recovery (Figure 13-12). Direct CIL recovery is highest from samples in the Transition and Sulphide Leachable (S1a) geometallurgical units. Samples with increasing arsenic content (S2a) and organic carbon (S2b) result in lower direct CIL recovery.

**Figure 13-12: Direct CIL Au Extractions sorted by Geometallurgical Unit**



Source: BCR 2024

### 13.2.9.1 Gold Recovery

Gold recovery relationships for the Transition and Sulphide Leachable (S1a) zones assume treatment through a CIL plant and were compiled based on a regression analysis of CIL performance and the associated geochemical data. These relationships are as follows:



**Transition (T)**

$$Au \text{ recovery } (\%) = 94.904314202 + (0.0149755389 \times As\_ppm) + (-0.005230204 \times Zn\_ppm) + (-0.017907739 \times Pb\_ppm)$$

**Sulphide Leachable (S1a)**

$$Au \text{ recovery } (\%) = 60.782619179 + (40.118772144 \times Au\_gpt) + (1.1447146168 \times Ag\_gpt) + (-0.012312505 \times As\_ppm) + (-0.006954317 \times Zn\_ppm)$$

Gold recoveries from Transition and S1a were capped at 98%.

**Flotation–POX–CIL Zones (S2a, S2b, S1b)**

Pressure oxidation was shown to be effective in increasing the gold recovery from the refractory gold zones. Flotation, following by pressure oxidation and CIL leaching of the concentrate is a reasonable flowsheet arrangement. Zinc flotation could be included in areas where high zinc grades warrant it.

The flotation performance is described by a two part recovery equation. A polynomial equation describes the recovery from 0 g/t to 3.5 g/t. For head grades in excess of 3.5 g/t, a flat flotation recovery of 96.3% is applied, capping flotation recovery at the highest grade variability sample tested.

**Table 13-20: Flotation Gold Recovery Formulas for S2a, S2b and S1b Domains**

Au Head Grade (g/t)	Flotation Au Recovery (%)
0 – 3.5	$0.96x^3 - 15.345x^2 + 69.888x - 1.4875$
>3.5	96.3

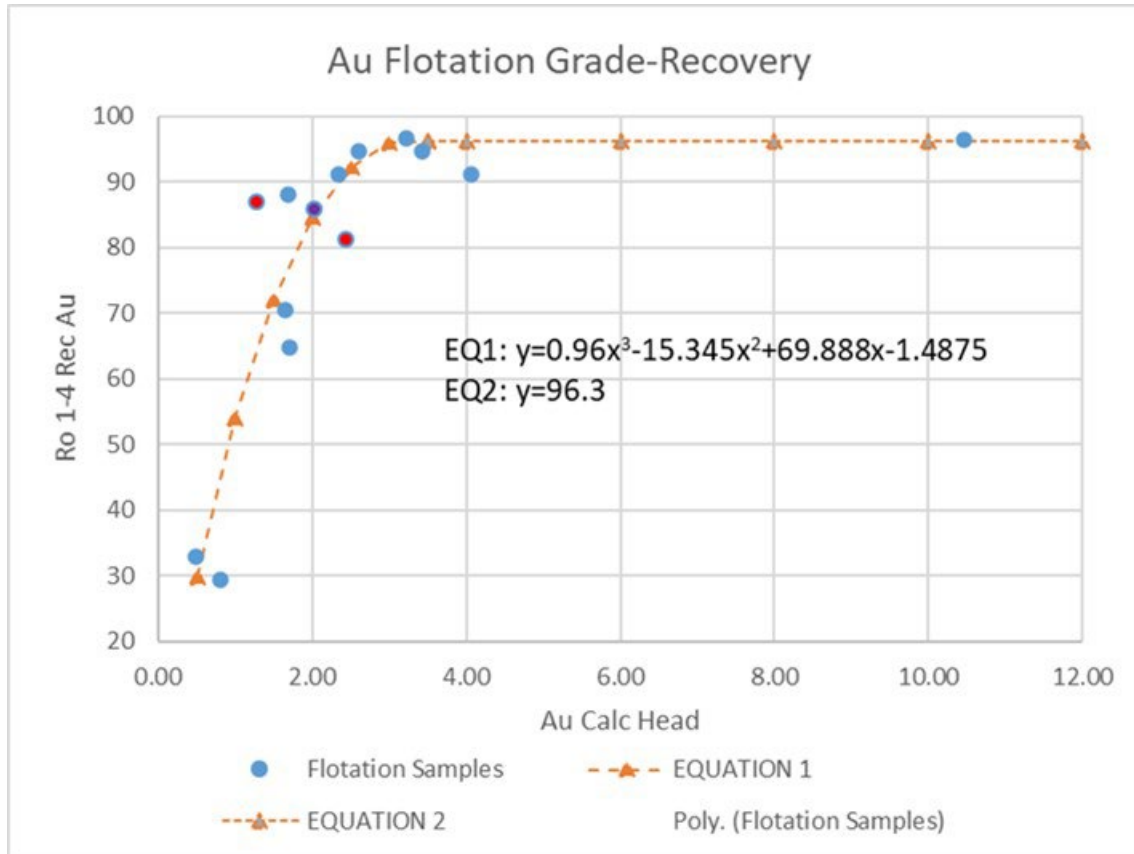
Overall gold recovery is a function of gold recovery via flotation and CIL recovery after POX.

$$Au \text{ recovery } (\%) = \text{Flotation Au recovery } (\%) \times \text{POX-CIL Au extraction } (\%)$$

Based on the POX data to date, POX-CIL extractions from the low carbon zone (S2a) is expected to be 95% and higher carbon (S2b, S1b) zones are expected to be moderately lower at 93%. Combined with flotation, this would result in mean flotation-POX-CIL recovery of 87% for the refractory zones.



**Figure 13-13: Camino Rojo Sulphides Flotation Grade Recovery Curve**



Source: BCR 2022.

### 13.2.9.2 Silver Recovery

As silver is recovered as a by-product during gold extraction, the approach to developing silver recovery models is based on:

- Maintaining the existing geometallurgical domains defined for gold.
- Evaluating silver recovery through the process identified for each geometallurgical domain (i.e., cyanidation for Transition and S1a; Flotation followed by POX/CIL for S2a, S2b, and S1b).

#### Transition (T) and Cyanide Leachable (S1a)

Silver recovery of material identified in the transition and cyanide leachable zone (S1a) was variable. No head grade–recovery relationship was identified for the silver performance in both the Transition (T) and cyanide leachable (S1a) domains. Additionally, no clear regression model could be identified based on the data available. This suggests that there may be a wide range of different silver hosts in the deposit leading to the wide range in silver recovery data.

Given the variability in the silver recovery from these two domains a flat recovery value should be applied to each domain. These recoveries are summarized in Table 13-21.



**Table 13-21: Summary of Silver Recovery from Cyanide Leachable Zones (T and S1a)**

Geomet Domain	Ag Recovery (%)
Transition (T)	39.2
Sulphide Leachable (S1a)	34.7

**Flotation-POX-CIL Zones (S2a, S2b, S1b)**

Material from domains S2a, S2b and S1b will be treated through a Flotation-POX-CIL flowsheet. Flotation recovery curves have been fit using the available data. The flotation performance is described by a two-part recovery equation. A polynomial equation describes the recovery from material with a silver head grade of 0 g/t to 20 g/t Ag. For Ag head grades in excess of 20 g/t a flat flotation recovery of 93.0% is applied.

**Table 13-22: Flotation Silver Recovery Formulas for S2a, S2b and S1b Domains**

Ag Head Grade (g/t)	Flotation Au Recovery (%)
0 – 20	$- 0.27x^2 + 10x$
>20	93.0

Overall silver recovery is a function of recovery via flotation and CIL extraction after POX. Silver recovery from POX-CIL residues is limited by the formation of silver jarosite during pressure oxidation, which locks the silver up in solids and does not allow for extraction with cyanide. The addition of a lime boil treatment step on the POX discharge can break down the jarosites and release the silver for recovery by cyanide. No lime boil testing was conducted during this phase of work; however silver extraction through POX-lime boil-CIL is assumed to be approximately 50%.

**$Ag\ recovery\ (\%) = Flotation\ Ag\ recovery\ (\%) \times 50\%$**

Zinc recovery from Camino Rojo sulphides can be variable but may be up to 80% from the higher grade sources.

Zone 22 material is deeper than the geometallurgical units described above. Test work to date suggests that Zone 22 material is characterized by good gold recovery via conventional cyanidation (greater than 80%) and higher zinc feed grades, showing the potential to produce zinc concentrates at recoveries over 90%.



## 14.0 Mineral Resource Estimates

### 14.1 Summary

SLR and the QP were engaged to estimate the Camino Rojo Mineral Resources under both an open pit and underground mining scenario. This estimation relied principally on data from diamond drill hole samples. Wireframes were created using Leapfrog Geo, while Leapfrog Edge software facilitated grade interpolation into blocks using the inverse distance cubed ( $ID^3$ ) and squared ( $ID^2$ ) interpolation methods. Block classification as Measured, Indicated, and Inferred was primarily based on a drill spacing criterion. SLR and the QP validated the estimates using standard industry validation techniques.

To ensure the criteria for Reasonable Prospects for Eventual Economic Extraction (RPEEE) were met, an optimized resource shell for reporting Mineral Resources was created with GEOVIA Whittle software at NSR cut-off values of \$7.59/t for leach material and \$17.30/t for Mill – Cyanidation (Carbon-in-Leach or CIL) material. Underground reporting shapes were generated in Deswik at NSR cut-off values of \$59.02/t for leach material, \$68.73/t for Mill - CIL material, and \$76.23/t for Mill – CIL with Pressure Oxidation (POX) pre-treatment material.

A summary of the Mineral Resource estimate for Camino Rojo with an effective date of March 31, 2025, is shown in Table 14-1. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification.



**Table 14-1: Summary of Mineral Resources – Effective Date of March 31, 2025**

Operation	Process Type	Category	Tonnage (kt)	Average Grade				Contained Metal			
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)
OP	Leach	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86
		Indicated	33,967	0.76	15.03	-	0.83	831	16,411	-	908
		<b>Measured + Indicated</b>	<b>37,022</b>	<b>0.77</b>	<b>15.12</b>	-	<b>0.83</b>	<b>911</b>	<b>17,998</b>	-	<b>993</b>
		Inferred	1,613	0.89	14.38	-	0.97	46	746	-	50
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-
		Indicated	2,518	1.74	21.59	-	1.90	141	1,748	-	154
		<b>Measured + Indicated</b>	<b>2,518</b>	<b>1.74</b>	<b>21.59</b>	-	<b>1.90</b>	<b>141</b>	<b>1,748</b>	-	<b>154</b>
		Inferred	423	1.91	21.60	-	2.12	26	294	-	29
	<b>Total OP</b>	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86
		Indicated	36,485	0.83	15.48	-	0.91	973	18,158	-	1,062
		<b>Measured + Indicated</b>	<b>39,539</b>	<b>0.83</b>	<b>15.53</b>	-	<b>0.90</b>	<b>1,052</b>	<b>19,746</b>	-	<b>1,147</b>
		Inferred	2,037	1.10	15.88	-	1.21	72	1,040	-	79
UG	Leach	Measured	7	1.95	31.45	-	2.11	0.46	7	-	0.50
		Indicated	1,704	2.90	13.17	-	3.03	159	722	-	166
		<b>Measured + Indicated</b>	<b>1,711</b>	<b>2.90</b>	<b>13.25</b>	-	<b>3.03</b>	<b>159</b>	<b>729</b>	-	<b>166</b>
		Inferred	214	2.29	15.08	-	2.44	16	104	-	17
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-
		Indicated	12,475	2.07	8.68	-	2.11	832	3,480	-	848
		<b>Measured &amp; Indicated</b>	<b>12,475</b>	<b>2.07</b>	<b>8.68</b>	-	<b>2.11</b>	<b>832</b>	<b>3,480</b>	-	<b>848</b>
		Inferred	2,549	1.81	10.19	-	1.85	148	835	-	152
	Mill-CIL with POX	Measured	-	-	-	-	-	-	-	-	-
		Indicated	35,900	2.56	11.13	0.35	2.72	2,958	12,847	278	3,142
		<b>Measured + Indicated</b>	<b>35,900</b>	<b>2.56</b>	<b>11.13</b>	<b>0.35</b>	<b>2.72</b>	<b>2,958</b>	<b>12,847</b>	<b>278</b>	<b>3,142</b>
		Inferred	2,813	2.57	11.17	0.42	2.75	232	1,010	26	249
	<b>Total UG</b>	Measured	7	1.95	31.45	-	2.11	0.5	7	-	0.5
		Indicated	50,079	2.45	10.59	0.25*	2.58	3,949	17,048	278	4,156
		<b>Measured + Indicated</b>	<b>50,086</b>	<b>2.45</b>	<b>10.59</b>	<b>0.25*</b>	<b>2.58</b>	<b>3,950</b>	<b>17,055</b>	<b>278</b>	<b>4,156</b>
		Inferred	5,576	2.21	10.87	0.21*	2.33	396	1,949	26	417
<b>Total</b>	Measured	3,062	0.81	16.20	-	0.87	80	1,595	-	86	
	Indicated	86,563	1.77	12.65	0.15*	1.87	4,922	35,206	278	5,217	
	<b>Measured + Indicated</b>	<b>89,625</b>	<b>1.74</b>	<b>12.77</b>	<b>0.14*</b>	<b>1.84</b>	<b>5,002</b>	<b>36,801</b>	<b>278</b>	<b>5,304</b>	
	Inferred	7,612	1.91	12.21	0.16*	2.03	468	2,989	26	497	

Notes:

- 1 CIM (2014) definitions were followed for estimating Mineral Resources.
- 2 Mineral Resources are estimated in the optimized pit shell at a NSR cut-off value of \$7.59/t for leach material and \$17.30/t for Mill - CIL material, while the underground reporting shapes are using a NSR cut-off value of \$59.02/t for leach material, \$68.73/t for Mill - CIL material and \$76.23/t for Mill – CIL with POX material.



Operation	Process Type	Category	Tonnage (kt)	Average Grade				Contained Metal			
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)
3	Mineral Resources are estimated using a long-term price of \$2,300 per ounce for gold, \$29 per ounce for silver, and \$1.25 per pound for zinc, with an US\$:C\$ exchange rate of 1:1.33.										
4	Bulk density varies from 2.40 t/m <sup>3</sup> to 2.67 t/m <sup>3</sup> for the mineralization and estimation domains and 2.0 t/m <sup>3</sup> for the overburden.										
5	Metallurgical recoveries vary according to geometallurgical domains and process type (Leach, Mill - CIL, or Mill – CIL with POX) and are either a constant or formula based. Heap leach recoveries range between 40% to 70% for gold and 11% to 34% for silver, for the open pit and underground scenario. For Mill material, gold and silver recovery recoveries are calculated using grade dependant formulas. The open pit CIL mean recovery is 60% for gold and 22% for silver. The underground CIL mean recovery is 92% for gold and 36% for silver. The underground CIL with POX mean recovery is 85% for gold and 41% for silver. Zn recovery by Mill – CIL with POX is 80%.										
6	The NSR is calculated by material type with the following formulas: <ul style="list-style-type: none"> <li>o Heap Leach Material NSR (\$/t) = \$71.98 x Au recovery x Au grade (g/t) + \$0.84 x Ag recovery x Ag grade (g/t).</li> <li>o Mill - CIL NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade (g/t).</li> <li>o Mill – CIL with POX NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade + \$0.00146 x Zn recovery x Zn grade (ppm)</li> </ul>										
7	The gold equivalent (AuEq) for by material types are calculated with the following formulas: <ul style="list-style-type: none"> <li>o Heap Leach material: Au grade (g/t) + (\$0.84 x Ag recovery x Ag grade (g/t)) / (\$71.98 x Au recovery).</li> <li>o Mill - CIL material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery).</li> <li>o Mill – CIL with POX material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery) + (\$0.00146 x Zn recovery x Zn grade (ppm)) / (\$68.34 x Au recovery).</li> </ul>										
8	Mineral Resources are constrained by an optimized resource pit shell and underground resource panels with a minimum width of 2 m.										
9	Mineral Resources are inclusive of Mineral Reserves.										
10	Numbers may not add due to rounding.										
11	Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves.										
* Zinc is only considered in the underground CIL with POX scenario, and its grade is averaged over the underground and final total numbers.											

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

## 14.2 Mineral Resource Database

Orla compiled and provided the drill hole database for Camino Rojo, which was subsequently reviewed by SLR and the QP. This database includes various data files, such as collar positions, downhole deviation surveys, assays including ICP multi-element analyses, lithology, density, structures, alteration, and mineralization, all organized into distinct tables. The Camino Rojo database was part of a Seequent Leapfrog 2024.1.2 project, and separate CSV files were also supplied.

The database used for this MRE, with only the drill holes confined within the resource area, contains data from drilling conducted between 2007 and 2024, encompassing information from 1,014 drill holes (165 reverse circulation (RC) drill holes, 745 diamond drill holes (DDH), 104 rotary air blast (RAB) drill holes) with a total length of 505,840.68 m and 259,955 samples. Verification procedures for the drill hole database are detailed in Section 12 of this Technical Report. The database was provided on March 24, 2025, with the most recent drill holes included being CROX24-36 and CRSX24-43A.

Some RC drilling results from Canplats were considered wet and possibly contaminated. These 16 holes were excluded from the database prior to the resource modelling exercise:



BCR-010	BCR-032	BCR-044	BCR-074
BCR-028	BCR-035	BCR-052	BCR-080
BCR-030	BCR-039	BCR-057	BCR-084
BCR-031	BCR-040	BCR-069	BCR-085

### 14.3 Geological Interpretation

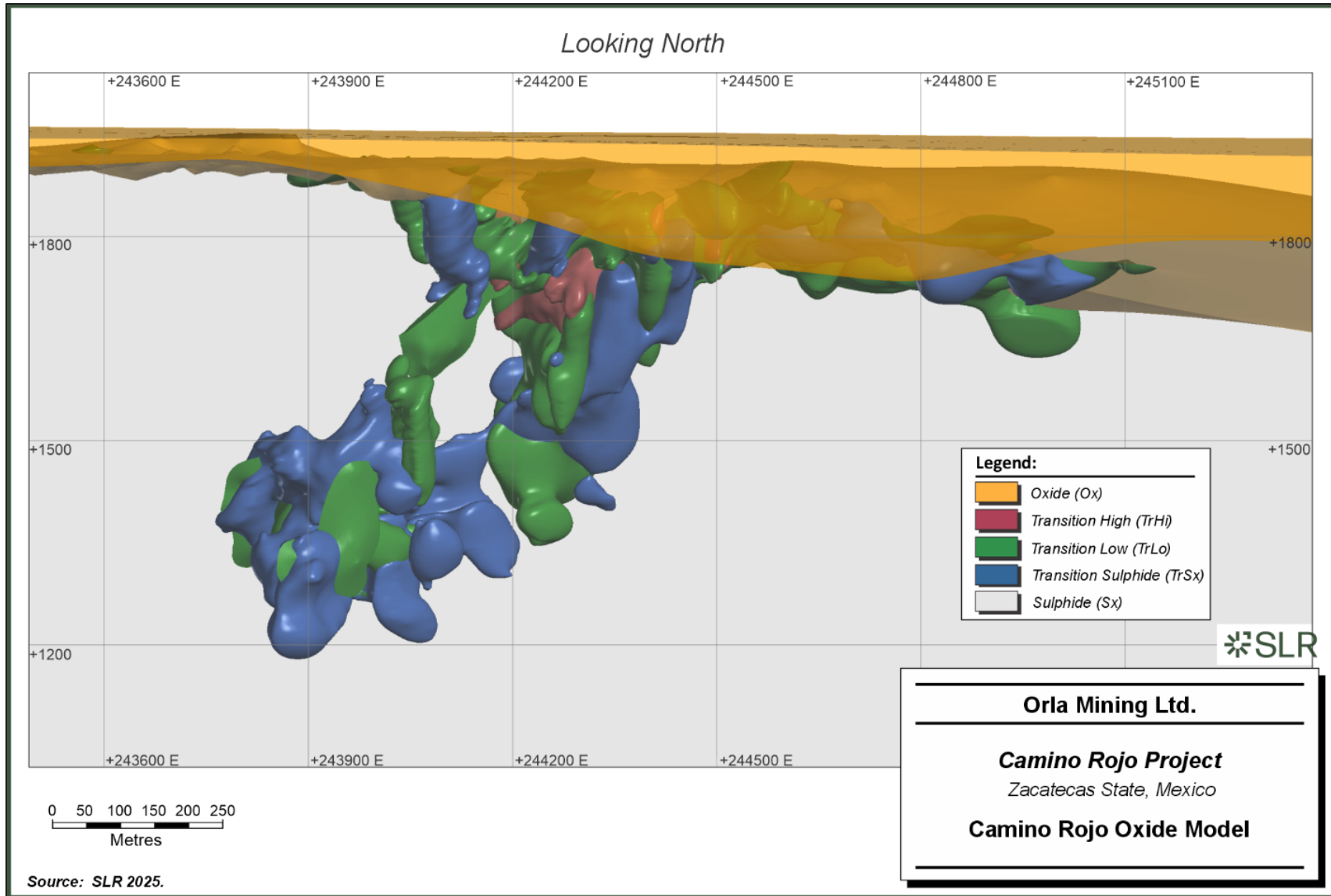
Orla geologists developed multiple geological models in Leapfrog using an implicit modelling approach with manual adjustments such as polylines and points. A lithological model, which includes the overburden and the lithological formations Caracol, Indidura, Cuesta del Cura, la Peña, and Cupido, was prepared. Additionally, models of the oxide, alteration, geometallurgical domains, arsenic, structures, and organic carbon were created. The QP reviewed the provided geological models and confirmed their suitability for Mineral Resource estimation.

The oxide model contained the following layers: oxide (Ox), transition high (TrHi), transition low (TrLo), transition sulphide (TrSx), and sulphide (Sx), as illustrated in Figure 14-1. Criteria used for the determination of the level of oxidation were the following:

- Ox: Logged interval is visually identified as oxide with >90% oxidation of the drill core. Where visual identification is ambiguous, sulphur content (s\_pct) can be used as a quantitative criterion, with values below 2% indicative of oxide material
- TrHi: Logged interval is visually identified as TrHi with 60-90% oxidation of the drill core. Where visual identification is ambiguous, sulphur content (s\_pct) can be used as a quantitative criterion, with values below 3% indicative of TrHi material
- TrLo: Logged interval is visually identified as TrLo with 30-60% oxidation of the drill core
- TrSx: Logged interval is visually identified as TrSx with 10-30% oxidation of the drill core
- Sx: Logged interval is visually identified as Sx with <10% oxidation of the drill core



**Figure 14-1: Camino Rojo Oxide Model**



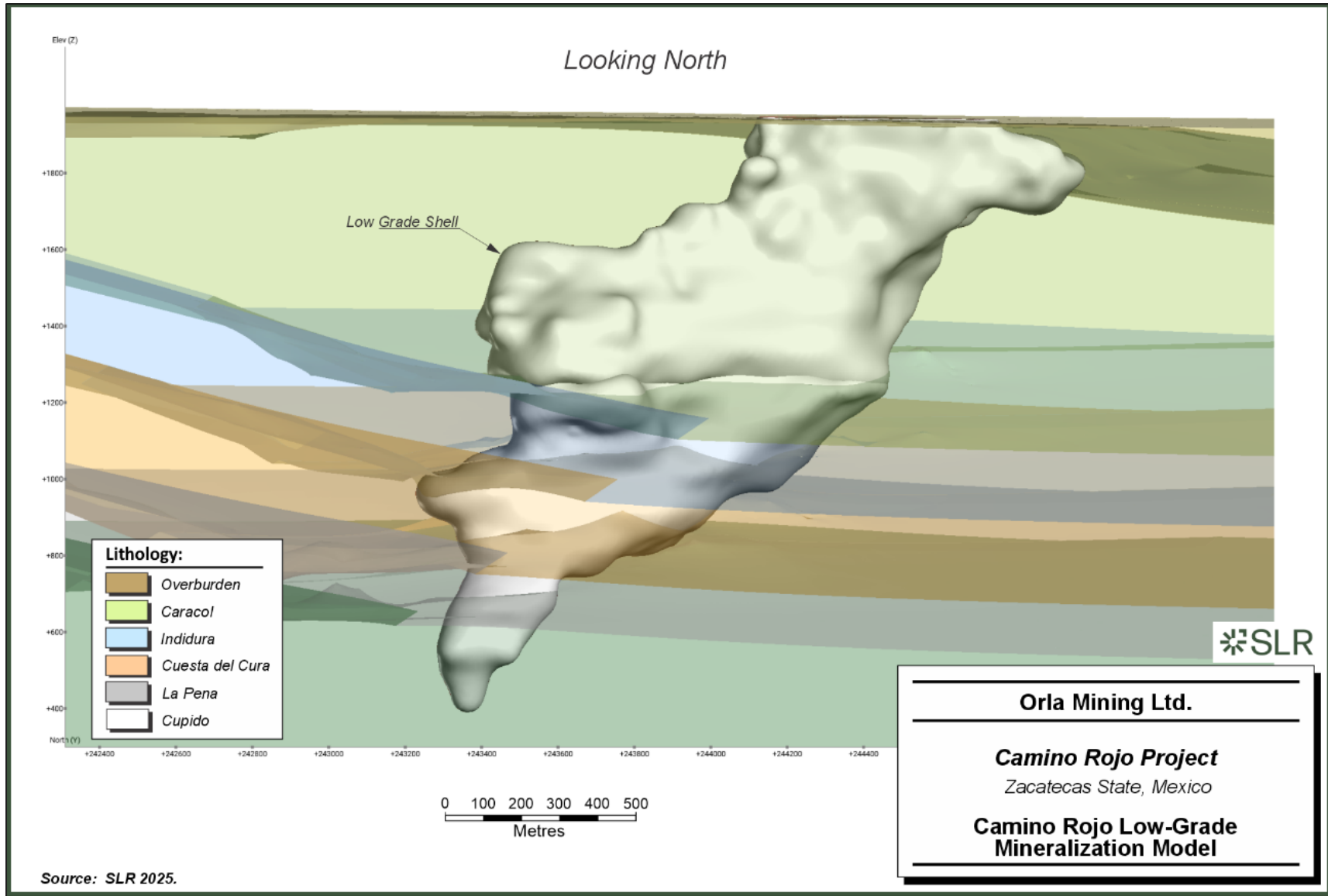
The alteration, arsenic, organic carbon, and oxide model all inform the geometallurgical domains model, which is used for the metallurgical recoveries, NSR, and AuEq calculations. The geometallurgical domains are listed:

- KpOx: oxide (Ox) layer within potassic alteration (Kp)
- KiOx: Ox within incipient potassic alteration (Ki), now represented by the low-grade shell, which is discussed below
- TrHi
- TrLo
- TrSx
- S1a: low arsenic (from the arsenic model) within low carbon wireframe (from the organic carbon geological model)
- S2a: high arsenic within low carbon wireframe
- S1b: variable arsenic within high carbon wireframe
- S2b: high arsenic within high carbon wireframe

Using Leapfrog implicit modelling techniques and manual control features, the QP created a low-grade (LG) mineralization shell (Figure 14-2) consisting of two portions, one built using a 0.1 g/t Au cut-off, mostly within the Caracol formation, with the other built using a 0.1 g/t gold equivalent (AuEq) cut-off in the other lithological formations. The AuEq was used to reflect the contribution of zinc, lead, and copper that is increasing at depth. The AuEq formula is defined in section 14.10 of this report. These wireframes included lower grade intercepts to ensure the continuity of the solid and avoid unnecessary fragmentation. Interval selection was guided by economic composites. Indicator shells at various cut-off values were used to select the cut-off value that best enhanced the grade continuity.



**Figure 14-2: Camino Rojo Low-Grade Mineralization Model**



Within the low-grade envelope, Orla geologists, in collaboration with SLR and the QP, constructed high-grade mineralization wireframes (HG) at 1 g/t Au for the Caracol formation and at 1 g/t gold equivalent (AuEq) in lithological formations below the Caracol. This process used core photo orientations, indicator shells, a vein density model, and oriented core disks. Four vein groups (the 100, 200, 300, and 400 series) were modelled.

In the Caracol, the vein groups included the 100 series, representing sub-vertical zones, and the 200 series, representing flat to shallow dipping zones. The 100 series posed challenges during its conception due to the historical downdip drilling orientation.

Further at depth, the 300 and 500 series were built, the first one being sub-vertical skarns, and the latest representing sub-horizontal to shallow dipping mantos bodies.

Series 100 contains 27 distinct wireframes labelled between MIN101 to MIN129, while series 200 contains 22 veins labelled between MIN201 to MIN243.

Further at depth, series 300 only contains MIN301, while series 500 contains 38 veins named from MIN502 to MIN553. These wireframes were grouped by series for the purpose of this estimation. The individual veins in each group are generally not touching one another.

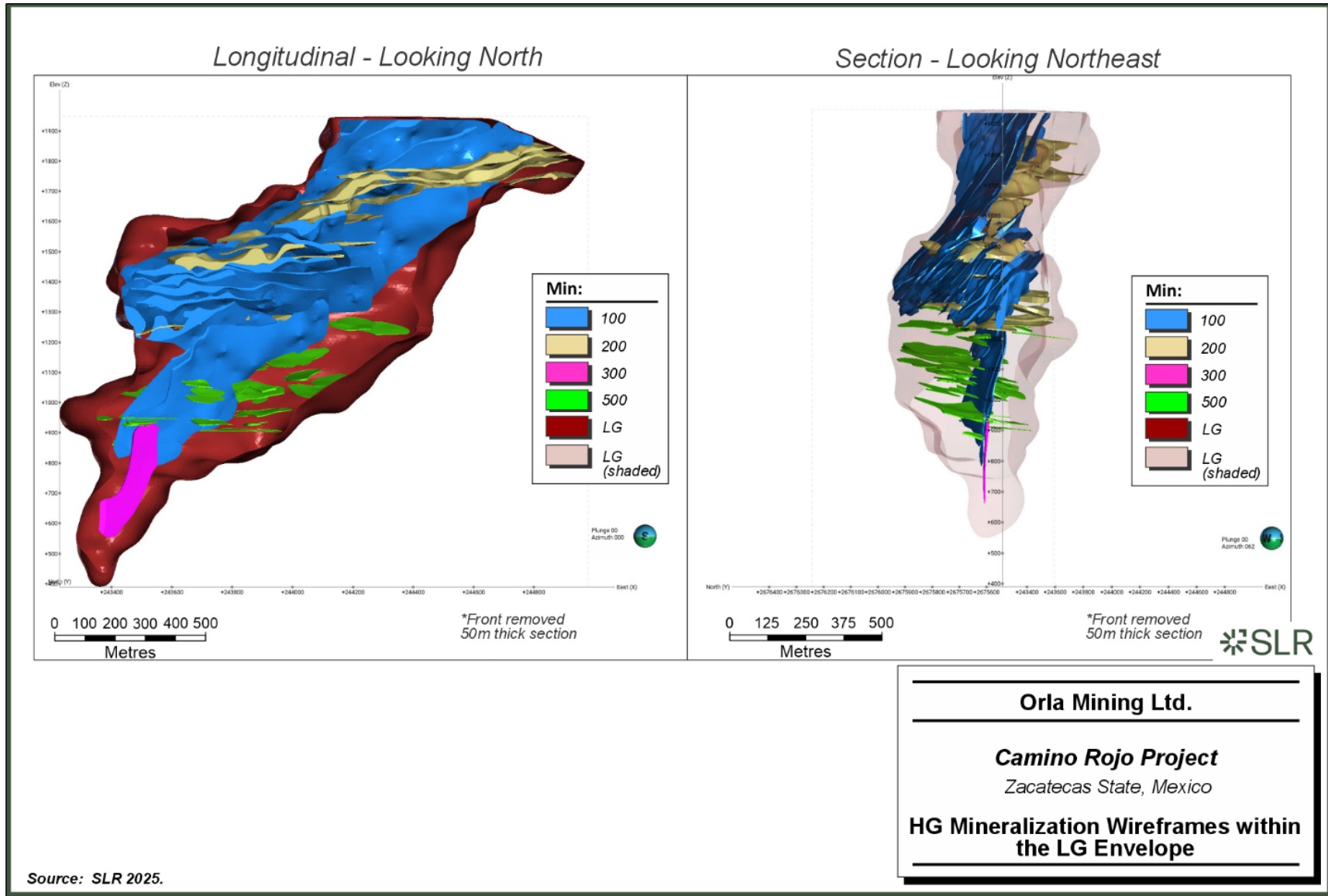
Figure 14-3 shows the HG mineralization wireframes within the low-grade envelope. Additionally, it is important to note that MCR refers to the HG wireframes sitting below the Caracol lithological formation as Zone 22.

Although the current approach of preparing mineralization wireframes at depth using gold equivalent grades has been effective, the QP recommends that MCR reevaluate this strategy in future updates. Specifically, the mineralization chronology and relationships between metals should be analyzed. Based on the results of this review, extending the gold-only wireframes from higher levels at depth should be investigated, given that gold is the primary metal contributor.

Additionally, creating separate wireframes for silver, zinc, and copper should be considered, as appropriate. This approach would provide a more accurate representation of the nature of the mineralization and its chronology, as well as better capture significant grades within constrained envelopes, reducing reliance on high-grade restrictions to manage isolated high-grade intercepts.



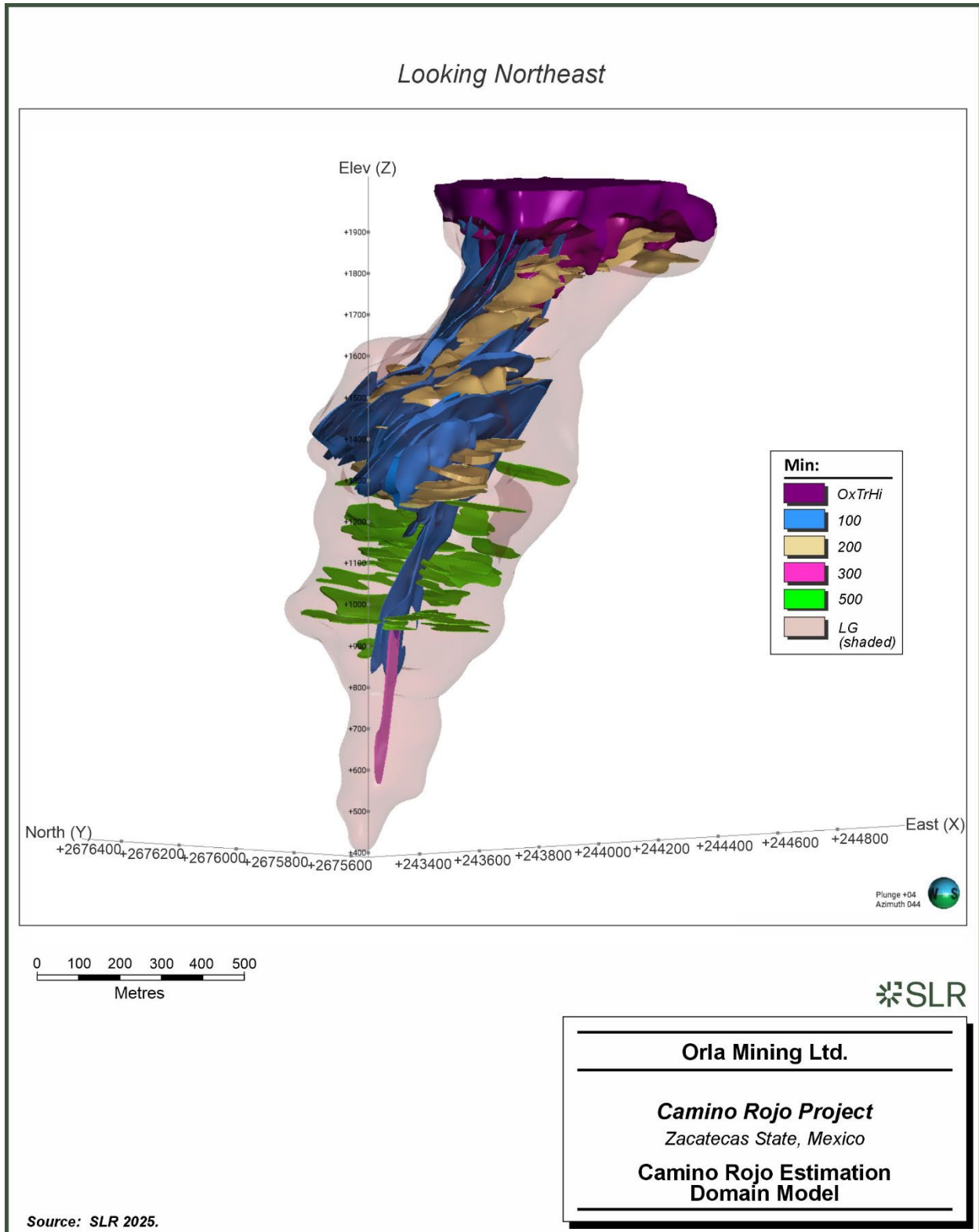
**Figure 14-3: HG Mineralization Wireframes within the LG Envelope**



For the final estimation domains, the nature of the deposit and the metallurgical methods for both oxide and sulphide materials were considered. A merged wireframe named OxTrHi, consisting of the Oxide (Ox) and Transition High (TrHi) wireframes from the Orla oxide geological model, was prepared and clipped within the low-grade envelope. Subsequently, the HG wireframes were clipped to the OxTrHi wireframe, resulting in seven estimation domains: OxTrHi, 100, 200, 300, 500, LG and OUT (remaining area outside the LG shell), as shown in Figure 14-4.



**Figure 14-4: Camino Rojo Estimation Domain Model**



## 14.4 Treatment of High-Grade Assays

### 14.4.1 Capping Levels

To mitigate the impact of erratic high-grade assays that could otherwise skew surrounding lower-grade samples, the QP implements the practice of capping high-grade assays before compositing. Statistical methods were employed to establish appropriate capping levels for Camino Rojo.

The 100, 200, 300, 500, LG and the OUT wireframes were used for this exercise as capping domains. Estimated elements capping levels for each domain were determined using a combination of methods including histograms, decile analysis, probability plots, disintegration, and visual inspection of the spatial distribution of higher-grade assays. Descriptive statistics for both raw (uncapped) and capped assays are provided in Table 14-2.

**Table 14-2: Assay and Capping Statistics Summary**

Capping Domain	Count	Raw Assays				Capped Assays				
		Average (g/t)	Min (g/t)	Max (g/t)	CV	Cap (g/t)	No. Capped	Average (g/t)	CV	% Metal Loss
<b>Au</b>										
100	18,479	1.97	0.0001	115.0	1.95	50	19	1.95	1.83	1.02
200	4,825	2.11	0.0001	290.0	2.55	30	13	2.02	1.52	4.27
300	46	0.97	0.016	4.94	1.06	-	-	-	-	-
500	520	2.81	0.0025	61.5	1.68	25	5	2.75	1.56	2.14
LG	88,411	0.32	0.0001	140.5	3.68	30	20	0.31	2.89	1.73
OUT	142,763	0.04	0.0001	104.0	10.2	12	22	0.03	8.88	25
<b>Ag</b>										
100	18,479	12.84	0	4,870	3.6	225	22	12.35	1.53	3.82
200	4,825	14.31	0	388	1.42	170	9	14.22	1.35	0.63
300	46	25.60	0.25	119	1.03	70	4	23.16	0.84	9.53
500	520	16.19	0.25	309	1.70	70	19	14.36	1.26	11.30
LG	88,411	4.71	0.00	534	2.37	200	40	4.67	2.13	0.85
OUT	142,763	1.74	0.00	1,975	8.35	375	56	1.66	6.32	4.60

Capping Domain	Count	Raw Assays				Capped Assays				
		Average (ppm)	Min (ppm)	Max (ppm)	CV	Cap (ppm)	No. Capped	Average (ppm)	CV	% Metal Loss
<b>Zn</b>										
100	18,479	3,479	0	172,000	1.5	55,000	21	3,464	1.44	0.44
200	4,825	4,569	0	93,700	1.34	40,000	20	4,518	1.26	1.11
300	46	922	0	13,200	2.18	-	-	-	-	-

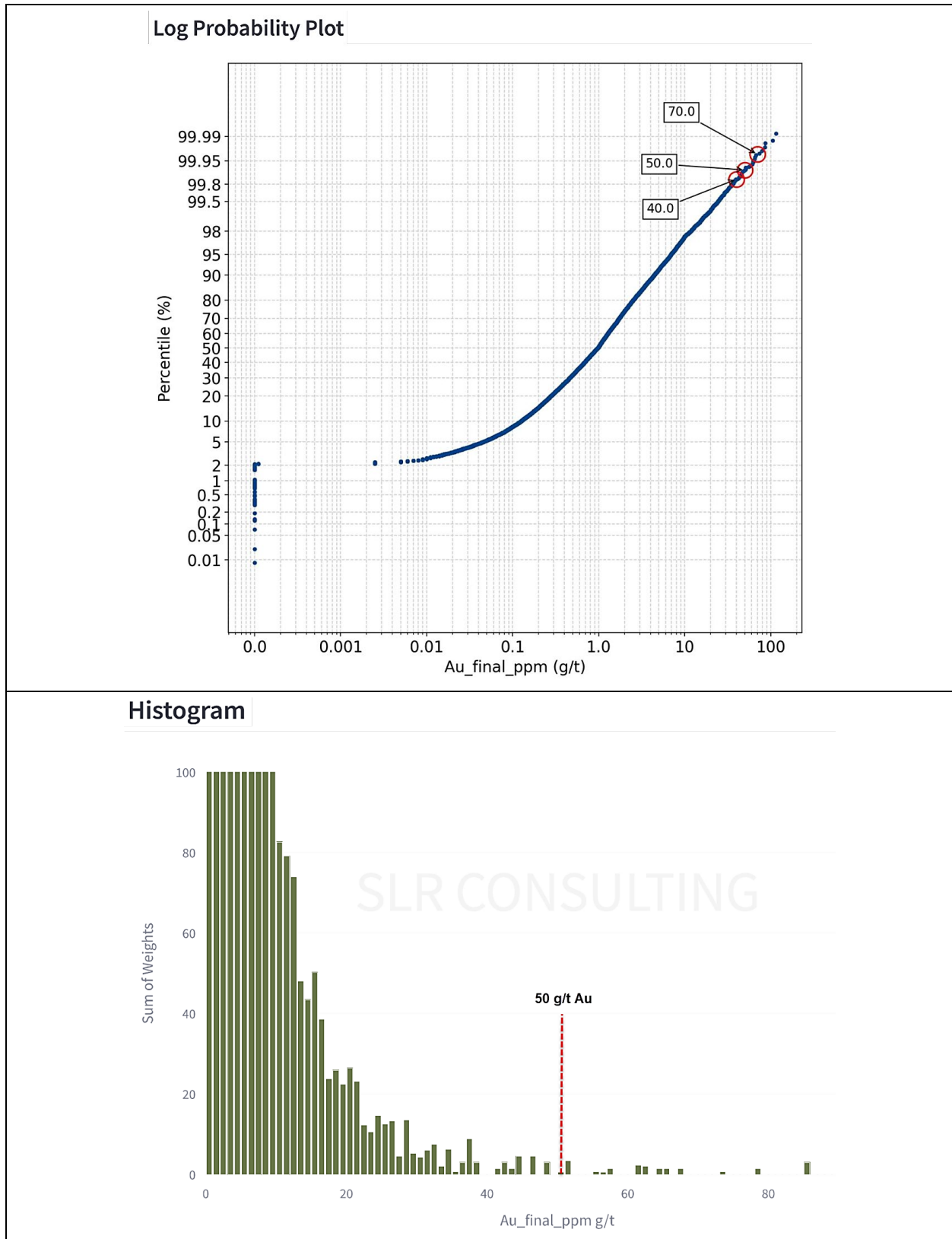


Capping Domain	Count	Average (ppm)	Min (ppm)	Max (ppm)	CV	Cap (ppm)	No. Capped	Average (ppm)	CV	% Metal Loss
<b>Zn</b>										
500	520	15,227	11	166,500	1.55	90,000	12	14,649	1.43	3.8
LG	88,411	1,735	0	188,000	2.25	80,000	39	1,727	2.13	0.46
OUT	142,763	221	0	247,000	5.82	80,000	5	220	5.16	0.6

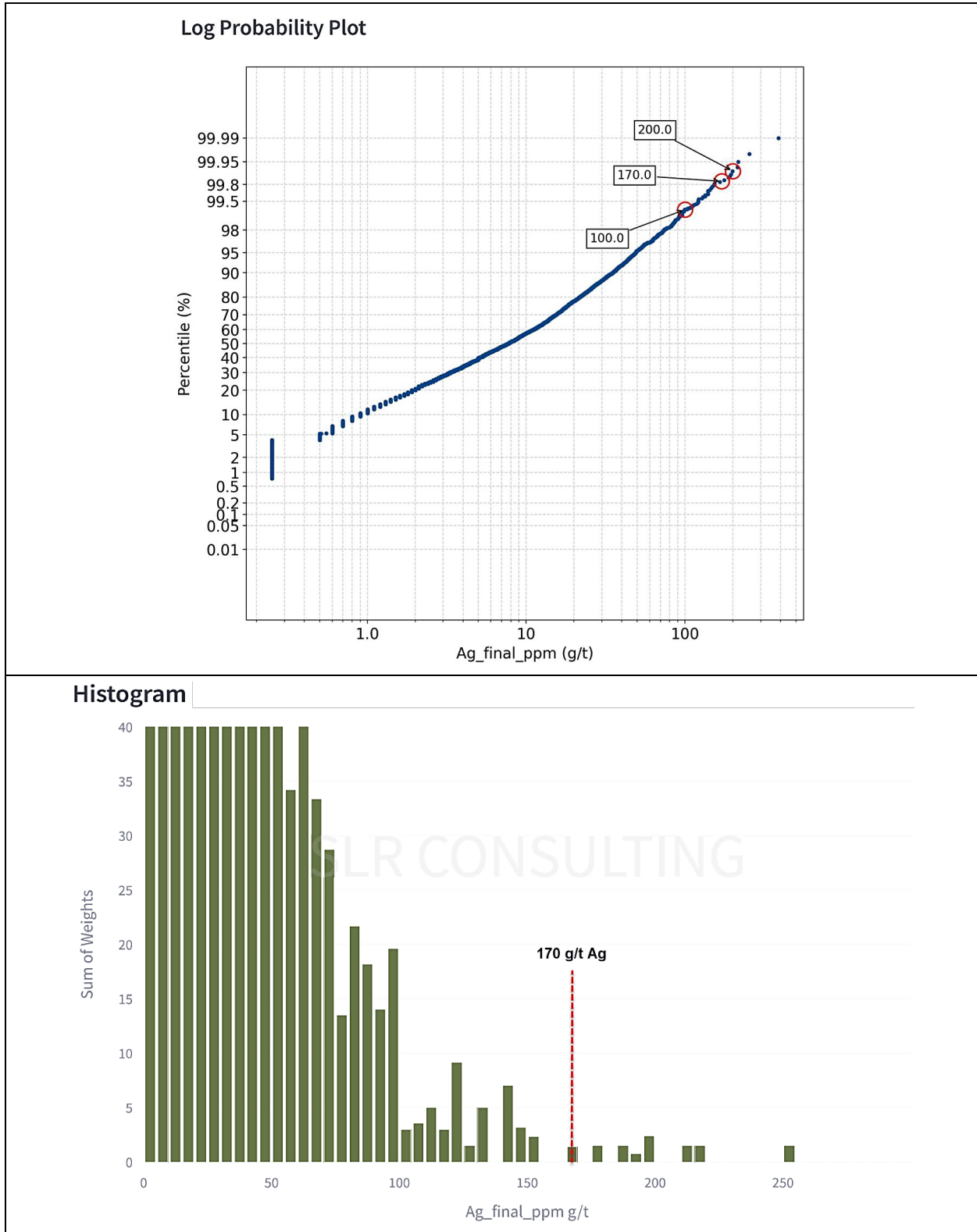
The gold capping analysis of domain 100 is presented in Figure 14-5, silver capping for domain 200 in Figure 14-6, and zinc in domain 500 in Figure 14-7.



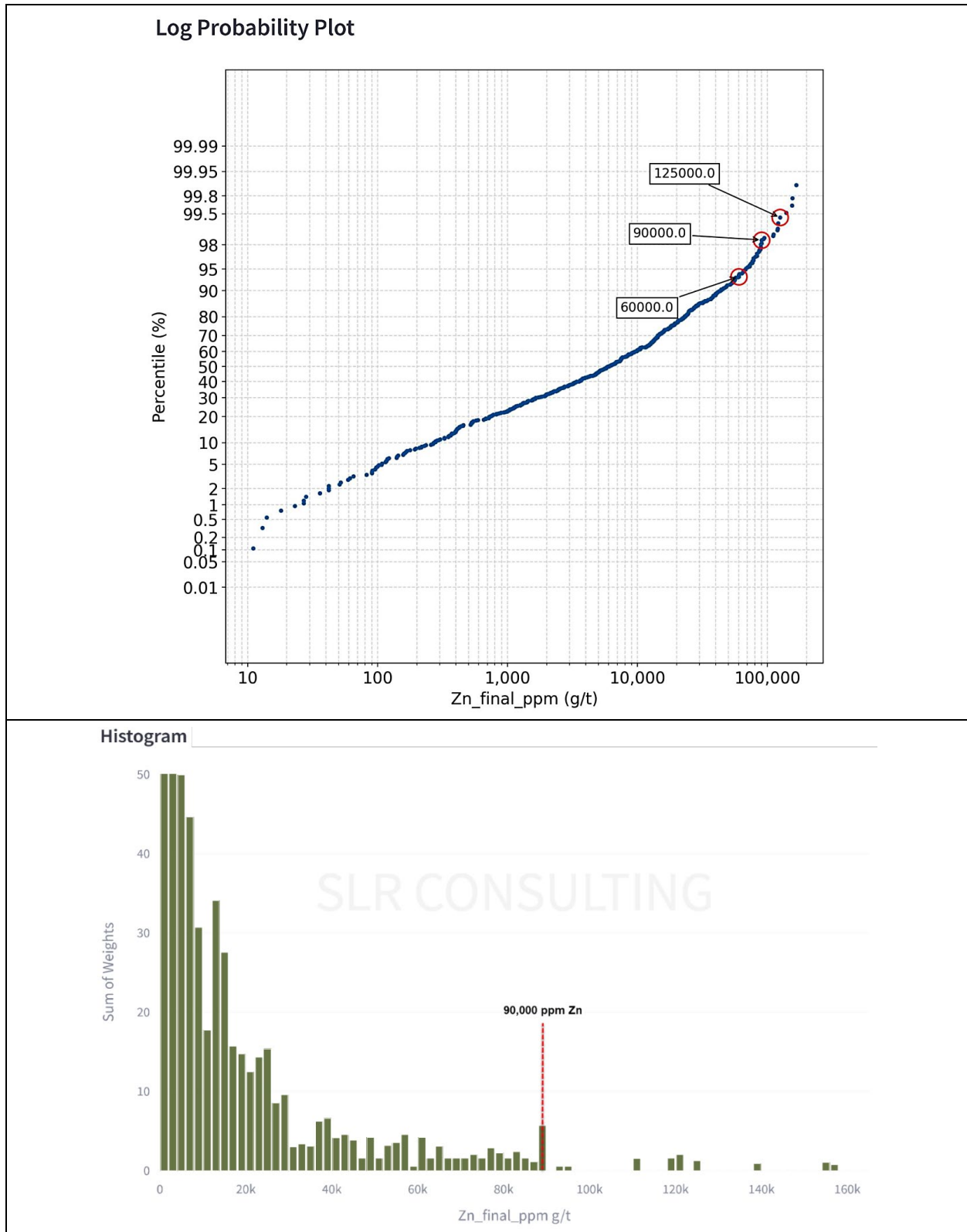
**Figure 14-5: Gold Capping Analysis of Domain 100**



**Figure 14-6: Silver Capping Analysis of Domain 200**



**Figure 14-7: Zinc Capping Analysis of Domain 500**



### 14.4.2 High-Grade Restriction

High-grade restrictions were implemented to mitigate the disproportionate influence of isolated higher grade assay values on the overall estimation. Unrestricted, these values could potentially overestimate the average grade estimate beyond the representative nature of the entire deposit. Restrictions were applied to gold and silver composites in the ellipsoid search passes of the estimation in the lower grade domains LG and OUT (Table 14-3), where isolated high-grade anomalies were identified, resulting in clusters of high-grade blocks.

**Table 14-3: Gold and Silver High-Grade Restrictions Summary**

Domain	HG Restriction (g/t)	Distance (m)	Distance Pass 1 (%)	Distance Pass 2 (%)	Distance Pass 3 (%)	Distance Pass 4 (%)
LG	0.25	~5 m (1 block)	7	3.5	20	2.4
OUT	0.25	~10m (2 blocks)	22	14	4.8	(-)

### 14.5 Compositing

Before grade estimation, capped assay samples were composited by SLR using a fixed interval length of 1.5 m. The compositing process was conducted from collar to toe within mineralization wireframes, starting at the wireframe pierce-point and continuing to the point where the hole exited the domain. Composites shorter than 30% of the compositing length, i.e., shorter than 0.45 m, were added to the previous interval.

Table 14-4 provides descriptive statistics for capped composite values, organized by estimation domain.

**Table 14-4: Composites Descriptive Statistics**

Estimation Domain	Count	Length (m)	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	St Dev (g/t)	CV
<b>Au</b>							
OxTrHi	18,490	27,651.72	0.0001	36	0.62	1.09	1.74
100	14,660	21,773.11	0.0001	50	2.13	3.71	1.75
200	4,455	6,605.43	0.0001	30	2.08	3.06	1.47
300	36	53.45	0.016	4.16	0.92	0.80	0.88
500	473	685.24	0.0054	25	2.75	4.01	1.46
LG	84,455	126,149.72	0.0001	30	0.29	0.85	2.92
OUT	186,510	279,536.21	0.0001	12	0.03	0.24	6.88
<b>Ag</b>							
OxTrHi	18,490	27,651.72	0	225	12.23	12.08	0.99
100	14,660	21,773.11	0	225	10.76	18.33	1.70
200	4,455	6,605.43	0	170	12.93	18.04	1.39
300	36	53.455	0.25	59.77	23.16	15.66	0.68
500	473	685.24	0.25	70	14.36	17.09	1.19



Estimation Domain	Count	Length (m)	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	St Dev (g/t)	CV
LG	84,455	126,149.72	0	200	3.57	8.50	2.38
OUT	186,510	279,536.21	0	375	1.69	9.65	5.72
Domain	Count	Length (m)	Minimum (ppm)	Maximum (ppm)	Mean (ppm)	St Dev (g/t)	CV
Zn							
OxTrHi	18,490	27,651.72	0	30,600	2,995	2,399	0.80
100	14,660	21,773.11	0	55,000	3,336	5,234	1.57
200	4,455	6,605.43	0	40,000	4,410	5,729	1.30
300	36	53.45	38	11,046	922	1,809	1.96
500	473	685.24	13	90000	14,649	19,195	1.31
LG	84,455	126,149.72	0	80,000	1,490	3,430	2.30
OUT	186,510	279,536.21	0	64,572	219	1,018	4.64

## 14.6 Trend Analysis

### 14.6.1 Grade Contouring

Grade continuity was analyzed by generating a series of numeric shells in Leapfrog, for both the grouped veins (100, 200, 300 and 500) and for some of the largest veins of each mineralization vein series. Grade contouring for the individual veins of groups 100 and 200 gave better results, with more distinguishable visual grade trends.

Veins MIN103, MIN203, MIN206, MIN237 were reviewed. Sub-vertical to moderately plunging trends were identified in MIN103, generally extending along an east-northeast (ENE) to west-southwest (WSW) strike, and west plunging.

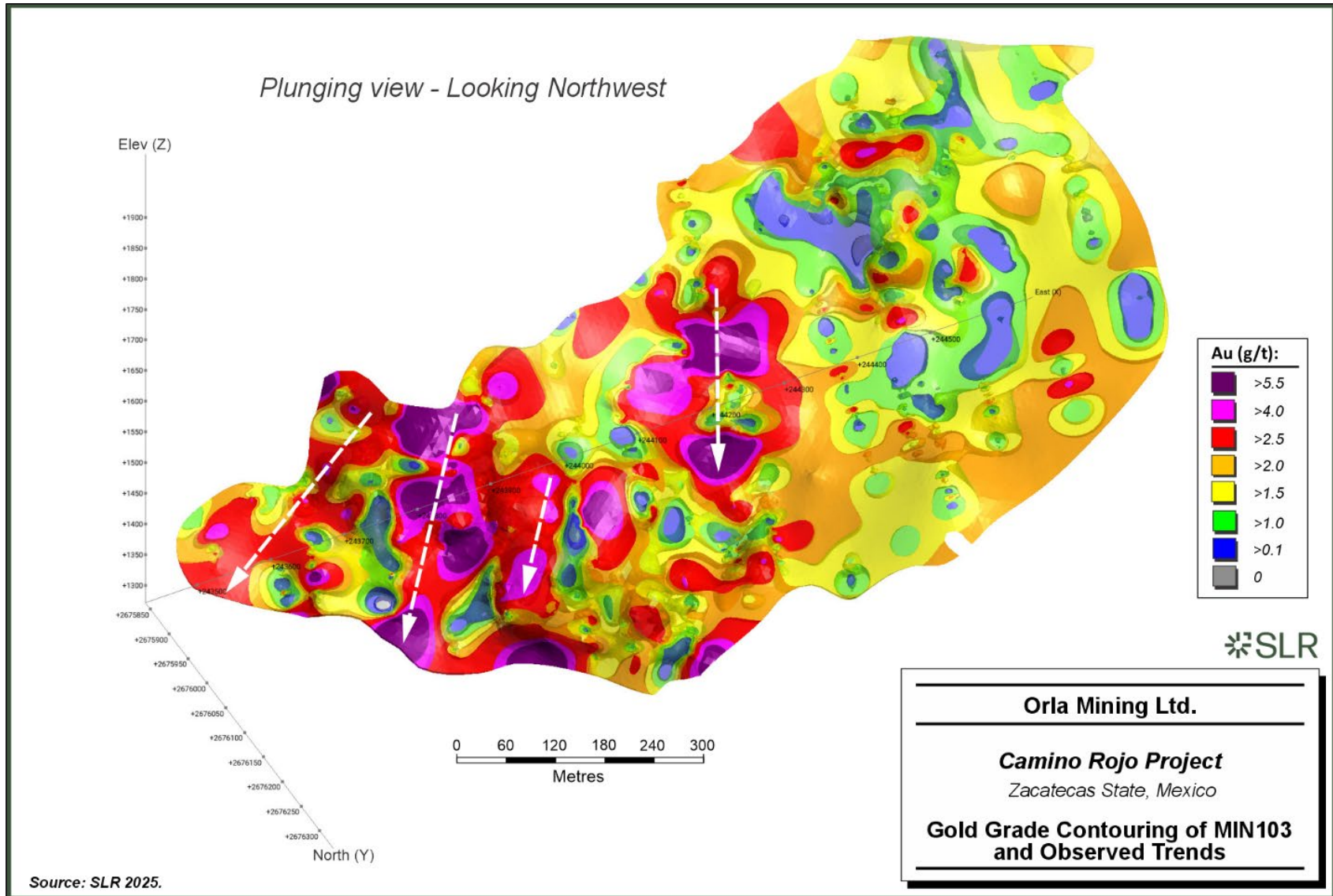
For group 200, the review of veins 203, 206, and 237 allowed for the definition of one sub-horizontal to shallow dipping trend plunging towards the southeast, with a strike northwest to southeast. Another trend, sub-vertical with a northeast-southwest strike plunging west, was also distinguished.

For group 500, the grade contouring allowed for the definition of a sub-vertical trend plunging slightly towards the south, with a northwest-southeast strike. Examples of the gold grade contouring for MIN103 and the 500 series are presented in Figure 14-8 and Figure 14-9.

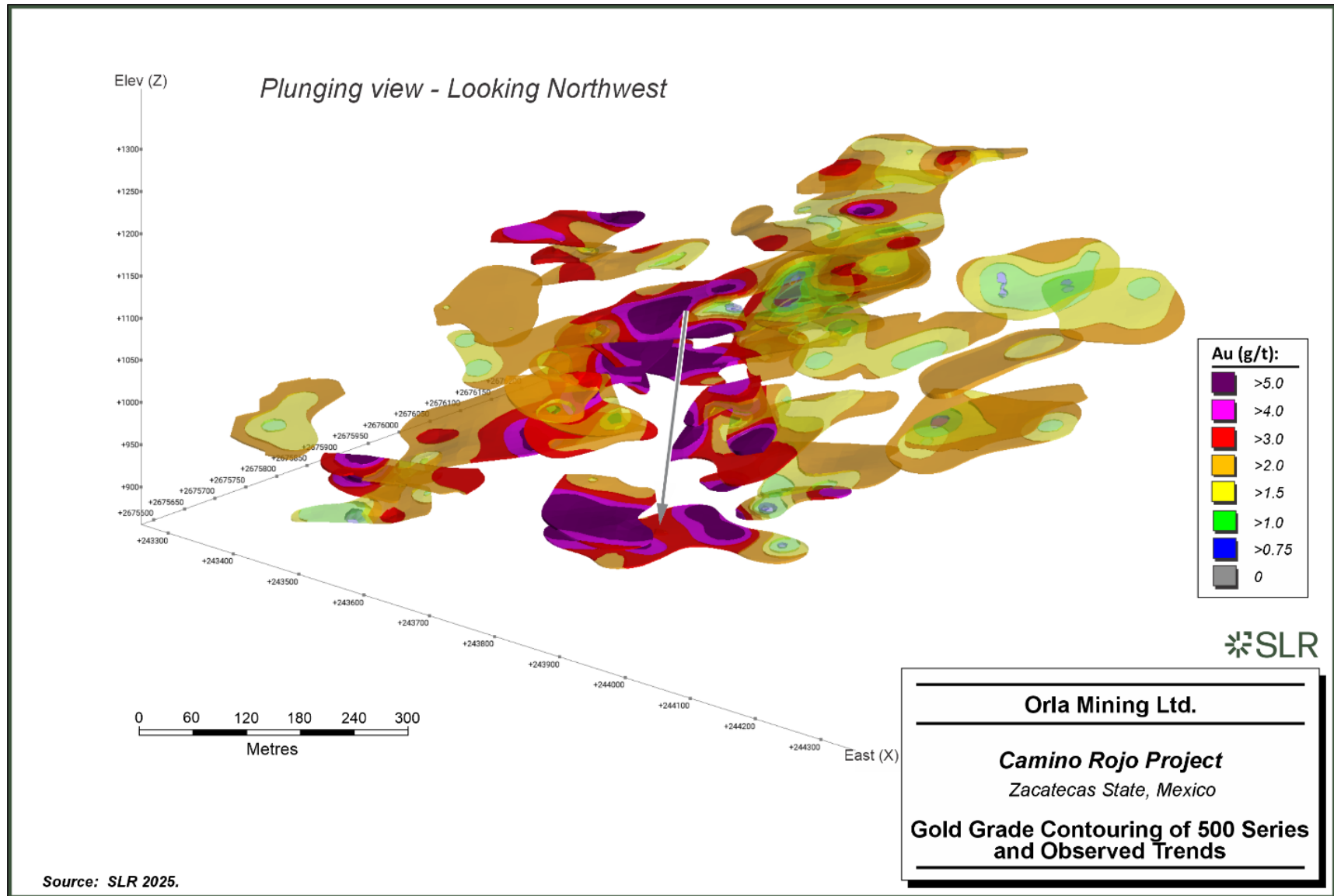
Other elements such as silver and zinc were also reviewed, but trends were most apparent for gold. The orientation of these trends was valuable in guiding experimental variography.



**Figure 14-8: Gold Grade Contouring of MIN103 and Observed Trends**



**Figure 14-9: Gold Grade Contouring of 500 Series and Observed Trends**



### 14.6.2 Variography

Variogram models were calibrated against experimental variograms using non-transformed data in Vulcan Data Analyser. The process focused on identifying the most reliable and stable gold variogram for each classified domain with the 1.5 m composites used for estimation. Although variograms were generated for all estimation domains, the most reliable results were achieved in domain OxTrHi, as shown in Figure 14-10. The analysis identified grade continuity of 28 m at 80% of the sill (R80), 50 m (R90), and 100 m (R100). A nugget of 0.3 was defined by the downhole variogram. The semi-major variogram rise quickly to the sill, showing 80% to 90% of the sill reached in very short ranges (10 m to 20 m), reflecting the high geological variability.

**Figure 14-10: Modelled Variograms for Estimation Domain OxTrHi**

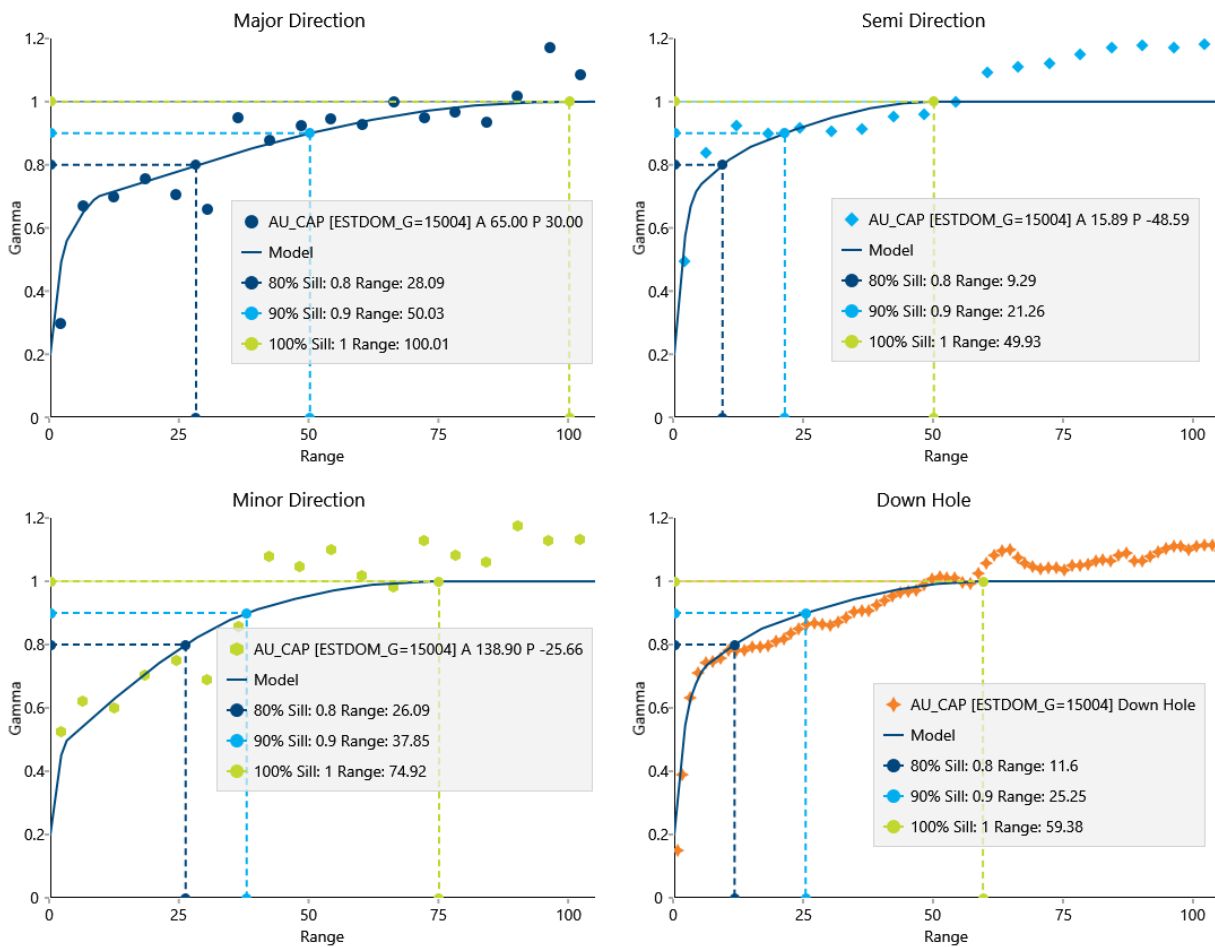


Table 14-5 details the variogram models built in Vulcan Analyser for the Camino Rojo classified estimation domains.



**Table 14-5: Estimation Domains Modelled Semi-Variograms**

Domain	Bearing	Plunge	Dip	Model	Nugget	Structure 1		Structure 2		Structure 3		Structure 4	
						Variance	Ranges <sup>1</sup> (m)	Variance	Ranges (m)	Variance	Ranges (m)	Variance	Ranges (m)
100	65	0	50	Spherical	0.2	0.2	5/5/2.5	0.3	7.5/5/7.5	0.3	10/15/15	-	-
200	65	0	-5	Spherical	0.5	0.3	10/10/2.5	0.1	15/15/10	0.1	30/30/25	-	-
OxTrHi	65	30	60	Spherical	0.3	0.1	3/3/3	0.21	10/5/40	0.2	70/7.5/50	0.19	100/50/50
LG	65	0	50	Spherical	0.5	0.3	2/2/10	0.15	10/10/35	0.05	25/25/50	-	-

Notes:

- 1 Ranges in Major, Semi-Major and Minor directions.
- 2 Domain 300 and 500 do not have sufficient data to obtain stable variograms.

The QP recommends reviewing the domaining strategy and analysing the trends to improve understanding of variability within the domains and to refine future search ellipsoid orientations. The QP also suggests that Orla continue drilling to collect more data for the 300 and 500 estimation domains, which would allow better understanding of grade trends and continuity at depth.

## 14.7 Search Strategy and Grade Interpolation Parameters

The interpolation of the Camino Rojo grade block model involved four passes for all estimation domains, except for the OUT domain, which used three passes. Grades were estimated using 1.5 m composites and ID<sup>3</sup> or ID<sup>2</sup> interpolation methods. The ID method was chosen to preserve local grades while accommodating occasional internal dilution and lower grade intercepts within the mineralized wireframes. Additionally, hard boundaries were applied to all estimation domains. Variable orientation was used to define orientation of anisotropy.

Table 14-6 presents the search ellipse geometry and sample selection strategy used for each pass in estimating gold, silver, and zinc grades.

**Table 14-6: Search Ellipse Geometry and Sample Selection Strategy**

Domain	Method	Orientation	P1 Search (m)	P2 Search (m)	P3 Search (m)	P4 Search (m)	P1 Min/Max Samples/Max per DH	P2 Min/Max Samples/Max per DH	P3 Min/Max Samples/Max per DH	P4 Min/Max Samples/Max per DH	HG Restrictions
OxTrHi	ID <sup>3</sup>	VO <sup>1</sup>	45/45/22.5	70/70/35	25/25/12.5	210/210/105	9/16/4	6/16/4	1/16/-	5/16/4	-
100	ID <sup>3</sup>	VO	45/45/22.5	70/70/35	25/25/12.5	210/210/105	5/16/4	5/16/4	1/16/-	5/16/4	-
200	ID <sup>3</sup>	VO	20/20/10	40/40/20	10/10/5	120/120/60	5/16/4	5/16/4	1/16/-	5/16/4	-
300/500	ID <sup>2</sup>	VO	70/70/35	140/140/70	25/25/12.5	210/210/105	3/8/2	3/8/2	1/8/-	3/8/2	-
LG	ID <sup>2</sup>	VO <sup>2</sup>	70/70/35	140/140/70	25/25/12.5	210/210/105	7/16/4	6/16/5	1/16/-	5/16/4	0.25 g/t @ ~5 m for Au and Ag <sup>3</sup>
OUT	ID <sup>2</sup>	VO <sup>2</sup>	45/45/22.5	70/70/735	210/210/105	-	12/16/4	12/16/4	8/16/4	-	0.25 g/t @ ~10 m for Au and Ag <sup>3</sup>

Notes:

- 1 Variable orientation using some individual 100 veins.
- 2 Variable orientation using lithological formations.
- 3 For all passes (P1, P2, P3 and P4).



## 14.8 Bulk Density

Orla provided SLR and the QP with 12,528 density values ranging between 1.06 g/cm<sup>3</sup> and 7.87 g/cm<sup>3</sup>. To better capture the nature of the deposit, SLR and the QP created sub-domaining of the grouped 100, 200, 300, and 500 mineralization high-grade (HG), LG, and OUT wireframes with the different oxidation levels.

The oxidation layers categorized as TrHi, TrLo, and TrSx were grouped into one level named Tr. Oxide (Ox) and sulphide (Sx) were considered independently.

A total of nine density domains was generated: HG\_Ox, HG\_Tr, HG\_Sx, LG\_Ox, LG\_Tr, LG\_Sx, OUT\_Ox, OUT\_Tr and OUT\_Sx. Within these zones, density ranged between 2.40 g/cm<sup>3</sup> and 2.67 g/cm<sup>3</sup>, which the QP considers to be reasonable for this type of mineralization.

Density values for the overburden (OVB) were also reviewed and a density of 2.0 g/cm<sup>3</sup> was assigned to this material type. The QP excluded outliers above 5.0 g/cm<sup>3</sup> for this review, and the QP recommends reviewing these values. Out of a total of 12,528 samples, 12,507 measurements fell within the resource area and were assigned to a specific zone.

Density values were assigned to each block based on average density by domain. The assigned values are detailed in Table 14-7.

**Table 14-7: Density Values per Domain**

Domain	Count	Mean (g/cm <sup>3</sup> )	Assigned Density (g/cm <sup>3</sup> )
OVB	245	2.00	2.00
HG_Ox	27	2.41	2.40
HG_Tr	127	2.52	2.52
HG_Sx	661	2.67	2.67
LG_Ox	197	2.39	2.40
LG_Tr	324	2.53	2.53
LG_Sx	4,007	2.63	2.62
Out_Ox	458	2.48	2.48
Out_Tr	64	2.50	2.50
Out_Sx	6,397	2.62	2.62

## 14.9 Block Model

An octree block model was created using Seequent's Leapfrog Edge 2024.1.2 software to support the Camino Rojo Mineral Resource estimate. The model features parent blocks measuring 5 m in width, 5 m in depth, and 5 m in height, sub-blocked to a minimum of 1.25 m by 1.25 m x 1.25 m. This block model is unrotated.

The QP is of this opinion that the chosen block size is suitable for both open pit operation planning and underground mining. The parameters of the Camino Rojo block model are summarized in Table 14-8.



**Table 14-8: Camino Rojo Block Model Parameters**

Type	X	Y	Z
Base Point (m)	243,180	2,675,480	2,070
Boundary Size (m)	1,995	1,105	1,745
Parent Block Size (m)	5	5	5
Min. Sub-block Size (m)	1.25	1.25	1.25
Rotation (°)	0	0	0
Total size in blocks	30,774,471		

## 14.10 Cut-off Grade and Optimization Parameters

The metal prices used for estimating Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For estimating Mineral Resources, the metal prices used are typically slightly higher than those used for estimating Mineral Reserves. For Camino Rojo, Mineral Resources are estimated at the following metal prices: \$2,300 per ounce of gold, \$29 per ounce of silver, and \$1.25 per pound of zinc.

The QP has estimated Mineral Resources at NSR cut-off values of \$7.59/t for leach material and \$17.30/t for Mill - CIL material mined using open pit methods, and \$59.02/t for leach material, \$68.73/t for Mill - CIL material, and \$76.23/t for Mill - CIL with POX material mined via underground mining methods. Underground panels adjacent to economic material were reported above an incremental cut-off value of \$40.00/t.

The aforementioned NSR cut-off values were determined considering the assumed costs of the mining method, such as long hole stoping for the underground, processing methods, costs of mined material, as well as gold, silver, zinc, and prices. The calculations considered the total operating costs, encompassing mining, processing, and general and administrative (G&A) expenses. Sustaining capital was included in leached material calculations only. The costs and parameters used to calculate the cut-off values are detailed in Table 14-9.

Geometallurgical domains are presented in Table 14-10 and associated metallurgical recoveries are listed in Table 14-11. Only blocks within the Mineral Resource pit shell above the cut-off value and underground constraining shapes were reported. Table 14-12 summarizes NSR cut-off values for each geometallurgical domains.

In accordance with the CIM (2014) requirement that Mineral Resources demonstrate "reasonable prospects for eventual economic extraction" (RPEEE), SLR and the QP created an optimized pit shell using Whittle software to constrain the Mineral Resources of the shallower portion of the deposit. A regularized block model with dimensions of 10 m x 10 m x 10 m, matching the selective mining unit (SMU) of the Project, was used for developing the optimized pit shell and verifying RPEEE.

For the deeper portion of the deposit, underground resource panels were used for Mineral Resource reporting and were generated using Deswik Stope Optimizer (DSO). A 2.0 m minimum thickness was used to ensure that the minimum criteria for RPEEE were met. While a regularized block model was used for pit optimization, underground Mineral Resource reporting was completed using a sub-blocked model to capture the details of the underground resource domains.



**Table 14-9: Mineral Resource Cut-off Grade Inputs**

<b>Parameter</b>	<b>Units</b>	<b>Values</b>
Gold Price	\$/oz	2,300
Silver Price	\$/oz	29.00
Zinc Price	\$/lb	1.25
Royalty NSR	%	2.5
<b>Heap Leach Material</b>		
Heap Leach Mining Cost	\$/t mined	OP: 2.04 UG: 45.00
Heap Leach Processing Cost	\$/t stacked	4.01
Heap Leach G&A	\$ million per year	18.00
Heap Leach Sustaining Capital	\$/t stacked	0.78
Heap Leach Rehandle Cost	\$/t stacked	0.23
Gold Payable	%	99.9
Silver Payable	%	98.0
Gold and Silver Refining	\$/oz poured	1.62
<b>Flotation - Mill Material</b>		
Mill Mining Cost	\$/t mined	OP: 2.04 UG: 45.00
Mill Processing Cost	\$/t milled	CIL with POX: 22.00 CIL: 14.50
Mill G&A	\$ million per year	18.00
Mill Sustaining Capital	\$/t milled	0
Mill Rehandle Cost	\$/t milled	0.23
Gold Payable	%	95.0
Silver Payable	%	90.0
Zinc Payable	%	80.0
Gold Refining	\$/oz	5.0
Silver Refining	\$/oz	3.0
Zinc Concentrate Grade	%	55
Zinc Concentrate Trans	\$/t wet	145
Zinc Concentrate Treat	\$/t dry	230
Zinc Concentrate Moisture	%	10



**Table 14-10: Geometallurgical Domains**

Domain Name	Domain Number	Description	OP Processing	UG Processing
KpOx	10	Potassic alteration in Oxide	Heap Leach	
OxLG	15	Low-grade shell in Oxide	Heap Leach	
TrHi	20	Transition High, 60% to 90% Oxide	Heap Leach	
TrLo	30	Transition Low, 30% to 60% Oxide	Heap Leach	
Transition	1	Transition Sulphide, Leachable, >70% recovery	Mill – CIL	
S1a	11	Sulphide, Potentially Leachable, Low Organic Carbon	Mill – CIL	
S1b	12	Sulphide, Potentially Leachable, High Organic Carbon	Mill – CIL	Mill – CIL with POX
S2a	21	Not Leachable, Low Organic Carbon, Single Refractory	Mill – CIL	Mill – CIL with POX
S2b	22	Not Leachable, High Organic Carbon, Double Refractory	Mill – CIL	Mill – CIL with POX

**Table 14-11: Metallurgical Recoveries**

Domain Number	Au Rec <sup>1</sup>		Ag Rec		Zn Rec (UG)	Zn Rec (OP)
10	0.70		0.11		0	0
15	0.56		0.15		0	0
20	0.60		0.27		0	0
30	0.40		0.34		0	0
1	$(94.904314202 + 0.0149755389 \times \text{As\_ppm} - 0.005230204 \times \text{Zn\_ppm} - 0.017907739 \times \text{Pb\_ppm})/100$	Capped at 0.98	0.392		0	0
11	$(60.782619179 + 40.118772144 \times \text{Au\_gpt} + 1.1447146168 \times \text{Ag\_gpt} - 0.012312505 \times \text{As\_ppm} - 0.006954317 \times \text{Zn\_ppm})/100$	Capped at 0.98	0.347		0	0
21	$(0.96 \times \text{Au\_gpt}^3 - 15.345 \times \text{Au\_gpt}^2 + 69.888 \times \text{Au\_gpt} - 1.4875) \times 0.95/100$	0.963 x 0.95 when Au > 3.5 g/t	$(-0.27 \times \text{Ag\_gpt}^2 + 10 \times \text{Ag\_gpt}) \times 0.5/100$	0.93 x 0.5 when Ag > 20 g/t	0.80	0
12	$(0.96 \times \text{Au\_gpt}^3 - 15.345 \times \text{Au\_gpt}^2 + 69.888 \times \text{Au\_gpt} - 1.4875) \times 0.93/100$	0.963 x 0.95 when Au > 3.5 g/t	$(-0.27 \times \text{Ag\_gpt}^2 + 10 \times \text{Ag\_gpt}) \times 0.5/100$	0.93 x 0.5 when Ag > 20 g/t	0.80	0
22	$(0.96 \times \text{Au\_gpt}^3 - 15.345 \times \text{Au\_gpt}^2 + 69.888 \times \text{Au\_gpt} - 1.4875) \times 0.93/100$	0.963 x 0.95 when Au > 3.5 g/t	$(-0.27 \times \text{Ag\_gpt}^2 + 10 \times \text{Ag\_gpt}) \times 0.5/100$	0.93 x 0.5 when Ag > 20 g/t	0.80	0



Notes:

1. Recovery
2. Au\_gpt = gold grade in grams per metric tonne (g/t), Ag\_gpt = silver grade in g/t

Heap leach recoveries are fixed values ranging from 40% to 70% for gold and 11% to 34% for silver, for the open pit and underground scenario. For mill material, gold and silver recoveries use the grade dependant formulas presented in Table 14-11. The resulting open pit CIL mean recoveries are 60% for gold and 22% for silver. The underground CIL mean recovery is 92% for gold and 36% for silver. The underground CIL with POX mean recovery is 85% for gold and 41% for silver. Zn recovery by CIL with POX is 80%.

The NSR value assigned to a block varies by processing method and recovery, as summarized in Table 14-9 and Table 14-11. The formulas for these calculations are presented below:

**Heap Leach NSR (\$/t)** = \$71.98 x Au Rec x Au grade (g/t) + \$0.84 x Ag Rec x Ag grade (g/t)

**Mill - CIL NSR (\$/t)** = \$68.34 x Au Rec x Au grade (g/t) + \$0.73 x Ag Rec x Ag grade (g/t)

**Mill - CIL with POX NSR (\$/t)** = \$68.34 x Au Rec x Au grade (g/t) + \$0.73 x Ag Rec x Ag grade (g/t) + \$0.00146 x Zn Rec x Zn grade (ppm)

For reporting purposes, gold equivalent (AuEq) is based on the following formulas:

**Heap Leach AuEq (g/t)** = Au grade (g/t) + (\$0.84 x Ag Rec x Ag grade (g/t)) / (\$71.98 x Au Rec)

**Mill - CIL AuEq (g/t)** = Au grade (g/t) + (\$0.73 x Ag Rec x Ag grade (g/t)) / (\$68.34 x Au Rec)

**Mill - CIL with POX AuEq (g/t)** = Au grade (g/t) + (\$0.73 x Ag Rec x Ag grade (g/t)) / (\$68.34 x Au Rec) + (\$0.00146 x Zn Rec x Zn grade (ppm)) / (\$68.34 x Au Rec)

At the wireframing stage, the AuEq formula used for modelling the 300 and 500 series, as well as the lower portion of the low-grade shell is as follows:

**AuEq wireframing** = Au grade (g/t) + (Ag grade (g/t) \* 0.0124) + (Pb grade (ppm) \* 0.3312/10,000) + (Zn grade (ppm) \* 0.4096/10,000) + (Cu grade (ppm) \* 1.2616/10,000)

The NSR cut-off values per geometallurgical domains as well as per operating and processing type are listed in Table 14-12.

**Table 14-12: NSR Cut-Off Values per Geometallurgical Domains**

Domain Number	OP Processing	UG Processing	OP Cutoff (\$/t)	UG Cutoff (\$/t)
10	Heap Leach		7.59	59.02
15	Heap Leach		7.59	59.02
20	Heap Leach		7.59	59.02
30	Heap Leach		7.59	59.02
1	Mill – CIL		17.30	68.73
11	Mill – CIL		17.30	68.73
12	Mill – CIL	Mill – CIL with POX	17.30	76.23
21	Mill – CIL	Mill – CIL with POX	17.30	76.23
22	Mill – CIL	Mill – CIL with POX	17.30	76.23



Open pit optimization used a 10 m x 10 m x 10 m regularized block model. The ultimate economic pit limit was determined in Whittle using the Pseudoflow algorithm. An overall slope angle of 45-degrees was used. Revenue input was provided by the NSR formulae coded into the block model. Cost inputs consisted of a mining cost of \$2.04/t-mined and processing costs of \$7.59/t and \$17.30/t for heap leach and milled material, respectively, functioning as the in-pit cut-off value for the NSR optimization. The algorithm calculated the ultimate economic pit shell with consideration for an underground trade-off at an additional cost of \$45/t.

Underground optimization was performed in Deswik using the Stope Optimizer tool. The algorithm optimized for value, with revenue provided by the NSR formulae coded into the block model and costs amounting to \$59.02/t for heap leached material, \$68.73/t for CIL milled material, and \$76.23 for POX milled material. Panels were constrained with a length of 15 m, a height of 20 m, a minimum width of 2 m, and minimum dip of 50°. The shapes generated for heap leach, CIL, and CIL with POX material were compared to each other to remove overlapping areas. The shapes were also clipped to the economic pit shell. Panels adjacent to economic material were reported above an incremental cut-off value of \$40.00/t. Isolated shapes and fragments have been excluded from the Mineral Resource estimate. A crown pillar exclusion zone has not been included in this Mineral Resource estimate. SLR has assumed that the crown pillar will be removed at the end of the mine life.

### 14.11 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as “a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction”. Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the “economically mineable part of a Measured and/or Indicated Mineral Resource” demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

The QP developed and implemented a classification approach by creating classification solids based on drill hole spacing, and only within estimation domains OxTrHi, 100, 200, 300, 500 and LG. The specific criteria for classification are detailed in Table 14-13. Measured Mineral Resources were only considered in the OxTrHi estimation domain, where production is occurring, and confidence is increased through visual validation with the blast holes data. Gold grade continuity above the production gold cut-off grade of 0.25 g/t was also used as a criterion for Measured Mineral Resources. Some lower-grade material and drill holes beyond the spacing criteria for Indicated and Inferred Mineral Resources were included to maintain continuity.

**Table 14-13: Mineral Resource Classification Parameters**

Mineral Resource Category	Criteria
Measured	Drill hole spacing of maximum 25 m; in OxTrHi resource domain only; with grade continuity at the open pit production gold cut-off grade (0.25 g/t Au).
Indicated	Drill spacing approximately 25 m to 50 m.
Inferred	Drill spacing between approximately 50 m and 100 m.



Classified blocks above the NSR cut-off values within the Camino Rojo Mineral Resource pit shell are shown in Figure 14-11, and within the underground reporting shapes in Figure 14-12.

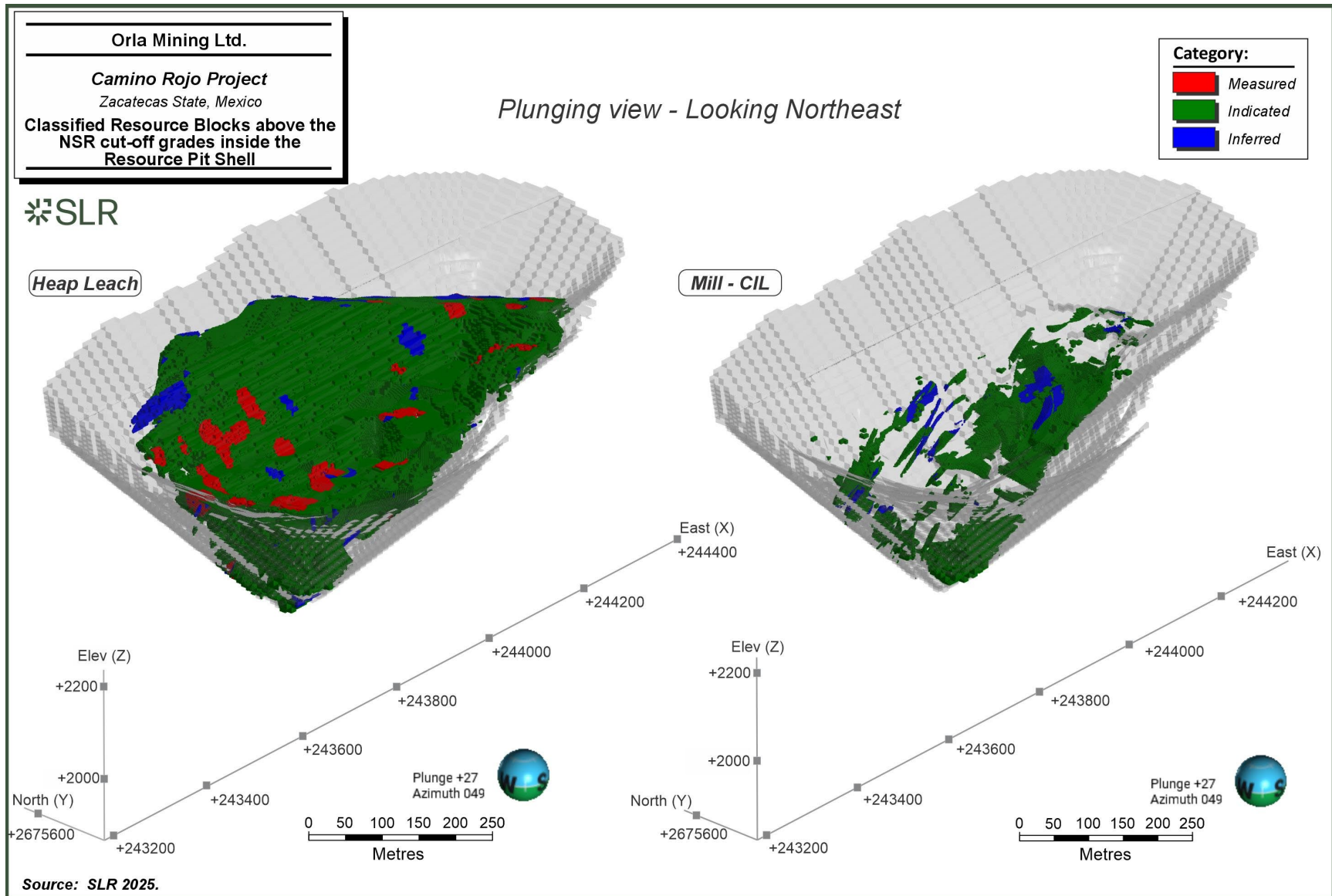
Figure 14-13 illustrates the distribution of classified blocks based on the drill spacing, considering a minimum of three drill holes. A multiplying factor of 1.4 was used to calculate drill hole spacing from the average distance to the closest drill hole estimated on the block model.

For Measured Mineral Resources, 100% of the blocks are supported by drill hole spacings of less than 25 m and 95% of the Indicated Mineral Resource blocks are supported by drill spacings of less than 50 m. Regarding Inferred Mineral Resources, over 90% of the Inferred Mineral Resource blocks respected the 100 m drill hole spacing. In the estimation domain 100, some downgrading of Indicated Mineral Resources to Inferred Mineral Resources was applied where downdip drill holes were not supported by another drill hole, drilled perpendicular to the zone, within a 25 m distance.

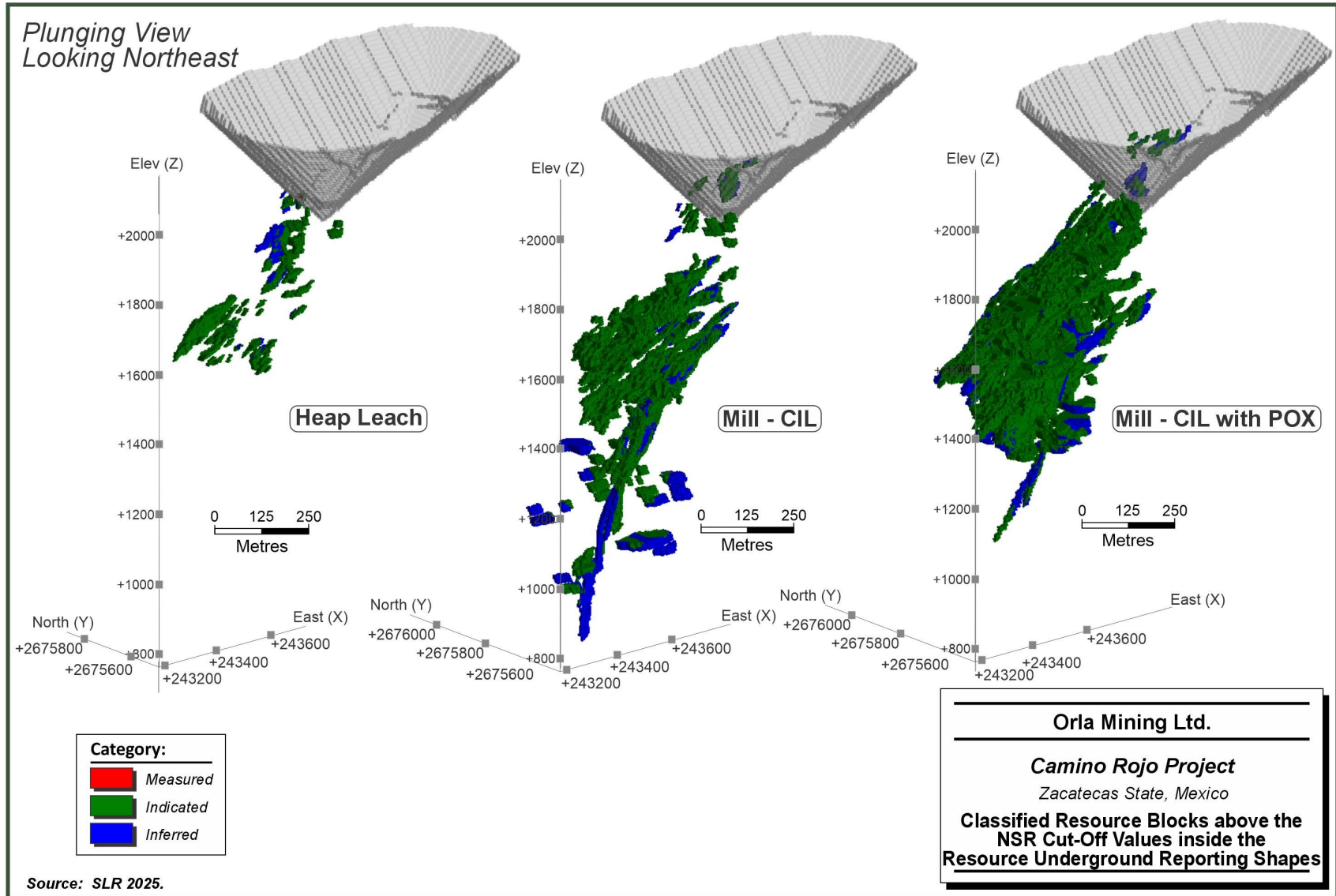
The QP recommends increasing the density of perpendicular drilling to increase the confidence in the downdip drilling and upgrade Inferred Mineral Resources to the Indicated Mineral Resource category.



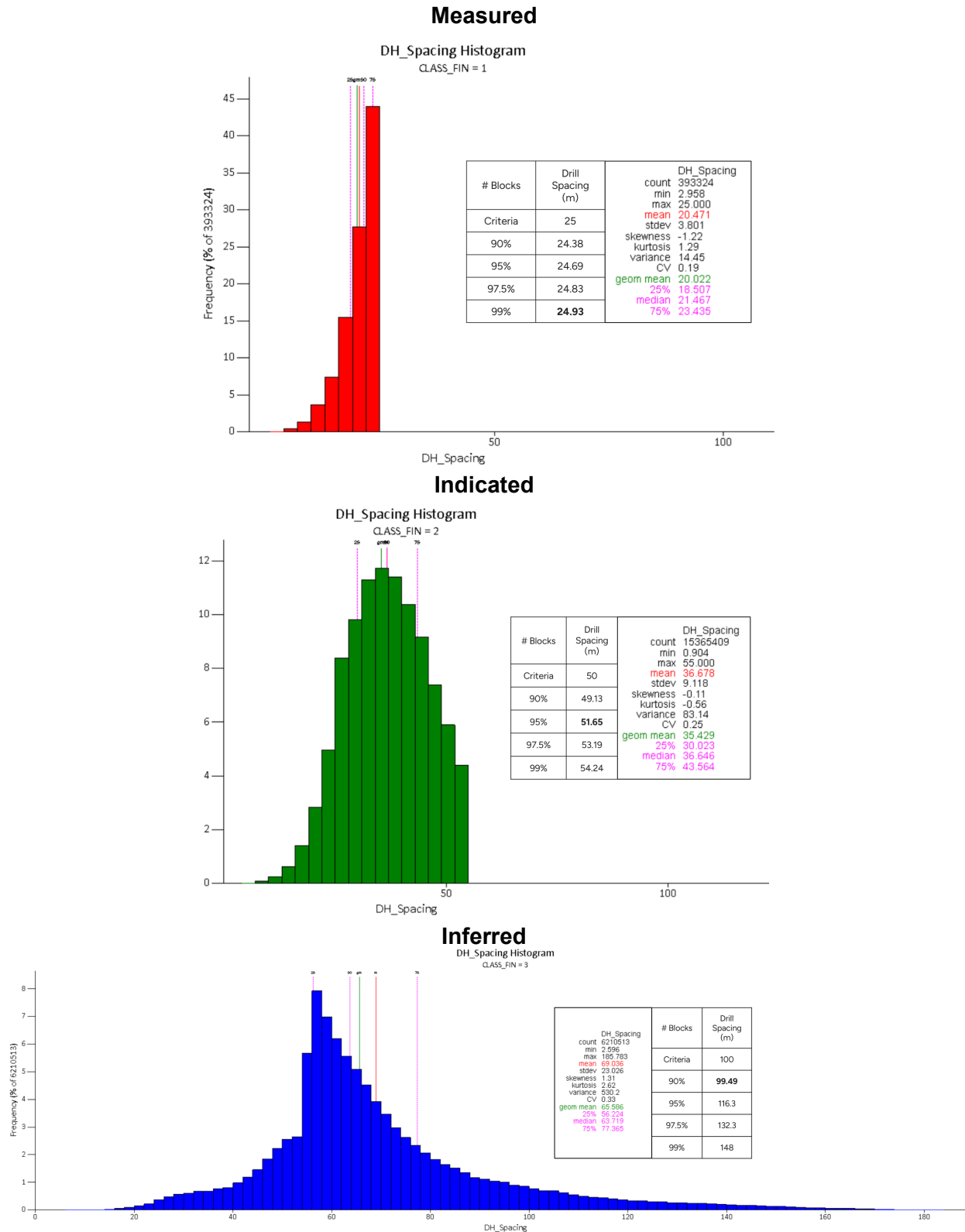
**Figure 14-11: Classified Resource Blocks above the NSR Cut-Off Values inside Camino Rojo Resource Pit Shell**



**Figure 14-12: Classified Resource Blocks above the NSR Cut-Off Values inside Camino Rojo Resource Underground Reporting Shapes**



**Figure 14-13: Average Distance from Blocks to Closest Sample by Category – Unconstrained**



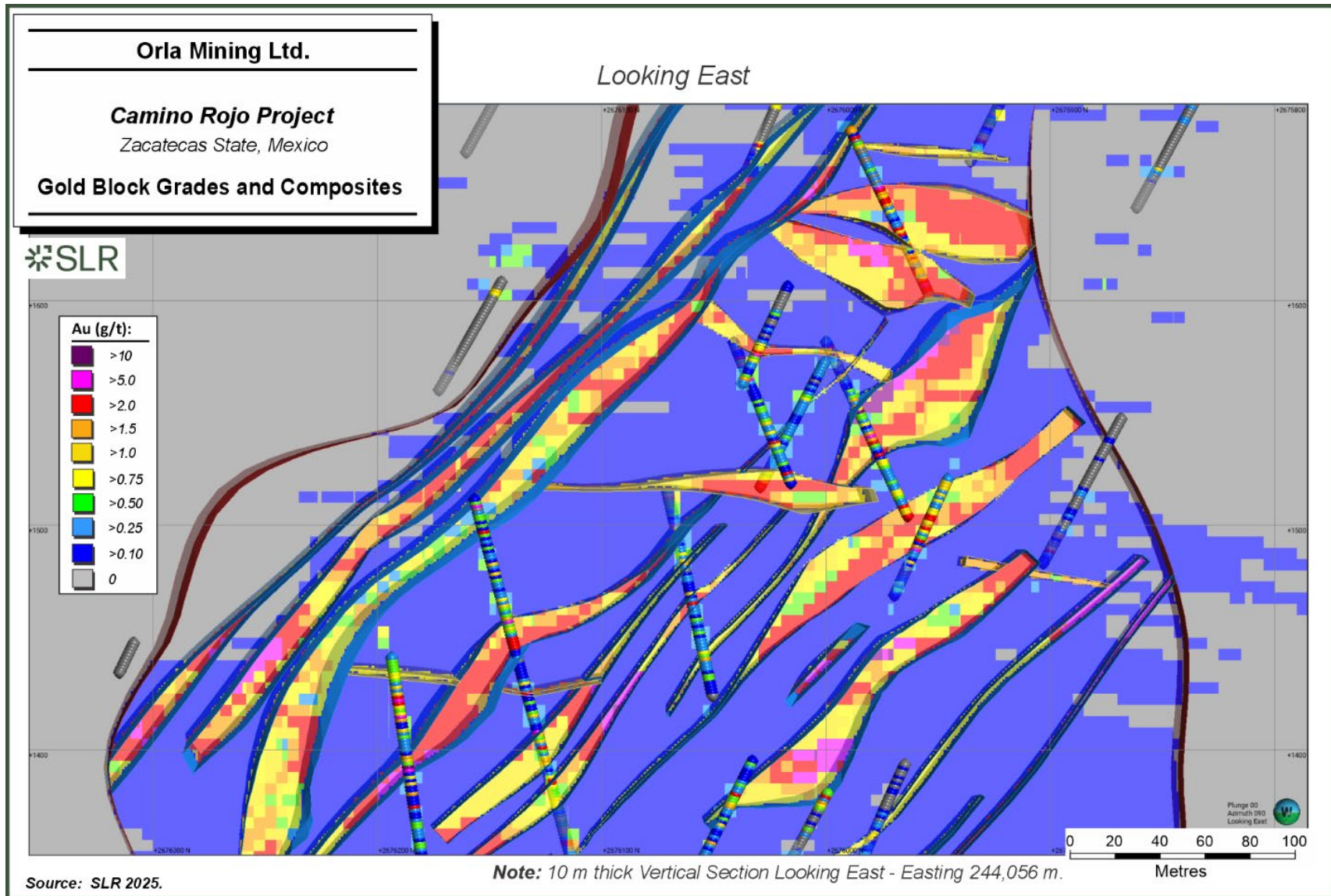
## 14.12 Block Model Validation

The QP used visual and statistical methods to validate the block model attributes, domain flagging, and interpolated block grades at Camino Rojo. The checks performed included:

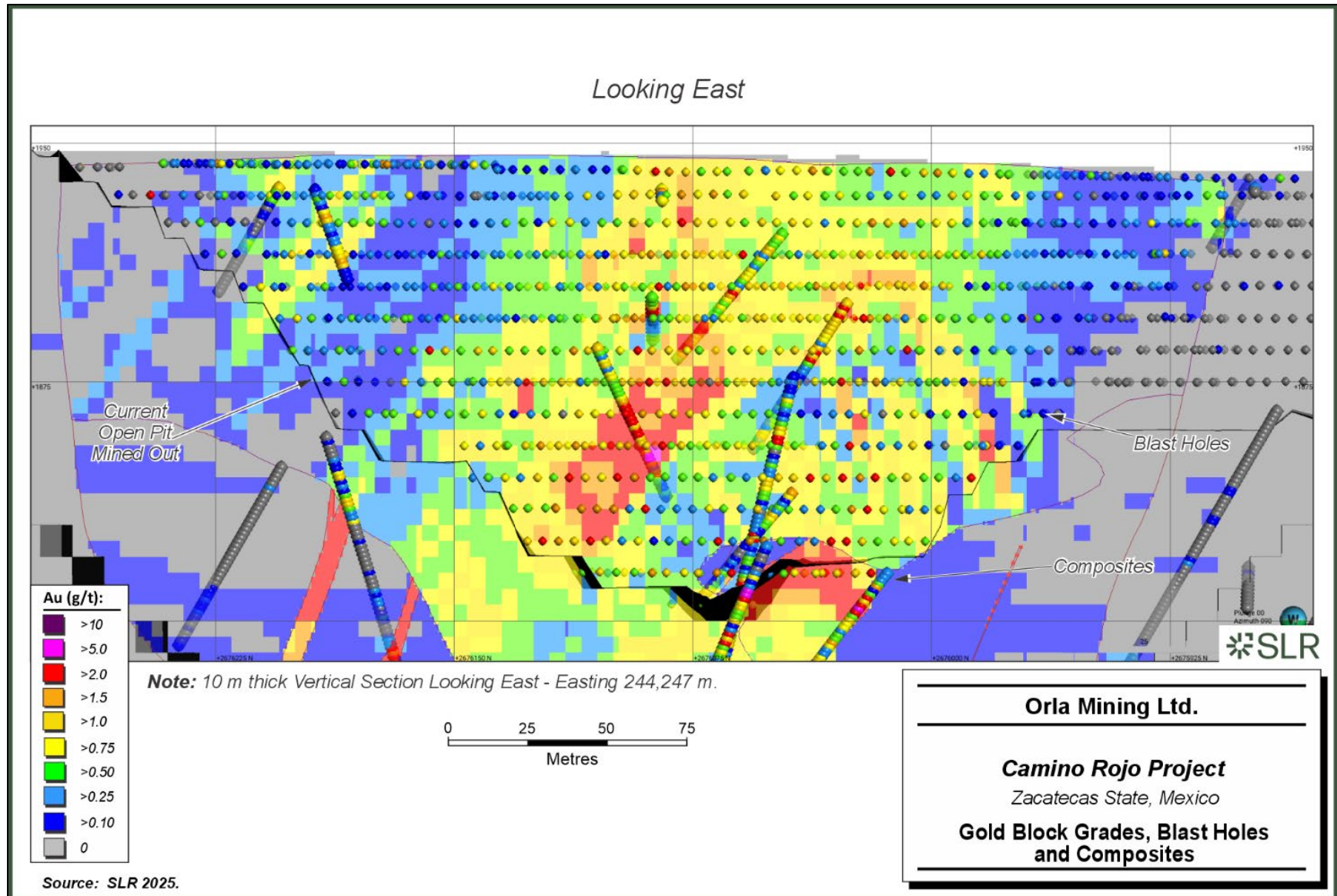
- Visual inspection of composite and blast hole assay results versus block grades for gold (Figure 14-14 and Figure 14-15), silver and zinc.
- Comparison between ID, ordinary kriging (OK) and nearest neighbour (NN) mean swath plots as well as with 50 m cell declustering on composites (Figure 14-16 and Figure 14-17) in classified material.
- Wireframe to block model volume confirmation (Table 14-14)
- ID versus NN, and OK block statistics for classified domains (Table 14-15)
- Reconciliation with production grade control block model (Table 14-16, Figure 14-18 and Figure 14-19)



Figure 14-14: Gold Block Grades and Composites



**Figure 14-15: Gold Block Grades, Blast Holes and Composites**

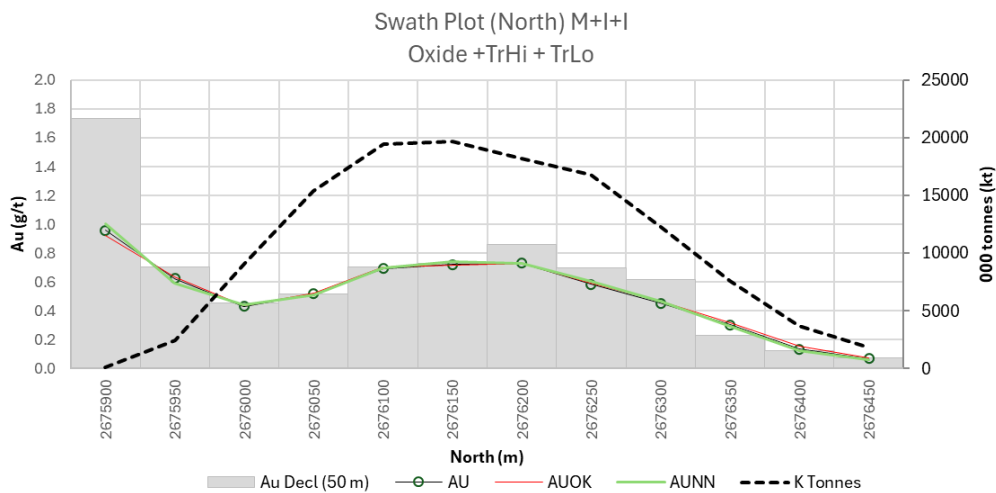
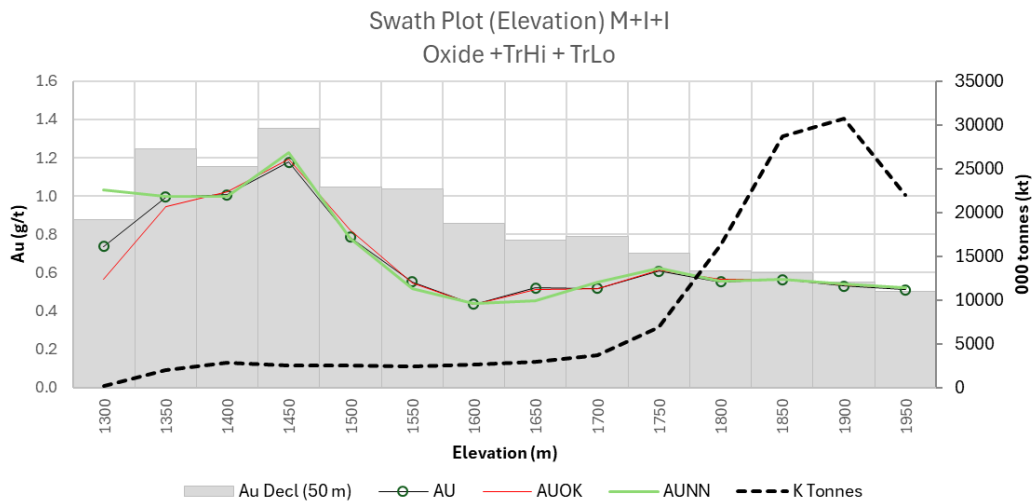
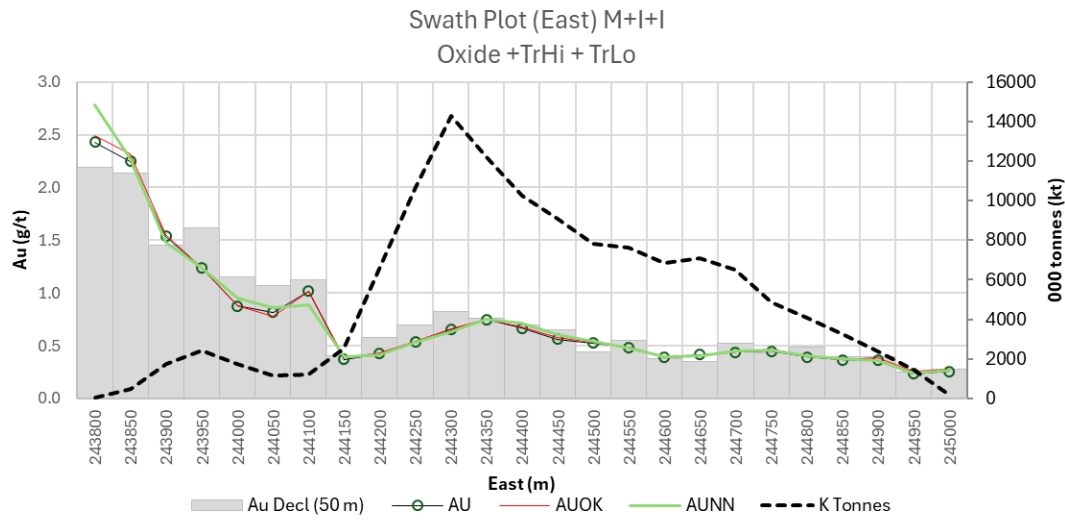


Swath plots were generated to compare gold grades estimated using various methods, including Inverse Distance (ID), Nearest Neighbor (NN), and Ordinary Kriging (OK), alongside composited drill hole data. Comparisons were conducted in the east, north, and elevation directions.

The results indicate no significant local bias among the ID, OK, and NN estimates within the Oxide and Transition zones (TrHi and TrLo) (Figures 14–16), however, minor differences of approximately 1% were observed between the estimation methods. Additionally, the composited data indicate a 10% higher grade effect for the high yield restriction (HYR) used in the estimation within the low-grade domain.



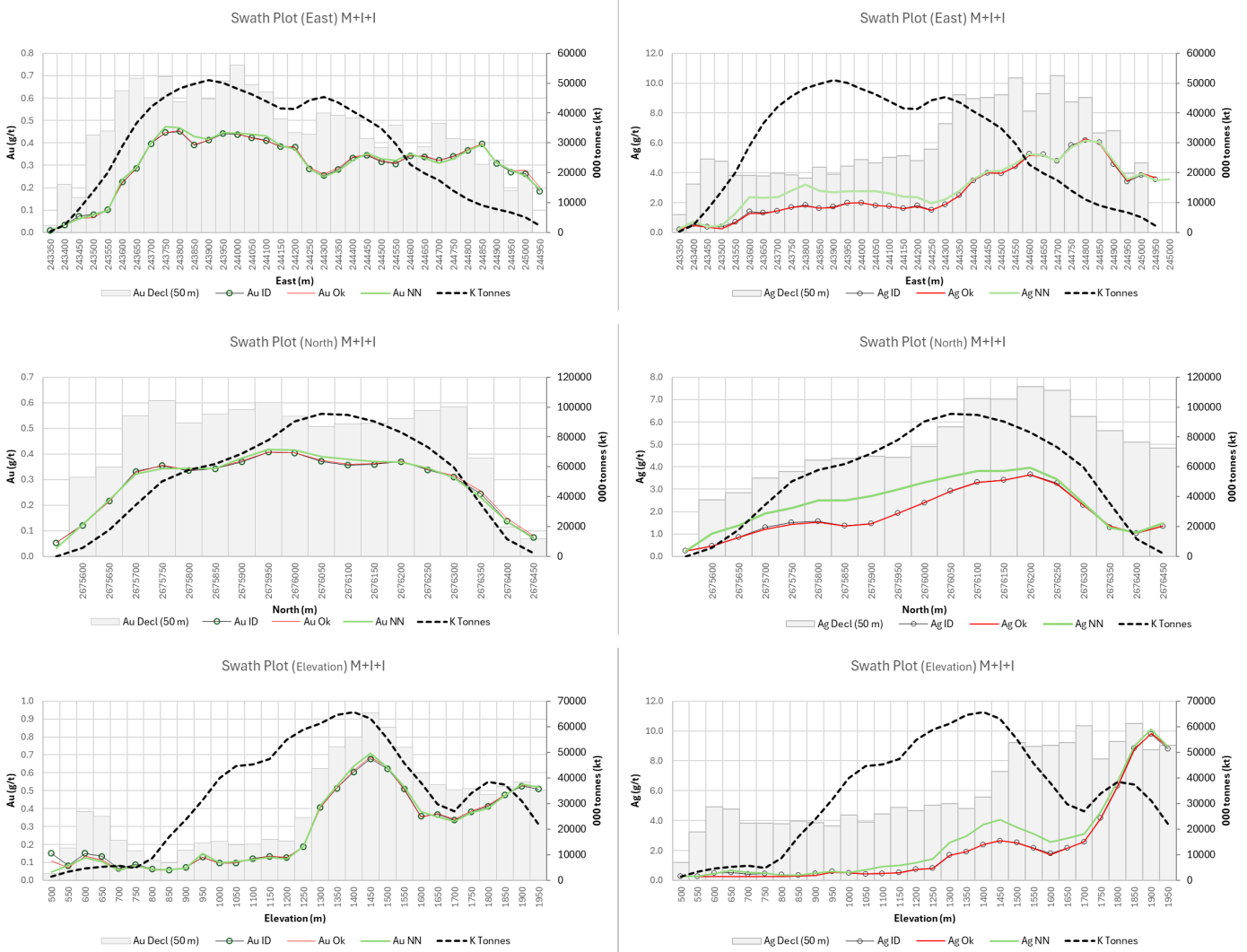
**Figure 14-16: Gold Swath Plots for Classified Oxide, TrHi and TrLo**



The swath plots in Figure 14-17 indicate no significant local bias between the ID, OK, and NN estimations in gold, however, comparisons between the estimated values and the composited data reveal notable differences across the Measured, Indicated, and Inferred Mineral Resource categories. These differences are the result of an interpolation approach based on estimation domain combined with the HYR in the LG domain. The silver model validation indicates that the estimation is restrictive and may require reassessment in future resource model updates, however, the QP considers silver to have a non-material impact on the overall economic evaluation.

For the purposes of underground mine design, the HYR within the low-grade domain does not materially impact the reported grades.

**Figure 14-17: Gold and Silver Swath Plots for All Classified Material**



**Table 14-14: Wireframe to Block Model Volume Confirmation**

<b>Zones</b>	<b>Wireframe Volume (m<sup>3</sup>)</b>	<b>Block Model Volume (m<sup>3</sup>)</b>	<b>Comparison (%)</b>
OxTrHi	35,189,000	35,189,945	100.00%
100	25,625,000	25,624,270	100.00%
200	8,864,100	8,863,389	100.01%
300	192,340	192,363	99.99%
500	1,577,400	1,576,795	100.04%
LG	317,760,000	317,762,152	100.00%
<b>Total</b>	<b>389,207,840</b>	<b>389,208,914</b>	<b>100.00%</b>
*OUT domain is not confirmed since the boundary of the wireframe model was larger than the boundary of the block model.			



**Table 14-15: Statistical Validation for Estimated Elements – Unconstrained**

Domain	Mean				Max				CV			
	Capped Composite	Block Model NN	Block Model ID	Block Model OK	Capped Composite	Block Model NN	Block Model ID	Block Model OK	Capped Composite	Block Model NN	Block Model ID	Block Model OK
<b>Au</b>	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)				
OxTrHi	0.62	0.59	0.59	0.6	35.89	35.89	16.8	12.09	1.74	1.66	1.02	0.88
100	2.13	2.5	2.22	2.26	50	50	33.14	23.25	1.74	1.55	0.77	0.61
200	2.08	2.26	2	2.01	30	30	29.69	20.17	1.47	1.33	0.75	0.63
300	0.92	1.07	0.89	-	4.16	4.16	2.69	-	0.88	0.89	0.59	-
500	2.75	2.71	2.54	2.56	25	25	23.28	16.91	1.46	1.43	0.91	0.74
LG	0.29	0.26	0.12	0.12	30	30	27.72	12.4	2.9	3.02	0.92	0.7
OUT	0.04	0.04	0.01	-	12	12	9.84	-	6.71	5.64	2.85	-
<b>Ag</b>	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)				
OxTrHi	12.23	11.9	11.87	-	225	225	137.97	-	0.99	0.98	0.7	-
100	10.76	12.1	11.1	-	225	225	189.18	-	1.7	1.59	0.87	-
200	12.93	16.12	14.64	-	170	170	141.1	-	1.39	1.23	0.86	-
300	23.16	24.21	21.4	-	59.77	59.77	53.78	-	0.68	0.73	0.6	-
500	14.36	14.64	14.66	-	70	70	69.88	-	1.19	1.12	0.73	-
LG	3.57	3.38	0.3	-	200	200	123.54	-	2.38	2.4	2.96	-
OUT	1.69	1.9	0.13	-	375	375	299.69	-	5.72	4.65	7.09	-
<b>Zn</b>	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)				
OxTrHi	2,995	2,956	2,941	-	30,600	30,600	22,808	-	0.8	0.8	0.63	-
100	3,336	3,847	3,542	-	55,000	55,000	45,475	-	1.57	1.48	0.85	-
200	4,410	5,443	5,032	-	40,000	40,000	40,000	-	1.3	1.15	0.76	-
300	922	948	848	-	11,046	11,046	6,952	-	1.96	2.32	1.04	-
500	14,649	14,649	14,876	-	90,000	90,000	89,654	-	1.31	1.23	0.84	-
LG	1,489	1,461	1,476	-	80,000	80,000	54,516	-	2.3	2.47	1.29	-
OUT	219	274	124	-	64,572	64,572	33,856	-	4.64	5.03	3.49	-

Notes: \*Ordinary kriging (OK) estimator for domain 300 and OUT as well as for Ag and Zn could not be generated due to unstable variography and/or insufficient data.



The QP prepared a gold and silver F0 reconciliation by bench, using the production - grade control model against the regularized, SLR Mineral Resource block model. Reconciliation was prepared at 0.25 g/t Au (current production cut-off grade in the open pit) and the results are shown in Table 14-16.

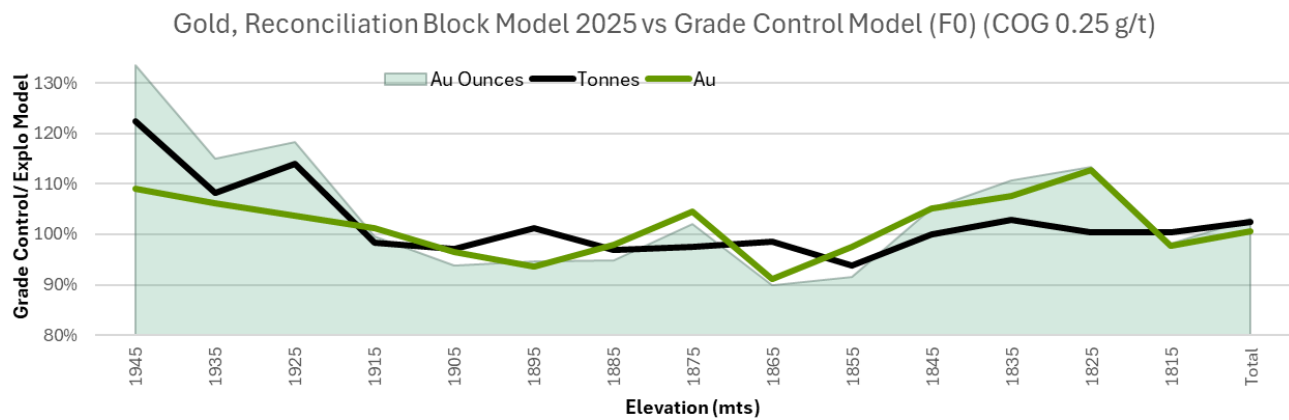
Overall, the reconciliation for gold shows good performance, with an overall difference of only 2% in tonnage, 1% in grade, and 3% in ounces, while the silver data indicates a negative reconciliation. There is an approximate 40% difference in silver grades and ounces. These differences can be explained by the use of four-acid digestion assaying in the exploration laboratory as compared to the use of aqua regia digestion in the mine site production laboratory. Figure 14-18 and Figure 14-19 shows the reconciliation for gold and silver, respectively.

**Table 14-16: F0 Reconciliation analysis between SLR Mineral Resource Block Model and Production Grade Control Model**

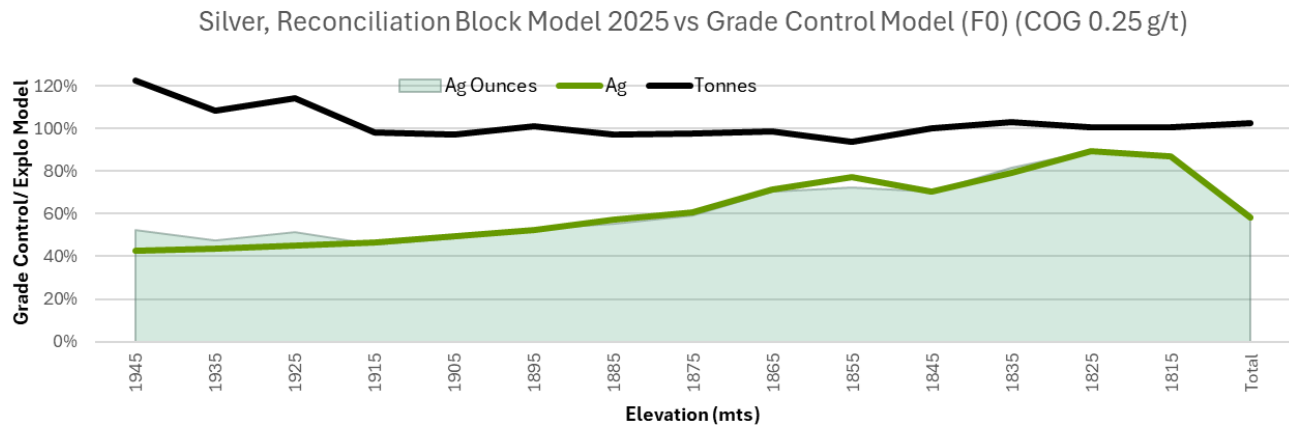
Bench	SLR-Mineral Resource Block Model					Production - Grade Control Model					Production - Grade Control Model / SLR Mineral Resource Block Model				
	Tonnage (kt)	Au (g/t)	Ag (g/t)	koz Au	koz Ag	Tonnage (kt)	Au (g/t)	Ag (g/t)	koz Au	koz Ag	Tonnage (kt)	Au (g/t)	Ag (g/t)	koz Au	koz Ag
1,945	1,412	0.692	8.99	31	408	1,729	0.755	3.83	42	213	122%	109%	43%	134%	52%
1,935	3,096	0.666	10.38	66	1,033	3,353	0.707	4.54	76	489	108%	106%	44%	115%	47%
1,925	3,004	0.678	10.63	65	1,027	3,426	0.703	4.78	77	526	114%	104%	45%	118%	51%
1,915	3,012	0.706	10.81	68	1,047	2,960	0.714	5.04	68	479	98%	101%	47%	99%	46%
1,905	2,817	0.731	11.54	66	1,045	2,737	0.706	5.73	62	505	97%	97%	50%	94%	48%
1,895	2,661	0.751	12.69	64	1,086	2,690	0.703	6.66	61	576	101%	94%	52%	95%	53%
1,885	2,606	0.758	13.20	64	1,106	2,525	0.743	7.54	60	612	97%	98%	57%	95%	55%
1,875	1,991	0.825	14.92	53	955	1,944	0.862	9.04	54	565	98%	104%	61%	102%	59%
1,865	1,784	0.878	16.59	50	952	1,759	0.800	11.81	45	668	99%	91%	71%	90%	70%
1,855	1,536	0.915	18.20	45	899	1,442	0.892	14.04	41	651	94%	98%	77%	92%	72%
1,845	1,217	0.873	17.26	34	676	1,216	0.918	12.18	36	476	100%	105%	71%	105%	70%
1,835	911	0.884	15.96	26	467	936	0.951	12.65	29	381	103%	108%	79%	111%	81%
1,825	785	0.892	17.32	23	437	788	1.007	15.45	25	391	100%	113%	89%	113%	90%
1,815	504	1.140	22.36	18	363	506	1.114	19.44	18	316	100%	98%	87%	98%	87%
<b>Total</b>	<b>27,336</b>	<b>0.768</b>	<b>13.09</b>	<b>675</b>	<b>11,501</b>	<b>28,012</b>	<b>0.772</b>	<b>7.61</b>	<b>695</b>	<b>6,849</b>	<b>102%</b>	<b>101%</b>	<b>58%</b>	<b>103%</b>	<b>60%</b>



**Figure 14-18: Differences in Ounces, Tonnes, and Grade per Bench from the Reconciliation of Grade Control Model vs 2025 Exploration Block Model**



**Figure 14-19: Differences in Silver Ounces, Tonnes and Grade per Bench from the Reconciliation of Grade Control Model vs Exploration 2025 Block Model**



After conducting these validation steps, the QP concluded that the Mineral Resource estimates for the Project were suitable for public disclosure based on the following observations:

- The examination of grade distributions, mean comparisons, swath plots and reconciliation indicate that the estimation setup functions as intended. The boundary conditions and utilization of input data are appropriate, with no significant over-extrapolation of grades. Additionally, the smoothing of grades aligns with expectations based on the input data.
- Volume comparisons confirm that the block model accurately represents the in-situ mineralization.
- The comparison shown in the swath plots demonstrate good correlation between the different estimation methods in both gold and silver.
- Reconciliation F0 shows that the resource model is behaving as expected.



## 14.13 Mineral Resource Reporting

Mineral Resources for the Camino Rojo deposit are reported in accordance with the estimation methodologies and classification criteria outlined in this Technical Report. The open pit Mineral Resources are constrained within an optimized pit shell and reported at NSR cut-off values of \$7.59/t for heap leach material and \$17.30/t for Mill - CIL material. Underground Mineral Resources are reported within underground reporting shapes (DSO) generated in Deswik and were prepared at NSR cut-off values of \$59.02/t for leach material, \$68.73/t for Mill - CIL material, and \$76.23/t for CIL with POX material. The economic input parameters used to generate the optimized pit shell and underground constraining shapes are detailed in Table 14-12. Reporting was done on the sub-blocked model for both open pit and underground Mineral Resources.

Mineral Resources were classified in accordance with CIM (2014) definitions and are summarized by open pit or underground and processing methods in Table 14-17.

**Table 14-17: Summary of Mineral Resources – Effective Date of March 31, 2025**

Operation	Processing Type	Category	Tonnage (kt)	Average Grade				Contained Metal				NSR Cut-off Value (\$/t)
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)	
OP	Leach	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86	7.59
		Indicated	33,967	0.76	15.03	-	0.83	831	16,411	-	908	
		<b>M+I</b>	<b>37,022</b>	<b>0.77</b>	<b>15.12</b>	-	<b>0.83</b>	<b>911</b>	<b>17,998</b>	-	<b>993</b>	
		Inferred	1,613	0.89	14.38	-	0.97	46	746	-	50	
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-	17.30
		Indicated	2,518	1.74	21.59	-	1.90	141	1,748	-	154	
		<b>M+I</b>	<b>2,518</b>	<b>1.74</b>	<b>21.59</b>	-	<b>1.90</b>	<b>141</b>	<b>1,748</b>	-	<b>154</b>	
		Inferred	423	1.91	21.60	-	2.12	26	294	-	29	
	<b>Total OP</b>	Measured	3,055	0.81	16.17	-	0.87	79	1,588	-	86	7.59 to 17.30
		Indicated	36,485	0.83	15.48	-	0.91	973	18,158	-	1,062	
		<b>M+I</b>	<b>39,539</b>	<b>0.83</b>	<b>15.53</b>	-	<b>0.90</b>	<b>1,052</b>	<b>19,746</b>	-	<b>1,147</b>	
		Inferred	2,037	1.10	15.88	-	1.21	72	1,040	-	79	
UG	Leach	Measured	7	1.95	31.45	-	2.11	0.46	7	-	0.50	59.02
		Indicated	1,704	2.90	13.17	-	3.03	159	722	-	166	
		<b>M+I</b>	<b>1,711</b>	<b>2.90</b>	<b>13.25</b>	-	<b>3.03</b>	<b>159</b>	<b>729</b>	-	<b>166</b>	
		Inferred	214	2.29	15.08	-	2.44	16	104	-	17	
	Mill - CIL	Measured	-	-	-	-	-	-	-	-	-	68.73
		Indicated	12,475	2.07	8.68	-	2.11	832	3,480	-	848	
		<b>M+I</b>	<b>12,475</b>	<b>2.07</b>	<b>8.68</b>	-	<b>2.11</b>	<b>832</b>	<b>3,480</b>	-	<b>848</b>	
		Inferred	2,549	1.81	10.19	-	1.85	148	835	-	152	
	Mill – CIL with POX	Measured	-	-	-	-	-	-	-	-	-	76.23
		Indicated	35,900	2.56	11.13	0.35	2.72	2,958	12,847	278	3,142	
		<b>M+I</b>	<b>35,900</b>	<b>2.56</b>	<b>11.13</b>	<b>0.35</b>	<b>2.72</b>	<b>2,958</b>	<b>12,847</b>	<b>278</b>	<b>3,142</b>	
		Inferred	2,813	2.57	11.17	0.42	2.75	232	1,010	26	249	



Operation	Processing Type	Category	Tonnage (kt)	Average Grade				Contained Metal				NSR Cut-off Value (\$/t)
				Gold (g/t)	Silver (g/t)	Zn (%)	AuEq (g/t)	Gold (koz)	Silver (koz)	Zinc (Mlb)	AuEq (koz)	
Total UG		Measured	7	1.95	31.45	-	2.11	0.5	7	-	0.5	59.02 to 76.23
		Indicated	50,079	2.45	10.59	0.25*	2.58	3,949	17,048	278	4,156	
		<b>M+I</b>	<b>50,086</b>	<b>2.45</b>	<b>10.59</b>	<b>0.25*</b>	<b>2.58</b>	<b>3,950</b>	<b>17,055</b>	<b>278</b>	<b>4,156</b>	
		Inferred	5,576	2.21	10.87	0.21*	2.33	396	1,949	26	417	
Total		Measured	3,062	0.81	16.20	-	0.87	80	1,595	0	86	7.59 to 76.23
		Indicated	86,563	1.77	12.65	0.15*	1.87	4,922	35,206	278	5,217	
		<b>M+I</b>	<b>89,625</b>	<b>1.74</b>	<b>12.77</b>	<b>0.14*</b>	<b>1.84</b>	<b>5,002</b>	<b>36,801</b>	<b>278</b>	<b>5,304</b>	
		Inferred	7,612	1.91	12.21	0.16*	2.03	468	2,989	26	497	

Notes:

- 1 CIM (2014) definitions were used for estimating Mineral Resources.
  - 2 Mineral Resources are estimated in the optimized pit shell at a NSR cut-off value of \$7.59/t for leach material and \$17.30/t for Mill - CIL material, while the underground reporting shapes are using a NSR cut-off value of \$59.02/t for leach material, \$68.73/t for Mill - CIL material and \$76.23/t for Mill – CIL with POX material.
  - 3 Mineral Resources are estimated using a long-term price of \$2,300 per ounce gold, \$29 per ounce silver, and \$1.25 per pound zinc, with an US\$:C\$ exchange rate of 1:1.33.
  - 4 Bulk density varies from 2.40 t/m<sup>3</sup> to 2.67 t/m<sup>3</sup> for the mineralization and estimation domains and 2.0 t/m<sup>3</sup> for the overburden.
  - 5 Metallurgical recoveries vary according to geometallurgical domains and process type (Leach, Mill - CIL, or Mill – CIL with POX) and are either a constant or formula based. Heap leach recoveries range from 40% to 70% for gold and 11% to 34% for silver, for the open pit and underground scenario. For Mill material, gold and silver recoveries are calculated using grade dependant formulas. The open pit CIL mean recovery is 60% for gold and 22% for silver. The underground CIL mean recovery is 92% for gold and 36% for silver. The underground CIL with POX mean recovery is 85% for gold and 41% for silver. Zn recovery by Mill – CIL with POX is 80%.
  - 6 The NSR is calculated by material type with the following formulas:
    - o Heap Leach Material NSR (\$/t) = \$71.98 x Au recovery x Au grade (g/t) + \$0.84 x Ag recovery x Ag grade (g/t).
    - o Mill - CIL NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade (g/t).
    - o Mill – CIL with POX NSR (\$/t) = \$68.34 x Au recovery x Au grade (g/t) + \$0.73 x Ag recovery x Ag grade + \$0.00146 x Zn recovery x Zn grade (ppm)
  - 7 The gold equivalent (AuEq) for by material types are calculated with the following formulas:
    - o Heap Leach material: Au grade (g/t) + (\$0.84 x Ag recovery x Ag grade (g/t)) / (\$71.98 x Au recovery).
    - o Mill - CIL material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery).
    - o Mill – CIL with POX material: Au grade (g/t) + (\$0.73 x Ag recovery x Ag grade (g/t)) / (\$68.34 x Au recovery) + (\$0.00146 x Zn recovery x Zn grade (ppm)) / (\$68.34 x Au recovery).
  - 8 Mineral Resources are constrained by an optimized resource pit shell and underground resource panels with a minimum width of 2 m.
  - 9 Mineral Resources are inclusive of Mineral Reserves.
  - 10 Numbers may not add due to rounding.
  - 11 Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- \* Zinc is only considered in the underground CIL with POX scenario, and its grade is averaged over the underground and final total numbers.

Table 14-18 presents the sensitivity of the combined open pit and underground Mineral Resource estimate to gold price. Optimized pit shells and underground resource panels were created at different gold price for this exercise. Figure 14-20 illustrates the sensitivity to cut-off grade using a gold grade tonnage curve for Measured and Indicated material inside the Mineral Resource pit shell, in the sub-blocked model. The grade tonnage curve shows a smooth shape, with a slight break at 0.25 g/t Au that is associated with the modelling technique and classification.

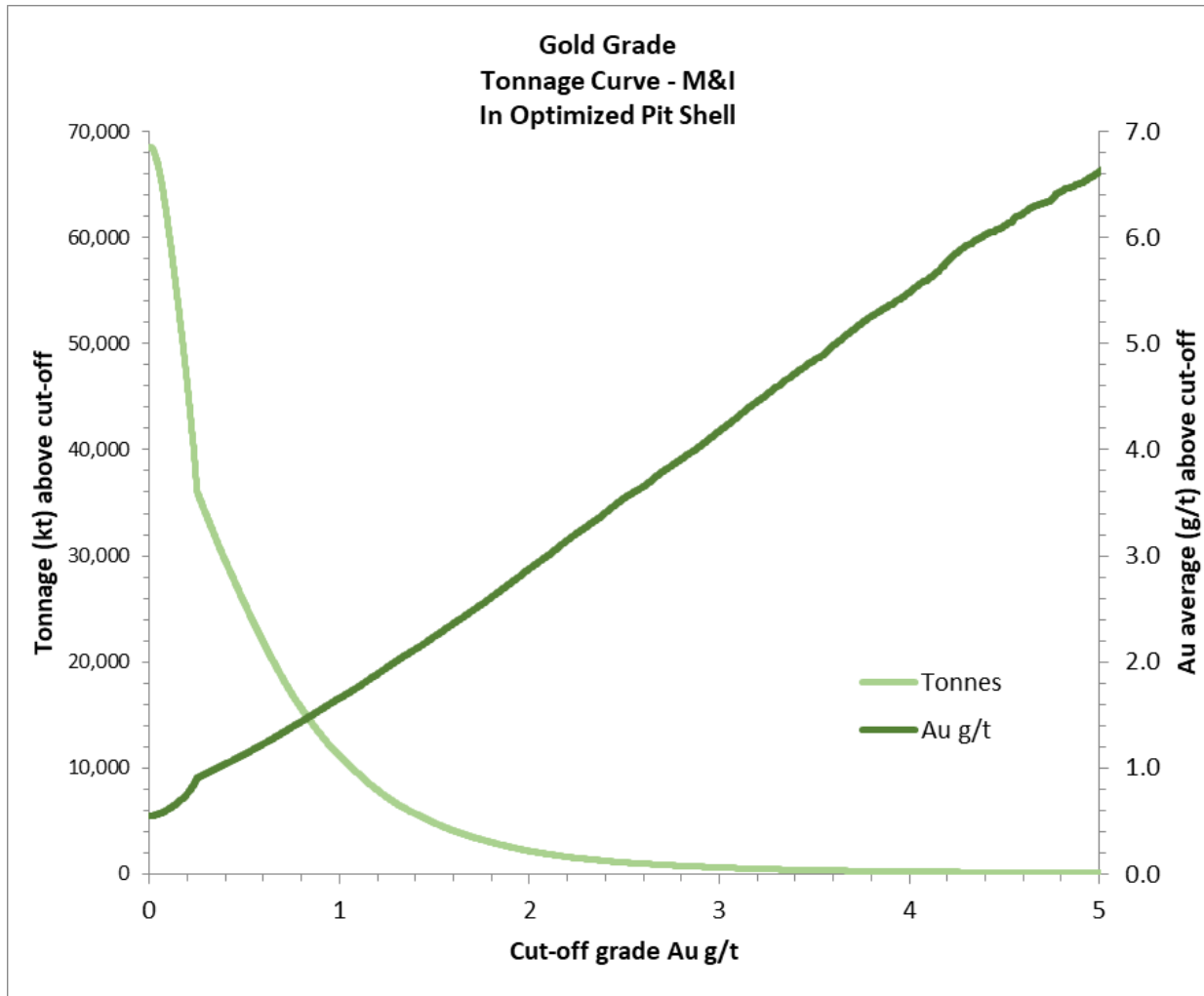


**Table 14-18: Gold Price Sensitivity Analysis on Total Camino Rojo Mineral Resources**

Gold Price (\$/oz)	Category	Tonnage (kt)	Average Grade				Contained Metal			
			Gold (g/t)	Silver (g/t)	Zn (ppm)	AuEq (g/t)	koz Au	koz Ag	Mlb Zn	koz AuEq
2,000	Measured	3,030	0.81	16.25	-	0.88	79	1,583	-	86
	Indicated	78,518	1.80	13.07	1,435	1.91	4,552	32,999	248	4,817
	<b>M+I</b>	<b>81,548</b>	<b>1.77</b>	<b>13.19</b>	<b>1,382</b>	<b>1.87</b>	<b>4,632</b>	<b>34,582</b>	<b>248</b>	<b>4,903</b>
	Inferred	6,534	2.03	12.86	1,588	2.14	426	2,702	23	451
2,300	Measured	3,062	0.81	16.20	-	0.87	80	1,595	-	86
	Indicated	86,563	1.77	12.65	1,455	1.87	4,922	35,206	278	5,217
	<b>M+I</b>	<b>89,625</b>	<b>1.74</b>	<b>12.77</b>	<b>1,406</b>	<b>1.84</b>	<b>5,002</b>	<b>36,801</b>	<b>278</b>	<b>5,304</b>
	Inferred	7,612	1.91	12.21	1,569	2.03	468	2,989	26	497
3,000	Measured	3,110	0.81	16.09	-	0.87	81	1,608	-	87
	Indicated	100,643	1.69	11.90	1,442	1.79	5,465	38,499	320	5,808
	<b>M+I</b>	<b>103,752</b>	<b>1.66</b>	<b>12.02</b>	<b>1,399</b>	<b>1.77</b>	<b>5,545</b>	<b>40,108</b>	<b>320</b>	<b>5,895</b>
	Inferred	9,467	1.76	11.25	1,496	1.88	537	3,424	31	571



**Figure 14-20: Gold Grade Tonnage Curve– Measured and Indicated Mineral Resources in \$2,300 Optimized Pit Shell**



### 14.14 Comparison with Previous Estimates

The previous Mineral Resource estimates, completed by IMC in 2021 (IMC 2021), was reported within a single large open pit shell and did not consider any underground mining scenarios. In contrast, the estimate presented in this Technical Report incorporates an underground trade-off approach, using both an optimized pit shell and underground reporting shapes.

The updated Mineral Resource estimates reflects significant changes in several key areas:

- The current Mineral Resource estimates distinguishes between geometallurgical domains and processing methods (heap leach, Mill - CIL with POX, Mill - CIL), which directly impacts net smelter return (NSR) calculations, cut-off grades, and metal recoveries.
- Cut-off values are now defined based on distinct NSR domains corresponding to both the processing method and the mining method (open pit versus underground), and reflect revised assumptions for metal prices as well as mining, processing, and general and administrative costs.
- Metallurgical recoveries have been updated to reflect the differing treatment routes.



- Increasing sulphide material at depth.
- The depletion of near-surface material that has been mined over the past four years.
- Lead (Pb) was included in the 2021 resource model, however, this element is no longer considered in the current Mineral Resource estimate and reflects updated metallurgical understanding and economic considerations that exclude lead from the payable metals.

Given the significant differences in reporting methodology, processing assumptions, cut-off grade criteria, mining approaches (open pit only versus open pit and underground), and the exclusion of lead, the QP does not consider a direct comparison between the 2021 and 2025 estimates to be meaningful. The two estimates are based on fundamentally different economic and technical frameworks and should be interpreted within the context of their respective assumptions and project development strategies.



## 15.0 Mineral Reserve Estimates

### 15.1 Introduction

The Project's open pit Mineral Reserves were estimated using CIM (2014) definitions in accordance with the requirements of NI 43-101. Mineral Reserve estimates reflect the reasonable expectation that all necessary permits and approvals will be obtained and maintained.

Mineral Reserves were estimated assuming only heap leach processing and open pit mining methods.

### 15.2 Block Model

The sub-blocked model described in Section 14 was regularized and re-blocked to a 10 m x 10 m x 10 m cell size by SLR, and the model was provided to Orla and the QP in .csv format for the estimation of open pit Mineral Reserves. Orla and the QP completed corresponding audits and verification to ensure proper block model transfer and import into Hexagon MinePlan software.

### 15.3 Dilution and Ore Loss

Similar to previous block models used at Camino Rojo, no additional dilution or ore loss was added to the regularized block model. Compositing of assays and estimating blocks with multiple composites introduces some smoothing of model grades that are analogous to dilution and ore loss effects. Additionally, regularizing and re-blocking a sub-blocked model incorporates increased tonnage and grade dilution.

To determine a regularized block size that adequately represents planned mining activities, an analysis was completed by SLR and reviewed by the Orla QP. Relative to the sub-blocked model, the selected regularized block size of 10 m x 10 m x 10 m for estimating Mineral Reserves incorporates an additional 13% ore tonnage and a 9% reduction in gold grades. Camino Rojo has been operating with the same block size since the start of open pit mining operations.

### 15.4 Pit Optimization and Cut-Off grade

The pit optimization process was completed using Geovia's Whittle software package.

Only gold and silver were considered in the pit optimization, and the only material types considered are the KpOx, KiOx, TrHi, and TrLo material types. Given the two products (gold and silver doré) and the variable metallurgical recoveries by material type, NSR cut-off values were used to report Mineral Reserve estimates.

The metal prices used to estimate Mineral Reserves were \$1,900 per ounce of gold and \$23 per ounce of silver. The QP considers these prices to be reasonable based on historical three-year trailing averages, prices used by other gold and silver producing companies for comparable projects, and long-range consensus price forecasts prepared by various bank economists.

Operating cost assumptions used for developing the NSR cut-off values are based on MCR's 2025 budget operating costs and MCR's 2024 Year-End LOM plan. The mining operating cost assumption is based on completing mining operations using a mining contractor. Table 15-1



summarizes the cost assumptions and parameters used in the pit optimization and in the determination of cut-off grades (CoG) and NSR cut-off values.

**Table 15-1: Cut-Off Parameters**

Parameter	Unit	Value
Gold Price	\$/oz	1,900
Silver Price	\$/oz	23.00
Mining Cost	\$/t mined	2.04
Process Cost	\$/t stacked	4.01
G&A Cost	\$/t stacked	2.83
Rehandle	\$/t stacked	0.23
Sustaining Capital	\$/t stacked	0.78
Refining	\$/oz poured	1.62
Gold Payable	%	99.9
Silver Payable	%	98.0
Royalty	%	3

The metallurgical recoveries discussed in Section 13 were applied to obtain NSR factors, which are listed in Table 15-2. The NSR factors were coded into the block model to the applicable blocks to obtain the NSR value per block as a value per tonne. Additionally, an equivalent gold grade (AuEq) was calculated to account for the silver grade in the blocks. The AuEq grade is used by MCR and Orla for reporting and to facilitate activities within the mine's operations.

**Table 15-2: NSR Factors by Material Type**

Ore Type	Metal	Rec %	NSR \$/g
KpOx	Au	70%	41.61
KiOx	Au	56%	33.29
TrHi	Au	60%	35.67
TrLo	Au	40%	23.78
KpOx	Ag	11%	0.07
KiOx	Ag	15%	0.10
TrHi	Ag	27%	0.18
TrLo	Ag	34%	0.22

Table 15-3 presents the Mineral Reserve cut-offs in terms of AuEq and NSR. The NSR cut-off value is \$7.85 per tonne, which includes the process, G&A, rehandle operating costs and the sustaining capital costs. This NSR cut-off value applies to all blocks that must be removed from the pit (open pit discard), and therefore, the mining cost is considered as a sunk cost. The calculated NSR cut-off value does not vary by material type and is therefore convenient for mine planning and scheduling.



**Table 15-3: Gold Equivalent Cut-Off Grade and NSR Cut-Off Value by Material Type**

Ore Type	AuEq CoG (g/t)	NSR Cut-off Value (\$/t)
KpOx	0.189	7.85
KiOx	0.236	7.85
TrHi	0.220	7.85
TrLo	0.330	7.85

The pit slopes assumed for the pit optimization are based on the parameters presented in the feasibility study prepared by KCA in 2021 (the 2021 FS [KCA 2021]), which were developed by Piteau Associates Engineering Ltd. (Piteau) and also presented in Section 16 of this report.

## 15.5 Mineral Reserves Reporting

Open pit Mineral Reserve estimates are reported as diluted and inclusive of all planned ore losses and scheduled for stacking on the MCR heap leach pad. Measured and Indicated Mineral Resources within the Camino Rojo open pit were converted to Proven and Probable Mineral Reserves.

The Mineral Reserve estimates are presented in

Table 15-4 and have an effective date of March 31, 2025. The estimation of Mineral Reserves may be materially affected by geology, environment, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

Orla submitted a permit application in November 2024 to support and obtain the necessary permits and permit amendments related to the Fresnillo layback area and east-west pit expansion, which are required for the extraction and processing of the Mineral Reserve estimates tabulated herein. The current Mineral Reserve estimates assume the mining of the areas related to the permit application starting in July 2025.

**Table 15-4: Mineral Reserve Estimates – Effective Date of March 31, 2025**

Mineral Reserve Category	Mass (kt)	Gold (g/t)	Silver (g/t)	Gold (koz)	Silver (koz)
<i>Proven (In Situ)</i>	2,643	0.79	16.2	67	1,374
<i>Proven (Stockpile)</i>	3,329	0.33	9.2	35	980
Total Proven	5,972	0.53	12.3	103	2,354
Probable	31,923	0.73	14.3	752	14,705
<b>Total Mineral Reserves</b>	<b>37,895</b>	<b>0.70</b>	<b>14.0</b>	<b>854</b>	<b>17,060</b>

Notes:

- The Mineral Reserve estimates have been prepared in accordance with CIM (2014) definitions.
- Rounding as required by reporting guidelines may result in summation differences.
- The estimation of Mineral Reserves may be materially affected by geology, environment, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- koz = 1,000 troy ounces; t = tonne (1,000 kilograms)
- The Mineral Reserve estimates for Camino Rojo have an effective date of March 31, 2025.
- Stephen Ling, P.Eng. of Orla is the qualified person responsible for the Mineral Reserve estimates for Camino Rojo.
- Mineral Reserves are based on prices of \$1,900/oz gold and \$23/oz silver.
- Mineral Reserves are based on net smelter return (NSR) cut-off value of \$7.85 per tonne



9. NSR value for leach material is as follows:
- KpOx:  $NSR (\$/t) = 41.61 \times \text{gold (g/t)} + 0.072 \times \text{silver (g/t)}$ , based on gold recovery of 70% and silver recovery of 11%.
- KiOx:  $NSR (\$/t) = 33.29 \times \text{gold (g/t)} + 0.099 \times \text{silver (g/t)}$ , based on gold recovery of 56% and silver recovery of 15%.
- TrHi:  $NSR (\$/t) = 35.67 \times \text{gold (g/t)} + 0.177 \times \text{silver (g/t)}$ , based on gold recovery of 60% and silver recovery of 27%.
- TrLo:  $NSR (\$/t) = 23.78 \times \text{gold (g/t)} + 0.223 \times \text{silver (g/t)}$ , based on gold recovery of 40% and silver recovery of 34%.
10. The NSR values account for metal recoveries, refining costs, and refinery payable percentages.
11. Stockpiles are all derived from Camino Rojo mined material and are calculated using reconciled production figures adjusted for mining accuracy. Stockpile grades are calculated from grade control block grades. For the stockpile, no cut-off grade is used for reporting.



## 16.0 Mining Methods

### 16.1 Introduction

Currently, Camino Rojo is a conventional open pit mine. Mining operations consist of drilling medium diameter blast holes, blasting with either explosive slurries or ammonium nitrate and fuel oil (ANFO), and loading blasted materials into large, off-road trucks with hydraulic shovels and wheel loaders. Ore is delivered to the primary crusher and waste rock is delivered to a waste rock storage facility (WRSF) southeast of the current pit.

Contract mining services are used at the Camino Rojo open pit and are currently provided by Grupo Construcciones Planificadas S.A De C.V. (Construplan). Mining is carried out using 100 t capacity haul trucks, with additional equipment, including loading units, sized to match this haulage fleet.

The current LOM plan was developed by MCR and Orla to supply ore to a conventional crushing and heap leach facility with the capacity to process 18,900 tpd.

Since the start-up of mining operations at MCR, selective mining practices and the mine's stockpiling strategy have resulted in a build-up of low-grade stockpiled ore south of the open pit. This low-grade ore will be stacked on the heap leach facility at the end of mine life.

Table 16-1 summarizes MCR's historical production, from the start of the operations to the end of the first quarter (Q1) of 2025.

**Table 16-1: Operational History**

<b>Operational History</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>Q1 2025</b>
Ore Mined (kt)	2,058	8,300	7,437	7,614	1,875
Au Grade(g/t)	0.71	0.71	0.75	0.86	0.73
Waste Mined (kt)	2,050	5,535	4,162	8,564	2,771
<b>Total Mined (kt)</b>	<b>4,108</b>	<b>13,835</b>	<b>11,599</b>	<b>16,177</b>	<b>4,646</b>
Strip Ratio (w:o)	1.00	0.67	0.56	1.12	1.48
Stockpile Balance (kt)	870	2,287	2,719	3,127	3,329
Stockpile Grade (g/t)	0.67	0.38	0.33	0.33	0.33
Ore Stacked (kt)	1,188	6,882	7,006	7,205	1,673
Au Grade(g/t)	0.74	0.82	0.79	0.88	0.78
Gold Produced (oz)	2,422	109,596	121,877	136,748	29,973
Gold Sold (oz)	2,422	107,502	118,993	138,474	30,512

### 16.2 Geotechnical Considerations

As part of developing the 2021 FS (KCA 2021), Piteau completed a geotechnical assessment and report with proposed pit slope and bench parameters (Piteau 2019). Figure 16-1 presents the proposed geotechnical parameters by pit sector, with red values indicating the inter-ramp angle (IRA).



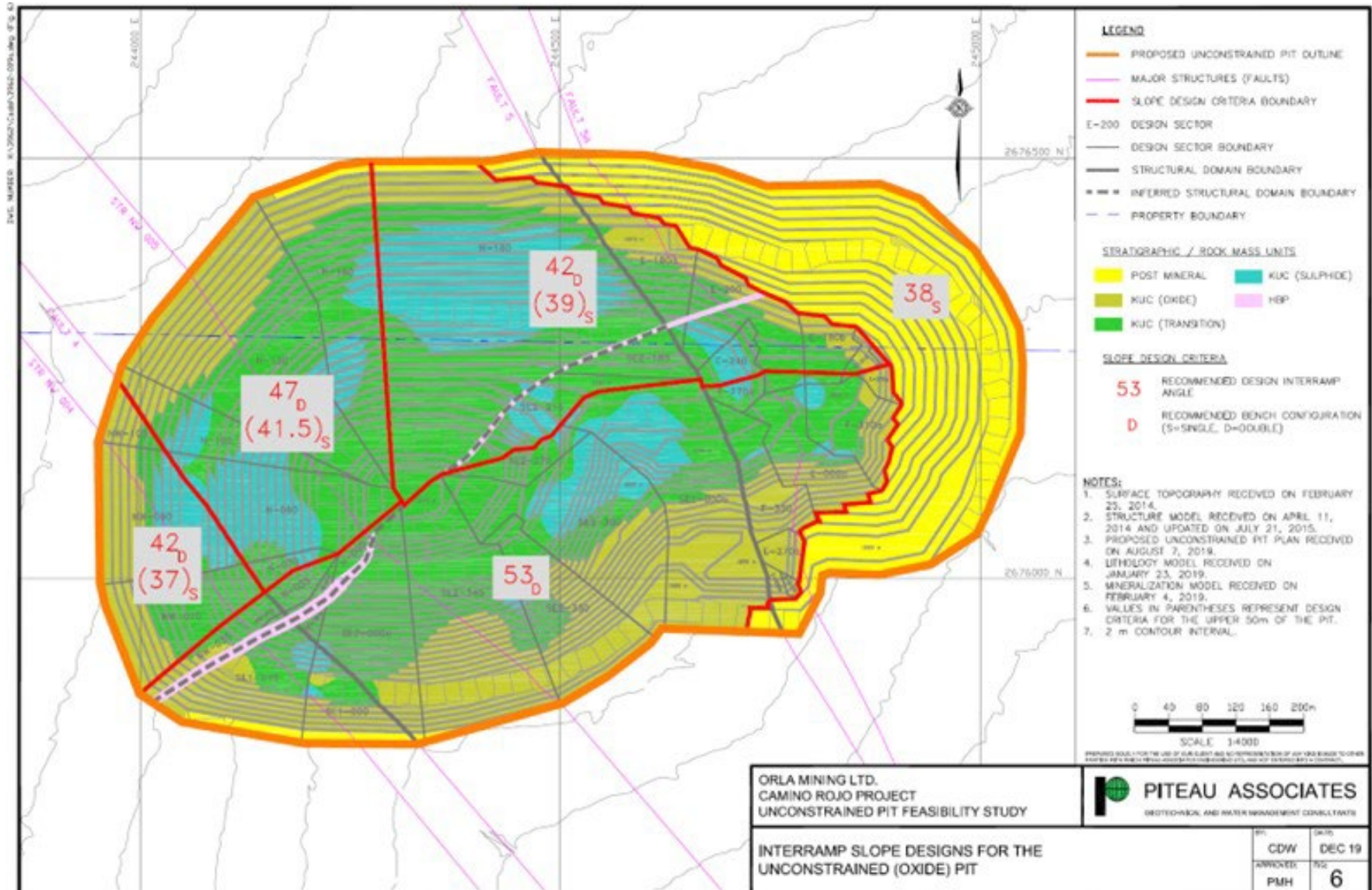
The recommended pit slope designs are based on a 38° IRA for the post-mineral rocks on the east side of the pit. The south pit wall is designed assuming a 53° IRA based on double benching of 10 m high benches. Locally, the rock mass dips into the pit wall on the south side of the pit; therefore, this pit wall is expected to remain relatively stable. It is assumed that controlled blasting, such as pre-splitting, will be required to develop and maintain the recommended bench face angles and catch benches.

The north and west pit walls are based on single benching (10 m high benches) of the upper 50 m of the pit wall at IRAs ranging from 37° to 41.5° and double benching below this elevation at IRAs ranging from 42° to 47°. Pre-splitting is also assumed to develop and maintain the bench face angles and catch benches.

Since the start of mining operations, MCR has been following the recommended geotechnical parameters presented in the 2021 FS, and the current LOM open pit design uses these geotechnical parameters. Piteau completes annual geotechnical site visits to assess slope performance in the pit, at stockpile locations, and at the WRSF, and conducts reviews of heap leach pad stability. Additionally, Piteau's annual reviews provide opportunities to train operational staff and further calibrate the assumed geotechnical parameters, such as evaluating the potential for pit slope or face angle steepening.



Figure 16-1: Geotechnical Parameters for Open Pit



### **16.3 Hydrological Considerations**

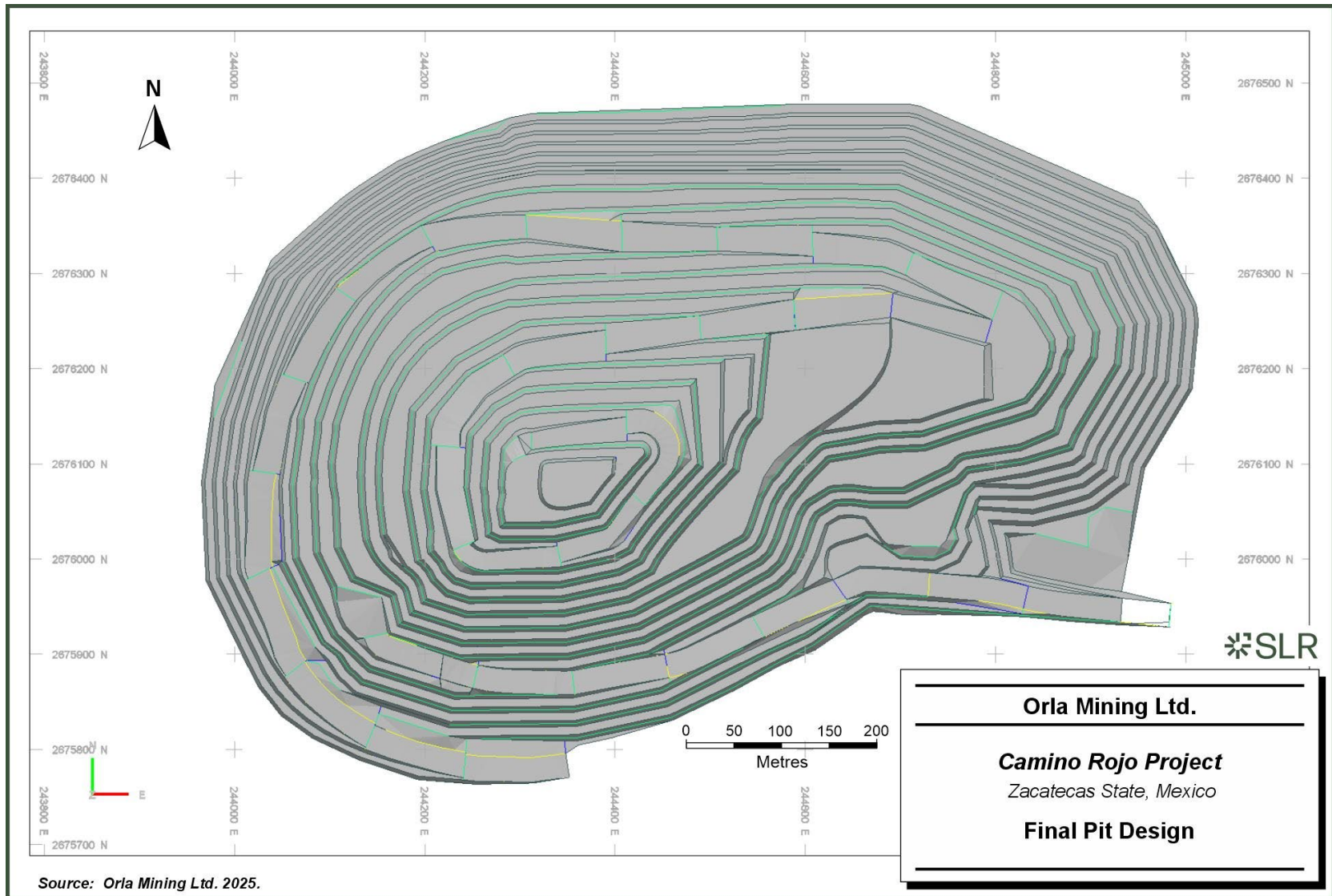
Surface water runoff is diverted around active or planned mining areas via a series of diversion channels and redirected to natural drainage locations at the southern boundary of the property. The purpose of the diversion channels is to prevent contamination of surface water and prevent inflow into the pit that would affect mining operations. The overall pit condition is considered to be dry, however, occasionally water from mining areas is collected in ponds and used for operational requirements, such as dust management.

### **16.4 Open Pit Design**

The ultimate (final) pit design is expected to be realized in 2025 and is based on the results of a Lerchs-Grossman analysis using the parameters discussed in previous sections of this report. Figure 16-2 shows the final pit design. The design includes pit haul roads and sufficient working room for all mining equipment. The pit haul road design width is 25 m, allowing for the construction of a berm and drainage ditch, at a maximum grade of 10%. This will accommodate trucks of approximately 100 t capacity such as the Caterpillar 777 class truck.



**Figure 16-2: Final Pit Design**



## 16.5 Waste Rock and Stockpile Facilities

A WRSF is located southeast of the pit for storage of waste rock generated from mining operations. As discussed in the 2021 FS, transition and sulphide waste rock material is being blended with or encapsulated by oxide materials. It is expected that this will provide excess neutralization potential (NP) for neutralization of localized acidic conditions in the WRSF.

The WRSF has been constructed and is operated per recommendations presented in KCA 2021. The WRSF is currently being constructed to facilitate closure with slope angles of 36 degrees, lift heights of 20 m, and 50 m wide oxide containment berms. The remaining capacity of the WRSF is sufficient to support the current LOM plan, with approximately 51.4 Mt of storage capacity at the end of March 2025.

Currently, the open pit ore mining rate exceeds the required heap leach stacking rate of 18,000 tpd. Where the stacking rate will be exceeded, lower grade ore is stockpiled and will be rehandled and stacked on the heap leach pad at the end of the current LOM plan. The low-grade stockpile is located south of the pit and west of the WRSF. Stacking of stockpiled material on the heap leach pad is scheduled to begin in 2029 and will be completed in 2030.

Marginal waste below the AuEq cut-off grade is being segregated in the WRSF for potential reclaiming at the end of the mine life if economically viable to do so at that time.

## 16.6 Mining Operations

Mine operations consist of drilling medium diameter blast holes (approximately 17 cm), blasting with either explosive slurries or ANFO depending on water conditions, and loading into large off-road trucks with hydraulic shovels and wheel loaders. Ore is delivered to the primary crusher, and waste is delivered to the WRSF southeast of the pit.

Contract mining services are used at the Camino Rojo open pit and are currently provided by Construplan. Mining is carried out using 100 t capacity haul trucks, with additional equipment, including loading units, sized to match this haulage fleet.

The mine's blasting services are provided by TERRA Corporación, S.A de C.V (Terra). As recommended by Piteau, Terra also drills angled holes along interim and final pit walls to facilitate pre-split blasting and an appropriate degree of wall control.

The MCR geology team completes ore control activities, such as pit mapping of mineralization and geology, blasthole sampling for assaying, and collection of representative pit material for bottle roll testing. The short-term grade control model, informed by blasthole sampling, reconciles well against the regularized resource block model and actual production.

Since the start of operations, the actual ounces contained in the ore zones and delivered to the crusher are 3% less than the ounces predicted by the regularized resource block model, while the identified combined ore and waste zones in the regularized resource model delivered 2% more ounces to the crusher than predicted.

## 16.7 Life-of-Mine Plan

The current LOM plan assumes a supply of ore to the crushing and heap leach facilities at a stacking rate of 18,900 tpd.

From 2025 to 2027, the current LOM plan mining rate of total material moved (TMM) ranges from 55,000 tpd to 73,000 tpd on a month-to-month basis, and from 2028 to 2030, the TMM mining rate ranges from 19,000 tpd to 36,000 tpd, including rehandling of the low-grade



stockpile. Except for the final two years of the LOM plan, all material movements are ex-pit material movements.

The LOM plan productivity assumptions are based on similar productivities achieved by the current and prior contractors. All equipment and personnel required to deliver the current LOM plan are either on site or available when required. The current mining contractor fleet at MCR consists of eleven 100 t haul trucks, four production loading units, one secondary excavator, three production drills, two dozers, two motor graders, and two water trucks. While TMM requirements are notable higher in 2026 and 2027 compared to recent actuals, in the opinion of the QP, the planned TMM in these years is achievable and notes that it is the mining contractor’s contractual obligation to provide the necessary fleet and labour to deliver the LOM plan.

Table 16-2 presents an annualized production schedule from Q2 2025 to the end of the current LOM plan. Figure 16-3 to Figure 16-9 show the annual end-of-period (EOP) surfaces for the open pit, waste rock storage, low-grade stockpile, and heap leach pads.

**Table 16-2: Current LOM Plan**

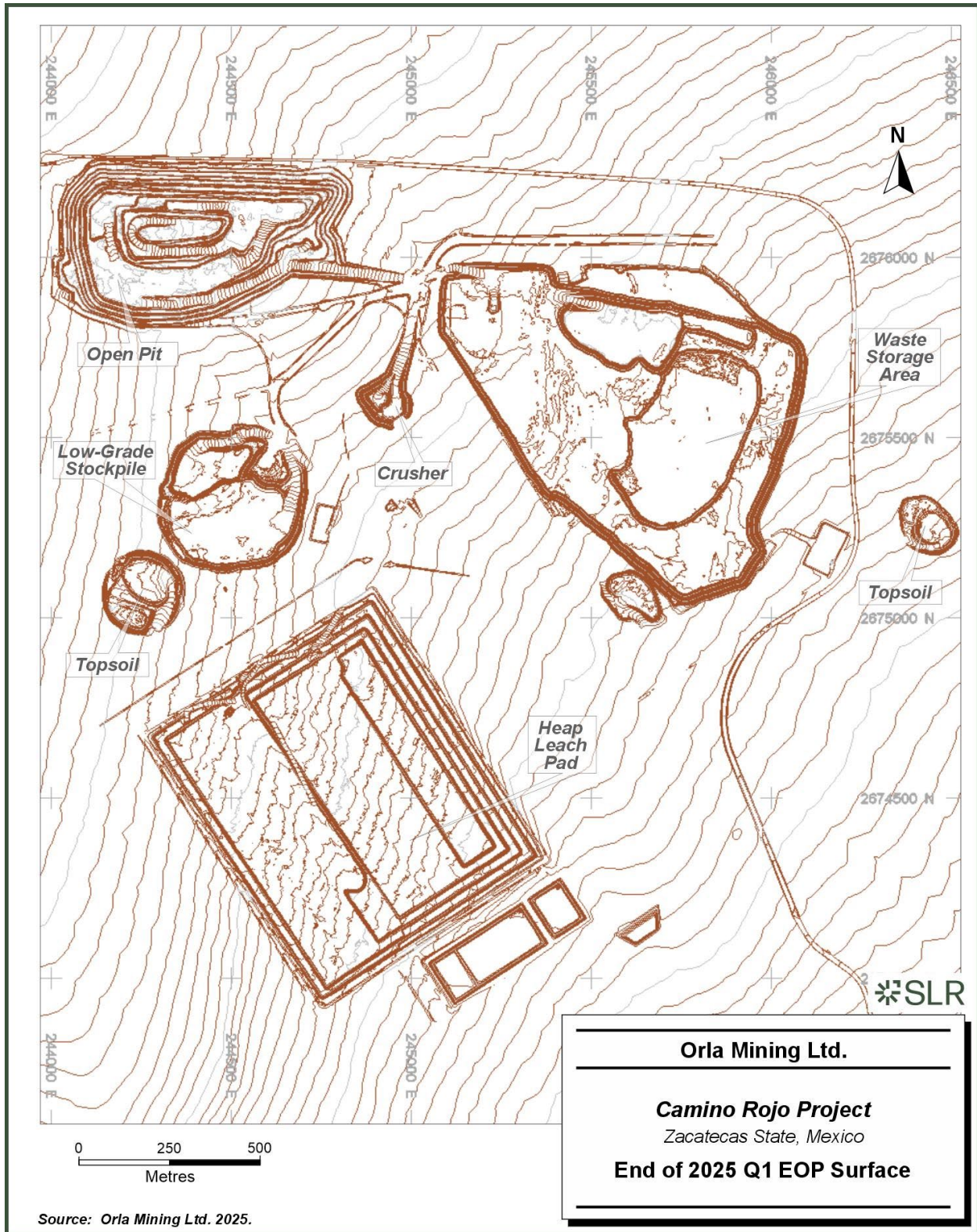
Parameter	Total	Q2–Q4 2025	2026	2027	2028	2029	2030	2031
<b>Mining</b>								
Crusher Ore (kt)	29,521	5,206	6,897	6,897	6,900	3,621		
Au (g/t)	0.82	0.76	0.81	0.86	0.84	0.76		
Ag (g/t)	15.8	17.70	13.3	14.8	17.2	17.0		
Low-Grade Ore (kt)	5,045	1,600	1,965	1,480				
Au (g/t)	0.28	0.27	0.28	0.28				
Ag (g/t)	6.7	8.04	6.3	5.9				
<b>Total Ore (t)</b>	<b>34,566</b>	<b>6,806</b>	<b>8,862</b>	<b>8,377</b>	<b>6,900</b>	<b>3,621</b>		
Au (g/t)	0.74	0.65	0.69	0.76	0.84	0.76		
Ag (g/t)	14.5	15.4	11.7	13.2	17.2	17.0		
<b>Waste (kt)</b>	<b>50,873</b>	<b>11,558</b>	<b>16,753</b>	<b>13,766</b>	<b>6,064</b>	<b>2,732</b>		
<b>Total ExPit (kt)</b>	<b>85,439</b>	<b>18,364</b>	<b>25,615</b>	<b>22,143</b>	<b>12,964</b>	<b>6,353</b>		
<b>Strip Ratio (w:o)</b>	<b>1.47</b>	1.70	1.89	1.64	0.88	0.75		
<b>Rehandled (kt)</b>	<b>8,374</b>					<b>3,276</b>	<b>5,098</b>	
Au (g/t)	0.31					0.34	0.29	
Ag (g/t)	7.6					9.3	6.5	
<b>Total Moved (kt)</b>	<b>93,813</b>	<b>18,364</b>	<b>25,615</b>	<b>22,143</b>	<b>12,964</b>	<b>9,629</b>	<b>5,098</b>	
<b>Processing</b>								
Ore Stacked (kt)	37,895	5,206	6,897	6,897	6,900	6,897	5,098	
Au (g/t)	0.70	0.76	0.81	0.86	0.84	0.56	0.27	
Ag (g/t)	14.0	17.7	13.3	14.8	17.2	13.4	6.6	
Au Contained (koz)	854	127	180	191	187	124	45	



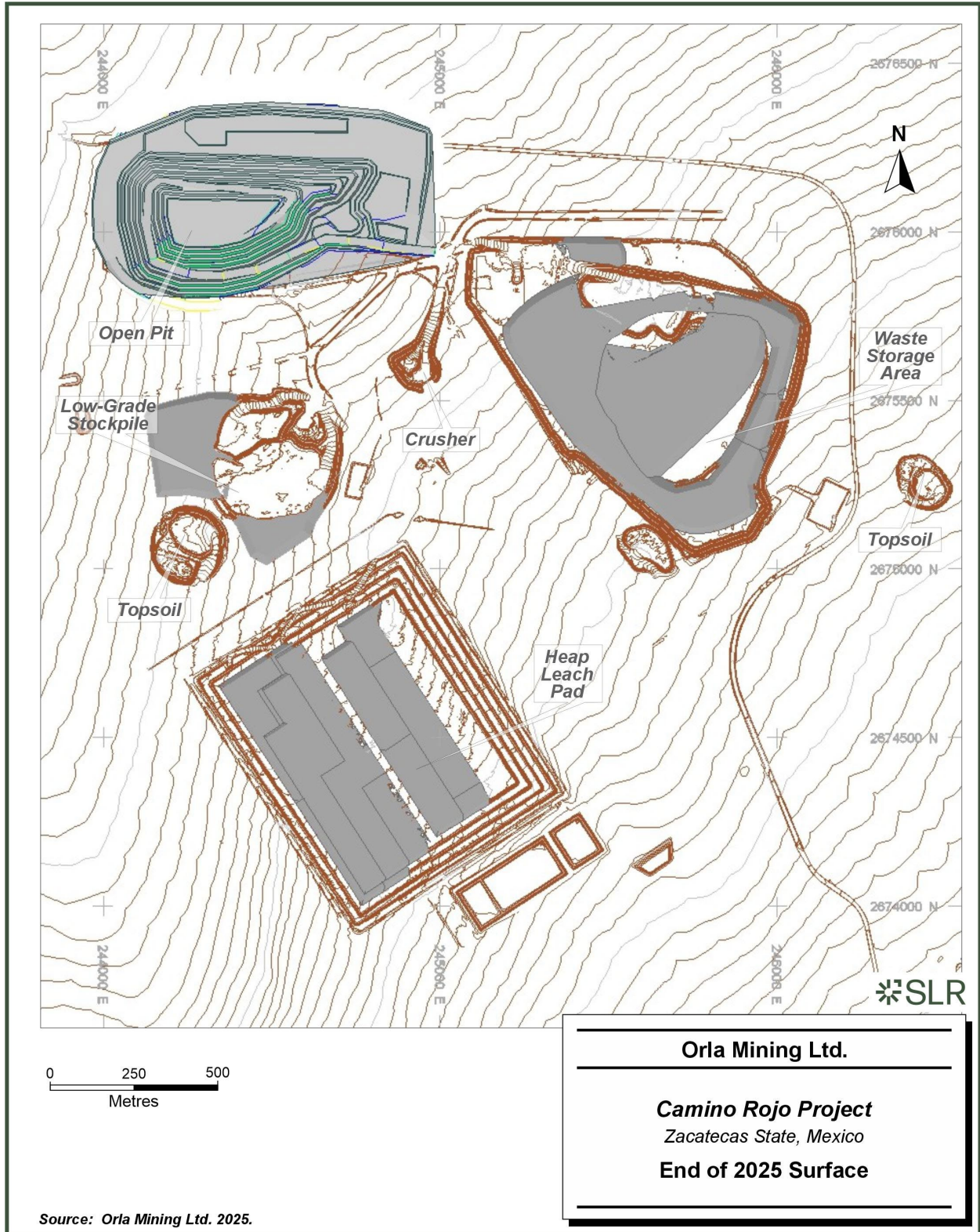
<b>Parameter</b>	<b>Total</b>	<b>Q2–Q4 2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
Au Rec (%)	64.0	62.7	62.9	63.4	62.5	62.3	62.4	64.0
Au Produced (koz)	553	78	114	127	107	75	29	24
Ag Contained (koz)	17,060	2,962	2,948	3,273	3,819	2,968	1,089	
Ag Rec (%)	16.6	9.9	11.6	12.2	14.1	15.1	15.5	16.6
Ag Produced (koz)	3,928	611	589	494	928	705	276	325



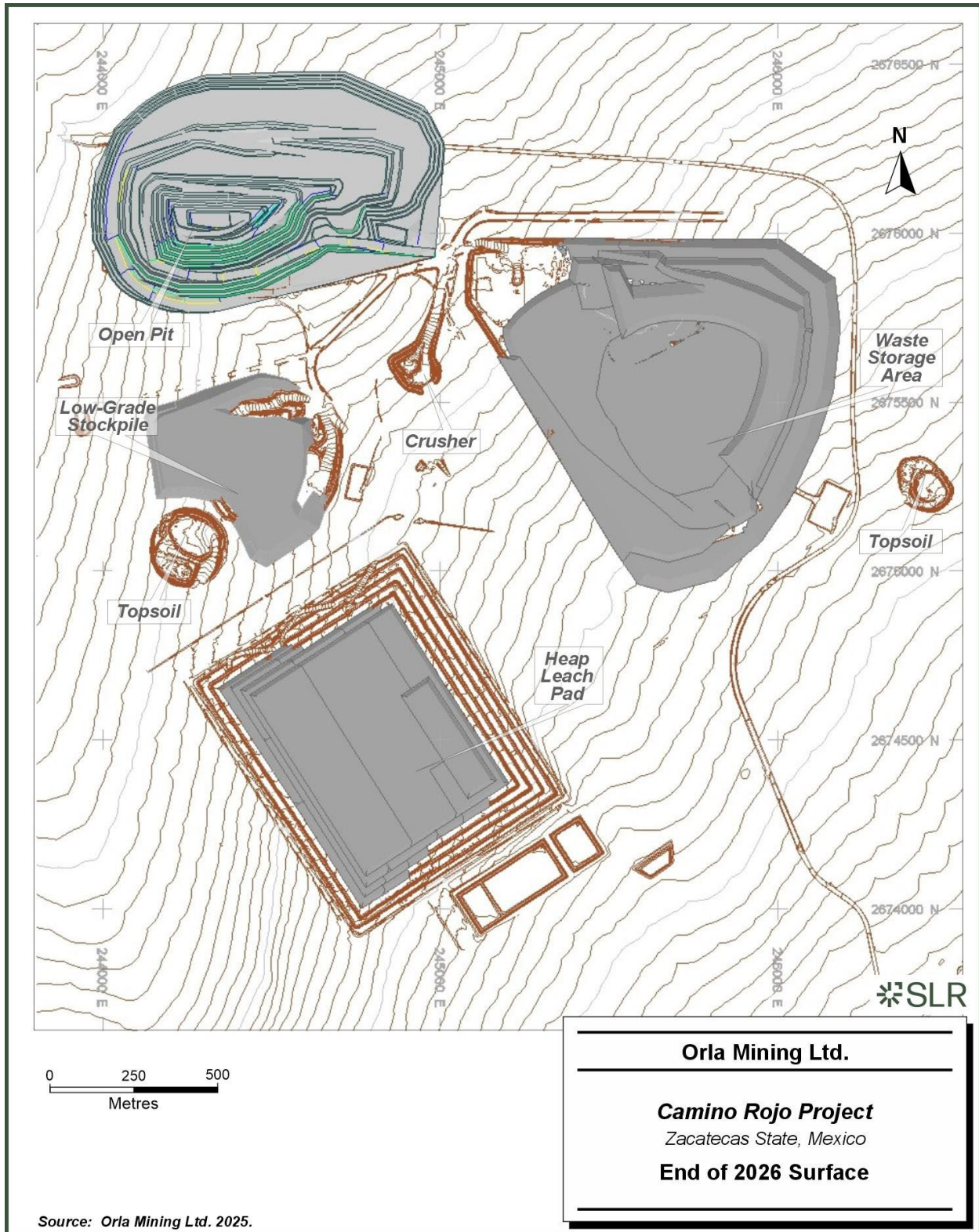
Figure 16-3: End of Q1 2025 Surface



**Figure 16-4: End of 2025 Surface**



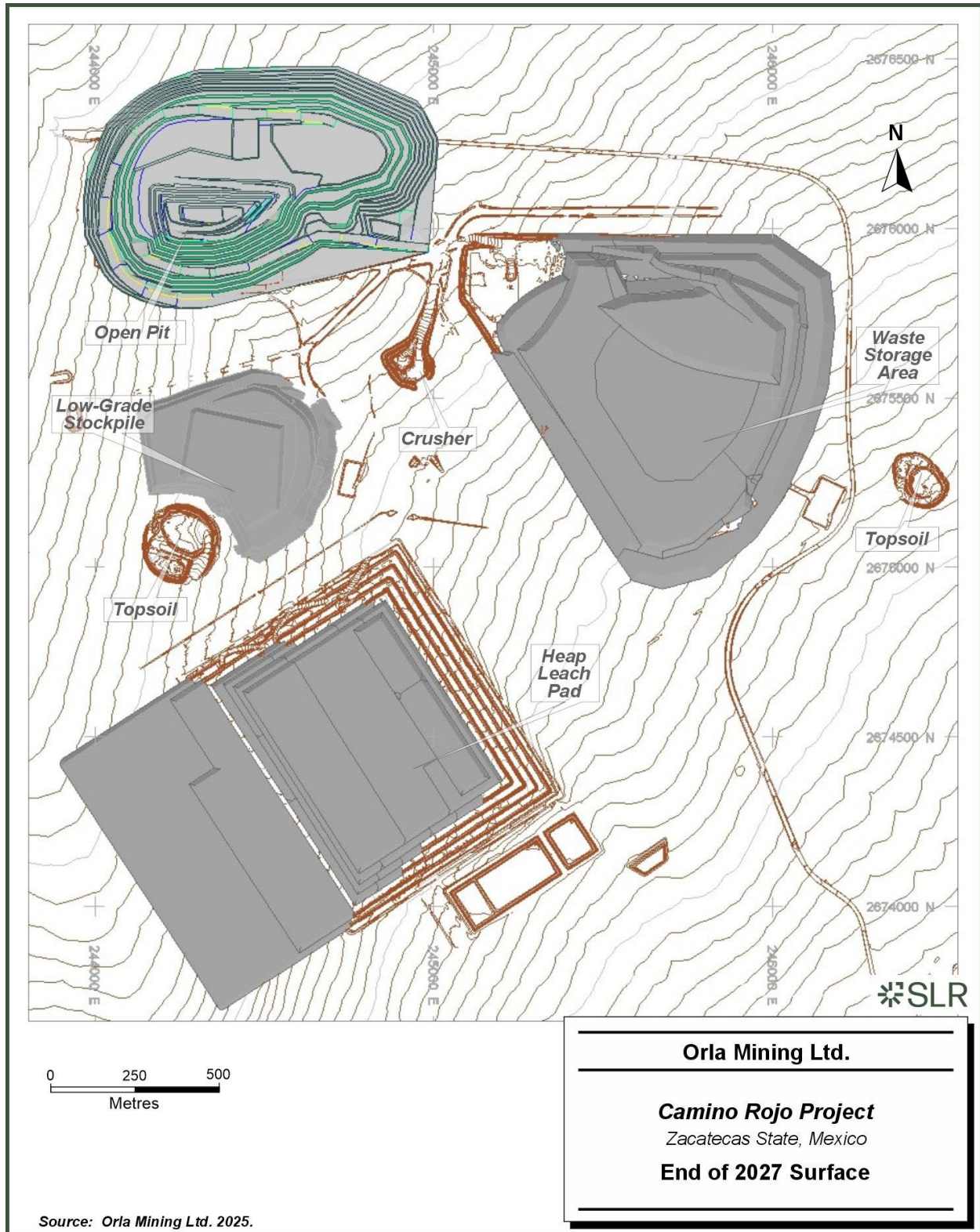
**Figure 16-5: End of 2026 Surface**



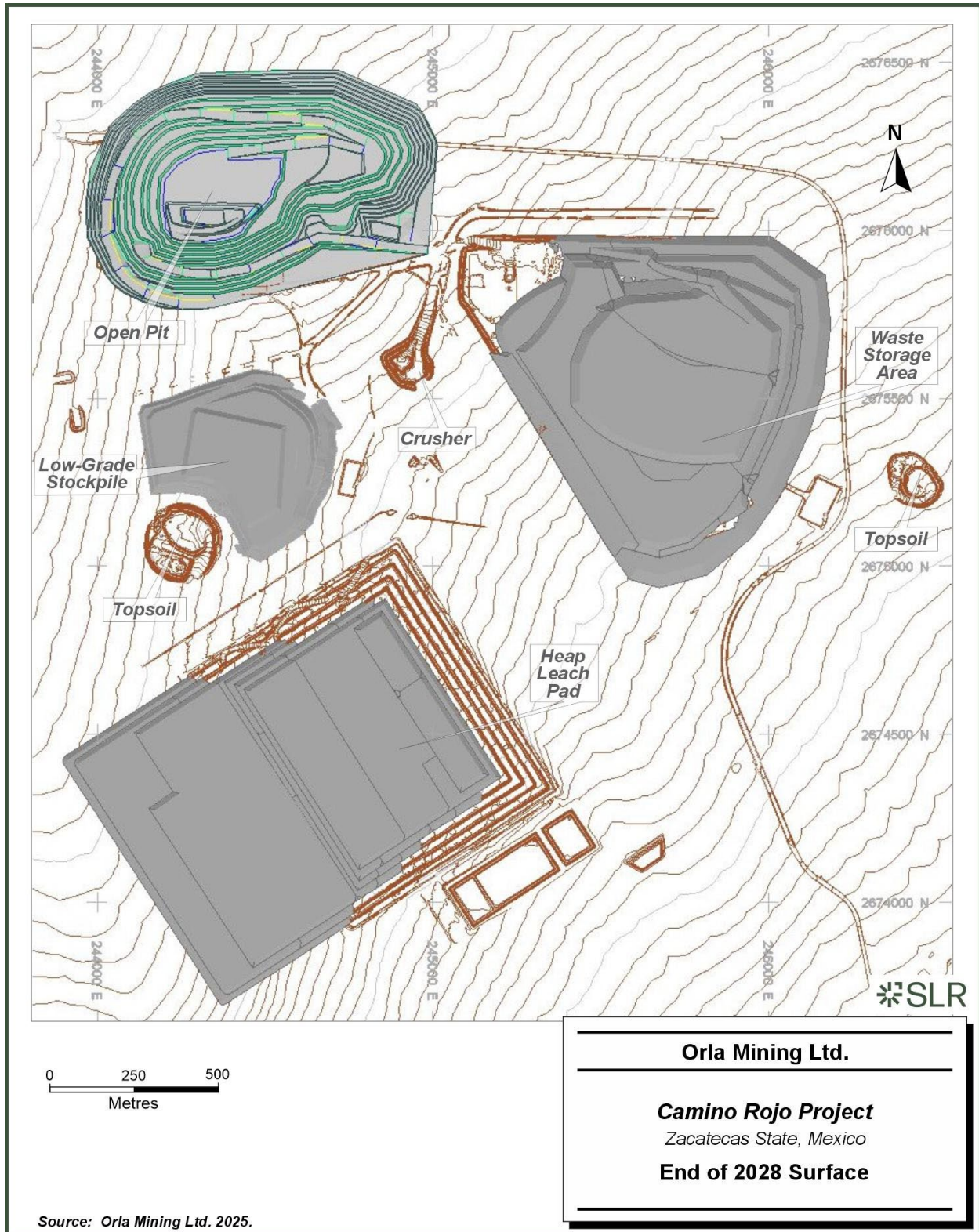
Source: Orla Mining Ltd. 2025.



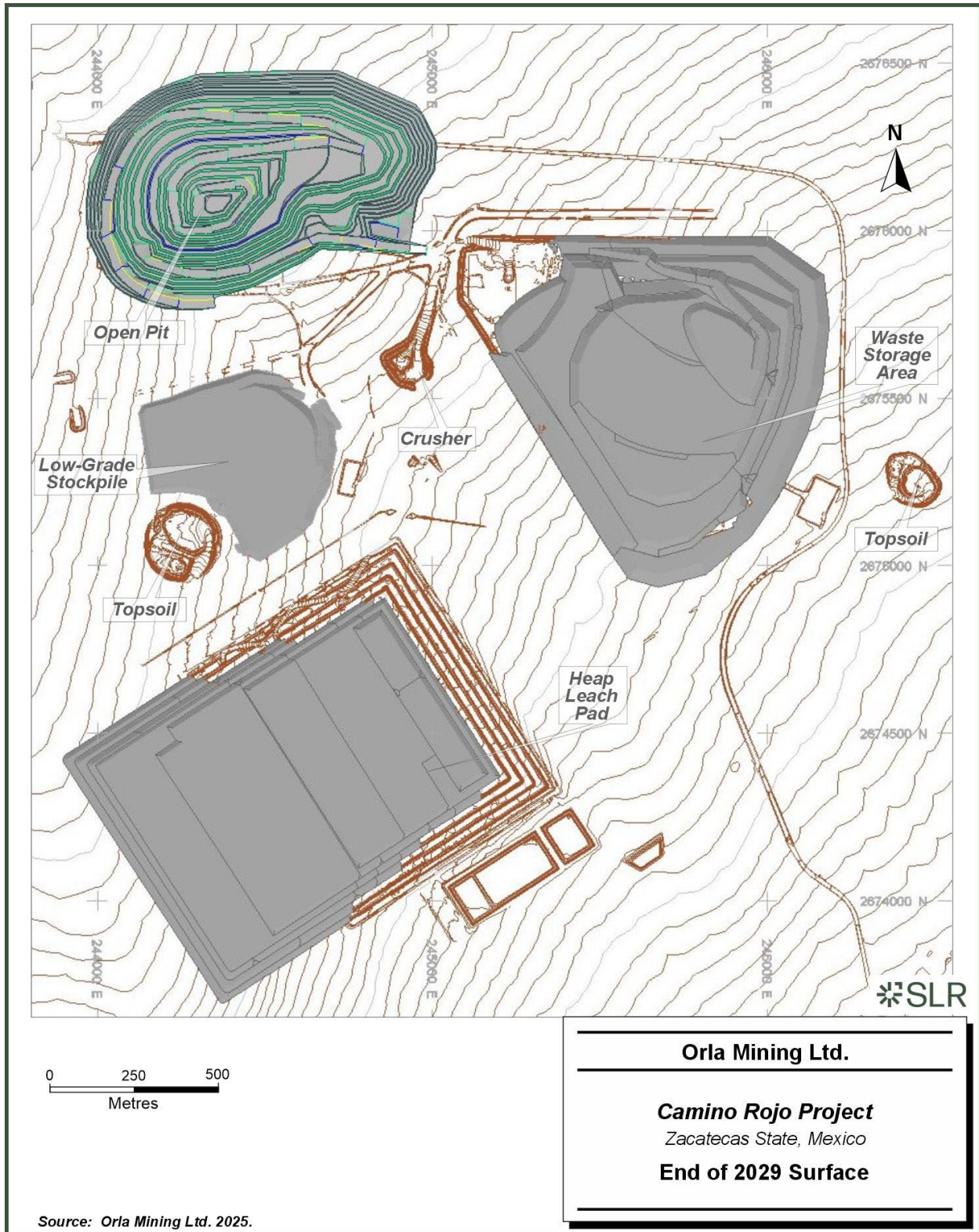
**Figure 16-6: End of 2027 Surface**



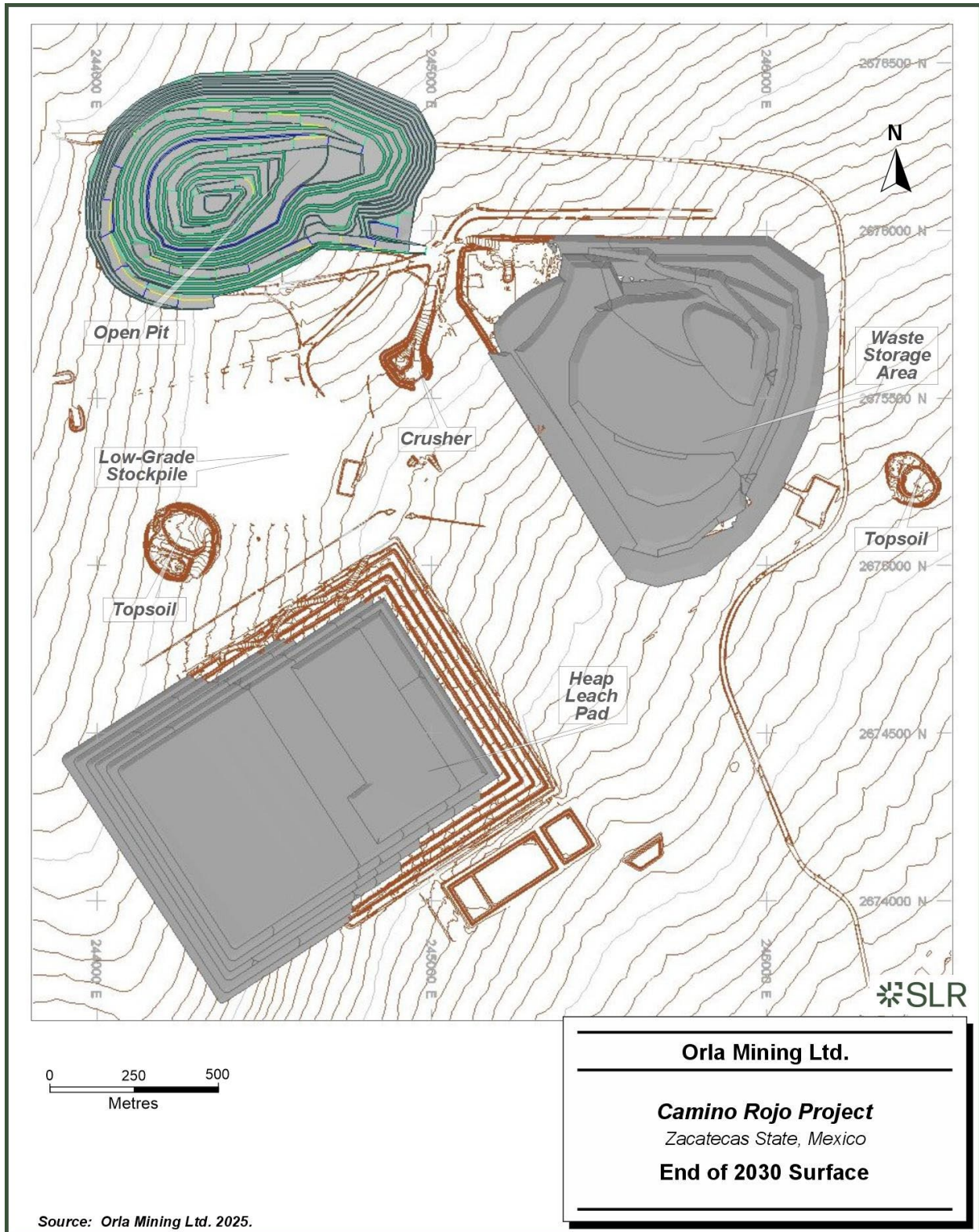
**Figure 16-7: End of 2028 Surface**



**Figure 16-8: End of 2029 Surface**



**Figure 16-9: End of 2030 Surface**



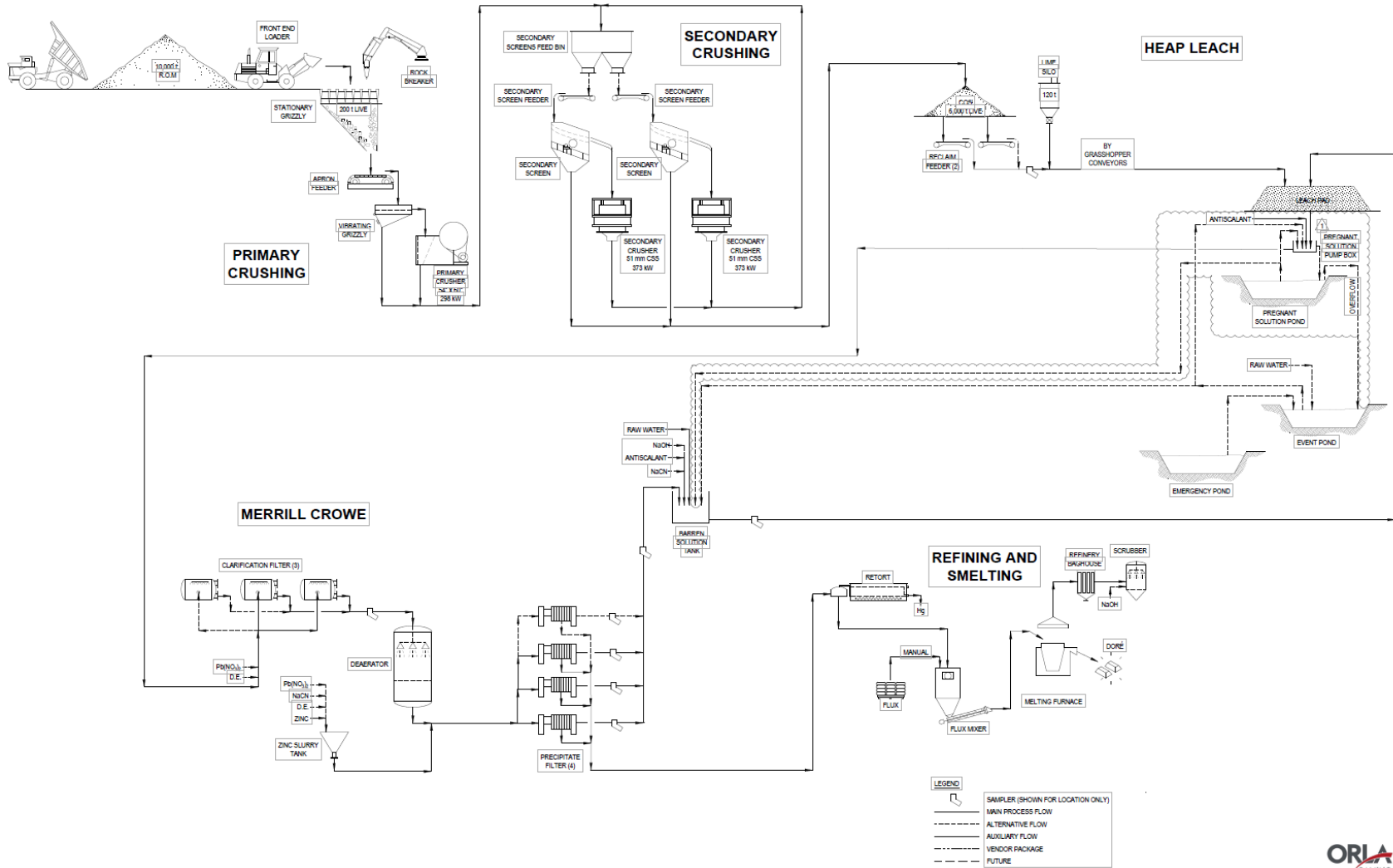
## 17.0 Recovery Methods

Camino Rojo is an open pit, heap leach operation which has been in production since late 2021. Open pit mining commenced in August 2021 with processing facilities commissioned in 2021 Q4 (Merrill-Crowe plant in operation in December 2021). The first gold pour occurred on December 13, 2021, and commercial production was achieved on April 1, 2022.

For the current operation, ore is crushed and stacked at a nominal rate of 18,000 tpd, which has routinely been exceeded during normal operation, to a target crush size of 80% passing 25 mm using a two-stage closed crushing circuit and then conveyor-stacked onto a leach pad in 10 m lifts. Lime is added to the material for pH control before being stacked and leached with a dilute cyanide solution. Pregnant solution flows by gravity to a pregnant solution pump box before being pumped to a Merrill-Crowe plant for metal recovery. Gold and silver are precipitated from the pregnant solution via zinc cementation. The precious metal precipitate is dewatered using filters, dried in a mercury retort to remove mercury values, and smelted to produce the final doré product. The overall process flowsheet is presented in Figure 17-1.



Figure 17-1: Process Flow Sheet



Source: M3 2020.



## 17.1 Process Description

### 17.1.1 Crushing and Conveyor Stacking

ROM ore is transported from the open pit in 100 t surface haul trucks at a nominal rate of 18,900 tpd. Ore is crushed to a target particle size of  $P_{80}$  25 mm using a two-stage closed crushing circuit. The crushing circuit includes a primary jaw crusher and two secondary cone crushers, each fed by a double deck vibrating screen. ROM ore is either directly dumped into the primary crusher dump hopper or stockpiled in a ROM stockpile; stockpiled ore from the ROM stockpile is reclaimed by a front-end loader and fed to the dump hopper as needed. Oversized rocks or large lumps are broken using a rock breaker.

Ore from the primary crusher dump hopper is fed to a vibrating grizzly feeder via an apron feeder with the grizzly oversize being fed to the primary jaw crusher and the grizzly undersize being recombined with the jaw crusher product on the primary crusher discharge conveyor. Primary crushed ore is fed to a surge bin where it is combined with the secondary cone crusher product and fed to the secondary screens via two each reclaim feeders and screen feed conveyors. Secondary screen oversize material is fed to the secondary cone crushers, where it is crushed and recycled back to the surge bin, and screen undersize is transferred to the crushed product stockpile.

Crushed ore is reclaimed from the crushed product stockpile and fed to an overland conveyor, which transfers the ore to the heap stacking system. Crushed ore is sampled at regular intervals via a cross-chute sampler between the stockpile reclaim conveyor and overland conveyor. Pebble lime (CaO) is added to the ore on the overland conveyor for pH control with an average addition of 4.0 kg/t in 2025. Water sprays are included at all crushing transfer points to reduce dust generation by the crushing circuit and a cover for the crushed product stockpile is currently being installed.

The conveyor stacking system includes the index feed conveyor, horizontal index, and radial stacker conveyors, which are fed by a combination of overland and grasshopper transfer conveyors. The heap is constructed in 10 m lifts and leached with a low concentration cyanide solution.

Once a lift of cells has finished leaching and is sufficiently drained, a new lift can be stacked over the top of the old lift. The old lift is cross-ripped prior to stacking new ore on top of any old heap area or access road/ramp to break up any compacted or cemented sections.

### 17.1.2 Heap Leaching and Solution Handling

The Camino Rojo heap leach pad is a single-use, multi-lift type leach pad which is being developed in multiple phases. As of March 31, 2025, approximately 24.0 million tonnes of ore, including the overliner, had been stacked, and construction of Phase 2 of the leach pad is complete. The first ore was stacked on the Phase 2 leach pad in June 2024.

Following stacking, ore is leached in a single stage using barren solution consisting of a dilute sodium cyanide solution. Additional residual leaching of ore will occur as leach solution from higher lifts percolates downward. Barren solution is pumped from the barren solution tank to the active leach site using a dedicated set of vertical turbine pumps and is applied to the heap by a system of wobbler sprinklers.

Pregnant solution containing gold and silver values from the heap drains by gravity to a pregnant solution vault from the heap. Perforated, corrugated pipes on the heap geomembrane



liners are in place to facilitate the collection and transport of pregnant leach solution to the pregnant vault, which overflows to the pregnant solution pond in an upset condition.

The pregnant vault is equipped with three vertical turbine pumps that pump pregnant solution to the Merrill-Crowe plant. The pregnant pond is equipped with a submersible pump to return any accumulated solution back to the leach circuit. Gold and silver are precipitated from the pregnant solution by zinc cementation in the Merrill-Crowe facility and the resulting barren solution is returned to the barren solution tank.

An event pond is in place to handle any excess solutions from storm events, and an emergency collection pond down gradient from the recovery plant and process ponds is also in place to capture any uncontrolled release of process solution.

### 17.1.3 Merrill-Crowe Recovery Plant and Refinery

The Merrill-Crowe recovery plant is designed to recover gold and silver values from pregnant solution by zinc precipitation. Pregnant solution is pumped to two of the three pressure leaf type clarification filters (two operating, one on backwash/clean/precoat cycle) at a nominal rate of 1,000 m<sup>3</sup>/h (1,200 m<sup>3</sup>/h design) to remove suspended solids. Diatomaceous Earth (DE) is used to precoat the clarification filters and as body feed solution, which is metered into the pregnant feed solution to the clarification filters during operation. The clear pregnant solution from the clarification circuit is sent to the deaeration tower for removal of oxygen, and the deaerated, clarified pregnant solution is then pumped to three of four precipitate filter presses. Ultra-fine zinc is added at the press feed pump suction to precipitate gold and silver from the deaerated pregnant solution. Lead Nitrate (PbNO<sub>3</sub>) is also metered into the zinc cone as needed to improve Merrill-Crowe efficiencies. Precipitated gold and silver are collected in the precipitate filter presses and the resulting barren solution is returned to the barren solution tank.

Periodically, one of the precipitate presses is taken off-line and the empty pre-coated press is put online. The press taken off-line goes through a compressed air blow cycle to dry the filtered precipitate. The precipitate is collected in pans that are loaded into an electric mercury retort with a fume collection system for drying and removal of mercury before being mixed with fluxes in preparation for smelting. Recovered mercury is considered as a hazardous waste and is transported off site for disposal.

The mixed precipitate and fluxes are fed to the tilting induction furnace. After melting, slag is poured off into cascading cast iron moulds until the remaining molten furnace charge is mostly molten metal (doré). Doré is poured off into bar moulds, cooled, cleaned, and stored in a vault pending shipment to a third-party refiner. The doré poured from the furnace represents the final product of the processing circuit.

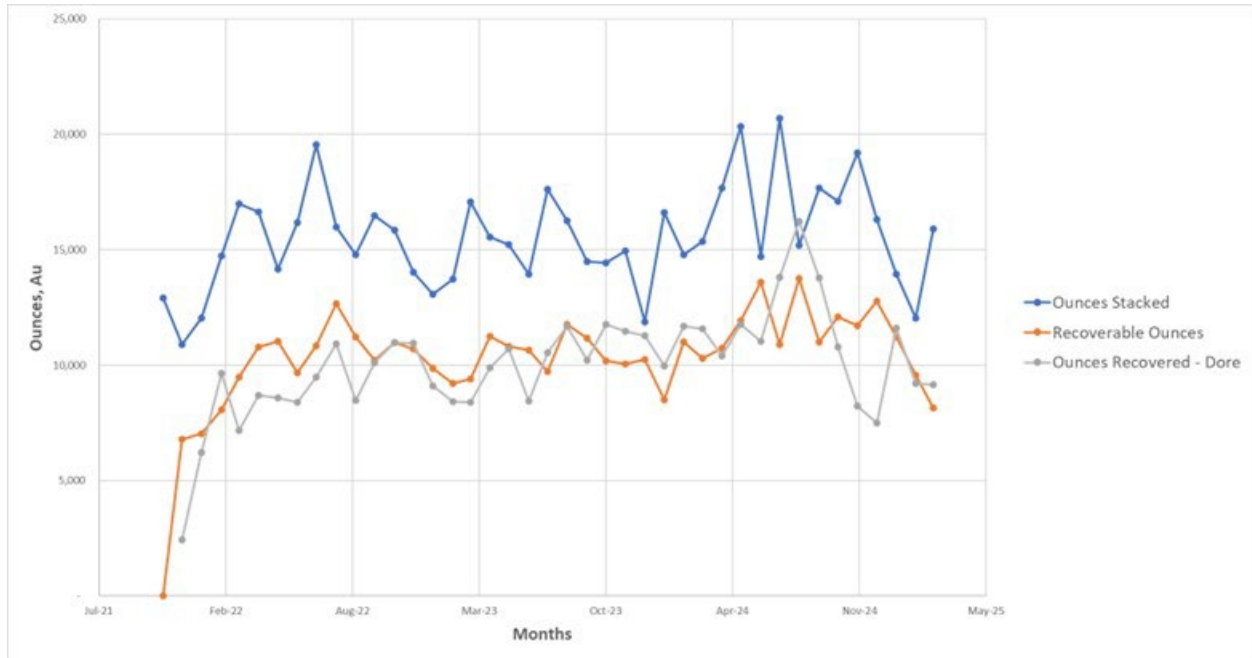
Slag is reprocessed using a fine jaw combo crusher and re-smelted to recover any remaining metal values.

## 17.2 Operational Performance

Overall gold recovery from the start of operations through March 31, 2025, is approximately 63% (based on ounces recovered to doré) and silver recovery is approximately 7%, plus an additional 2% recovery for gold and 2% for silver when accounting for gold and silver values recovered to the Merrill-Crowe precipitate and leach solutions. Ounces stacked, modeled ounces recovered, and ounces recovered to doré by month are presented in Figure 17-2 for gold and Figure 17-3 for silver. Modeled recovery versus actual production for gold and silver are presented in Figure 17-4 and Figure 17-5, respectively.

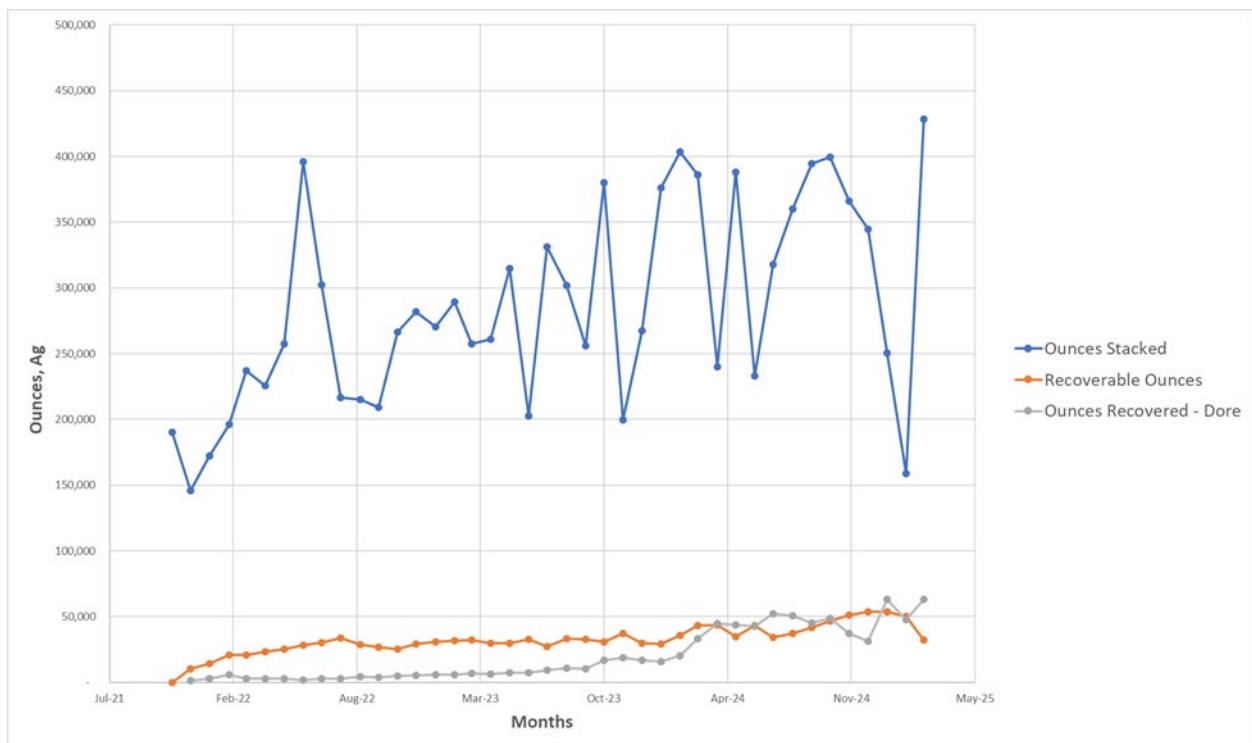


**Figure 17-2: Gold Ounces by Month**



Source: KCA 2025.

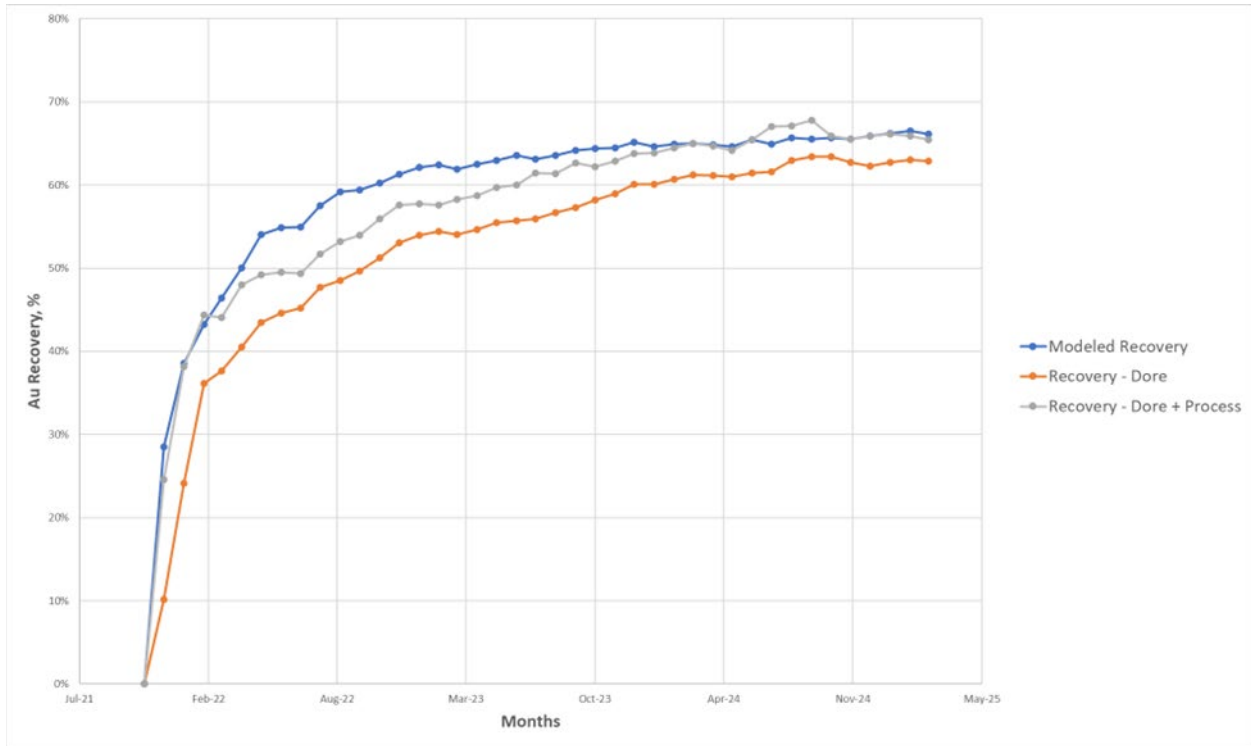
**Figure 17-3: Silver Ounces by Month**



Source: KCA 2025.

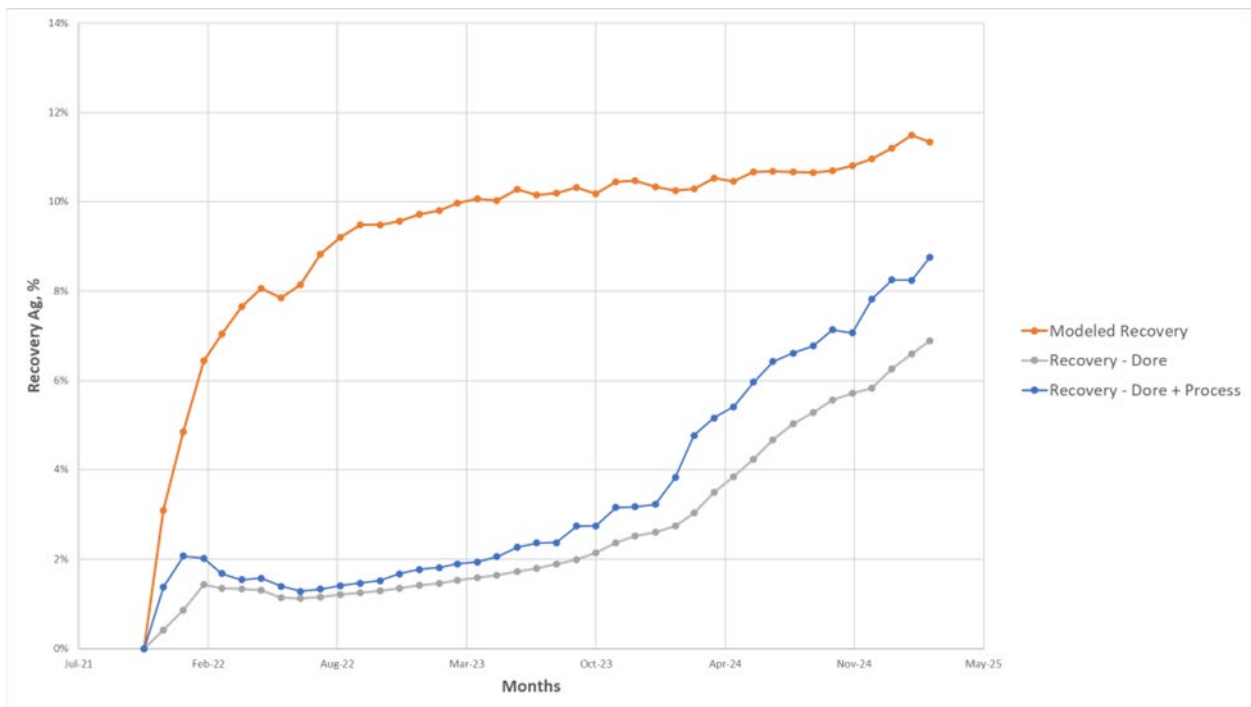


**Figure 17-4: Gold Recovery by Month**



Source: KCA 2025.

**Figure 17-5: Silver Recovery by Month**



Source: KCA 2025.

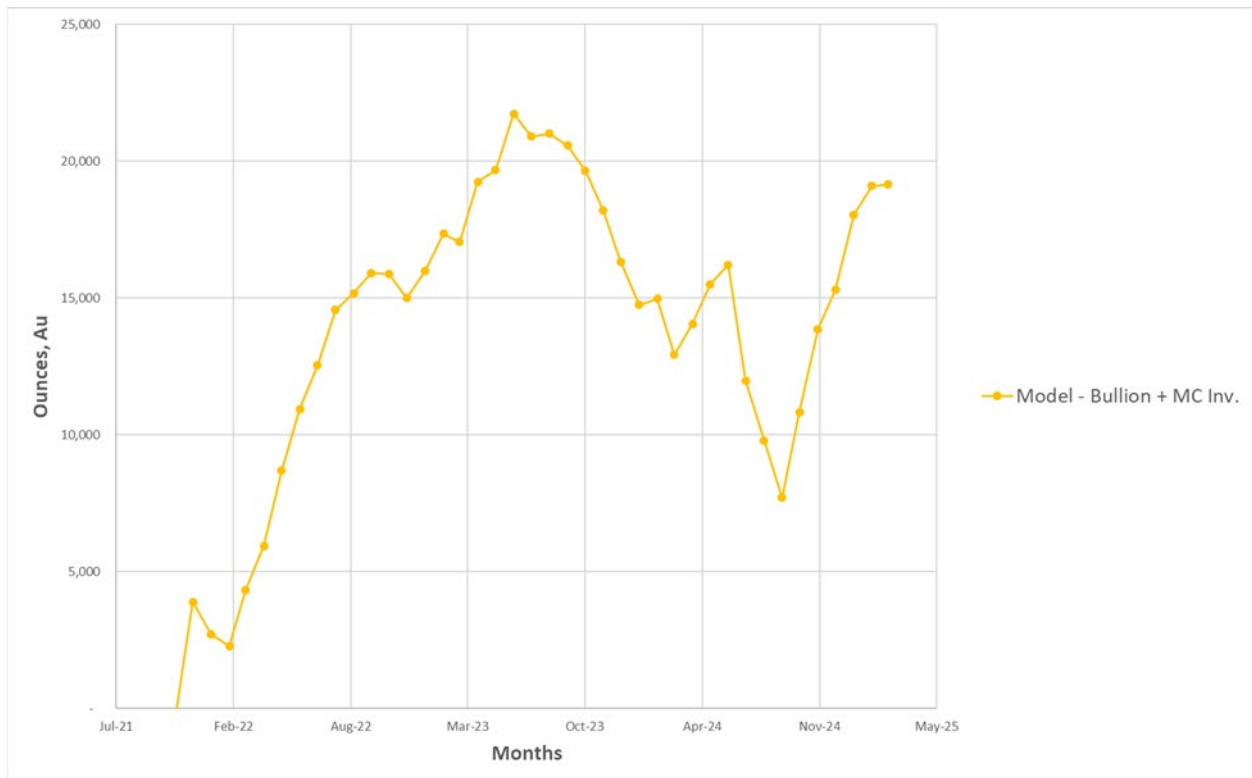


As of March 31, 2025, the difference between the realized recovery to date (as doré and Merrill Crowe precipitate) and the assumed endpoint recoveries reflects the booked metals inventory, which is currently estimated at approximately 19,000 oz for gold and 500,000 oz for silver with inventories by month presented in Figure 17-6 and Figure 17-7, respectively. Estimated gold inventory peaked in June 2023 and has been holding at a reasonable level. Estimated silver inventory followed a similar trend with its peak occurring six months later in March 2024. These inventories include metals in solution, partially leached ore, and any unleached areas such as newly stacked ore and sideslopes.

Overall, modeled recoveries versus actual production for gold are in good agreement with reasonable inventory levels. Silver recoveries show a significantly larger variance and several factors may be contributing to this including slower leach kinetics for silver than expected, insufficient free cyanide in the leach pad to maximize silver recovery, or silver recovery estimates that need to be better calibrated.

As silver production has been improving and the inventory has been decreasing or holding steady, the QP recommends maintaining the silver recovery estimates at this time. Silver recoveries should continue to be closely evaluated, especially with regards to the monthly composite columns to determine whether a write down of some of the silver inventory is warranted.

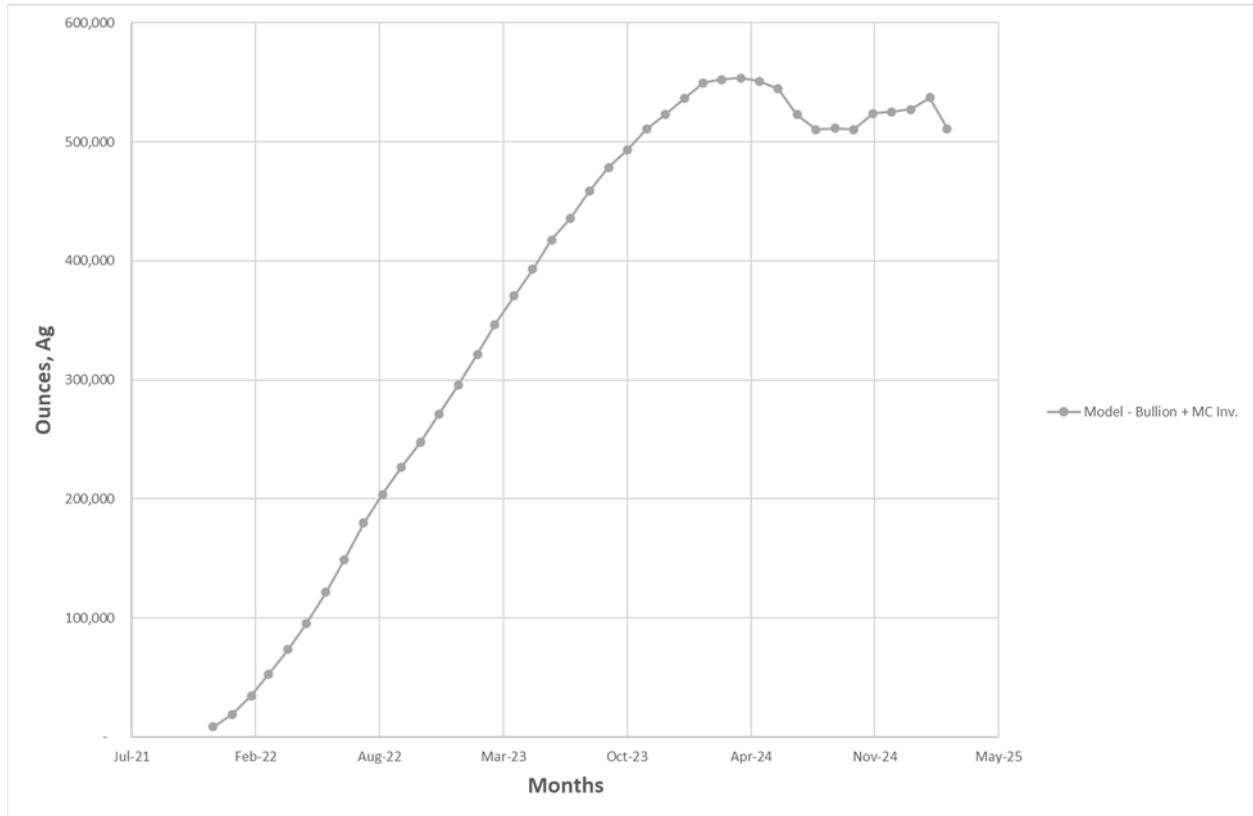
**Figure 17-6: Gold Inventory by Month**



Source: KCA 2025.



**Figure 17-7: Silver Recovery by Month**



Source: KCA 2025.



## 18.0 Project Infrastructure

### 18.1 Overview

The MCR operation currently includes an open pit mine, a WRSF, a low-grade ore stockpile, a heap leach pad, and two topsoil stockpiles.

Key surface infrastructure to support operations is in place, and includes:

- Haulage roads
- Camp facilities
- Site buildings
- Service infrastructure, including water, power, and waste infrastructure

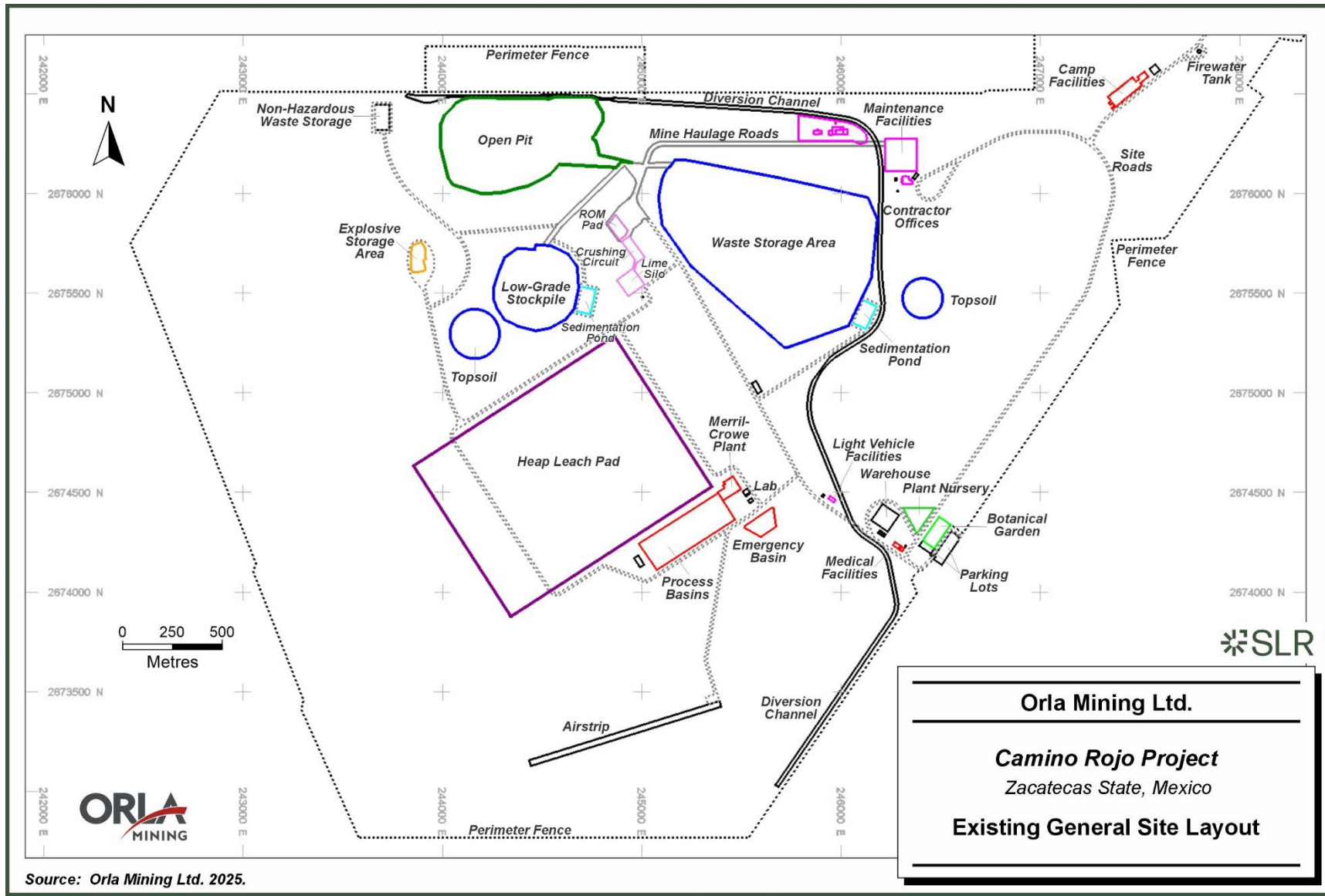
Within the scope of the permit currently under review (MIA-R 2024), expansions or additions are planned for the following:

- Open pit
- WRSF
- Low-grade ore stockpile
- Crusher feed stockpile
- Diversion channels
- Underground portals within the open pit as part of an exploration decline
- Environmentally focused works such as a nursery, botanical garden, conservation and restoration areas, and the addition of a new area for soil protection

Figure 18-1 illustrates the existing general site layout.



Figure 18-1: Existing General Site Layout



Source: Orla Mining Ltd. 2025.



## 18.2 Supporting Infrastructure

### 18.2.1 Haulage Roads

#### 18.2.1.1 Access Roads

Access to the mine site is by the paved, four lane Mexican Highway 54 and by Route 62, a secondary paved highway that passes through San Tiburcio. The mine site is approximately 260 km southwest of Monterrey and 190 km northeast of Zacatecas. A private road enters the mine property approximately 250 m northeast of the intersection of Highway 54 and Route 62. This road provides access to the camps, offices, mine, process plant and other Project facilities. Site access roads include approximately 20 km of paved, dirt, and gravel roads.

#### 18.2.1.2 Mine Haulage Road

The mine’s main haul road was established during the Project’s pre-production period. There are multiple branches of haul road off the main haul road from the pit, including access to the mine truck shop, WRSF, and low-grade ore stockpile. There is approximately 2.1 km of haul roads constructed from the top of the pit ramp to all associated haul truck destinations.

### 18.2.2 Mine Camp Facilities

The operations camp includes “A” type and “B” type dorm units. The “A” dorm units consist of eight double rooms with accommodation for two single beds or double bunks and shared bathroom facilities. The “B” dorm units consist of eight single rooms, each of which have accommodations for one single bed and a private bathroom; the single rooms can be converted to quadruple occupancy if required. The camp includes eight “A” type and six “B” type dorm units with a total of 112 rooms. The total camp capacity is presented in Table 18-1.

**Table 18-1: Camp Capacity**

Description	Number of Dorm Units	Rooms per Dorm Unit	Normal Occupancy per Dorm Unit	Maximum Occupancy per Dorm Unit
Type A Dorm	8	8	16	32
Type B Dorm	6	8	8	32
<b>Total Camp</b>		<b>112</b>	<b>176</b>	<b>448</b>

Other facilities included as part of the operations camp include a laundry facility, a kitchen and dining facility, and a recreation building.

The mine site cooking, dining facilities, and recreation facilities are housed in pre-engineered steel buildings that are located near the camp to support the owner and contractor workforces.

In between working shifts, owner employees reside in either the mine site camp or in nearby communities, while contractor employees reside in an off-site hotel or in nearby communities. The total mine site workforce includes approximately 300 owner employees and 375 contractor employees working on day/night shifts and on rosters.



### 18.2.3 Site Buildings

Site buildings are primarily prefabricated steel buildings or concrete masonry unit buildings. Site buildings/facilities include:

- Administration Building
- Mine Camp Facilities
- Merrill-Crowe Recovery Plant
- Refinery
- Laboratory
- Process Maintenance Workshop
- Reagent Storage Building
- Mine Truck Shop
- Contractor Mine Office Building
- Fuel Stations
- Warehouse
- Explosives Magazine
- Guard House
- Medical Clinic
- Temporary Storage of Hazardous Waste
- Landfill
- Nursery
- Botanical Garden

An exploration office and core sheds are located in San Tiburcio, approximately 1 km from the main gate access for the mine site.

#### 18.2.3.1 Process Facilities

The process facilities include Merrill-Crowe recovery plant, a refinery, a laboratory, a process maintenance workshop, and reagent storage located adjacent to the Merrill-Crowe recovery plant. Additional details related to the process equipment and facilities are presented in Section 17.

The laboratory facility is located near the Merrill-Crowe plant and processes samples generated from mining and processing activities. Chemical and fire assays are completed in this laboratory by owner employees.

#### 18.2.3.2 Mine Truck Shop

The truck shop has a semi-open arrangement and includes repair bays for trucks, ancillary equipment, and light vehicles, and wash and welding areas.

Adjacent to the wash bay is an oil skimmer to collect the oil in the wash water from the wash bay.



Crane work is conducted within the mine truck shop with a 10 t overhead crane. Maintenance fluids are distributed to each bay by the means of lubrication stations, each with a supply of compressed air, clean water, grease oils and lubricants.

### 18.2.3.3 Fuel Storage and Dispensing

Fuel for the mining fleet is handled and stored at a fuel station adjacent to the mine truck shop which has four diesel storage tanks for a total of 180 m<sup>3</sup>. Fuel is delivered to the mine site via tanker trucks.

### 18.2.3.4 Warehouse and Fenced Laydown Yard

A warehouse and laydown yard for storage of miscellaneous equipment, piping, and supplies is located near the entrance to the mine site. An attached fenced laydown yard is adjacent to the warehouse.

### 18.2.3.5 Magazine Site

Within a two-metre high bermed and fenced area, explosives product and accessories are stored.

Approximate distances from notable infrastructure are as follows:

- 800 m northwest of the heap leach boundary
- 1,000 m west of the nearest occupied facility (primary crusher)
- 1,100 m southwest of the main haulage road
- 1,200 m west of the WRSF
- 1,300 m east of the El Berrendo access road

Based on the amount of explosives to be stored in the explosives' facilities, all of the aforementioned distances exceed the minimum safety distance requirements of the explosive regulations established by Secretaría de la Defensa Nacional (SEDENA).

### 18.2.3.6 Guard Shack and Security

Access to the mine site is limited to one main gate to ensure that only authorized employees, contractors, and visitors are allowed onto the property or inside the critical facilities. The entrance is staffed 24 hours a day, 7 days a week for identification control, random checks, drug and alcohol monitoring, and vehicle check-in/out. A security contractor is used for general site security and protection of assets.

### 18.2.3.7 Medical Clinic

A medical clinic and ambulance are located on the mine site near the administrative buildings. Medical treatment is limited to the attendance of minor accidents and stabilization of patients that have received minor trauma. In the event that advanced medical care is needed, the ambulance is equipped and prepared for emergency transport to Saltillo or Zacatecas.

### 18.2.3.8 Temporary Storage of Hazardous Waste

A temporary hazardous waste warehouse is used for the storage of hydrocarbon waste (used oil, soil impregnated with hydrocarbons, solids contaminated with hydrocarbons, water with hydrocarbons, used grease), and a separate area is used for chemical waste.



### 18.2.3.9 Sanitary Landfill and RME Deposit

Non-hazardous solid waste is disposed of in a fenced sanitary landfill of approximately one hectare, located within the property boundary. The landfill has a capacity of approximately 15,000 m<sup>3</sup> or 4,500 tons of waste material based on compaction between 200 and 250 kg/m<sup>3</sup>. The base of the landfill is compacted in compliance with NOM-083-SEMARNAT-2003 and covered with an impermeable membrane.

### 18.2.3.10 Nursery

A nursery is operated to reproduce plant species that will be used in the restoration of areas affected by mining operations. This nursery is located within the mine site footprint and currently occupies an area of 1.03 hectares. It is expected to expand to 1.38 hectares once a new MIA-R permit is obtained.

### 18.2.3.11 Botanical Garden

There is a 1.02 hectare botanical garden located within the mine site footprint. This garden is one of the main areas for transplanting rescued flora, for maintaining rescued plants, and for educational purposes for visitors and members of neighboring communities, as well as for worker training.

## 18.2.4 Services

### 18.2.4.1 Air Strip

The mine site includes a one kilometre by 30 m wide air strip to allow for small passenger planes to land and take off. The air strip is constructed by grading and compacting the existing surface and is located south of the heap leach pad. The air strip does not include any infrastructure or provisions for fueling or maintenance of planes or other aircraft.

### 18.2.4.2 Power Supply

The existing power supply to the mine site is from a connection to the national commercial grid. Overhead powerlines are connected to the 34.5 kV, three phase and 60 Hz power system, to a metering and switching substation.

### 18.2.4.3 Site Distribution

Power distribution around the process plant and site facilities is by overhead powerlines at 34.5 kV, 3 phase, 60 Hz and is stepped down to 4,160 V, 460 V, 220 V and 110 V as required. Power is primarily supplied at 460 V or 220/110 V to motor control centres or distribution panels in their respective areas. Power to the conveying stacking system is supplied at 4,160 V and stepped down to 460 V using on board transformers for each conveyor. All overhead distribution powerlines are connected to the main switchgear.

### 18.2.4.4 Emergency Power

In the event of a power failure or power interruption, diesel-fired backup generators are used to supply emergency power for safety and security. Backup electric power is supplied to the following facilities:

- Critical process equipment including solution handling equipment



- Mine camp
- Raw water pumping system

To maintain power to critical equipment during power outages, a 6,000 kW generator plant is installed next to the main switch station. A fuel tank is provided for the generator to maintain a 24-hr fuel supply.

Emergency power for the mine camp and raw water pumping systems is by small local generators located at the facilities.

#### **18.2.4.5 Communications**

The communications systems required to support mining, processing, and general administration activities require multiple transmission modes for fail-safe redundancy. Internal communications are by radio frequency. External communications are through a mix of landline, cellular (CFE network), and voice over internet protocol (VOIP).

#### **18.2.4.6 Water Supply**

The existing mine's water supply is sourced from production wells located within the property boundary. There are a total of four water supply wells.

The current wells are capable of supplying water at 40 L/s. Along with recycled process water, this is sufficient for operations in a normal year. Orla is currently awaiting authorization to operate another well, which would provide the mine site with an additional 25 L/s of water supply.

Other sources of water include water captured from pit dewatering, which is used for site dust control and other operational requirements.

#### **18.2.4.7 Potable and Domestic Water**

Fresh water is treated by a reverse osmosis water treatment system from the raw water tank and stored in an HDPE or lined storage tank to ensure that the water remains acceptable for domestic uses. Water is distributed by pumps to the camp and other facilities.

#### **18.2.4.8 Surface Water Management**

Surface water runoff is diverted around the active or planned mining areas and allowed to return to natural drainage locations on the southern boundary of the property. An emergency pond collects water runoff from areas near the process facility through a series of diversion ditches.

#### **18.2.4.9 Sewage**

A sewage treatment plant of 60 m<sup>3</sup>/day capacity is located next to the operations camp. This plant handles the sewage from all camp rooms, kitchens and laundry rooms. Sludge volume generated in the treatment plant is collected and analysed according to regulations, then is used for compost production to be sent to the growth media stockpiles while the treated water is used for dust suppression.

Waste from the septic systems in the process area, administrative buildings, and laboratory is piped to a 11 m<sup>3</sup>/day sewage plant for treatment. Septic tanks designated for the administration and contractor office buildings are serviced on a weekly basis, and sewage is transferred to the camp sewage treatment plant.



## 19.0 Market Studies and Contracts

No market studies were completed in support of this Technical Report. Gold and silver production can generally be sold to any of a number of financial institutions or refining houses and therefore no market studies are required.

The doré produced at Camino Rojo is shipped, under secure conditions, to refineries. The gold is sold and the settlement price is based on the then-current spot price for gold and silver on public markets.

Material contracts at Camino Rojo include those executed with the mining contractor, the blasting service provider, and various major consumable suppliers. The contracts are informed by the current LOM plan, and in the QP's opinion, the terms and conditions are reasonable relative to industry norms. The specific terms of these contracts are confidential and therefore not further described in this report.

Parties to the material contracts are as follows:

- Mining Contractor: GRUPO CONSTRUCCIONES PLANIFICADAS S.A DE C.V. (Construplan).
- Blasting Services: TERRA Corporación, S.A de C.V. (Terra)
- Cyanide: CYPLUS IDESA SAPI DE C.V. (Cyplus)
- Fuel: DISTRIBUIDORA DE COMBUSTIBLES LAGUNA SA DE C.V. (Simsa)
- Lime: MINTCSA MINAS Y TRAMOS CARRETEROS S.A. DE C.V. (Mintcsa)



## 20.0 Environmental Studies, Permitting, and Social or Community Impact

### 20.1 Environmental Aspects

#### 20.1.1 Environmental Setting

##### 20.1.1.1 Climate

There are two types of weather Within the Project area, the arid and the semi-arid. The average annual temperature is 16.6°C, with an average minimum temperature of 6.4°C and an average maximum temperature of 26.8 °C.

The total average annual precipitation is 314.1 mm, with the period from July to September being the one with the highest precipitation (rainfall exceeding 50 mm), and the period from February to March being the months with the lowest precipitation (less than 12 mm).

The average annual evaporation is 1,877 mm, with June and July being the months with the highest evaporation in the year.

##### 20.1.1.2 Geology

In the Regional Environmental System (*Sistema Ambiental Regional* or SAR in Spanish), the oldest rocks that emerge are from the Mesozoic. The geological structures present are the result of various tectonic events. No surface faulting is recognized in the area, but faulting is inferred along the San Tiburcio fault, with a northwest-southeast orientation, as well as other similar regional features with the same orientation and a northeast-southwest orientation. of very low seismicity, characterized by being a region where there are no historical records of major seismic events in the last 80 years (SANAT 2024).

##### 20.1.1.3 Hydrology

The SAR is located within the Salado Hydrological Region, mostly in the Sierra de Rodríguez Basin, San Tiburcio Sub-basin. Within the SAR there are three ephemeral streams, which flow into the Burgos stream. The main one (32,184 m), is called Veredas Coloradas which change direction to the east to flow into the Burgos watercourse. This stream crosses the Project area (SANAT 2024). The high ratio of evaporation to precipitation influences the hydrology of the site. All surface waters in the area are ephemeral (Orla 2023b).

##### 20.1.1.4 Hydrogeology

Groundwater in the open pit area is generally present at about 110 m to 130 m, and at about 60m to 110 m in the WRSF area. Shallower zones of groundwater may also be present in other areas of the Project, such as in the area of the HLP, at a depth of approximately 12 m to 50 m (Orla 2023b).

##### 20.1.1.5 Biodiversity

The Camino Rojo Mine is located in the biophysical environmental units UAB-27 Sierras Transversales and UAB-40 Sierras and Lomeríos de Aldama and Rio Grande. The analysis of the work completed in both areas shows that the works and activities of the Project do not contravene any of the environmental policies and strategies proposed (SANAT 2024), since:



- Both environmental units have an environmental policy of Sustainable Use, with which the Project is compatible.
- The units have very low (UAB-27) and no presence (UAB-40) of protected natural areas.

#### 20.1.1.6 Protected Areas

The existing mine does not lie within any protected areas (SANAT 2024), however, in January 2024, a new protected area located 13 km east of the Project site was created. This protected area is located in the Mazapil, Concepción de Oro and Salvador municipalities in Zacatecas. The protected area is called the Semidesierto Zacatecano and is listed as a Flora and Fauna Protection Area. The protected area has a total surface of 223,796 ha. The management plan for the protected area has not been released yet, and the buffer areas established around the new protected area are unknown.

### 20.1.2 Environmental Studies and Management Plans

To obtain the main environmental approvals, Mexican environmental legislation includes three main types of environmental documents/approvals to be prepared/obtained by proponents:

- Environmental Impact Statement (EIS) (*Manifestación de Impacto Ambiental* [MIA])
  - Particular MIA (MIA-P) used for medium-scale projects, which should include description of the environmental impacts and proposed mitigation measures.
  - Regional MIA (MIA-R) used for large complex projects, which should include a broader analysis of the regional context, cumulative and impacts, and public participation
- Supporting Technical Studies (*Estudios Técnicos Justificativos* [ETJ])
- Unique Environmental License (*Licencia Ambiental Unica* [LAU])

The Mexican Environmental legislation also considers the option of Unified Technical Documents (*Documento Técnico Unificado* [DTU]), which combines two of the key environmental procedures, the MIA and ETJ into a single submission.

According to the Mexican legislation, the objective of the Regional MIA is the prevention, mitigation, and restoration of damage to the environment, as well as the regulation of works or activities to avoid or reduce their negative effects on the environment and on human health. It is a comprehensive assessment of the environmental impacts of large-scale projects or those that influence more than one municipality, ecosystem, or watershed, considering the ecological, social, and economic context of the entire region. The study evaluates the potential effects of project activities on the environment and identifies the preventive/mitigation measures that could minimize adverse effects produced by the execution of the project activities. This study is used to determine the environmental feasibility of the proposed project.

SLR has been provided with the Regional MIA in Spanish and a copy of the Executive Summary developed in English for the Project (SANAT 2024).

The Project has several environmental management plans including, among others, a waste rock management plan, a management plan for potentially acid generating materials, an environmental monitoring plan, flora rescue and relocation plan, fauna rescue and relocation plan, waste management plan, a stormwater and sedimentation control plan, a preventive and corrective equipment maintenance program, a health and safety program, a cyanide management plan, an emergency response plan, and a blasting vibration monitoring program



(SANAT 2024). The QP understands that Orla has set targets and defined key performance indicators to measure progress on environmental and social governance (ESG) actions, although the targets and key performance indicators were not available for review.

#### Water Quality

Water quality monitoring is discussed in Section 20.2.4.

#### Air Quality

The Project has in place a monitoring air quality network to measure total dust, as well as particulate dust matter of a size less than 10 microns (PM10) and between 1 and 2.5 microns (PM2.5) at designated monitoring stations. This regular assessment allows the Project to understand air quality. In addition, metals in the captured dust are monitored (Orla 2024). According to the air quality dispersion model completed, it is anticipated that the air emissions from the mine will remain below the applicable national criteria (NOM-043-SEMARNAT-1993) (SANAT 2024).

### **20.1.3 Greenhouse Gas Emissions**

MCR used the Emission Calculator for the National Emissions Registry (Version 7.0), available online through the SEMARNAT page for the estimation of greenhouse gases (GHG), based on the calculation of the annual consumption of gasoline and diesel by the equipment fleet used at the Project. The result obtained with the SEMARNAT calculator is 22,569 t of CO<sub>2</sub>eq/year, not exceeding the threshold of 25,000 tons of CO<sub>2</sub>eq/year. The emissions information is reported annually as part of the *Cedula de Operacion Anual* (COA). The Project also reports the implementation of some mitigation activities carried out to reduce GHG. Some of these activities include the use of renewable energies (solar panels), reduction in the use of fossil fuels, bioclimatic designs of buildings, treatment and reuse of wastewater, water heating in bathrooms using solar and electric heaters, among others (SANAT 2024).

### **20.1.4 Environmental Compliance**

As part of the work that supports the updated Regional MIA, MCR prepared a detailed analysis of compliance with the obligations derived from the authorization contained in the Resolution official letter SGPA/DGIRA/DG/03478 of August 11, 2020. The approval comprises 148 obligations. Of these obligations, there are no known non-compliances, and 31 obligations are not currently applicable (SANAT 2024).

The environmental authorities require submission of compliance reports as part of the permit requirements where MCR documents the environmental performance of the Project and how the conditions stated in the environmental permits are met. Currently, the Project completes several reports in a semi-annual or annual basis to be submitted to the environmental authorities. The reporting requirements are summarized as follows:

- The Unique Environmental License (*Licencia Ambiental Unica* [LAU]) requires the submission of a COA. The COA is a mechanism for reporting emissions, transfers and management of pollutants that should demonstrate compliance with the obligations set out in the Environmental License. This annual report must include a summary of the environmental activities completed from January 1 to December 31 of the previous year. This report must be submitted between March 1 to June 30 of every year. The COA must contain among others, mine's technical information, project description, products, by-products, energy consumption, air emissions, water taking, water discharge, transfer of hazardous wastes (including storage, treatment and final disposal), greenhouse gas



(GHG) inventory, spills, contamination prevention, increase or reduction of substances comparing against the previous year. If the COA is not submitted, there is the potential for fines.

- The MIA-R 2020 establishes a requirement for a submission of an annual compliance report. The report must be submitted to SEMARNAT and *Procuraduria Federal de Proteccion al Ambiente* (PROFEPA).
- The ETJ includes the submission of semi-annual reports as a permit requirement. These reports included the evidence of the delimitation of areas to avoid unauthorized cutting, topographical surveys of the stored overburden, estimation of areas that have been cleared during the reported period, and the accumulated clearance completed.

Orla submits these reports as per the requirements established in each of the permits.

### 20.1.5 Environmental Management System

The Board of Directors (the “Board”) and Senior Leadership Team at Orla are dedicated to corporate governance. The Board’s main responsibilities include overseeing corporate performance and risk management, and ensuring that management is set to achieve Orla’s strategic objectives. Five committees assist the Board with its governance functions in critical areas: Audit Committee, Corporate Governance and Nominating Committee, Environmental, Sustainability, Health and Safety (ESHS) Committee, Human Resources and Compensation Committee (HRCC), and Technical Committee.

Orla is a participant of the United Nations (UN) Global Compact. In addition, Orla has launched a "Towards 2030 Sustainability Strategy" to ratify its commitment to being a responsible, sustainability-driven company. The Board approves policies and procedures to ensure that Orla operates in compliance with applicable laws, regulations, and in accordance with Orla’s Code of Conduct and Ethics.

The Project has an Environment, Sustainability, Health and Safety Policy, and several environmental standards, plans and programs in place.

## 20.2 Waste and Water Management

### 20.2.1 Environmental Geochemistry

A key environmental concern associated with ore and mined waste material is their long-term geochemical behaviour in the context of acid rock drainage (ARD) and metal leaching (ML), which may result in significant environmental impacts under conditions where sulphide mineral oxidation products may be transported by meteoric water, contaminating down-gradient surface and/or groundwater.

Geochemical characterization included a total of 304 waste rock samples and 33 ore samples collected from exploration cores. The laboratory testing included, among others, Acid Base Accounting (ABA), Net Acid Generation (NAG), mineralogy, Synthetic Precipitation Leaching Procedure (SPLP), and Humidity Cells (HCTs).

At least 14% of the evaluated samples are classified as Potential Acid Generating (PAG) material. These samples are associated with sulphides and the transition zone of the deposit, which contains a mix of oxides and sulphides. The deposit exhibits a significant Neutralization Potential (NP), which refers to a material's capacity to neutralize acidity, expressed in terms of the amount of calcium carbonate ( $\text{CaCO}_3$ ) equivalent needed to neutralize a certain amount of acid. According to the laboratory testing, the NP is approximately 185 kg  $\text{CaCO}_3$ /t for samples



collected from the open pit area, and 130 kg CaCO<sub>3</sub>/t when considering all the samples collected for geochemical testing.

Based on the laboratory testing results, there is also ML potential for both the transition and the sulphide materials; however, the concentrations for arsenic, lead, and antimony did not exceed the criteria presented in national regulation NOM-157-SEMARNAT-2009 PECT (Orla 2023b).

## 20.2.2 Waste Rock Management

The WRSF is located southeast of the pit for storage of waste rock generated from mining operations. To manage the waste rock, the Project has completed a waste rock management plan (HydroGeoLogica 2020). The waste rock management plan indicates that transition and sulphide material should be blended with, or encapsulated by, post-mineral or oxide materials. This is to ensure that there is an excess neutralization potential (NP) for neutralization of localized acidic conditions in the WRSF. The plan also recommends a minimum of five metre thick layer of post-mineral or oxide waste to be placed as a base layer prior to the placement of transition and sulphide waste. In addition, the plan establishes the need for sulphide waste to be encapsulated with a minimum of a three metre thick layer of post-mineral or oxide waste over transition and sulphide materials, both on the top of the WRSF and on the side slopes of the facility.

The Project water management (including the WRSF) is presented under Section 20.2.1.

The management plan (HydroGeologica 2020) also recommends the completion of periodic sampling and ABA testing of the waste rock material to be completed to confirm predictions of sulphur content and neutralization potential.

Stability analysis of the WRSF has been completed (Piteau 2020). According to the assessment, the proposed revised geometry of the WRSF associated with the unconstrained mining scenario is considered to have adequate deep-seated stability to meet the criteria consistent with industry standard (Piteau 2020).

## 20.2.3 Site Water Management

### 20.2.3.1 Water Supply

In Mexico, there are 653 aquifers or hydrogeological units. In some regions of the country, especially in arid areas, aquifers are the only source of water supply; however, when extraction exceeds their natural recharge, they can be considered over-exploited. The mine lies within the Guadalupe Garzarón aquifer (code 3220), which has a deficit of 908,523 m<sup>3</sup>/year (CONAGUA 2024).

MCR has two concession titles for the use of water from wells No. 815544 and No. 817918. These permits allow the water taking from underground for 3,695,900 m<sup>3</sup>/year and 6,000,000 m<sup>3</sup>/year expiring in 2030 and 2050, respectively (Orla 2025). The Project requires water for construction, dust control, leaching process, laboratory, camp, offices, nursery and firefighting system (SANAT 2024). The total water consumption for the Project is on average 33 L/s, with an annual consumption of 1,040,688 m<sup>3</sup>. Groundwater inflows from the open pit are anticipated to exceed water demand for process and mine operations. Currently the total water supply of the project is obtained from deep wells located within the property boundary (SANAT 2024).



### 20.2.3.2 Site Water Management Overview

The water management system of Camino Rojo includes the main following components:

- Water collection system and pond (unlined) for the WRSF
- Water collection system and pond (unlined) for the low-grade stockpile
- Process pond (lined) and event pond (lined) for the heap leach pad
- Open pit dewatering system
- Domestic wastewater treatment plant for the camp

Water collected within the Project footprint from the different facilities is collected in ponds and used for mine operation activities (primary ore processing and road irrigation for dust suppression). Water collected in the ponds is also lost to evaporation and infiltration (in the case of unlined ponds). There is no active effluent discharge of water to the environment, except the treated effluent discharge from the domestic wastewater treatment plant.

The heap leach pad is designed with a 2 mm thick low-density polyethylene (LLDPE) geomembrane underlaid by a 300 mm thick layer of compacted clay to minimize infiltration.

The process and event water ponds are designed with a double high-density polyethylene (HDPE) geomembrane comprised of a 2 mm thick upper layer and a 1.5 mm thick lower layer to minimize infiltration, equipped with a leak detection system between the geomembranes. An emergency pond is proposed downstream of the process plant area. The emergency pond is designed with a 300 mm thick layer of compacted clay to minimize infiltration.

Regarding the presence of natural streams, there are no perennial streams within the Project area. Only five ephemeral brooks are present in the Project area (Orla 2022). A diversion channel was built by MCR for Las Veredas Coloradas brook.

### 20.2.3.3 Groundwater Quality Monitoring

Camino Rojo conducts regular groundwater quality monitoring, which was initiated during the baseline program, prior to construction and operations. The monitoring includes locations within the Project site, and also locations upstream, and downstream of the site. The frequency of the monitoring ranges from quarterly to annual (depending on the sampling location).

There is no legislation that establishes groundwater quality standards for the Project site. However, there is a Mexican regulation (NOM-127-SSA1-2021) that establishes criteria for water quality related to water for human consumption, which applies to the public and private agencies responsible for water supply. This legislation establishes maximum permissible limits for pH, hardness, Total Suspended Solids, total cyanide, ammoniacal nitrogen, and metals. SANAT (2024) reports that the background water quality concentrations from the baseline program (prior the initiation of construction and mining activities at the site) was not suitable for human consumption, and did not meet NOM-127-SSA1-2021. This finding is consistent with the groundwater quality monitoring results during operations, which show some exceedances (e.g., sulfates, Total Dissolved Solids).

Camino Rojo should continue the groundwater quality monitoring consolidating the data to understand trends, monitoring the water quality parameters included in NOM-127-SSA1-2021, and comparing the monitoring results against the limits defined in this regulation as a reference (even if there is no formal regulatory requirement to do it). In addition, it is recommended that Orla determines the best way to communicate to the surrounding communities the findings on groundwater quality, given that the water has not been, and continues to be not suitable for



human consumption (even prior to the start of the Project operations). It is noted that the water used by the communities is sourced from community wells (Aosenuma 2025).

#### **20.2.3.4 Surface Water Quality Monitoring**

Camino Rojo conducts regular surface water quality monitoring, which was initiated during the baseline program, prior to construction and operations. The monitoring includes locations onsite, and also locations upstream, and downstream of the site. The monitoring is carried out in a yearly basis.

There is a Mexican regulation (NOM-001- SEMARNAT-2021) that establishes criteria for wastewater discharges into the environment. NOM-001- SEMARNAT-2021 establishes maximum permissible limits for pH, temperature, total suspended solids, Chemical Oxygen Demand (COD), Total Organic Carbon, Total Nitrogen, Total Phosphorus, Total Suspended Solids, coliforms, cyanide and metals (arsenic, cadmium, copper, chromium, mercury, nickel, lead and zinc).

Camino Rojo compares the results of the water quality monitoring against the limits established in NOM-001-SEMARNAT-2021 as a reference, as this regulation is not directly applicable (the Project site does not have an industrial effluent discharge into a watercourse/sea/soil).

Camino Rojo should continue the surface water quality monitoring consolidating the data to understand trends, and monitoring the water quality parameters included in NOM-001-SEMARNAT-2021.

### **20.3 Environmental Permitting**

#### **20.3.1 Environmental Approval**

The General Law of Ecological Equilibrium and Environmental Protection (Ley General de Equilibrio Ecológico y la Protección al Ambiente [LGEEPA]) defines the environmental impact assessment as the procedure through which the Ministry of Environment and Natural Resources (SEMARNAT) establishes the terms that will guide the performance of works and activities that may cause environmental impacts and establishes the applicable provisions to protect the environment. Exploration, exploitation and beneficiation of minerals are included as prescribed activities where a MIA, including a risk study, will have to be completed by the proponent and approved by SEMARNAT.

As mentioned in Section 20.1.1, the MIA-R is triggered when a project may have broad, cumulative, or long-term environmental effects across a regional area, not just at the specific project site. The main purpose of the MIA-R is to identify and manage environmental impacts applicable to all project phases, from site preparation, construction, operation, maintenance and decommissioning, demonstrating compliance with applicable federal, state and local environmental and land use regulations. In addition, a LAU is required. According to the legislation, an ETJ authorization should also be obtained.

#### **20.3.2 Current Permits, Approvals & Authorizations**

The Project's original MIA-R (2020) for the construction and operation of an open pit mine was approved on August 11, 2020, through Oficio No. SGPA/DGIRA/DG/03478. This approval expires on October 7, 2036. This permit authorizes the completion of mining, mineral processing, and associated activities described in the referred MIA document. The associated ETJ was approved on February 6, 2020, through Oficio DFZ152-201/20/0196, allowing the clearance of 816.25 ha. In addition, the Project obtained an additional State approval for the



relocation of some facilities (e.g. contractor workshop, others) in a 3.5 ha area within the approved ETJ and MIA-R footprints.

The Project originally obtained LAU 32/0003/07/21-2012 dated September 28, 2021. This LAU was updated on February 23, 2024, and authorizes the exploration, exploitation, and processing of ore (gold and silver). The LAU should be updated when production increases, the process changes, the facilities increase/change, or new hazardous wastes are generated.

The Project started earthworks and construction activities in November 2020 and started operations in 2022 (SANAT 2024).

Camino Rojo has two water-taking permits.

MCR reports that for the active exploration areas, SEMARNAT has confirmed in writing that an exclusion to obtain authorization related to environmental impact<sup>1</sup> has been granted. The communications from SEMARNAT confirming the exclusion from the completion of an environmental assessment are official letters DFZ152-200/22/0504, DFZ152-200/22/0994, ORE152-200/22/1480, ORE152-200/0394/2023, ORE152-200/0395/2023 and ORE152-200/0625/2024 (SANAT 2024).

Table 20-1 lists the main environmental approvals for the Project.

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<sup>1</sup> This exclusion has been granted in accordance with Article 5 (L)(II) of Reglamento de la Ley General de Equilibrio Ecológico y la Protección al Ambiente en Materia de Evaluación de Impacto Ambiental, RLGEEPA



**Table 20-1: Camino Rojo - Environmental Permits**

Nº	Responsible Agency	Number (Oficio)	Description	Approval Date (MM/DD/YYYY)	Expiration Date (MM/DD/YYYY)	Comments
1	SEMARNAT - DGIRA Mexico City	SGPA/DGIRA/DG/03478	Original MIA-R 2020 Environmental Approval	8/11/2020	9/20/2036	Construction and operation of the open pit mine, with a total area of 1,828.5 ha
2	SEMARNAT	DFZ152-200/21/1132	Unique Environmental License (LAU)	9/28/2021	No expiry date	LAU Number 32/0031-2021
3	SEMARNAT	ORE152-200/0260/2024	LAU update	2/23/2024	No expiry date	LAU Number 32/0031-2021. This update reflects changes in the technical general information, emission sources, and type and quantities of hazardous wastes.
4	SAMA-ZAC	SAMA/0059/2025	Registration - Special Wastes	1/10/2025	1/10/2026	-
5	DGGIMAR-SEMARNAT Mexico City	32-PMG-I-4203-2021	Registration - Hazardous Wastes Management Plan	11/30/2021	No expiry date	-
6	SEMARNAT - ZAC	DFZ152-200-21/0126	Registrations - Hazardous Materials	2/9/2021	No expiry date	-
7	SEMARNAT - ZAC	ORE152-200/0566/2024	Update to the Hazardous Materials' Registration	4/20/2024	No expiry date	-
8	DGGIMAR-SEMARNAT Mexico City	SRA-DGGIMAR.618/008081	Registration - Metallurgical Wastes Management Plan	12/15/2023	No expiry date	-
9	ZAC- <i>Departamento de Desarrollo Urbano y Ordenamiento Territorial</i>	577	Urban Compatibility - State	10/24/2024	10/24/2025	-
10	Public Works - Mazapil Municipality	OP-24-09	Urban compatibility - Municipality	10/30/2024	10/30/2025	-
11	Soil Change Authorization	DFZ152-201/20/0196	ETJ for removal of vegetation of 816.25 ha.	2/6/2020	2/6/2023	-



N°	Responsible Agency	Number (Oficio)	Description	Approval Date (MM/DD/YYYY)	Expiration Date (MM/DD/YYYY)	Comments
12	SEMARNAT - ZAC	ORE152-201/22/1261	ETJ extension for the original permit granted for additional three years	9/20/2022	2/2/2026	-
14	Environmental Impact Assessment "Mining Contractor Complex"	SAMA/2615/2024	Environmental authorization for relocation of some facilities within the mine site in an area of 3.5 ha. MIA-State Project Mining Contractor Complex	11/8/2024	11/8/2025	-
15	CONAGUA	Title Number 817918	Water Taking from underground. 3,695,000 m <sup>3</sup> /year for industrial use and services	8/27/2020	8/27/2030	3,613,835 m <sup>3</sup> /year industrial use, 82,065 m <sup>3</sup> /year services use
16	CONAGUA	Title Number 815544	Water taking from underground. 6,000,000 m <sup>3</sup> /year	8/27/2020	8/27/2050	-

Notes:

SEMARNAT: Secretaria de Medio Ambiente y Recursos Naturales

MIA: Manifestacion de Impacto Ambiental

LAU: Licencia Ambiental Unica

SAMA: Secretaria de Agua y Medio Ambiente

ZAC: Zacatecas State

DGGIMAR: Direccion General de Gestion Integral de Materiales y Actividades de Riesgo

CONAGUA: Comisi3n Nacional del Agua

N/A: Not Applicable



### 20.3.3 Future Permits and Authorizations

The Project is proposing to transition to underground mining, with access for an exploration portal being located in the lower levels of the pit. A pushback from the north slope of the open pit is required. The updated Project includes the continuation of the activities at surface (as per authorized in the current MIA), and the changes to some of the footprint of the already approved facilities. These changes are listed as follows:

- Open pit (34.05 ha additional to the 32.61 ha authorized)
- WRSF (17.67 ha additional to the 69.45 ha authorized)
- Low grade ore stacking (11.49 ha additional to the authorized 14.56 ha)
- Crusher feed stacking (0.76 ha additional to the authorized 0.62 ha).
- Storm drainage diversion channel (0.48 ha at 9.77 ha authorized).
- Botanical garden (0.77 ha additional to the current 1.02 ha)
- Nursery (0.35 ha additional to the 1.03 ha authorized)
- Conservation area expanded from 13.49 ha to 36.74 ha
- Restoration area expanded from 4.92 ha to 8.38 ha
- Perimeter fence, to cover the layback area where the diversion of the runoff channel and the northern extension of the pit will be carried out
- Increase in the storage capacity of sodium cyanide, without requiring expansion of works

There are also new project components to be included as part of the Project. These components are a road to the Berrendo community, an overburden protection area, and a car wash.

To capture all these changes, the Project is in the process of obtaining an additional environmental approval. A MIA-R was submitted to SEMARNAT on November 11, 2024. Orla indicated that in recent discussions with the SEMARNAT, it was mentioned that their technical review is being completed and comments will be received shortly. The MIA-R also included the Fresnillo layback area and east-west pit expansion, which are required for extraction and processing of the Mineral Reserve estimates tabulated in this Technical Report.

In addition, this transition to underground will require an updated ETJ permit to allow for the additional surface disturbances related to the development of a pit layback onto lands not considered in the original permit. The QP understands that this permit application is ongoing and Orla is planning to submit this ETJ permit in the second half of 2025 for approval.

The Domestic Wastewater Discharge Permit application was submitted by Orla and is under evaluation by CONAGUA (application No. 231320, File No. 2S.3.01/00272-2021, Folio No. BZNA/7741/2021). This application includes two potential domestic discharges. The first discharge is associated to the kitchen, laundry, and mining camp. The second discharge is associated with the laboratory, warehouse, and offices. The intent is to reuse the water after it is treated. In both cases, the water is to be used for irrigation of green areas, or as part of the makeup water for the process.



### 20.3.4 Permitting Schedule

The current overall Project timeline indicates that permitting for the proposed transition to underground mining is planned to be completed in the first half of 2025 in order to commence with the construction of an exploration decline as early as the first quarter of 2026. The QP understands that the permit amendment for the proposed transition (the MIA-R) is not currently critically affecting the Project schedule, as there is still material to be extracted from the open pit, and stored ore currently placed at the ore stockpiles still to be processed. A detailed permitting schedule linked to a Project execution schedule was not included in the documentation available for review.

## 20.4 Social or Community Requirements

### 20.4.1 Social Setting

The area of influence for the Project comprises the rural communities in the Mazapil and Concepcion del Oro Municipalities in the State of Zacatecas. These communities are mainly dedicated to rural and urban trade related to the Camino Rojo mine's activities and have established local businesses serving the mine. The direct area of influence involves the ejidos or agrarian communities of San Tiburcio, San Francisco de los Quijano, El Berrendo, and La Pardita, with a combined population estimated at 1,416 people. Approximately 1,865 people live in ejidos of the indirect area of influence, including the ejidos of Banderitas Dos, El Calabazal, Tanque de los Hacheros, Majoma, Pozo de San Juan, Presa del Junco, Cardona, Salto de San Juan, San Benito, San Elias de la Cardona, and Tanquecillos (Orla 2024).

The closest ejidos are San Tiburcio (approximately 3 km southeast), San Francisco de los Quijano (approximately 7.7 km southwest), and El Berrendo (approximately 9 km northwest), all in the Municipality of Mazapil.

### 20.4.2 Key Social Issues

The key social issues and concerns from the surrounding communities/ejidos and other stakeholders are the following:

- Increased expectations for employment, local contracting and community benefits (e.g., community investment, improvement of local infrastructure, assistance obtaining land title) due to expansion of mine activities
- Increased community population and strain on public services
- Perception of potential adverse impacts on water quality and quantity (e.g., water shortages)
- Perception of health impacts due to noise and dust levels, air and water pollution

### 20.4.3 Social Management System

Orla has developed a series of policies and standards to manage the social performance of its operations, which include the following:

- Environment, Sustainability, Health and Safety Policy (2020)
- Corporate Social Responsibility Policy (2023)
- Human Rights Policy (2023)



- Indigenous Peoples Policy (2023)
- Community Investment & Community Response Standard (2023), and
- Responsible Procurement Standard (2024)

SLR understands that MCR has an interdepartmental Sustainability Risk Committee whose main function is to identify and manage ESG risks periodically. It also has an environmental and social risk register that documents risks, tracks them, and develop action plans.

Regarding Project-specific plans, Camino Rojo has developed and is implementing its Stakeholder Engagement and Communication Plans. The Stakeholder Engagement Plan includes stakeholder mapping, risk identification, a strategy to engage and involve them, and a high-level process to respond to questions and complaints (Orla 2024). On the other hand, the Communication Plan outlines the Project's communication objectives, the accountable parties and its key components (ERM 2018).

In 2023, MCR completed a comprehensive update of its stakeholder map. This process involved third-party updates of the social baseline, which is foundational for monitoring and evaluating progress and effectiveness both during and after operational activities. SLR understands that this study will enable MCR to understand better communities' perspectives, expectations, concerns, and opportunities regarding the mine operations. The social baseline update involved approximately 460 structured interviews with families residing in 16 communities of the Project's direct and indirect areas of influence (Orla 2024). Additionally, MCR completed a voluntary EVIS (Social Impact Assessment) for the transition to underground mine project that was completed in June 2025.

#### **20.4.4 Community Engagement and Agreements**

In alignment with its Corporate Responsibility Policy, Orla seeks to build and maintain working relationships with the communities surrounding its operations and contribute to their sustainable development, prioritizing local employment and contracting and social investment focused on infrastructure development, education, and productive projects. It engages with key stakeholders, including local government, community leaders, environmental organizations, private and communal landowners to incorporate their perspective into its operations (Orla 2024).

SLR understands that Camino Rojo provides donations and social investment opportunities to improve the communities' well-being and quality of life in its area of influence. It invests in health, education, community development, infrastructure, and environmental protection. Examples of these initiatives include the Community Health Program, which has provided 1,772 health consultations and engaged 990 individuals in health talks. Another example is the launch of the Breast Cancer Early Detection Program to coordinate screening and awareness-building activities at the mine site and in the surrounding communities. Camino Rojo partners with the Mexican Institute of Social Security to undertake this program during October of each year. In 2023, Camino Rojo spent over \$1.5 million in social investment, an increase of 9% compared to the previous year (Orla 2024). In August 2023, an agreement was reached between the Zacatecas Delegation of the Mexican Institute of Social Security (IMSS) and the Ejido San Tiburcio. This alliance represents a milestone in promoting health and well-being in the community, by providing 46 unemployed elder Ejidatarios with the right to social security. This initiative guarantees medical coverage, including family, surgical, pharmaceutical, hospital, and socio-economic benefits. The strategic partnership with IMSS exemplifies public-private cooperation.



Based on the information provided by MCR for this review, the company appears to maintain positive working and commercial relationships with the communities of its area of influence. According to the key findings of the latest stakeholder map (2023), local communities emphasized the importance of increased job opportunities within the operation, growth in local purchases, and additional social investments. Communities identified the lack of potable water, employment, rural roads, and other community infrastructure the most critical needs to them. It was noted that the local community's positive perception of the mine remained steady at over 76% compared to the previous assessment conducted in 2021 (Orla 2024).

MCR negotiates and acquires lands as required by its operations and expansions. SLR understands that MCR has agreements with the ejidos of San Tiburcio, El Berrendo, La Pardita, and San Francisco de los Quijano. A voluntary expropriation of lands occupied by San Tiburcio has occurred by previous owners of Camino Rojo. Camino Rojo has executed two agreements with San Tiburcio. The first one is a Temporary Occupation Agreement for a surface of 5,850 ha of land that was signed in 2013 and will be in effect until 2043. The mine is permitted to use this land for exploration purposes while the expropriation is executed and approved, and in exchange, MCR is committed to paying financial compensation. MCR has also executed a Collaboration and Social Responsibility Agreement with San Tiburcio to support it via scholarships, infrastructure upgrades, social and economic development initiatives, impact investments, and food and medicine for the most vulnerable community members. Orla has similar collaboration agreements with other communities within the direct area of influence of the Project. In 2023, lease payments and contributions totaled \$4.1 million (Orla 2024).

The Project has a full-time community relations team managing relationships with the communities in the direct and indirect areas of influence. In addition to Orla's Community Investment and Community Response Standard, the Project has developed a list to document and track the community incidents and grievances, including the resolutions. In 2023, Camino Rojo had 12 incidents, compared to 19 incidents in the previous year. The incidents in 2023 were related to local suppliers, land access, job opportunities and community infrastructure; all were moderate to minor and resolved within a year (Orla 2024).

#### **20.4.5 Indigenous Peoples**

SLR is unaware of Indigenous Peoples's presence in the area of influence of Camino Rojo. None of the available information for this review mentions the presence of Indigenous Peoples within the area of influence.

#### **20.4.6 Local Procurement and Hiring**

One of Orla's key goals is to foster economic opportunities for local communities beyond the closure of mines. In this sense, Camino Rojo is committed to maximizing economic opportunities in the communities of its area of influence and the region through local and regional employment and contracting. Camino Rojo prioritizes hiring and buying locally and provides training opportunities to help the local workforce and businesses meet the qualifications requirements. As an example, Camino Rojo is partnering with the State of Zacatecas, the Mexican Centre for Competitiveness (CCMX), Engineers Without Borders Canada, and private allies to enhance the entrepreneurial capacity, market access, and diversification of local business owners, with a particular focus on supporting women in communities near Camino Rojo. Through these efforts, MCR aims to empower local economies, promote resilience, and contribute to the long-term sustainable development of the area of influence communities where it operates.



In 2023, 49% of Orla's direct employees were from local communities. MCR has experienced a significant increase in salaries paid to employees from the direct area of influence communities, from over \$1.5 million in 2022 to \$5.2 million in 2023. Local and community purchases also grew by 69% in the same period, totaling over \$1.2 million in 2023 (Orla 2024).

## 20.5 Mine Closure Requirements

### 20.5.1 Regulatory Requirements

The Mexican environmental authority requires the preparation of a reclamation and closure plan, in addition to a commitment on the part of the operator to implement the plan. It is noted, however, that no specific guidelines have been developed for Mexico, and currently no financial assurance (bonding) is required of mining companies. Environmental damages, if not remediated by the owner/operator, can give rise to civil, administrative, and criminal liability, depending on the action or omission carried out. PROFEPA is responsible for the enforcement and recovery for those damages, or any other person or group of people with an interest in the matter.

Current regulations in México require that a preliminary mine closure and reclamation plan (MCP) be prepared in compliance with the provisions of the MIA, the ETJ, Standard NOM-141-SEMARNAT-2003 (specifications and criteria for tailings dams during construction, operation, and closure), Standard NOM-147-SEMARNAT-2004 (remediation of contaminated sites), and Standard NOM-157-SEMARNAT-2009 (elements and procedures to set out mine waste management plans). The preliminary MCP is conceptual in nature and typically prepared at the time of developing the MIA. A definite MCP must be developed and submitted to the authorities during the operation of the mine (generally accepted as three years into the operation).

The following must be provided in the MCP as per SEMARNAT:

- Description of the tentative closure program providing rehabilitation, compensation and restoration measures as applicable to the project.
- Definition of areas susceptible to spills of residues or materials with potential to contaminate the site (if applicable), where characterization studies could be conducted to identify the possible pollutants.
- Identification of compensatory, rehabilitation, and restoration measures for the site that could be implemented in case of contamination.
- Identification of possible alternative uses for the project area (including infrastructure) post closure.
- Identification of possible changes to the area of influence of the project resulting from closure.
- Identification of the management, methods, and locations for final disposal of the residues resulting from the dismantling and removal of infrastructure at closure.

### 20.5.2 Mine Closure Plan

The conceptual MCP for Camino Rojo documents the evaluation of potential actions to restore the land to a condition compatible with and acceptable to the socio-environmental context of the Project. The MCP was developed by Clifton Associates Ltd. – Natural Environment S.C. for MCR (Orla 2022). The closure schedule includes 4.5 years of closure followed by 10 years of post-closure monitoring.



According to the MCP, MCR will consider international guidelines and framework for closure of the Project (e.g., International Council on Mining and Metals [ICMM], Mining Association of Canada [MAC] and International Finance Corporation [IFC]), as well as national regulations including the general law for ecological equilibrium and environmental protection (LGEEPA for its acronym in Spanish), the federal law for environmental responsibility (LFRA for its acronym in Spanish), the mining law, and applicable Official Mexican Norms.

The main objective established in the MCP for restoration and closure is to ensure the integrity of the Project site, based on the proper environmental performance of the land and its components. The potential land use presented in the MCP includes forests and conservation and wildlife protection zones in previously disturbed areas, restored and designated as recovery sites subjected to environmental monitoring. Evaluation of land use for productive activities will be considered in future versions of the MCP, so long as they are not conflicting with the ecological objectives.

The specific closure objectives in the MCP are as follows:

- Cessation of activities causing disturbances or adverse impacts (noise, lighting, dust, vehicular traffic, etc.);
- Achieving physical, chemical and hydrological stability;
- Stabilization of social conditions in the area of influence of the Project;
- Elimination of risks to public health and safety; and
- Restoration of the Project site to conditions similar and compatible with the areas surrounding the site, including areas that may have suffered indirect impacts.

Temporary Project infrastructure will be decommissioned while permanent facilities such as the open pit, the heap leach pad, and the WRSP (referred to as tepetatera in México) will become part of the landscape under closure conditions. Ore deposited in the heap leach pad and waste rock deposited in the WRSF will be encapsulated to prevent contamination of the surrounding environment. An adequate vegetation cover will be established to stabilize the soil, facilitate natural succession, and habitat for wildlife. If necessary, water treatment will be implemented at closure depending on water quality monitoring results. The closure activities described in the MCP are as follows:

- Dismantling
- Demolition
- Recovery and disposal
- Earth movement
- Erosion control
- Encapsulating of deposited ore and waste rock
- Revegetation
- Water treatment
- Environmental monitoring

According to the MCP, water discharged into surface streams from the Project site must comply with water quality standards outlined in NOM-001-SEMARNAT-2021 and receive authorization from CONAGUA.



The closure and post-closure monitoring includes the following:

- Water quality monitoring including surveillance of chemical stability for the open pit, the heap leach pad and the WRSF.
- Inspection of safety associated with site access and physical stability.
- Conditions of reforested and restored areas to support wildlife habitats.
- Social aspects with the communities affected by the mine closure.
- Inspection of general conditions associated with access roads, safety fencing and signposting.

The MCP includes a discussion about climate change affecting the Project site in the short and long term and a qualitative assessment of vulnerabilities at a municipal level resulting from potential effects of climate change, signaling the intention by MCR to take climate change into consideration for closure planning.

It is worth noting that the MCP outlines a total of 20 commitments stated by MCR for restoration and closure of the Project site.

### 20.5.3 Closure Cost Estimate

The total estimate cost for closure developed for the most recent MCP is presented in Orla (2022) and is summarized in Table 20-2. The report includes a section documenting the approach, assumptions, omissions and limitations associated with the cost estimate. It is noted that the closure cost estimate was not reviewed by SLR for this Technical Report.

**Table 20-2: Camino Rojo Closure Cost Estimate Summary**

Description	Cost (\$)
Mine area	7,299,200
Administrative and industrial area	1,466,248
Areas of complementary works	678,452
Territorial reserve area	222,271
Closure studies, investigations and design	626,069
Post-closure maintenance and monitoring	633,130
Contingencies	2,516,112
Administrative, legal and indirect costs	1,509,547
Total	14,951,029



## 21.0 Capital and Operating Costs

### 21.1 Introduction

Cost estimates presented in this Technical Report are based on the 2025 Camino Rojo budget and the LOM plan cost estimates. Costs are presented for Q2 2025 to the end of the mine life and correspond to the current LOM plan presented in Section 16.7.

### 21.2 Capital Cost Estimates

Sustaining capital costs corresponding to the LOM plan are provided in Table 21-1.

The mining and site sustaining capital costs consist of site infrastructure improvements, site required equipment, and diversion channel work. Mining fleet replacements are not part of the sustaining capital as the operation uses mining equipment owned/leased by the mining contractor.

Process sustaining capital costs largely consist of heap leach pad expansions required to the end of the current mine life. Other process capital costs include upgrades to the power line and the completion of the crushed ore stockpile dome.

**Table 21-1: Sustaining Capital Costs**

Area (\$ 000)	Total	Q2 2025	2026	2027	2028	2029
Mine and Site	3,248	2,727	411	101	2	7
Process	31,145	765	15,081	15,300		-
<b>Total</b>	<b>34,394</b>	<b>3,492</b>	<b>15,492</b>	<b>15,401</b>	<b>2</b>	<b>7</b>

### 21.3 Operating Cost Estimates

The mine's total annual operating costs are summarized in Table 21-2, and unit operating costs are summarized in Table 21-3.

Mine operating costs are based on MCR's existing agreement with the mining contractor and the LOM plan presented in Section 16.0. Mine operating costs include mining contractor costs, explosives supplier costs, and the mine technical services team costs.

Process operating costs are based on the expenditures to date and the 2025 budget and have been adjusted for Q1 2025 actual costs. Key drivers for processing costs included prices for reagents, consumables, and plant maintenance. The processing costs includes the on-site assay laboratory operated by Camino Rojo. The laboratory is used for the process and operational grade control samples used for short-term production planning.

The main components of the general and administration costs include salaries and wages, insurance, employee relations, permit and concession fees, and other environmental related fees.

Refining and transport costs are based on the realized or assumed costs for the 2025 operating year. As is the case for the calculation of royalties, the refining and transport costs assume 2025 budget metal prices of \$2,300 per oz of gold and \$29 per oz of silver for 2025. Metal prices are reduced to \$2,200 per oz of gold and \$28 per oz of silver for 2026. For the remainder of the LOM, metal prices are reduced to \$2,000 per oz of gold and \$25 per oz of silver.



The royalty costs presented in Table 21-2 and the underlying economic analysis completed for this Technical Report are based on the new 2025 NSR royalty of 3%. The QP notes that the Mineral Resource and Mineral Reserve estimates presented in this Technical Report use the previous NSR royalty of 2.5%. The QP has determined that the higher NSR royalty is not material to the Mineral Resource and Mineral Reserve estimates. Subsequent updates to the Mineral Resource and Mineral Reserve estimates will apply the new 3% NSR royalty.

**Table 21-2: Total Operating Costs**

Area (\$ 000)	Total	Q2 2025	2026	2027	2028	2029	2030	2031
Mining	175,615	37,727	53,192	44,069	26,506	14,122		
Rehandle	9,044					3,538	5,506	
Processing	160,560	23,800	31,152	26,067	26,032	26,027	22,987	4,496
General and Admin	115,595	16,914	22,207	18,171	18,233	18,297	12,808	8,966
<b>Total Operating</b>	<b>460,813</b>	<b>78,441</b>	<b>106,550</b>	<b>88,307</b>	<b>70,770</b>	<b>61,984</b>	<b>41,301</b>	<b>13,461</b>
Refining and Transport	7,587	1,150	1,363	1,310	1,634	1,400	349	381
Royalties (3.0%)	37,355	5,878	7,983	7,911	7,019	4,986	1,921	1,657

**Table 21-3: Unit Operating Costs**

Area (\$)	Total	2Q 2025	2026	2027	2028	2029	2030	2031
Mining (\$/t mined)	2.06	2.05	2.08	1.99	2.04	2.22		
Mining (\$/t stacked)	4.63	7.25	7.71	6.39	3.84	2.05		
Rehandle (\$/t stacked)	0.24					0.51	1.08	
Processing (\$/t stacked)	4.24	4.57	4.52	3.78	3.77	3.77	4.51	
General and Admin (\$/t stacked)	3.05	3.25	3.22	2.63	2.64	2.65	2.51	
<b>Total Operating (\$/t stacked)</b>	<b>12.16</b>	<b>15.07</b>	<b>15.45</b>	<b>12.80</b>	<b>10.26</b>	<b>8.99</b>	<b>8.10</b>	
Refining and Transport (\$/oz produced)	1.69	1.67	1.94	2.11	1.58	1.80	1.14	1.09
Royalties (3.0%) (\$/oz produced)	8.34	8.53	11.36	12.74	6.78	6.39	6.30	4.75



## 22.0 Economic Analysis

This section is not required as Orla is a producing issuer, the operations are currently in production, and there is no material expansion of current production considered within the LOM plan presented in this Technical Report.

Orla completed an economic analysis of the current MCR operations using the assumptions, costing, and Mineral Reserve estimates presented in this Report and verified that the outcome is a positive cash flow that confirms the economic viability of the Mineral Reserves.



## 23.0 Adjacent Properties

There are no active exploration properties or producing mines immediately adjacent to the Project.

On December 21, 2020, Orla announced that it had entered into the Layback Agreement. The Layback Agreement allows Orla to expand the Project's oxide pit onto part of Fresnillo's mineral concession located immediately north of Orla's property. This pit expansion has been accounted for in this Technical Report, with the current final pit and declared Mineral Reserves covered within the Layback Agreement area.



## 24.0 Other Relevant Data and Information

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



## 25.0 Interpretation and Conclusions

The QPs offer the following conclusions by area:

### 25.1 Geology and Mineral Resources

- Prior operators and MCR have met legal requirements to maintain the mining concession titles in good standing. Conditional upon continued compliance with annual requirements, no risks to the validity of title have been identified.
- The Mineral Resources at Camino Rojo have been updated with data collected since the last Mineral Resource estimate, which was dated as of January 11, 2021 (KCA 2021). The effective date of the updated Mineral Resource estimate is March 31, 2025.
- The QA/QC protocols currently in place have shown notable improvements during the most recent drilling campaigns. The procedures for sample preparation, security, and analytical testing are generally aligned with industry best practices, supporting the integrity and reliability of assay data. Performance from certified reference materials (CRMs), blanks, and duplicates indicate acceptable levels of accuracy and precision, particularly in the context of the Project's known coarse gold (nugget) effect.
- The QA/QC data continues to be systematically monitored, with timely corrective actions taken as needed. These practices ensure that the assay database remains robust and suitable for use in Mineral Resource estimation, with no material concerns identified that would impact the reliability of the results.
- The mineralization at Camino Rojo is interpreted as an intrusive-related system hosted by clastic sedimentary rocks, exhibiting a polymetallic assemblage dominated by gold, silver, and zinc, with minor lead and copper. The geological and geochemical features observed in the Camino Rojo deposit align with those typically associated with distal oxidized gold skarn systems. Mineralization extends over approximately two kilometres along strike, 0.5 km across strike, and one and 0.5 km vertically.
- There is potential to increase the Mineral Resource base at Camino Rojo, both at depth and along strike, and ongoing exploration efforts are warranted. Orla has an exploration plan in place to extend the Mineral Resource footprint and to support continued infill drilling.
- The application of NSR cut-off values, in conjunction with the use of an optimized pit shell and underground reporting shapes, ensures that the Mineral Resource estimate meets the requirement for RPEEE. The assumed physical and economic parameters are considered appropriate for the style of mineralization, deposit types, and planned mining and processing methods at Camino Rojo.
- The Project's updated Mineral Resource estimate is reported inclusive of Mineral Reserves. Measured Mineral Resources total 3,062 kt at grades of 0.81 g/t Au and 16.20 g/t Ag, containing 80 koz of Au and 1,595 koz of Ag. Indicated material is estimated at 86,563 kt, grading 1.77 g/t Au, 12.65 g/t Ag, and 0.15% Zn, containing 4,922 koz Au, 35,206 koz Ag, and 5,217 Mlb Zn. Inferred Mineral Resources total approximately 7,612 kt at grades of 1.91 g/t Au, 12.21 g/t Ag, and 0.16% Zn, containing an estimated 468 koz Au, 2,989 koz Ag, and 26 Mlb Zn.
- Given the significant differences in reporting methodology, processing assumptions, cut-off grade criteria, mining approaches, and the exclusion of lead, the QP does not



consider a direct comparison between the 2021 and 2025 Mineral Resource estimates to be meaningful. The two estimates are based on fundamentally different economic and technical frameworks and should be interpreted within the context of their respective assumptions and project development strategies.

## 25.2 Mining and Mineral Reserves

- The effective date of the Mineral Reserve estimate is March 31, 2025. Mineral Reserves are classified using CIM (2014) definitions in accordance with the requirements of NI 43-101. Mineral Reserve estimates reflect the reasonable expectation that all necessary permits and approvals will be obtained and maintained.
- To facilitate Mineral Reserve estimation and scheduling activities, the resource block model was re-blocked to a 10 m x 10 m x 10 m cell size. In the QP's opinion, the regularized block model incorporated adequate dilution consistent with the mine's current reconciliation data.
- No additional dilution or ore loss was added to the regularized block model. In the QP's opinion, compositing of assays and estimating blocks with multiple composites introduces some smoothing of model grades that are analogous to dilution and ore loss effects. Additionally, regularizing and re-blocking of a sub-blocked model incorporates increased tonnage and grade dilution.
- Since the start of mining operations, MCR has been following the recommended geotechnical parameters presented in KCA 2021.
- The metal prices used to estimate Mineral Reserves were \$1,900 per ounce of gold and \$23 per ounce of silver. The QP considers these prices to be reasonable based on historical three-year trailing averages, prices used by other gold and silver producing companies for comparable projects, and long-range consensus price forecasts prepared by various bank economists.
- The LOM plan productivity assumptions are based on similar productivities achieved by the current and prior contractors. All equipment and personnel required to deliver the current LOM plan are either on site or available when required. While TMM requirements are notable higher in 2026 and 2027 compared to recent actuals, in the opinion of the QP, the planned TMM in these years is achievable and notes that it is the mining contractor's contractual obligation to provide the necessary fleet and labour to deliver the LOM plan.
- In the QP's opinion, the operating cost assumptions used for developing the NSR cut-off values and subsequent Mineral Reserve estimates are reasonable and are based on MCR's 2025 budget operating costs and MCR's 2024 Year-End LOM plan.
- The Project's updated open pit, heap leach Mineral Reserve estimates include Proven Mineral Reserves (including stockpiles) of approximately 5,972 kt at grades of 0.53 g/t Au (103 koz contained gold) and 12.3 g/t Ag (2,354 koz contained silver), while Probable Mineral Reserves total approximately 31,923 kt at grades of 0.73 g/t Au (752 koz contained gold) and 14.3 g/t Ag (14,705 koz contained silver).
- Orla submitted a permit application in November 2024 to support and obtain the necessary permits and permit amendments related to the Fresnillo layback area and east-west pit expansion, which are required for the extraction and processing of the Mineral Reserve estimates tabulated herein. The current Mineral Reserve estimates, at



the effective date of March 31, 2025, assume the mining of the areas related to the permit application starting in July 2025.

### 25.3 Mineral Processing

- The current processing method at the Project includes run-of-mine (ROM) ore crushing, followed by stacking and heap leaching. The Project currently crushes approximately 18,900 tonnes of ore per day. Pregnant solution from the heap leach is pumped to a Merrill-Crowe plant for metal recovery.
- As of March 31, 2025, realized recoveries for gold are overall in good agreement with predicted production results.
- Relative to the Project's metallurgical test work, actual silver recoveries to date are lower than expected as compared to the recovery model presented in the feasibility study completed by KCA in 2021 (the 2021 FS [KCA 2021]). Although silver recoveries have shown significant improvement over the last two years, there is a risk that projected silver production targets may not be achieved.

### 25.4 Project Infrastructure

- In the QP's opinion, the current infrastructure at MCR is suitable and meets the Project's current mining and processing requirements.

### 25.5 Market Studies and Contracts

- The main contracts at Camino Rojo relate to the mining contractor, the blasting service provider, and various consumable contracts. The contracts were established based on the LOM plan and the QP considers the terms of the contracts to be reasonable relative to industry norms.

### 25.6 Environmental, Permitting, and Social Considerations

- Based on the information available for review, the QP has not identified any known environmental issues that could materially impact the ability to extract the Project's Mineral Resources and Mineral Reserves.
- The QP is not aware of any non-compliance environmental issues raised by the Mexican authorities.
- The existing mine has the environmental permits to explore and operate, and it is in the process of obtaining additional approvals for the transition to underground, including the associated changes in the land use to accommodate the additional areas related to this transition. Conditional upon continued compliance, permits for normal exploration and exploitation activities are expected to be attainable.
- The Project has an Environment, Sustainability, Health and Safety Policy, and several environmental standards, plans, and programs in place.
- The existing mine does not lie within any protected areas (SANAT 2024), however, in January 2024, a new protected area located 13 km east of the Project site was created. This protected area is located in the Mazapil, Concepción de Oro and Salvador municipalities in Zacatecas. The protected area is called the Semidesierto Zacatecano and is listed as a Flora and Fauna Protection Area. The protected area has a total



surface of 223,796 ha. The management plan for the protected area has not been released yet, and the buffer areas established around the new protected area are unknown.

- Orla and MCR have developed an environmental and social risk register that helps document track and manage risks (current and emerging social risks). It also has in place a Stakeholder Engagement Plan, a Communication Plan, a Sustainability Risk Committee (CORS), and a grievance mechanism specific to the Project. The risk register does not contain anything that is expected to materially impact the execution of the LOM Plan.
- Orla and MCR have executed agreements with communities within the Project area of influence for the use of the land and for supporting community investment activities.
- Orla and MCR have established policies and practices to enhance the economic benefits of the Project, including local employment, contracting opportunities, and community investment. Overall, Orla and MCR appear to have built and maintained working relationships with the communities surrounding its operations.
- A conceptual Mine Closure Plan (MCP) has been developed for the Project.

## 25.7 Capital and Operating Costs

- The Project is currently in the operating phase. Total sustaining capital costs from the second quarter (Q2) of 2025 through 2031 are approximately \$34.4 million.
- The average operating costs for the remaining LOM is \$12.16/t stacked, including mining cost of \$2.06/t mined (\$4.63/t stacked), processing cost of \$4.63/t stacked, rehandling cost of \$0.24/t stacked, and G&A cost of \$3.05/t stacked.



## 26.0 Recommendations

The QPs offer the following recommendations by area:

### 26.1 Geology and Mineral Resources

- 1 Continue diamond drilling perpendicular to mineralized zones to better define vein geometry, validate historical downdip drill holes, and increase confidence in areas currently supported primarily by downdip drilling. This approach would also support upgrading areas in the 100 series domain from the Inferred Mineral Resource classification to the Indicated Mineral Resource classification.
- 2 To support the estimation strategy, continue exploration drilling in the 300 series and 500 series high-grade mineralization domains to prove additional resources at depth and better understand grade continuity.
- 3 Investigate the mineralization chronology and metal associations, and based on this analysis, consider extending the gold-only wireframes at depth given that gold is the primary metal contributor.
- 4 Create separate wireframes for silver and zinc to better capture significant grades and reduce reliance on high-grade restrictions.
- 5 Revise sample preparation procedures to better account for coarse gold by:
  - a) increasing crushing protocol from 70% passing 2 mm to 90% passing 2 mm.
  - b) pulverizing one-kilogram samples to 85% passing 75 microns.
  - c) expanding the use of screen metallic analyses.
- 6 Establish routine check assays with an independent accredited (umpire) laboratory.
- 7 Develop deposit-specific CRMs. These measures are intended to strengthen the overall QA/QC framework and ensure continued reliability of assay results for Mineral Resource estimation.
- 8 To ensure accurate volumetric and tonnage estimates, review sample intervals with anomalous density values and assess the potential causes of errors.
- 9 In future resource model updates, reassess the silver estimation approach as current validation exercises indicate that the current resource model may be overly restrictive. To better reflect the distribution and continuity of silver mineralization, this reassessment should include a review of estimation parameters and assay methodologies.

### 26.2 Mining and Mineral Reserves

1. Regularly assess contractor performance regarding reconciliation and dilution control.
2. As economic conditions dictate, examine opportunities to further optimize the pit and mining schedules.



## 26.3 Metallurgical Test Work and Mineral Processing

### 26.3.1 Mineral Processing:

- 1 Continue to closely monitor silver recoveries and production to determine whether a write down of the silver inventory is warranted.
- 2 Consider using the monthly composite column leach tests results for production and inventory calculations.

### 26.3.2 Metallurgical Test Work:

- 1 Conduct the following additional metallurgical test work to further develop the Sulphide deposit at Camino Rojo:
  - a) Additional cyanide variability test work on higher grade samples (representing anticipated underground mining grades) from the transition and cyanide leachable areas to refine and optimize recovery estimates.
  - b) Additional flotation and cyanidation test work on samples from Zone 22 to assess best flowsheet arrangements.
  - c) Further POX on samples to further evaluate gold and silver recoveries and reagent consumptions.

## 26.4 Project Infrastructure

- 1 Obtain the authorizations necessary to operate another water supply well, which would provide the mine site with an additional 25 L/s of water supply.
- 2 Maintain infrastructure as it ages and conduct regular maintenance and assessments.

## 26.5 Environmental, Permitting, and Social Considerations

- 1 Ensure that the additional environmental approvals (including land use change) required for the planned transition to underground mining are obtained. In addition, Orla and MCR should ensure that the Unique Environmental Licence is up to date and considers the planned changes in the Project's facilities (i.e., transition to underground and changes in the footprints and processes).
- 2 Allow sufficient time for planning and completion of environmental studies that will be required for the transition to underground. Complete a permitting schedule linked to the Project Execution Schedule.
- 3 Complete a permitting schedule linked to the Project Execution Schedule.
- 4 Continue engaging with regulators to obtain the formal permits for the domestic wastewater discharges
- 5 Regularly review and update the existing environmental policies, standards, procedures, management and monitoring plans.
- 6 Undertake additional water supply/water recycling studies to determine alternative options for water supply as a contingency measure.



- 7 Monitor the release of the management plan for the Semi-desierto Zacatecano protected area by the government to understand the management measures in the plan, the buffer areas, and implications for the Project.
- 8 Develop a grievance mechanism procedure specific to Camino Rojo to outline the process, roles and responsibilities, timelines, and socialization of the process with communities. Currently, the Project uses an electronic spreadsheet to document, track, and manage grievances.
- 9 The Project has an environmental and social risk register, as well as a Risk Committee responsible for identifying, registering, and managing ESG risks related to the Project. It is not clear how the risk register informs the Stakeholder Engagement Plan (and management plans). The QP recommends that these two documents be linked together and revisited regularly as social and emerging risks are constantly evolving.

## **26.6 Capital and Operating Costs**

- 1 Continually monitor actual spending, comparing to budgets and optimize where possible.



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## 28.0 Date and Signature Date

This report titled “NI 43-101 Technical Report for the Camino Rojo Project, Zacatecas State, Mexico” with an effective date of March 31, 2025 was prepared and signed by the following authors:

**(Signed & Sealed) Sylvain Guerard**

Dated at Toronto, ON  
July 17, 2025

Sylvain Guerard, P.Geo.

**(Signed & Sealed) Stephen Ling**

Dated at Toronto, ON  
July 17, 2025

Stephen Ling, P.Eng.

**(Signed & Sealed) Marie-Christine Gosselin**

Dated at Toronto, ON  
July 17, 2025

Marie-Christine Gosselin, P.Geo.

**(Signed & Sealed) Caleb Cook**

Dated at Reno, NV  
July 17, 2025

Caleb Cook, P.E.

**(Signed & Sealed) Andrew Kelly**

Dated at Parksville, BC  
July 17, 2025

Andrew Kelly, P.Eng.

**(Signed & Sealed) Luis Vasquez**

Dated at Toronto, ON  
July 17, 2025

Luis Vasquez, P.Eng.



## 29.0 Certificate of Qualified Person

### 29.1 Sylvain Guérard

I, Sylvain Guerard, P.Ge., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that:

1. I am employed as the Senior Vice President Exploration at Orla Mining Ltd., whose address is Suite 630 – 333 Bay St, Toronto, ON, Canada M5H 2R2.
2. I am a graduate of the University of Montreal, Quebec, with a Bachelor of Science (B.Sc.) in Geology, 1990.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg.# 2435). I have worked as a geologist for 35 years since my graduation, continuously gaining experience in exploration and mining. My relevant expertise for the Technical Report includes:
  - In-depth knowledge of the Camino Rojo property and deposit, with ongoing oversight of exploration and drilling activities since August 2020 as SVP Exploration at Orla Mining.
  - Extensive global exploration and mining experience across multiple countries and diverse mineral deposit types.
  - Specialization in precious metal exploration, particularly gold deposits, including polymetallic gold-rich epithermal and skarn deposits such as the Camino Rojo deposit.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Camino Rojo Project during the period from April 15 to April 16, 2025 and have visited the Project on several other occasions since August 2020.
6. I am responsible for Sections 1.3.1 to 1.3.5, 4 through 10, and related disclosure in Section 27 of the Technical Report.
7. As I am currently employed by Orla Mining Ltd., I do not meet the definition of being independent of the issuer as described in Section 1.5 of NI 43-101.
8. I have had prior involvement with the Camino Rojo Project as an employee of Orla Mining Ltd.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 17th day of July, 2025

**(Signed & Sealed) Sylvain Guerard**

Sylvain Guerard, P.Ge.



## 29.2 Stephen Ling

I, Stephen Ling, P.Eng., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that:

1. I am the Director of Technical Services with Orla Mining Ltd., of Suite 630 – 333 Bay St, Toronto, ON, Canada M5H 2R2
2. I am a graduate of McGill University in 2007 with a Bachelor of Engineering (Mining).
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. # 100176937). I have worked as a mining engineer/geologist for a total of 18 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Production and project planning for operating mines
  - Mine design, mine scheduling and cost estimation for operating mines
  - Senior positions with Canadian mining companies, with responsibilities in managing all mining and technical related functions
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Camino Rojo Project multiple times, with the last visit being from May 27 to May 29, 2025.
6. I am responsible for sections 1.1, 1.1.1.2, 1.1.1.4, 1.1.1.5, 1.1.1.7, 1.1.2.2, 1.1.2.4, 1.1.2.6, 1.2, 1.3.7, 1.3.8, 1.3.10, 1.3.11, 1.3.13, 2, 3, 12.2, 15, 16, 18, 19, 21, 22, 23, 24, 25.2, 25.4, 25.5, 25.7, 26.2, 26.4, 26.6, and related disclosure in section 27, of the Technical Report.
7. As I am currently employed by Orla Mining Ltd, I am not independent of the Issuer as described in Section 1.5 of NI 43-101.
8. I have had prior involvement with the property that is the subject of the Technical Report as an employee of Orla Mining Ltd.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 17th day of July, 2025.

**(Signed & Sealed) Stephen Ling**

Stephen Ling, P.Eng.



### 29.3 Marie-Christine Gosselin

I, Marie-Christine Gosselin, P.Geo., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that:

1. I am Senior Resource Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Université Laval, Québec, QC in 2014 with a Bachelor of Science degree in Geology.
3. I am registered as a Professional Geologist with l'Ordre des Géologues du Québec (Reg.#02060). and with Professional Geoscientist of Ontario (Reg.#3799). I have worked as a geologist for a total of 11 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Lithology and mineralization modelling.
  - Experience as Resource Geologist, Production Geologist and Exploration Geologist with porphyry copper, sediment hosted copper, Canadian Archaean and narrow vein gold, skarns and VMS deposits, in Canada, Chile and Mexico.
  - Experienced user of Leapfrog Geo, Vulcan, and ArcGIS.
  - Target generation.
  - Data analysis.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Camino Rojo Project from January 22 to January 25, 2024.
6. I am responsible for 1.1.1.1, 1.1.2.1, 1.3.6, 11, 12.1, 14, 25.1, 26.1 and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer as described in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of July, 2025

**(Signed & Sealed) Marie-Christine Gosselin**

Marie-Christine Gosselin, P.Geo.



## 29.4 Caleb Cook

I, Caleb Cook, P.E., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that:

1. I am a Project Engineer and Engineering Manger with Kappes, Cassiday & Associates located at 7950 Security Circle, Reno, Nevada 89506.
2. I am a graduate of the University of Nevada, Reno in 2010 with a B.S. in Chemical Engineering.
3. I am registered as a Professional Engineer in the State of Nevada (No. 025803). I have worked as a process engineer and metallurgist for a total of 15 years since my graduation. Most of my professional experience has focused on the development of gold and silver leaching projects.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I most recently visited the Camino Rojo Project on April 30 and May 1, 2024.
6. I am responsible for sections 1.1.1.3, 1.1.2.3, 1.3.9, 12.3, 13.1, 17, 25.3, 26.3, and related disclosure in section 27, of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report other than as an independent consultant on previous technical reports.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 17th day of July, 2025,

**(Signed & Sealed) Caleb Coo**

Caleb D. Cook, P.E.



## 29.5 Andrew Kelly

I, Andrew Kelly, P.Eng., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that:

1. I am President and Senior Metallurgist with Blue Coast Research Ltd., of 2-1020 Herring Gull Way, Parksville, BC, Canada, V9P 1R2.
2. I am a graduate of the University of New Brunswick and obtained a Bachelor of Science in Engineering (Chemical) degree in 2003.
3. I am registered as a Professional Engineer with the Association of Professional Engineers and Geoscientists of British Columbia (License No. 39900) and with the Association of Professional Engineers of Ontario (License No.100073664). I have worked as a metallurgist for a total of 22 years since my graduation. My experience includes both plant operations and laboratory settings and covers base and precious metals. My relevant experience includes the design and review of metallurgical test work, flowsheet development and plant operations.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited the Camino Rojo Project.
6. I am responsible for Section 12.3, 13.2 and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer, applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report, other than managing various metallurgical test work programs as an independent consultant since 2021.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 17<sup>th</sup> day of July, 2025,

**(Signed & Sealed) Andrew Kelly**

Andrew Kelly, P.Eng.



## 29.6 Luis Vasquez

I, Luis Vasquez, M.Sc., P.Eng., as an author of this report entitled “NI 43-101 Technical Report, Camino Rojo Project, Zacatecas State, Mexico” (the “**Technical Report**”) with an effective date of March 31, 2025 prepared for Orla Mining Ltd., do hereby certify that::

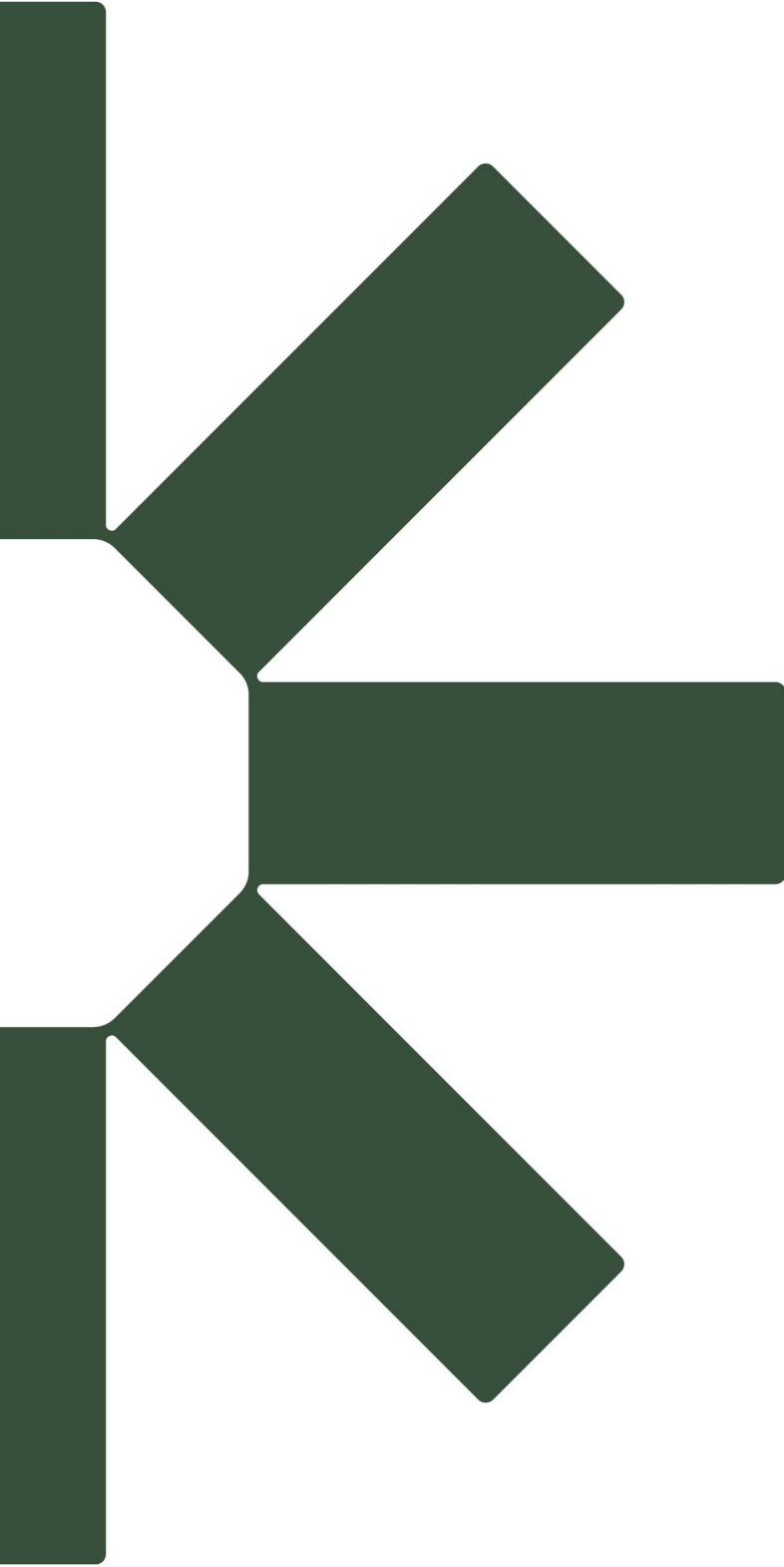
1. I am a Principal Hydrotechnical Engineer – Water Resource Engineering with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Universidad de Los Andes, Bogotá, Colombia, in 1998 with a Bachelor of Science degree in Civil Engineering, and in 1999 with a Master of Science degree in Water Resources Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #100210789). I have worked as a civil engineer for a total of 26 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Review and report as an environmental consultant on numerous mining operations and projects for due diligence and regulatory requirements.
  - Preparation of numerous environmental impact assessments for mining projects for regulatory approval in Canada and Perú.
  - Preparation of multiple mine closure plans for mining projects in Canada and Perú.
  - Preparation of several scoping, prefeasibility, feasibility, and detailed design level studies for projects in North America, South America, the Caribbean, and Asia with a focus on planning, design, and safe operation of water management systems and waste disposal facilities.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited the Camino Rojo Project.
6. I am responsible for sections 1.1.1.6, 1.1.2.5, 1.3.12, 20, 25.6, 26.5, and related disclosure in section 27 of the Technical Report.
7. I am independent of the Issuer as described in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of July, 2025,

**(Signed & Sealed) Luis Vasquez**

Luis Vasquez, M.Sc., P.Eng.





Making Sustainability Happen