UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended: December 31, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number: 1-14066

SOUTHERN COPPER CORPORATION
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**13-3849074** (I.R.S. Employer Identification No.)
7310 North 16th St, Suite 135 Phoenix, AZ (Address of principal executive offices)	**85020** (Zip code)

Registrant's telephone number, including area code: **(602) 264-1375**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class:	Trading Symbol	Name of each exchange on which registered:
Common stock, par value $0.01 per share	SCCO	New York Stock Exchange Lima Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐	Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes ☒ No ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

At February 28, 2024, there were of record 773,113,269 shares of common stock, par value $0.01 per share, outstanding.

The aggregate market value of the shares of common stock (based upon the closing price at June 30, 2023 as reported on the New York Stock Exchange-Composite Transactions) of Southern Copper Corporation held by non-affiliates was approximately $6,148.0 million.

PORTIONS OF THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE:

Part III:	Proxy statement for 2024 Annual Meeting of Stockholders
Part IV:	Exhibit Index is on Page 186 through 188

Southern Copper Corporation ("SCC")

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PART I

ITEM 1. BUSINESS

THE COMPANY

We believe Southern Copper Corporation (“SCC”, “Southern Copper” or the “Company”) is one of the largest integrated copper producers in the world. Our major production includes copper, molybdenum, zinc and silver. All of our mining, smelting and refining facilities are located in Peru and Mexico and we conduct exploration activities in those countries and in Argentina, Chile and Ecuador. See Item 2 “Properties—Review of Operations” for maps of our principal mines, smelting facilities and refineries. The considerable scale of our operations makes us one of the largest mining companies in Peru and Mexico. We believe we have the largest copper reserves in the world. We were incorporated in Delaware in 1952 and have conducted copper mining operations since 1960. Since 1996, our common stock has been listed on both the New York and Lima Stock Exchanges.

Our Peruvian copper operations involve mining, milling and flotation of copper ore to produce copper concentrates and molybdenum concentrates; the smelting of copper concentrates to produce blister and anode copper; and the refining of anode copper to produce copper cathodes. As part of this production process, we also produce significant amounts of molybdenum concentrate and sulfuric acid. Our precious metals plant at the Ilo refinery produces refined silver, gold, and other materials. Additionally, we produce refined copper using solvent extraction/electrowinning technology (“SX-EW”). We operate the Toquepala and Cuajone open-pit mines high in the Andes Mountains, approximately 860 kilometers southeast of the city of Lima, Peru. We also operate a smelter and refinery west of the Toquepala and Cuajone mines in the coastal city of Ilo, Peru.

Our Mexican operations are conducted through our subsidiary, Minera Mexico, S.A. de C.V. (“Minera Mexico”), which we acquired in 2005. Minera Mexico engages primarily in the mining and processing of copper, molybdenum, zinc, silver, gold and lead. Minera Mexico operates through subsidiaries that are grouped into three separate units. Mexicana de Cobre, S.A. de C.V. (together with its subsidiaries, the “La Caridad” unit) operates La Caridad, an open-pit copper mine, a copper ore concentrator, a SX-EW plant, a smelter, refinery and a rod plant. The La Caridad refinery has a precious metals plant that produces refined silver, gold and other materials. Operadora de Minas e Instalaciones Mineras, S.A de C.V. (the “Buenavista unit”) operates Buenavista, an open-pit copper mine, which is located on the site of one of the world’s largest copper ore deposits, two copper concentrators and two operating SX-EW plants. Industrial Minera Mexico, S.A. de C.V. (together with its subsidiaries, the “IMMSA unit”) operates five underground mines that produce zinc, lead, copper, silver and gold, and a zinc refinery.

We utilize modern, state of the art mining and processing methods, including global positioning systems and computerized mining processes. Our operations have a high level of vertical integration, which allows us to use our facilities, employees and equipment to manage the entire production process, including ore mining and production of refined copper rod and other products, and to execute most associated transport and logistics functions.

The sales prices for our products are largely determined by market forces beyond our control. Our management, therefore, focuses on cost control and production enhancement to remain profitable. We endeavor to achieve these goals through capital spending programs, exploration efforts and cost reduction programs. Our focus is on remaining profitable during periods of low copper prices and maximizing results in periods of high copper prices. For additional information on the sale prices of the metals we produce, please see “Metal Prices” in this Item 1.

Currency Information:

Unless stated otherwise, all our financial information is presented in U.S. dollars and any reference herein to “U.S. dollars,” “dollars,” or “$” are to U.S. dollars; references to “sol,” “soles” or “S/”, signify Peruvian soles; and references to “peso,” “pesos,” or “Ps.,” represent Mexican pesos.

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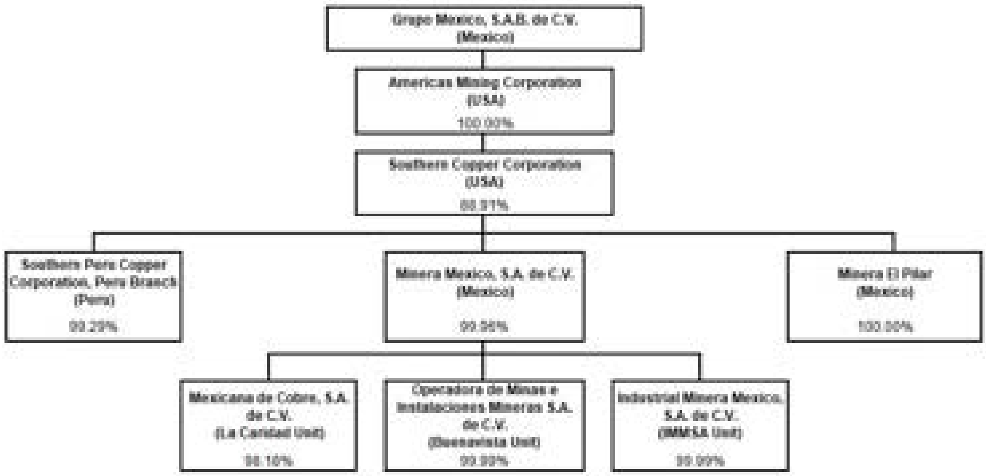
Unit Information:

Unless otherwise noted, all tonnages are in metric tonnes. To convert to short tons, multiply by 1.102. All ounces are troy ounces. All distances are in kilometers. To convert to miles, multiply by 0.621. To convert hectares to acres, multiply by 2.47.

ORGANIZATIONAL STRUCTURE

The following chart describes our organizational structure, starting with our controlling stockholders, as of December 31, 2023. For the purpose of clarity, the chart identifies only our main subsidiaries and eliminates intermediate holding companies.



We are a majority-owned, indirect subsidiary of Grupo Mexico S.A.B. de C.V. ("Grupo Mexico"). As of December 31, 2023, Grupo Mexico, through its wholly-owned subsidiary Americas Mining Corporation ("AMC"), owned 88.9% of our capital stock. Grupo Mexico's principal business is to act as a holding company for the shares of other corporations engaged in the mining, processing, purchase and sale of minerals and other products and in the provision of railway and other related services.

We conduct our operations in Peru through a registered branch (the "SPCC Peru Branch," "Branch" or "Peruvian Branch"). The SPCC Peru Branch comprises virtually all of our assets and liabilities associated with our copper operations in Peru. The SPCC Peru Branch does not constitute a corporation that is separate from SCC, and, as such, the obligations of the SPCC Peru Branch are direct obligations of SCC and vice-versa. The SPCC Peru Branch is, however, registered as a branch of a foreign company pursuant to Peruvian law and through this entity, we hold assets, incur liabilities and conduct operations in Peru. Although the SPCC Peru Branch has no capital or liability that is separate from that held or applicable to SCC, the SPCC Peru Branch is deemed to have equity capital for purposes of determining the economic interests of holders of our investment shares (See Note 14 "Stockholders´ Equity" of the consolidated financial statements).

In April 2005, we acquired Minera Mexico, from Americas Mining Corporation ("AMC"), a subsidiary of Grupo Mexico, our controlling stockholder. Minera Mexico is a holding company and all of its operations are conducted through subsidiaries that are grouped into three units: (i) the La Caridad unit (ii) the Buenavista unit and (iii) the IMMSA unit. We own 99.96% of Minera Mexico.

In 2008, our Board of Directors ("BOD") authorized a $500 million share repurchase program that has since been increased by the BOD and is currently authorized to $3 billion. Pursuant to this program, through December 31, 2023 we have purchased 119.5 million shares of our common stock at a cost of $2.9 billion. These shares are available for general corporate purposes. We may purchase additional shares from time to time, based on market conditions and other factors. This repurchase program has no expiration date and may be modified or discontinued at any time. Please see Note 7 for a discussion of the Inflation Reduction Act effective in 2023, including a 1% excise tax on certain stock repurchases.

REPUBLIC OF PERU AND MEXICO

Our revenues are derived primarily from our operations in Peru and Mexico. Risks related to our operations in both countries include those associated with economic and political conditions, the effects of currency fluctuations and inflation, the effects of government regulations and the geographic concentration of our operations.

OUR BUSINESS

COPPER BUSINESS

Copper is an important component in the world's infrastructure chain. It is the third most widely used metal, after iron and aluminum. Copper has unique chemical and physical properties, including high ductility; malleability; thermal and electrical conductivity; and resistance to corrosion, and as such, is considered a prime material for use in electrical and electronic products, including components for power transmission and generation, which accounts for about three quarters of copper global use, and for telecommunications, building construction, transportation and industrial machinery. Copper is also an important metal in non-electrical applications such as plumbing and roofing and, when alloyed with zinc to form brass, is used in many industrial and consumer applications.

Copper is an internationally traded commodity whose prices are mainly determined by the major metal exchanges, the Commodities Exchange, or "COMEX," in New York and the London Metal Exchange or "LME," in London. Copper is usually found in nature in association with sulfur. Pure copper metal is generally produced in a multi-stage process, beginning with the mining and concentrating of low-grade ores containing copper sulfide minerals, and followed by smelting and electrolytic refining to produce a pure copper cathode. An increasingly larger share of copper is being produced from acid leaching of oxidized ores. Copper is one of the oldest metals known to man and has contributed significantly to the development of civilization.

BUSINESS REPORTING SEGMENTS:

Our management divides Southern Copper into three reportable segments and manages each as a separate segment.

The three segments identified are groups of individual mines, each of which constitutes an operating segment with similar economic characteristics, product types, processes and support facilities, regulatory environments, employee bargaining contracts and currency risks. In addition, each mine within the individual group earns revenues from similar types of customers for their products and services and each group incurs expenses independently, including commercial transactions between groups.

Inter-segment sales are based on arm's length prices at the time of sale. These may not be reflective of actual prices realized by the Company due to various factors, including additional processing, timing of sales to outside customers and transportation cost. Information regarding the Company's sales is included in the segment data. The segments identified by the Company are:

1. Peruvian operations, which include the Toquepala and Cuajone mine complexes and the smelting and refining plants, including a precious metals plant, industrial railroad and port facilities that service both mines. Sales of its products are recorded as revenue from our Peruvian mines. The Peruvian operations produce copper, by-products of molybdenum, silver and other materials.

2. Mexican open-pit operations, which include the La Caridad and Buenavista mine complexes and the smelting and refining plants, including a precious metals plant and a copper rod plant and support facilities that service both mines. Sales of its products are recorded as revenue of our Mexican mines. The Mexican open-pit operations produce copper, with production of by-products of molybdenum, silver and other materials.

3. Mexican underground mining operations, which include five underground mines that produce zinc, copper, lead, silver and gold; and a zinc refinery. This group is identified as the IMMSA unit and sales of its products are recorded as revenue from the IMMSA unit.

Financial information is periodically prepared for each of the three segments and the results are reported to the Chief Operating Decision Maker ("CODM") on a segment basis. The CODM focuses on operating income and on total assets as measures of performance to evaluate different segments and to make decisions to allocate resources to the reported segments. These are common measures in the mining industry.

Segment information is included in Item 2 "Properties." More information on business segment and segment financial information is included in Note 19 "Segment and Related Information" of the consolidated financial statements.

CAPITAL INVESTMENT PROGRAM AND EXPLORATION ACTIVITIES

For a description of our capital investment program, see Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Investment Program" and for our exploration activities, see Item 2 "Properties—Explorations Activities."

PRINCIPAL PRODUCTS AND MARKETS

Copper is primarily used in the building and construction industries; in the power generation and transmission industry; and in the electrical and electronic products; and, to a lesser extent, in industrial machinery and equipment; consumer products; and in the automotive and transportation industries. Molybdenum is used to toughen alloy steels and soften tungsten alloy and is also used in fertilizers, dyes, enamels and reagents. Silver is used for electrical and electronic products and, to a lesser extent, in brazing alloys and solder, jewelry, coinage, photographic, silverware and catalysts. Zinc is primarily used as a coating on iron and steel to protect against corrosion; it is also used to make die cast parts to manufacture batteries and to form sheets for architectural purposes.

Our marketing strategy and annual sales planning emphasize developing and maintaining long-term customer relationships. As such, acquiring annual or other long-term contracts for the sale of our products is a high priority. Generally, 80% to 90% of our metal production is sold under annual or longer-term contracts. Sales prices are determined based on the prevailing commodity prices for the quotation period according to the terms of the contract.

We focus on end-user customers as opposed to selling on the spot market or to trading companies. In addition, we devote significant marketing efforts to diversifying our sales both by region and customer base. We also strive to provide superior customer service, including timely deliveries of our products. Our ability to consistently fulfill customer demand is underpinned by our substantial production capacity.

For additional information on sales please see "Revenue recognition" in Note 2 "Summary of Significant Accounting Policies" and Note 19 "Segment and Related Information" of the consolidated financial statements.

METALS PRICES

Prices for our products are principally a function of supply and demand and, with the exception of molybdenum, are established on COMEX and LME. Prices for our molybdenum products are established by reference to the publication Platt's Metals Week. Our contract prices also reflect any negotiated premiums and the costs of freight and other factors.

From time to time, we have entered into hedging transactions to provide partial protection against future decreases in the market price of metals and we may do so under certain market conditions. For a further discussion of our products market prices, please see Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations—Metal Prices."

The table below shows the high, low and average COMEX and LME per pound copper prices during the last 10 years:

	Copper (COMEX)			Copper (LME)		
Year	High	Low	Average	High	Low	Average
2014	3.43	2.84	3.12	3.37	2.86	3.11
2015	2.95	2.02	2.51	2.92	2.05	2.50
2016	2.69	1.94	2.20	2.69	1.96	2.21
2017	3.29	2.48	2.80	3.27	2.48	2.80
2018	3.29	2.56	2.93	3.29	2.64	2.96
2019	2.98	2.51	2.72	2.98	2.51	2.72
2020	3.63	2.12	2.80	3.61	2.09	2.80
2021	4.78	3.54	4.24	4.86	3.52	4.23
2022	4.93	3.21	4.01	4.87	3.18	4.00
2023—1st Q	4.27	3.74	4.09	4.28	3.72	4.05
2023—2nd Q	4.12	3.55	3.85	4.12	3.59	3.85
2023—3rd Q	3.99	3.63	3.77	3.96	3.64	3.79
2023—4th Q	3.94	3.54	3.72	3.87	3.54	3.71
2023	4.27	3.54	3.86	4.28	3.54	3.85

The per pound COMEX copper price during the last 5 and 10 year periods averaged $3.53 and $3.12, respectively. The per pound LME copper price during the last 5 and 10 year periods averaged $3.52 and $3.12, respectively.

The table below shows the high, low and average prices per pound with the exception of silver, which is priced per ounce. The market prices for our three principal by-products over the last 10 years are as follows:

	Silver (COMEX)			Molybdenum (Dealer Oxide Platt's Metals Week)			Zinc (LME)		
Year	High	Low	Average	High	Low	Average	High	Low	Average
2014	22.05	15.39	19.04	15.05	8.75	11.30	1.10	0.88	0.98
2015	18.35	13.67	15.68	9.40	4.30	6.59	1.09	0.66	0.88
2016	20.67	13.74	17.10	8.60	5.10	6.42	1.32	0.73	0.95
2017	18.49	15.37	17.03	10.25	6.85	8.13	1.53	1.00	1.31
2018	17.55	13.95	15.65	13.00	10.60	11.86	1.64	1.04	1.33
2019	19.39	14.28	16.16	12.70	8.28	11.27	1.37	0.90	1.16
2020	29.25	11.74	20.62	10.90	7.00	8.57	1.29	0.72	1.03
2021	29.40	21.46	25.18	20.10	9.95	15.51	1.73	1.15	1.36
2022	26.89	17.55	21.76	31.85	13.90	18.61	2.05	1.22	1.58
2023—1st Q	24.23	20.01	22.53	38.50	24.00	32.04	1.59	1.30	1.42
2023—2nd Q	26.04	22.33	24.26	23.50	16.65	20.87	1.33	1.01	1.15
2023—3rd Q	25.22	22.24	23.60	26.25	21.98	23.59	1.20	1.03	1.10
2023—4th Q	25.50	20.85	23.25	22.50	16.73	18.41	1.20	1.08	1.13
2023	26.04	20.01	23.41	38.50	16.65	23.73	1.59	1.01	1.20

The per ounce COMEX silver price during the last 5 and 10 year periods averaged $21.43 and $19.16, respectively. The per pound Platt's Metals Week Dealer Oxide molybdenum price during the last 5 and 10 year periods averaged $15.54 and $12.20, respectively. The per pound LME zinc price during the last 5 and 10 year periods averaged $1.27 and $1.18, respectively.

COMPETITIVE CONDITIONS

Competition in the copper market is based primarily on price and service basis, with price being the most important factor when supplies of copper are ample. Our products compete with other materials, including aluminum and plastics. For additional information, see Item 1A "Risk Factors—The copper mining industry is highly competitive."

HUMAN CAPITAL RESOURCES

As of December 31, 2023, we had 15,810 employees, approximately 67% of whom are covered by a Collective Labor Agreement and are represented by 16 different labor unions. We believe that the labor environment in our operations in Mexico and Peru is favorable, which has allowed us to increase productivity as we advance the goals of our capital expansion program. In addition, around 13,066 people were working as contractors in support of our operations. In accordance with our Community Development commitment, more than 46% of our workforce is hired locally.

Talent Development, Training and Retention

As a large integrated copper producer, we have a wide range of employees, including management professionals, technicians, engineers, and production employees. We believe in our people, and we provide a wide variety of opportunities for professional growth for all employees in Peru and Mexico. In 2023 we made a training investment of over $4.4 million, which resulted in more than 440,000 training hours that focused on safety and health, rquipment operations and maintenance certifications, technical training, soft skills development (primarily in Leadership Competencies, code of ethics and compliance training. We also seek to enhance institutional knowledge through on-the-job training experiences, and designed more than 400 Individual Development Plans, as part of our succession planning.

All of our employees receive initial training and opportunities for continuous development throughout their careers, which we believe favors talent retention. More than 65% of the positions are covered by internal employees and our retention rate is around 92%. Voluntary turnover indicators in all of the countries in which we operate remain at single digits year-over-year. We believe this suggests our employees have a strong desire to continue working with us.

Company Culture

We believe in a shared mission, vision, values and improving our employer brand for existing and future employees. The Company seeks to create value for its employees to help ensure that their working experience is optimal. Various efforts are made on this front, including promoting a safe and collaborative work environment and culture and ensuring employees continue to be engaged with the Company's values and principles. We live and promote our core values of honesty, respect, and responsibility in our day-to-day.

In terms of corporate culture, the Company is committed to the continuous growth and development of its employees and surrounding communities. The Company recognizes the effort of our employees and works to strengthen institutional values. We prize creativity, honesty and equality and we ensure that our employees are aligned with the same work ethic to standardize culture across the Company. The Company also seeks to promote goal-oriented principles to obtain results that positively affect our main stakeholders and communities to drive productivity, innovation, human growth and wellbeing, environmental protection and forward thinking.

Compensation and Benefits

We also focus on attracting and retaining employees by providing compensation and benefit packages that are competitive within the applicable market, considering the location of the position, responsibilities and compensation requirements in the countries where we operate. Our compensation practices consider many factors, including individual performance and responsibilities; years of service; elements of compensation mandated by Peruvian and Mexican law; future challenges and objectives; contributions to the future success of our Company; the employee's total compensation and our financial performance. We may also look at the compensation levels of comparable companies. We offer productivity bonuses to our employees, which motivates them to grow the Company's results.

Health and Safety

Our focus on health and safety includes prevention and wellness programs, through the Medical and HR departments, such as clinical attention and periodical revisions, wellness training and a wellness platform for our employees.

During 2023, we carried out 50 health campaigns with the participation of 1,894 collaborators in early detections of diseases such as breast cancer, cervical cancer, prostate cancer, and tuberculosis. Additionally, we conducted 3,877 health promotion talks with 22,804 attendees and delivered 4,569 occupational health talks, focused on preventing occupational risks and diseases. Health campaigns were held in collaboration with healthcare institutions for workers and their families within the communities where we operate, offering general consultations with comprehensive examinations including imaging studies and laboratory tests, with a special focus on breast and prostate cancer screenings.

In 2023, the environmental and occupational health and safety management systems from all our mining operations are certified under the respective ISO 140001 and ISO 45001 standards.

Health and safety programs include a strong annual training plan, compliance with the regulators at each site, risk management and Behavior Based Safety programs that extend our safety culture to contractors.

Talent Attraction and Recruiting

We deploy several talent attraction programs, which entail leveraging organizational relations; establishing links with national and regional institutions of higher education in the countries where we operate; and participating in job fairs. We also have a job opportunities section in our webpage and use several local and international job boards to publish openings.

We offer professional internship programs to attract students before they graduate from universities or centers for vocational training. We attract over 500 graduates from different academic disciplines and universities in Mexico and Peru with our Intern Development Programs. These strategies consolidate Human Resource Planning.

Additionally, we believe that we are a first-choice employer in the countries where we operate. This reflects our efforts to strengthen relationships with our stakeholders, including employees, and engage in community development. We have transparent selection processes and are committed to upholding principles for human rights and diversity, inclusion and non-discrimination.

Employee Engagement

Additionally, we conduct a biannual Employee Opinion Survey to measure employees' perceptions of the Company and take actions intended to increase employee engagement, develop a positive organizational environment, and strengthen our culture. We measure the employee engagement level with 18 sub-factors, grouped into two major sets of factors: loyalty and satisfaction. The first factor represents the degree to which an individual identifies with the organization and its business goals, and the second reflects the individual's degree of satisfaction with his/her working conditions and draws a line between satisfaction levels and performance at work.

The average of these factors indicates the level of engagement on a scale of 1 to 5 (a Likert scale). In 2023, we had an engagement rating of 4.17, an increase of 2% in the good perception of our employees regarding our Company. We believe this positive trend suggests a continuous improvement on the engagement level of our people year to year.

The survey also included sociodemographic elements, in order to consider the opinions of our diverse groups within our Company and respond with our "ECO Action Plan" for the next two years.

All employees, both unionized and non-unionized, are invited to participate in all of our human talent initiatives. This reflects our belief that it is in the Company's best interest to listen to all of our people and create open communications channels. 85% of our employees participated in 2023's survey, which is an increase of 9% compared to 2021. This number exceeds that registered by other companies that apply similar surveys, consolidating the trust our employees have in this instrument.

We have adopted a corporate social responsibility policy that is designed to integrate the Company´s operations with local communities in areas influenced by our operations. This policy focuses on creating permanent and positive relationships to generate optimal social conditions and promote sustainable development in the area. We continue to make significant expenditures for community programs. For additional information on our community programs, refer to Corporate Social Responsibility under Note 13 “Commitments and contingencies” to the consolidated financial statements.

DIVERSITY, EQUITY AND INCLUSION (DEI)

Our vision of DEI is to ensure that our people always feel included, welcomed and valued for their personal and professional contributions. This vision is based on our core values of respect, honesty and responsibility.

Consistent with our Code of Conduct and Human Rights Policy, our goal is to (i) build an organizational culture of total equality and well-being, focusing on diversity, inclusion and non-discrimination, (ii) increase sensitivity, knowledge and skills in our leaders and employees in order to build diverse and inclusive teams and promote a culture of respect, and (iii) extend this culture to the communities in which we operate.

Based on the results of a DEI survey in Mexico and Peru, we aligned our diversity and inclusion 2020-2023 Strategic Plan with five strategic initiatives:
1. Awareness campaigns, training and communication on diversity, inclusion and non-discrimination.
2. Incorporate a gender equality and diversity approach into our human resources policies and procedures (focused both on hiring and retention).
3. Physical modifications at our operations for the inclusion of women.
4. Promote diversity and equal opportunities in our neighbor communities.
5. Define specific processes on awareness, prevention and handling potential incidents of sexual and/or workplace harassment.

In 2022, we disclosed our Policy on Diversity, Inclusion, Non-Discrimination, and Zero Tolerance for Workplace or Sexual Harassment for Grupo México and the Mining Division. The latter describes the reporting mechanisms available in Mexico, Peru and the United States, and the protection for the person reporting. In 2023 we provided training about diversity and inclusion to more than 5700 employees. We have the goal to increase participation of women by 2% yearly in the organization. We increased our female workforce from 1,090 to 1,221, which represents an increase of 12% in our female headcount year-over-year. We also increased our female workforce on Leadership positions by 12%. Additionally, this year 34% of our female workforce hold a STEM position (Science, Technology, Engineering, Mathematics).

We now have a better understanding of our diversity distribution, which we believe allows us design efforts for each group, and advance towards inclusion.

CODE OF ETHICS

We certify our employees in our Code of Ethics yearly. Every employee, starting with new hires, commit and sign agreement with our main document and guidance tool for our conduct in terms of our legal, professional and ethical obligations, both in our business dealings and our interpersonal relationships.

Peru

The Company maintains ongoing communication with union representatives with the aim of ensuring labor harmony and proper management of labor relations. The Company has collective bargaining agreements with each of the six unions, the earliest expiration of which is in 2024 and the latest of which is in 2027. These agreements regulate benefits related to remuneration and working conditions.

60.9% of the Company's 4,979 Peruvian employees were unionized as of December 31, 2023. Currently, there are six separate unions, none of which represents the majority of workers, as defined by current Peruvian labor legislation.

During 2021, the Company held talks with the six unions to sign collective bargaining agreements prior to their effective dates. As a result, between the duration of the agreement, a long-term agreement bonus of S/10,000 (approximately $2,670) was granted in June and December 2021, the Company signed collective bargaining agreements with the six unions with durations between three to six years. All of them granted annual salary increases of 5%. Additionally, each agreement granted, among other things, a signing bonus of between S/45,000 (approximately $12,013) and S/90,000 (approximately $24,026), depending on the union that signed a six-year extension of the collective bargaining agreement. All these concepts were recorded as labor expense. In 2022, these collective bargaining agreements were executed and the Company does not have any collective agreement pending to be negotiated with the unions.

In December 2022, the Company reached a settlement with one of the unions regarding compliance with an 2018-2019 Arbitration Award. As part of this settlement, the Company made a one-time payment to each union member of S/4,000 (approximately $1,068) as a compensation bonus and also paid a signing bonus of S/1,000 (approximately $267).

In the first quarter of 2023, the Company began applying the terms of the agreements entered into with the six unions pursuant to Law 31632, which stipulates new conditions for compensation of leaves granted during COVID-19. Within the current framework of labor regulations and the agreements with all six unions, this compensation has been adapted to align with current working hours in the mining sector. These conditions were in effect until December 1, 2023.

In June 2023, the Company held two meetings with the unions to discuss different issues of collective interest. At these meetings, the unions expressed concerns regarding the current economic situation, including the rise in the cost of living in Peru, as well as issues related to services provided by the Company. In the third quarter of 2023, the Company released a formal response to each union confirming that there are collective labor agreements in force with each union that regulate all benefits related to salaries and working conditions. The Company has been complying with all its obligations under such collective labor agreements and is committed to maintaining on-going communication with the unions to ensure harmony.

In the last quarter of 2023, one of the unions which represents 24.7% of affiliated workers in the Company's three productive units, held elections for 2023-2025. Another union, which represents 25.7% of affiliated workers, is in the process of electing its new representatives.

An important development in labor relations with the Company's unions stems from a ruling by the Peruvian Supreme Court that was notified to the Company on October 23, 2023. After 12 years of litigation, the Court ruled in favor of the Company to settle a suit involving a worker payment in the amount of S/11,000 (approximately $2,936) that a lower court had ordered the Company to pay to one of the unions in 2011. The Company had been legally pursuing recovery of the total amount of this worker payment. The union has expressed its intention to comply with the court order and to reach an agreement to return the amount paid by the Company.

Our employees at the Toquepala and Cuajone mining units reside in the 3,700 houses and apartments that we have built at the townsites. We also have 90 houses in Ilo for staff personnel. Housing, maintenance and utility services are provided to most of our employees for a nominal cost. Our townsite and housing complexes provide schools, medical facilities, churches, banks, shops, social clubs, recreational facilities and other services.

Mexico

69.8% of our 10,802 Mexican employees were unionized as of December 31, 2023 and are represented by ten different unions. Under Mexican law, the terms of employment for unionized workers are set forth in collective bargaining agreements. Mexican companies negotiate the salary provisions of collective bargaining agreements with the labor unions on an annual basis and negotiate other benefits every two years. We conduct negotiations separately at each mining complex and each processing plant.

Our Taxco mine in Mexico has been on strike since July 2007. For a discussion of labor matters, refer to the information contained under the caption "Labor matters" in Note 13 "Commitments and Contingencies" of the consolidated financial statements.

Employees of La Caridad and Buenavista units reside in townsites at Nacozari and Cananea, where we have built approximately 1,800 houses and apartments. Most of the employees of the IMMSA unit reside on the grounds of the mining or processing complexes where we have built 356 houses and apartments. Housing, together with maintenance and utility services, is provided at nominal cost to most of our employees. Our townsites and housing complexes include educational and medical facilities, churches, social clubs, shopping centers, banking and other services. Through 2007, the Buenavista unit provided health care services to employees and retired unionized employees and their families through its own on-site hospital. In 2010, the Company signed an agreement with the Secretary of Health of the State of Sonora to provide these services to its retired workers and their families. The new workers of Buenavista receive health services through the Mexican Institute of Social Security as is the case for all Mexican workers.

FUEL, ELECTRICITY AND WATER SUPPLIES

The principal raw materials used in our operations are fuel, gas, electricity and water. We use natural gas to power boilers and generators and utilize diesel fuel to power mining equipment for metallurgical processes at our operations. We believe that sufficient sources of fuel, electricity and water are readily available. Fluctuations may occur in the prices of these raw materials that are beyond our control; as such, we focus our efforts on reducing costs through cost and energy-saving measures.

Energy generates the main cost in mining, so concern for its conservation and efficient usage is critical. We have energy management committees at most of our mines, which meet periodically to discuss consumption and to develop measures directed at saving energy. Alternative sources are also being analyzed at the corporate level, including both traditional and renewable energy sources. This approach has helped us to develop a culture of energy conservation directed at ensuring the sustainability of our operations.

Peru:

Fuel: In Peru, we obtain fuel primarily from Valero Peru, a local subsidiary of Valero Energy Corporation, a U.S. producer of fuel and power. The Company believes that adequate supplies of fuel are available for its operations in Peru.

Electricity: In June 2014, we entered into a power purchase agreement for 120 megawatts ("MW") with the state owned company Electroperu S.A., which began supplying energy to our Peruvian operations for a twenty-year period that started on April 17, 2017. In July 2014, we entered into a power purchase agreement for 120MW with a private power generator Kallpa Generacion S.A. ("Kallpa"), which began supplying energy to our Peruvian operations for a ten-year period that started on April 17, 2017. In May 2016, we signed an additional power purchase agreement for a maximum of 80MW with Kallpa, under which Kallpa will supply energy to the operations related to the Toquepala expansion and to other minor projects for a period starting on May 1, 2017 and ending after ten years of commercial operations at the Toquepala Expansion or until April 30, 2029; whichever occurs first. We feel confident that additional power can be obtained from the Peruvian national grid, should the need arise.

Additionally, we have nine megawatts of power generation capacity from two small hydro-generating facilities at Cuajone. Power is distributed over a 224-kilometer closed loop transmission circuit, which is connected to the Peruvian network.

Water: We have water rights or licenses for up to 1,950 liters per second from well fields at the Huaitire-Gentilar, Vizcachas and Titijones aquifers and surface water rights from Lake Suches. Three additional water sources are: Quebrada Honda, Quebrada Tacalaya and a smaller resource from the Cuajone mine pit. We believe these water sources are sufficient to supply the water demands of our operating units at Toquepala and Cuajone. Additionally, we have permits in Ilo to use water at three desalination plants that generate water for industrial use and domestic consumption;

we believe these facilities will produce sufficient water to cover the requirements of both current and projected needs. Additionally, we have two licenses for the use of non-desalinated seawater for the Smelter.

The Branch has a surface water permit for the Locumba river, which will facilitate the conservation and maintenance of a portion of the wetlands in Ite.

Mexico:

Fuel: In Mexico, since 2018, we have purchased fuel from Petroleos Mexicanos ("PEMEX"), the state producer, and from private suppliers.

The La Caridad unit imports natural gas from the United States through its pipeline (between Douglas, Arizona and Nacozari, Sonora). This allows us to import natural gas at market prices and thereby reduce operating costs. Several contracts with PEMEX and the United States provide us with the option of using a monthly or daily fixed prices for our natural gas purchases.

Natural gas is used for metallurgical processes and to power furnaces, converters, casting wheels, boilers and electric generators. Diesel oil is a backup method for all these uses. We use diesel oil to power mining equipment at our operations.

Electricity: Electricity is used as the main energy source at our mining complexes. We purchase most of our electricity from Mexico Generadora de Energia S. de R. L. ("MGE"), a subsidiary of Grupo Mexico which has two power plants designed to supply power to La Caridad and Buenavista units. Currently, MGE supplies 7.6% of its power output to third party energy users. These plants are natural gas-fired combined cycle power generating units, with a net total capacity of 516.2 megawatts. In 2012, we entered into a power supply agreement with MGE that will last until 2032. The first plant was completed in 2013 and the second in 2014. The first plant began to supply power to the Company in December 2013, and the second plant in June 2015.

We also purchase electricity from the *Comision Federal de Electricidad* (the Federal Electricity Commission or the "CFE"), the state's electrical power producer. In addition, we recover some energy from waste heat boilers at the La Caridad smelter. Accordingly, a significant portion of our operating costs in Mexico is dependent upon the pricing policies of CFE and PEMEX, which are affected by political and regulatory environments, international market prices for crude oil and natural gas; and conditions in the refinery markets.

Some IMMSA mining operations also purchase electricity from Eolica el Retiro, S.A.P.I de C.V. ("Eolica"), a windfarm energy producer that is an indirect subsidiary of Grupo Mexico. In August 2013, IMMSA and other of the Company's mining operations entered into a purchase agreement and in late 2014 started to purchase electricity from Eolica. Due to the nature of the production process there is not a fixed power capacity contracted. Currently, Eolica el Retiro is supplying approximately 12% of its power output to IMMSA and Mexcobre.

On February 20, 2020, the Company signed a power purchase agreement with Parque Eolico de Fenicias, S. de R.L. de C.V., and indirect subsidiary of Grupo Mexico, to supply 611,400 MWh of power per year to some of the Company´s Mexican operations for 20 years. This agreement is expected to become effective during the second quarter of 2024.

Water: In Mexico, water is deemed public property and industries that are not connected to a public service water supply must obtain a water concession from *Comision Nacional del Agua* (the National Water Commission or the "CNA"). Water usage fees are established in the *Ley Federal de Derechos* (the Federal Rights Law), which distinguishes several availability zones with different fees per unit of volume according to each zone, with the exception of Mexicana de Cobre. All of our operations have one or several water concessions and pump out the required water from wells. Mexicana de Cobre pumps water from the La Angostura dam, which is close to the mine and plants. At our Buenavista facility, we maintain our own wells and pay the CNA for water usage. Water conservation committees have been established at each plant to conserve and recycle water. Water usage fees are updated on a yearly basis and have been on the rise in recent years.

LEGAL AND REGULATORY MATTERS

In 2022 and 2023, no legal, environmental, labor or tax regulations came into effect that required the Company to incur material costs of compliance, had material adverse effects on the Company's operations, or affected normal execution of the Company's projects. Additionally, we believe that all our facilities in Peru and Mexico are in material compliance with applicable environmental, mining and other applicable laws and regulations.

For a discussion of environmental and labor matters, reference is made to the information contained in Note 13 "Commitments and Contingencies" of the consolidated financial statements. For more information on tax matters, refer to Note 7 "Income taxes" of the consolidated financial statements.

MINING RIGHTS AND CONCESSIONS

Peru:

We have 156,818 hectares in concessions from the Peruvian government for our exploration, exploitation, extraction and production operations, at various sites, as follows:

	Toquepala	Cuajone	Ilo	Other	Total
			(hectares)		
Plants	360	919	421	—	1,700
Operations	22,423	26,461	4,249	36,733	89,866
Projects and water resources	—	—	—	—	—
Exploration	—	—	—	65,251	65,251
Total	22,783	27,380	4,670	101,985	156,818

We believe that our Peruvian concessions are in full force and effect under applicable Peruvian laws and as such, comply with all material terms and requirements applicable to said concessions. The concessions have indefinite terms, subject to our payment of concession fees of up to $3.00 per hectare annually for the mining concessions and a fee based on nominal capacity for the processing concessions. Fees paid during 2023, 2022 and 2021, were approximately $3.4 million, $2.5 million and $2.3 million, respectively. We have two types of mining concessions in Peru: metallic and non-metallic concessions.

Mexico:

In Mexico we have 502,688 hectares in concessions from the Mexican government for our exploration and exploitation activities as outlined on the table below:

	IMMSA	La Caridad	Buenavista	Projects	Total
			(hectares)		
Mine concessions	223,313	103,821	93,706	81,848	502,688

We believe that our Mexican concessions are in full force and in effect under applicable Mexican laws and that we are in compliance with all material terms and requirements applicable to these concessions. Under Mexican law, mineral resources belong to the Mexican nation and a concession from the Mexican federal government is required to explore or mine mineral reserves. Mining concessions have a 50-year term that can be renewed for another 25 years. Holding fees for mining concessions can be from $0.52 to $11.48 per hectare depending on the start date of the mining concession. Fees paid during 2023, 2022 and 2021 were approximately $11.7 million, $8.7 million and $7.7 million, respectively. In addition, all of our operating units in Mexico have water concessions that are in full force and effect. Although ownership is not required in order to explore or mine a concession, we generally own the land related to our Mexican concessions. We also own all of the processing facilities of our Mexican operations and the land on which they are built.

AVAILABLE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the U.S. Securities and Exchange Commission ("SEC"). You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. The SEC maintains a website that contains annual, quarterly and current reports, proxy statements and other information that issuers (including Southern Copper Corporation) file electronically with the SEC. The SEC's website is www.sec.gov.

Our website is www.southerncoppercorp.com. The first document on the list of materials available on this website is Form 8-K, dated March 14, 2003. We offer, free of charge, downloads of our annual, quarterly and current reports, as soon as they can be reasonably made available following electronic or physical filing with the SEC. Our website also includes the Company's Corporate Governance guidelines and the charters of our main Board Committees. However, the information found on our website is not part of this or any other report.

CAUTIONARY STATEMENT

Forward-looking statements in this report and in other Company statements include information regarding expected commencement dates of mining or metal production operations, projected quantities of future metal production, anticipated production rates, operating efficiencies, costs and expenditures, including taxes, as well as projected demand or supply for the Company's products. Actual results could differ materially depending upon certain factors, including the risks and uncertainties relating to general U.S. and international economic and political conditions, the cyclical and volatile prices of copper, other commodities and supplies, including fuel and electricity, the availability of materials, insurance coverage, equipment, required permits or approvals and financing, the occurrence of unusual weather or operating conditions, lower than expected ore grades, water and geological problems, the failure of equipment or processes to operate in accordance with specifications, failure to obtain financial assurance to meet closure and remediation obligations, labor relations, litigation and environmental risks, as well as political and economic risk associated with foreign operations. Results of operations are directly affected by metal prices on commodity exchanges, which can be volatile.

CAUTIONARY NOTE REGARDING DISCLOSURE OF MINERAL PROPERTIES

Mineral Reserves and Resources

In our public filings in the U.S. and Peru and in certain other announcements not filed with the SEC, we disclose proven and probable reserves and measured, indicated and inferred mineral resources, each as defined in Item 1300 of Regulation S-K ("S-K 1300"). The estimation of measured mineral resources and indicated mineral resources implies greater uncertainty as to their existence and economic feasibility than the estimation of proven and probable reserves, and therefore investors are cautioned not to assume that all or any part of measured or indicated resources will ever be converted into S-K 1300-compliant reserves. The estimation of inferred resources involves far greater uncertainty as to their existence and economic viability than the estimation of other categories of resources. Therefore, investors are cautioned not to assume that all or any part of inferred resources exist, or that they can be mined legally or economically.

Technical Report Summaries and Qualified Persons

The scientific and technical information concerning our mineral projects in this Form 10-K have been reviewed and approved by third-party "qualified persons" pursuant to S-K 1300. For a description of the key assumptions, parameters and methods used to estimate mineral reserves and mineral resources included in this Form 10-K, as well as data verification procedures and a general discussion of the extent to which the estimates may be affected by any known environmental, permitting, legal, title, taxation, sociopolitical, marketing or other relevant factors, please review the Technical Report Summaries for each of the Company's material properties which are included as exhibits to, and incorporated by reference in this report.

ITEM 1A. RISK FACTORS

Every investor or potential investor in Southern Copper Corporation should carefully consider the following risk factors.

Financial risks

Our financial performance is highly dependent on the price of copper and the other metals we produce.

Our financial performance is significantly affected by the market prices of the metals that we produce, particularly the market prices of copper, molybdenum, zinc and silver. Historically, these prices have been subject to wide fluctuations and are affected by numerous and complex factors beyond our control. Market prices are affected by a number of factors, including global economic and political conditions in general, and in particular by: international policies and regulations in the ambits of trade, taxes and tariffs; levels of supply and demand; the availability and cost of substitutes; inventory levels maintained by users; actions of participants in the commodities markets; interest rates; expectations regarding future inflation rates; currency exchange rates and changes in technology. In addition, the market prices of copper and certain other metals have on occasion been subject to rapid short-term changes. At the start of the pandemic in 2020, copper prices were initially impacted by economic uncertainty. However, in mid-2020, copper prices began to rise and reached a record highs during 2021. Volatility in global economic growth, particularly in developing countries, has the potential to adversely affect future demand and prices for commodities. Geopolitical uncertainty and protectionism have the potential to inhibit international trade and negatively impact business confidence, which can create price volatility and constraints on our ability to trade in certain markets.

In addition to the factors discussed above, copper prices may be affected by demand from China, which is currently the largest consumer of refined copper and concentrate in the world.

Over the last three years, approximately 77.6% of our revenues have come from the sale of copper; 10.9% from molybdenum; 4.2% from silver; and 3.1% from zinc. Please see the distribution of our revenues per product on Item 8 “Financial Statements and Supplementary Data” Note 19 “Segment and Related Information—Sales value per segment”.
See also the historical average price of our products on Item 1 Business caption “Metals prices”.

We cannot predict if metals prices will rise or fall in the future. Extended significant future declines in metals prices, particularly copper, could have a material adverse impact on our results of operations, financial condition and value of our assets. Under very adverse market conditions, we might consider curtailing or modifying some of our mining and processing operations. We may be unable to decrease our costs in an amount sufficient to offset reductions in revenues, in which case, we may incur losses, which may be material.

Declines in the prices of metals we sell could also result in metals inventory adjustments and impairment charges for our long-lived assets. Other events that could result in the impairment of our long-lived assets include, but are not limited to, decreases in estimated proven and probable mineral reserves and any event that might have a material adverse effect on current and future expected mine production costs.

Volatility in metals prices may also impact the price of our outstanding securities.

Although our results of operations and cash flow will reflect fluctuations in the prices of copper and other metals we produce, short-term volatility in prices may generate significant fluctuations in the price of our securities. Such volatility in the price of our securities may not be reflective of our operating performance or financial results.

Our business requires levels of capital investments that we may not be able to maintain.

Our business is capital intensive. Significant capital investments are required specifically for the exploration and exploitation of copper and other metal reserves, mining, smelting and refining costs, the maintenance of machinery and equipment and compliance with laws and regulations. We must continue to invest capital to maintain or increase the amount of copper reserves that we exploit and the amount of copper and other metals we produce. We cannot assure you that we will be able to maintain our production at levels that generate sufficient cash, or that we will have access to sufficient financing to continue our exploration, exploitation and refining activities at or above present levels.

Restrictive covenants in the agreements governing our indebtedness and the indebtedness of our Minera Mexico subsidiary may restrict our ability to pursue our business strategies.

Our financing instruments and those of our Minera Mexico subsidiary include financial and other restrictive covenants that, among other things, limit our and Minera Mexico's abilities to incur additional debt and sell assets. If either we or our Minera Mexico subsidiary fails to comply with these obligations, we could be in default under the applicable agreements. This situation, if not addressed or waived, could require immediate repayment of debt obligations. Our Minera Mexico subsidiary is further limited by the terms of its outstanding notes, which also restrict the Company's applicable incurrence of debt and liens. In addition, future credit facilities may contain limitations on our capacity to incur additional debt and liens, dispose of assets, or pay dividends to our common stockholders.

We may not pay a significant amount of our net income as cash dividends on our common stock in the future.

We have distributed a significant amount of our net income as dividends since 1996. Our dividend practice is subject to change at the discretion of our Board of Directors at any time. The amount that we pay in dividends is subject to a number of factors, including the results of our operations; our financial condition; cash requirements; tax considerations; future prospects; legal restrictions; contractual restrictions in credit agreements; limitations imposed by the government of Peru, Mexico and other countries where we have significant operations; and other factors that our Board of Directors may deem relevant. Depending on our capital investment program and global economic conditions, it is possible that future dividend distributions will be lower than the levels seen in recent years.

Our ability to recognize the benefits of deferred tax assets is dependent on future cash flows and taxable income.

Through 2023, the Company recognized the expected future tax benefit from deferred tax assets when the tax benefit was considered more likely than not to be realized. A valuation allowance is provided for those deferred tax assets for which management believes that the related benefits will not be realized. Determining the amount of the valuation allowance and assessing the recoverability of deferred tax assets requires management to make significant estimates related to expectations of future taxable income and existing tax laws. There can be no assurance that the Company will be able to recognize the expected future benefits of deferred tax assets; this inability could have a material adverse effect on the Company's financial results.

Operational risks

Our actual reserves and resources may not conform to our current estimates of our ore deposits and our long-term viability depends on our ability to replenish mineral reserves and resources.

There is a degree of uncertainty attributable to the estimation of reserves and resources. Until reserves are actually mined and processed, the quantity of ore and grades must be considered estimates only. We disclose proven and probable reserves and measured, indicated and inferred resources, each as defined in Item 1300 of Regulation S-K ("S-K 1300"). Additionally, the scientific and technical information concerning our mineral projects in this Form 10-K has been reviewed and approved by third-party "qualified persons" pursuant to S-K 1300. We may be required in the future to revise our reserves and resources estimates based on our actual production. We cannot assure you that our actual reserves and resources conform to geological, metallurgical or other expectations or that the estimated volume and grade of ore will be recovered. Market prices of our metals, increased production costs, reduced recovery rates, short-term operating factors, royalty charges and other factors may render proven and probable reserves uneconomic to exploit and may result in revisions of reserves data from time to time. Reserves data may not be indicative of future results of operations. Our reserves are depleted as we mine. We depend on our ability to replenish our mineral reserves and resources for our long-term viability. We use several strategies to replenish and increase our mineral reserves and resources, including exploration and investment in properties located near our existing mine sites and investing in technology that could extend the life of a mine by allowing us to cost-effectively process ore types that were previously considered uneconomic. Acquisitions may also contribute to increasing mineral reserves and resources, and we review potential acquisition opportunities on a regular basis. However, we cannot assure you that we will be able to continue with our strategy to replenish reserves indefinitely.

Our operations are subject to risks, some of which are not insurable.

The business of mining, smelting and refining copper, zinc and other metals is subject to a number of risks and hazards, including industrial accidents, labor disputes, unusual or unexpected geological conditions, changes in the regulatory environment, environmental hazards, weather and other natural phenomena, such as seismic activity, wall failures and rock slides in our open-pit mines, structural collapses of our underground mines or tailings impoundments, and lower than expected ore grades or recovery rates. The Company's operations may also be affected by mudslides and flash floods caused by torrential rains.

Such occurrences could result in damage to, or destruction of, mining operations resulting in monetary losses and possible legal liability. In particular, surface and underground mining and related processing activities present inherent risks of injury to personnel, loss of life and damage to equipment.

The waste rock and tailings produced in our mining operations represent our largest volume of waste material. Managing the volume of waste rock and tailings presents significant environmental, safety and engineering challenges and risks. We maintain large tailings impoundments containing sand of ground rock, moistened with water, which are effectively large dams that must be engineered, built and monitored to assure structural stability and avoid leakages or structural collapse. Defects, errors and failures at tailings dams and in other impoundments at any of our mining operations could cause severe property and environmental damage and loss of life. The importance of careful design, management and monitoring of large impoundments was emphasized in recent years by large scale tailings dam failures at unaffiliated mines, which caused extensive property and environmental damage and resulted in the loss of life. For more information regarding our tailing dams, please see Item 2 "Properties—Slope Stability—Tailing Dams."

During recent years, social and political demands has caused violence which could result in damage to, or destruction of, mining operations resulting in monetary losses and possible legal liability.

In our proactive approach to managing operational sustainability risks, we have implemented the Critical Risk Registry, aligning with the International Council on Mining and Metals (ICMM) Good Practice Guide on Health and Safety Critical Control Management. This robust system addresses both environmental and health and safety risks, ensuring compliance with best practices. By focusing on critical controls through this approach, we optimize resource allocation and bolster our efforts in sustainability risk management.

To enhance the monitoring of controls, we recently introduced a comprehensive company procedure and digital tool. This platform facilitates detailed oversight by establishing clear roles, responsibilities, timelines, reminders, and notifications. It streamlines the chain of command, enabling the prompt identification of deviations from established protocols and facilitating the implementation of corrective actions along with subsequent monitoring. Through the digital tool, we can measure, verify, and audit controls, promptly identifying instances of incorrect implementation or threshold breaches.

In addition, we maintain insurance against many of these and other risks, which under certain circumstances may not provide adequate coverage. Insurance against certain risks, including certain liabilities for environmental damage or hazards as a result of exploration and production, is not generally available to us or other companies within the mining industry. Nevertheless, recent environmental legal initiatives contemplate requirements for environmental damage insurance. If these regulations come into force, we will have to analyze the need to obtain said insurance. We do not have nor do we intend to obtain, political risk insurance. We cannot assure you that these and other uninsured events will not have an adverse effect on our business, properties, operating results, financial condition or prospects.

Changes in the demand level for our products and copper sales agreements could adversely affect our revenues.

Our financial results may be affected by fluctuations in demand for the refined, semi-refined metal products and concentrates we sell at both the industrial and consumer level, and may also be affected by changes in the global economy, including economic upturns and downturns of differing magnitudes. Changes in technology, industrial processes, concerns over weaknesses in the global economy and consumer habits may affect the level of demand to the extent that those increase or decrease the need for our metal products. Our revenues may also be adversely affected by events of force majeure that could have a negative impact on our sales agreements. These events include acts of nature, labor strikes, fires, floods, wars, transportation delays, government actions or other events that are beyond the control of the parties to the agreement.

However, the success of the energy transition is intrinsically linked to copper, our key product, critical for the production of technological solutions to the decrease the global greenhouse gas (GHG) emissions. Given copper's crucial role in electrification and the generation of clean energies, there exists an increasing expectation from both corporate entities and societal stakeholders that copper sourcing should emanate from entities committed to rigorous and responsible production practices.

This commitment has driven us to pledge certifications for all our copper production under international standards.

Interruptions of energy supply or increases in energy, fuel and gas costs, shortages of water supply, critical parts, equipment, skilled labor and other production costs may adversely affect our results of operations.

We require substantial amounts of fuel oil, electricity, water and other resources for our operations. Fuel, gas and power costs constituted approximately 29% of our total production cost in 2023, 34% in 2022 and 31% in 2021. We rely upon third parties for our supply of the energy resources consumed in our operations. Therefore prices for and availability of energy resources may be subject to change or curtailment due to new laws or regulations; imposition of new taxes or tariffs; interruptions in production by suppliers; and variations in global prices or market conditions, among other factors. Regarding water consumption, although each of our operations currently has sufficient water supplies to cover its operational demands, the loss of some or all water rights for any of our mines or operations, in whole or in part, shortages relative to the water to which we have rights or a lack of additional back-up water supplies at an acceptable cost, or at all, could require us to curtail or shut down mining production and could prevent us from pursuing expansion opportunities, thereby increasing and/or accelerating costs or foregoing profitable operations. In addition, future shortages of critical parts, equipment and skilled labor could adversely affect our operations and development projects.

Potential delays in the transport of products to customers and possible shortages of critical parts, equipment, and other resources may adversely affect our results of operations.

Current challenges in the global shipping industry have led to congestion in ports, a shortage in containers, and a lack of space on ships. Because of this situation, the Company faces a risk of potential supply chain disruptions that may adversely affect our operations and development projects. To address this potential issue, we have increased our safety stock levels and adjusted our replacement algorithms. Additionally, our revenues and collections may also be adversely affected by transportation delays, which could negatively impact our sales agreements. Although the recovery of the global economy is causing the aforementioned issues at ports and in the shipping industry, this situation is expected to be resolved gradually and to return to normal levels in the short term. However, if these issues continue in the long term, our supply chain and our sales flow could be adversely impacted.

Our Company is subject to health and safety laws that may restrict our operations, result in operational delays or increase our operating costs and adversely affect our financial results of operations.

We are required to comply with occupational health and safety laws and regulations in Peru and Mexico where our operations are subject to periodic inspections by the relevant governmental authorities. These laws and regulations govern, among others, health and safety workplace conditions, including high risk labor and the handling, storage and disposal of chemical and other hazardous substances. We believe our operations comply in all material respects with applicable health and safety laws and regulations in the countries in which we operate. Compliance with existing and new laws and regulations that may be applicable to us in the future could increase our operating costs and adversely affect our financial results of operations and cash flows.

Our objective is to preserve the health and safety of our workforce by implementing occupational health and training programs and safety incentives at our operations that meet all regulatory requirements and enhance employee performance. Despite the Company's efforts, we are not exempt from accidents. These are reported to Mexican and Peruvian authorities as required. Regarding non-fatal accidents, during the last four years, the Company's Dart rate (rate to measure workplace injuries severe enough to warrant Day Away from work, job Restrictions and/or job Transfers) was much lower than the MSHA Dart rate (the MSHA Dart rate is published by the U.S.'s Mine Safety and Health Administration, and is used as an industry benchmark).

In 2023, we recorded five fatalities (two contractors and three employees). In 2022, we recorded four fatalities (two contractors and two employees) and in 2021, three employee fatalities were registered. The amounts paid to the Mexican and Peruvian authorities for reportable accidents had no adverse effects on our results. Under Mexican and Peruvian law penalties and fines for safety violations are generally monetary, but in certain cases may lead to the temporary or permanent shutdown of the affected facility or the suspension or revocation of permits or licenses. Additionally, violations of security and safety laws and regulations at our Peruvian operations can be considered criminal activity and punishable by a sentence of up to 10 years of prison.

Our metals exploration efforts are highly speculative in nature and may be unsuccessful.

Metals exploration is highly speculative in nature because it involves many risks and is frequently unsuccessful. Once mineralization is discovered, it may take a number of years from the initial phases of drilling until production is possible. During such time the economic feasibility of production may change. Substantial expenditures must be made to determine proven and probable mineral reserves, which requires drilling to establish the metallurgical processes that will be needed to extract the metals from the ore and, in the case of new properties, to construct mining and processing facilities. We cannot assure you that our exploration programs will result in the expansion or replacement of current production with new proven and probable mineral reserves.

Development projects have no operating history upon which we can base estimates of proven and probable mineral reserves and estimates of future cash operating costs. Estimates are, to a large extent, based upon the interpretation of geological data obtained from drill holes and other sampling techniques and on pre-feasibility or feasibility studies that generate estimates of cash operating costs based upon anticipated tonnage and grades of ore to be mined and processed; the configuration of the ore body; expected recovery rates of the mineral from the ore; comparable facility and equipment operating costs; anticipated climatic conditions; and other factors. As a result, actual cash operating costs and economic returns based upon the development of proven and probable mineral reserves may differ significantly from those originally estimated. Moreover, significant decreases in actual or expected prices may mean reserves, once found, will be uneconomical to produce.

We may be adversely affected by challenges relating to slope stability.

Our open-pit mines get deeper as we mine them, presenting certain geotechnical challenges including the possibility of slope failure. If we are required to decrease pit slope angles or provide additional road access to prevent such a failure, our stated reserves could be negatively affected. Furthermore, hydrological conditions relating to pit slopes, renewal of material displaced by slope failures and increased stripping requirements could also negatively affect our stated reserves. We take action to maintain slope stability, but we cannot assure you that we will not have to take additional action in the future or that our actions taken to date will be sufficient. Unexpected slope failures, or additional requirements to prevent slope failures, may negatively affect our results of operations and financial condition and may diminish our stated mineral reserves.

We may be adversely affected by labor disputes.

In the last several years, we have experienced several strikes and other labor disruptions that have had an adverse impact on our operations and operating results. As of December 31, 2023, unions represented approximately 61% of our workforce in Peru and 70% of our workforce in Mexico. Currently, we have labor agreements in effect for our Mexican and Peruvian operations.

Our Taxco mine in Mexico has been on strike since July 2007. It is expected that operations at this mine will remain suspended until these labor issues are resolved. In addition, workers at the San Martin mine were on strike from July 2007 to August 2018. After eleven years of an illegal stoppage, we resumed control of the San Martin mine in August 2018. During this period, the San Martin facilities deteriorated and we undertook a major renovation to restart operations during the second quarter of 2019 for a total expense of approximately $90.5 million. For additional information, see Item 2, "Properties—Mexican IMMSA Unit—San Martin and Taxco", and Note 13, "Commitments and Contingencies—Labor matters", to the consolidated financial statements.

We cannot assure you when the pending strike will be settled, or that in the future we will not experience strikes or other labor related work stoppages that could have a material adverse effect on our financial condition and results of operations.

Our mining operations or metal production projects may be subject to stoppage and additional costs due to community actions and other factors.

In recent years, global mining activity has been pressured by neighboring communities for financial commitments to fund social benefit programs and infrastructure improvements. Our projects in Peru are not exempt from these demands. Our Tia Maria project in Peru has experienced delays while trying to resolve issues with community groups.

Seemingly in the Peruvian mining environment, it is becoming crucial to obtain acceptance from local communities for projects in their areas, which may entail compliance with the demands for substantial investments in community infrastructure development and modernization to proceed with the mining projects.
We are confident that we will move forward with the Tia Maria project. However, we cannot assure you when and that we will incur no additional costs for community infrastructure development and modernization to obtain approval from the communities for current or future mining projects.

In 2022, violent protests by some of communities adjoining the Cuajone mine negatively affected the mine's operations. In February 2022, the railway between Cuajone and Ilo was blocked and Viña Blanca water reservoir facilities were seized, cutting off the water supply to some residents of the Cuajone mining camp.

After numerous efforts to restore order through dialogue by the authorities, the Peruvian government declared a state of emergency in the Moquegua region in April 2022 and ordered the protestors to return the Viña Blanca facilities and the railway to the Company. After an evaluation of the damage, the Company resumed production at the Cuajone mining unit and the facilities are currently operating at full capacity.

On April 30, 2022, the Peruvian government issued a Ministerial Resolution to set up a three-party-dialogue-table with members of the community, government and Company officials executives to better understand the concerns of all parties. Several meetings have been held, the last meeting was in June 2023 and it is expected to have a new meeting in March 2024. The Company has proposed plans to invest in social programs that address the needs voiced by the communities and has indicated interest in purchasing land near the Cuajone operations to establish a buffer zone to protect facilities and production in the future. The Community insist to receive a economic compensation.

However, we cannot guarantee that any additional incidents will not arise or assert that any future incidents that occur will imply no adverse impacts for our facilities, the results of our operations or our financial position.

In addition, several collective action lawsuits and civil action lawsuits have been filed against the Company in Mexico through both federal courts and state courts in Sonora. Several constitutional lawsuits have also been filed against various government authorities and the Company. These lawsuits are seeking damages and demand remediation actions to restore the environment. The Company believes that the lawsuits are without merit and that it is not possible to determine the extent of the damages sought. Moreover, the Company cannot offer any assurances that the outcome of these lawsuits will not have adverse effects on the Company.

Environmental regulation, climate change and other regulations may increase our costs of doing business, restrict our operations or result in operational delays.

Our exploration, mining, milling, smelting and refining activities are subject to a number of Peruvian and Mexican laws and regulations, including environmental laws and regulations, and certain industry technical standards. Additional matters subject to regulation include, but are not limited to, concession fees, transportation, production, water use and discharge, power use and generation, use and storage of explosives, surface rights, housing and other facilities for workers, reclamation, taxation, labor standards, mine safety and occupational health. As the world and the countries in which we operate become more conscious of the importance of environmental aspects, we expect additional environmental laws and regulations will be enacted over time.

Please refer to Note 13 “Commitments and Contingencies—Environmental matters” of our financial statements for further information on this subject.

The potential physical impacts of climate change on our operations are highly uncertain and depend on the geographic location of our facilities. These may include droughts and the associated changes in rainfall patterns, water shortages, changes in sea levels, and high temperatures. These effects may adversely impact the cost, production and financial performance of our operations. In addition, substantial weather-related conditions could impact our relationships and arrangements with our major customers and suppliers by materially affecting the normal flow of our transactions, especially seaborne transactions. For example, severe weather events could damage transportation infrastructures and lead to interruptions or delays in the supply of key inputs and raw materials or sold products.

We monitor fluctuations in weather patterns in the areas where we operate. Aligned with government efforts, we measure our carbon footprint and have updated our climate strategy to reduce the contributions to greenhouse gas emissions of our operations. We also evaluate our water demand, as weather changes may result in increases or decreases that affect our needs.

Efforts to comply with more stringent environmental protection programs in Peru and Mexico and with relevant trade agreements could impose constraints on operations and imply additional costs. Consequently, we may need to make significant investments in this regard in the future. We cannot assure you that current or future legislative, regulatory or trade developments will not have adverse effects on our business, properties, operating results, financial condition or prospects.

Our mining and metal production projects may expose us to new risks.

Our Company is in the midst of a large expansion program, which may expose us to additional risks in terms of industrial accidents. While we believe our contractors employ safety standards and other procedures to ensure these projects are completed with proper governance, it is possible that increased activity at our sites could cause environmental accidents or endanger human life.

Our business depends upon information technology systems that may be adversely affected by disruptions, damage, cyber-attacks, failure and risks associated with implementation and integration.

Our operations depend upon information technology systems that may be subject to disruption, damage or failure from different sources, including, without limitation, the installation of malicious software, computer viruses, security breaches, cyber-attacks and defects in design. In recent years, cybersecurity incidents have increased in frequency and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and the corruption of data. We have taken appropriate preventive measures to mitigate potential risks by implementing an information security management system that conducts frequent monitoring; which ensures the application of controls that are frequently reviewed and tested.

In March 2021, we experienced a Ransomware cyber-attack, which was carried out by individual hackers. This cyber-attack encrypted a total of 420 servers and units of personal equipment. However, due to the quick response of our

Information Technology team, our Enterprise Resource Planning software was not affected by the aforementioned attack.

Given the unpredictability of the timing, nature and scope of information technology disruptions, we could potentially be subject to manipulation or improper use of our systems and networks, operational delays, situations that compromise confidential or otherwise protected information, destruction or corruption of data, security breaches, or financial losses from remedial actions, any of which could have a material adverse effect on the cash flows, competitive position, financial condition or results of our operations.

Our business is exposed to certain risks associated with artificial intelligence ("AI") and other new technologies.

Information and operational technology systems continue to evolve and, in order to remain competitive, we must implement new technologies in a timely, cost-effective and efficient manner. For example, nowadays a major number of software, hardware, services and in general technological solutions vendors are including AI components for a very wide range of applications; and we may find improvement opportunities by developing and applying AI in several of our business and operational processes. These applications may become important in our operations over time. Our ability to implement new technologies, including AI, may affect our competitiveness and, consequently, our results of operations.

In addition, we may utilize AI and other new technologies in software provided by third parties to enhance our capabilities in producing copper, improving business processes and responding to threats to our technology platforms. The use of AI when lacking of a strategy and a governance model may increase our exposure to cybersecurity risks and additional risks relating to the protection of data.

Other risks

Applicable law restricts the payment of dividends from our Minera Mexico subsidiary to us.

Our subsidiary, Minera Mexico, is a Mexican company and, as such, may pay dividends only out of net income that has been approved by shareholders. Shareholders must also approve the actual dividend payment, after mandatory legal reserves have been created and losses for prior fiscal years have been satisfied. These legal constraints may limit the ability of Minera Mexico to pay dividends to us, which in turn, may have an impact on our ability to pay stockholder dividends or to service debt.

Global and local market conditions, including the high competitiveness in the copper mining industry, may adversely affect our profitability.

Our industry is cyclical in nature and fluctuates with economic cycles. Therefore, we are subject to the risks arising from adverse changes in domestic and global economic and political conditions, such as a potential global recession, Russia's invasion of Ukraine, lower levels of consumer and corporate confidence, lower business investment, higher unemployment, reduced income and asset values in many areas, currency volatility and limited availability of credit and access to capital. Additionally, we face competition from other copper mining and producing companies around the world. Along these lines, significant competition exists to acquire properties that produce or are capable of producing copper and other metals, and some of our main competitors have consolidated, which makes them more diversified than we are.

We cannot assure you that changes in market conditions, including competition, will not adversely affect our ability to compete in the future on the basis of price or other factors with companies that may benefit from future favorable trading or other arrangements.

We are controlled by Grupo Mexico, which exercises control over our affairs and policies and whose interests may be different from yours.

As of December 31, 2023, Grupo Mexico owned indirectly 88.9% of our capital stock. Some of our officers and directors, and those of Minera Mexico, are also directors and/or officers of Grupo Mexico and/or of its affiliates. We cannot assure you that the interests of Grupo Mexico will not conflict with those of our minority stockholders. Grupo Mexico has the ability to determine the outcome of substantially all matters submitted for a vote to our stockholders and thus exercises control over our business policies and affairs, including the following:

- the composition of our Board of Directors and, as a result, any determinations of our Board concerning our business direction and policy, including the appointment and removal of our officers;
- determinations concerning mergers and other business combinations, including those that may result in a change of control;
- whether dividends are paid or other distributions are made and the amount of any dividends or other distributions;
- sales and dispositions of our assets;
- the amount of debt financing that we incur; and
- the approval of capital projects.

We cannot assure you that an increase in the financial obligations of Grupo Mexico or AMC, which may be attributable to financing or to other reasons, will not result in a scenario in which our parent corporations obtain loans, increase dividends or receive other funding from us.

In addition, we have in the past engaged in, and expect to continue engaging in, transactions with Grupo Mexico and its other affiliates that are related party transactions and may present conflicts of interest. For additional information regarding the share ownership of, and our relationships with, Grupo Mexico and its affiliates, see Note 18 “Related Party Transactions” to the consolidated financial statements.

Unanticipated litigation or negative developments in pending litigation or with respect to other contingencies may adversely affect our financial condition and results of operations.

We are currently, and may in the future become, subject to litigation, arbitration or other legal proceedings with other parties. If rulings are against the Company, these legal proceedings, or others that could be brought against us in the future, may adversely affect our financial position or prospects. For further detailed discussion of pending litigation, please see Note 13 “Commitment and Contingencies—Litigation matters” of the consolidated financial statements.

Developments in the United States, Europe and emerging market countries may adversely affect the Company business, our common stock price and our debt securities.

The business, market value and trading price of securities of companies with significant operations in Peru and Mexico is, to varying degrees, affected by the economic policies and market conditions in the United States, Europe and emerging market countries. Although economic policies and conditions in these countries may significantly differ from policies and conditions in Peru or Mexico, the market’s reactions to developments in any of these countries may adversely affect the Company’s business causing a fluctuation on the market value or the trading price of our securities, including debt securities.

In addition, in recent years economic conditions in Mexico have shown to have an increased correlation to U.S. economic conditions. Therefore, changes in economic policies and conditions in the United States could also have a significant adverse effect on Mexican economic conditions, affecting our business and the price of our common stock or debt securities. In 2017, the United States, Canada and Mexico began a discussion to update the North American Free Trade Agreement (“NAFTA”). In September 2018, the three countries reached an agreement on a new trade deal, which will be known as the United States—Mexico—Canada Agreement (“USMCA”). In June 2019, Mexico’s senate ratified the UMSCA. In December 2019, the three countries agreed to a new review of its regional trade pact, also concluding that the USMCA would replace NAFTA. On January 29, 2020, the President of the U.S. ratified and signed the USMCA into law. On July 1, 2020, the USMCA came into effect.

Although recent developments in the U.S. have reduced political instability, lifted consumer confidence and boosted the U.S. stock market, it is unclear whether the U.S. government will enact new policies towards China, that will reduce or eliminate trade tensions between the two countries. Despite being the epicenter of the COVID-19 pandemic, China began 2021 with a relatively optimistic economic growth outlook and represents approximately 50% of the world’s copper demand. A slowing in China's economic growth, coupled with continued trade tensions with the U.S. could result in lower copper prices which could have a material adverse impact on our business and results of operations. The adoption and expansion of trade restrictions; changes in the current U.S.-China relations, including on-going trade tensions; or other changes in governmental policies related to taxes, tariffs, trade agreements or any other policies are difficult to predict, and could adversely affect the demand for our products, our costs, our customers, our suppliers and the U.S. economy, and consequently could have a material adverse effect on our cash flows, competitive position, financial condition or results of operations.

We cannot assure you that the market value or trading prices of our common stock and debt securities, will not be adversely affected by events in the United States or elsewhere, including emerging market countries.

Other international risks

We are a company with substantial assets located outside of the United States. We conduct production operations in Peru and Mexico and exploration activities in these countries as well as in Chile, Argentina and Ecuador. Accordingly, in addition to the usual risks associated with conducting business in foreign countries, our business may be adversely affected by political, economic and social uncertainties in each of these countries. Such risks include possible expropriation or nationalization of property, confiscatory taxes or royalties, possible foreign exchange controls, changes in the national policy toward foreign investors, extreme environmental standards, etc.

Our international operations must comply with the U.S. Foreign Corrupt Practices Act and similar anti-corruption and anti-bribery laws in the other jurisdictions in which we operate. There has been a substantial increase in global enforcement of these laws in recent years. As such, our corporate policies and processes may not prevent or detect all potential breaches of the law. Any violation of those laws could result in significant criminal or civil fines and penalties, litigation, and loss of operating licenses or permits, and may damage our reputation, which could have a material adverse effect on our cash flows, results of operations and financial condition.

Our insurance does not cover most losses caused by the aforementioned risks. Consequently, our production, development and exploration activities in these countries could be substantially affected by factors out of our control, some of which could materially and adversely affect our financial position or results of operations.

We may be adversely affected by natural disasters, pandemics (including the recent coronavirus outbreak) and other catastrophic events, and by man-made problems such as terrorism, which could disrupt our business operations and our business continuity. Furthermore, disaster recovery plans may not adequately protect us from a serious disaster.

Natural disasters, adverse weather conditions, floods, pandemics (including the recent coronavirus outbreak), acts of terrorism and other catastrophic or geo-political events may cause damage or disruption to our operations, international commerce and the global economy, which could have an adverse effect on our business, operating results, and financial condition.

Risks Associated with Doing Business in Peru and Mexico

There is uncertainty as to the termination and renewal of our mining concessions.

Under the laws of Peru and Mexico, mineral resources belong to the state and government. Therefore, concessions are required in both countries to explore or exploit mineral reserves. In Peru, our mineral rights derive from concessions from Ministry of Energy and Mines ("MINEM") for our exploration, exploitation, extraction and/or production operations. In Mexico, our mineral rights derive from concessions granted, on a discretionary basis, by the Ministry of Economy, pursuant to Mexican mining law and regulations thereunder.

Mining concessions in both Peru and Mexico may be terminated if the obligations of the concessioner are not satisfied. In Peru, we are obligated to pay certain fees for our mining concession. In Mexico, we are obligated, among other things, to explore or exploit the relevant concession, to pay any relevant fees, to comply with all environmental and safety standards, to provide information to the Ministry of Economy and to allow inspections by the Ministry of Economy. Any termination or unfavorable modification of the terms of one or more of our concessions, or failure to obtain renewals of such concessions subject to renewal or extensions, could have a material adverse effect on our financial condition and prospects.

Peruvian economic and political conditions, as well as illegal mining activities may have an adverse impact on our business.

A significant portion of our operations is conducted in Peru. Accordingly, our business, financial condition or results of operations could be affected by changes in the political, regulatory or economic developments in the country and changes in the economic or other policies of the Peruvian government. Over the past several decades, Peru has had a succession of regimes with differing political agendas and policies. In the twentieth century, past governments have frequently intervened in the nation's economy and social structure. Among other actions, past governments have imposed controls on prices, exchange rates and local and foreign investments; placed limitations on imports; restricted companies' abilities to dismiss employees and have prohibited the remittance of profits to foreign investors.

Between 2019 and 2023, Peru experienced heightened political instability in a context marked by ongoing investigations into allegations of corruption and confrontation on the political front. Significant political turmoil in Peru led to a shutdown of the Peruvian Congress and the removal of three Peruvian presidents.

On December 7, 2022, the Peruvian congress invoked its powers under the Constitution to remove the current President from office. The Vice President immediately assumed the presidency, which has led to considerable turmoil, particularly in the south of Peru, where acts of vandalism and violence escalated. Roadblocks were scattered throughout the country, which negatively affected the normal course of business in various regions. Fortunately, our operations were not impacted. This climate of violence gradually subsided during the year and was replaced by a general concern about the economic recession and personal insecurity.

Because we have significant operations in Peru, we cannot provide any assurance that political developments and economic conditions, including any changes to economic policies or the adoption of other reforms proposed by existing or future administrations in Peru and/or other factors will have no material adverse effects on market conditions, the prices of our securities, our ability to obtain financing, our results of operations, or our financial condition.

Mexican economic and political conditions, as well as drug-related violence, may have an adverse impact on our business.

The Mexican economy is highly sensitive to economic developments in the United States, mainly because of its high level of exports to this market. Other risks in Mexico are increases in taxes on the mining sector and higher royalties, such as those enacted in 2013. As has occurred in other metal producing countries, the mining industry may be perceived as a source of additional fiscal revenue.

In addition, public safety organizations in Mexico are under significant stress, as a result of drug-related violence. This situation creates potential risks, particularly for transportation of minerals and finished products, which may affect a small portion of our production. Drug-related violence has had a limited impact on our operations, as it has tended to concentrate outside of our areas of production. The potential risks to our operations might increase if the violence spreads to our areas of production.

On May 09, 2023, Mexican Congress approved several changes effective immediately to the Mining Law, the National Waters Law, the General Law of Ecological Balance and Environmental Protection and the General Law for the Prevention and Integral Management of Waste. The main aspects of the Companys´s business that will be affected by the legislation are the terms for mining concessions from 50 to 30 years; new conditions on water use; provision of guarantees for site closure and remediation; a new 5% contribution of net earnings to indigenous communities for new projects and significant changes to exploration rules.

Down the line, the aforementioned changes could trigger amendment, additions and repeals of provisions of a number of laws, including the Mining Law, the National Water Law, the General Law for Ecological Balance and Environmental Protection and the General Law for the Prevention and Management of Mine Waste.

Although the Company believes that there will be no material impact on the Company's current operations or financial situation as a result of these changes, we cannot assure you that future developments in these laws will not affect our business.

Because we have significant operations in Mexico, we cannot provide any assurance that political developments and economic conditions, including any changes to economic policies or the adoption of other reforms proposed by existing or future administrations in Mexico, or the advent of drug-related violence in the country, will have no material adverse effect on market conditions, the prices of our securities, our ability to obtain financing, our results of operations or our financial condition.

Peruvian inflation and fluctuations in the sol exchange rate may adversely affect our financial condition and results of operations.

Although the U.S. dollar is our functional currency and our revenues are primarily denominated in U.S. dollars, as we operate in Peru, portions of our operating costs are denominated in Peruvian soles. Accordingly, when inflation or deflation in Peru is not offset by a change in the exchange rate of the sol, our financial position, results of operations, cash flows and the market price of our common stock could be affected.

Inflation in Peru in 2023, 2022 and 2021 was 3.2%, 8.5% and 6.4%, respectively. In 2023, the value of the sol appreciated by 2.8% against the U.S. dollar, versus a 4.5% appreciation in 2022 and a 10.3% depreciation in 2021. Although the Peruvian government’s economic policy reduced inflation and the economy has experienced significant growth in the past decade, we cannot assure you that inflation will not increase from its current level or that such economic growth will continue in the future at similar rates or at all. Additionally, a global financial economic crisis could negatively affect the Peruvian economy.

To manage the volatility related to the risk of currency rate fluctuations, we may enter into forward exchange contracts. We cannot assure you, however, that currency fluctuations will not have an impact on our financial condition and results of operations.

Mexican inflation, restrictive exchange control policies and fluctuations in the peso exchange rate may adversely affect our financial condition and results of operations.

Although all of our Mexican operations’ sales of metals are priced and invoiced in U.S. dollars, a substantial portion of its costs are denominated in pesos. Accordingly, when inflation in Mexico increases without a corresponding depreciation of the peso, the net income generated by our Mexican operations is adversely affected. Inflation in Mexico was 4.7% in 2023, 7.8% in 2022 and 7.4% in 2021. The value of the peso appreciated by 12.7% against the U.S. dollar in 2023, versus a 5.9% apreciation in 2022 and a 3.2% of depreciation in 2021. The peso has been subject in the past to significant volatility, which may not have been proportionate to the inflation rate and may not be proportionate to the inflation rate in the future.

Currently, the Mexican government does not restrict the ability of Mexican companies or individuals to convert pesos into dollars or other currencies. While we do not expect the Mexican government to impose any restrictions or exchange control policies in the future, it is an area we closely monitor. We cannot assure you the Mexican government will maintain its current policies with regard to the peso or that the peso’s value will not fluctuate significantly in the future. The imposition of exchange control policies could impair Minera Mexico’s ability to obtain imported goods and to meet its U.S. dollar-denominated obligations and could have an adverse effect on our business and financial condition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

Risk Management and Strategy

Our Cybersecurity Approach and Integration

Technology is a fundamental element in our Company's permanent engagement with innovation and continuous improvement in the area of risk management and cybersecurity management strategy. As cybersecurity threats are becoming increasingly sophisticated and rapidly evolving, we have implemented processes for overseeing and identifying material risks from potential cybersecurity threats. Cyber risk management is a core component of our Company's governance structure, and our cybersecurity processes are integrated into the Company's overall risk management system and processes. Our primary focus is information security.

Our Information Technology governance framework is composed of policies, procedures, standards, and methodologies to identify and manage risks among other aspects, which are governed by reference frameworks and best practices.

SCC's information security strategy is led by the Technology and Information Security Director ("TISD"), with review and support from the Chief Information Security Officer ("CISO") of Grupo Mexico. The main purpose of SCC's information security strategy is to identify and manage technological risks that could affect the Company's objectives and to strengthen our Company's resilience. As part of management's oversight of cybersecurity, the information security strategy is presented on an annual basis to SCC's Audit Committee of the Board of Directors, which reports to the full Board of Directors, with additional review and oversight by AMC's Risks Committee. In addition, we conduct a quarterly follow-up of our cybersecurity strategy's execution progress and any significant cybersecurity incidents are rigorously monitored.

SCC's Information Technology Governance Framework includes:

a. **Procedures for Information Security Risk Management and Information Security Risk Management Methodology** based on the ISO 27005 *Information security, cybersecurity and privacy protection* standard and *Control Objectives for Information and Related Technology* ("COBIT"), which establishes criteria to identify, analyze, evaluate, treat and accept risks to the Company's technology infrastructure, including cybersecurity risks.

   Our Risk Management Methodology is applied year-round and covers all of the Company's IT departments and processes. The results are used to generate and update risk and control matrices.

   Cybersecurity risks are documented on the Information Security risks and controls matrices. Key risks and their treatment are tracked via these matrices as part of the Information Security processes, which include Vulnerability Management, Patch Management on Information Technology devices, Hardening, Information Security Incident Response, Information Security Culture Development and Cyber Threat Intelligence.

   The IT risks and controls matrices are reviewed, authorized, and released annually by the Technology and Information Security Director. The matrices are then submitted to SCC's Internal Audit department to review and evaluate controls, in terms of design, implementation, and operational effectiveness.

b. **Information Security Incident Management Procedure based on the National Institute of Standards and Technology ("NIST") Cybersecurity Framework**
   We utilize the Cybersecurity Framework of the NIST to outline the activities and authorize personnel to handle information security and cybersecurity incident responses within the Company. This procedure outlines the phases of the incident response process, including detection and analysis; containment and intelligence development; eradication and remediation; recovery; and post-incident activities. Assessments include the

qualitative and quantitative factors that are essential for determining materiality on information security and cybersecurity incidents.

In instances where a cybersecurity incident is classified and declared as material, our process is designed to meticulously document in a comprehensive report, all critical details such as the date and time of identification of the incident, a concise description of the incident's nature and scope, the impact of the incident on the Company's operations, and its current status (remediated or is undergoing remediation), in order to be clearly informed by the Company.

Information security and cybersecurity incidents undergo thorough review and assessment by the Information Security Subdirector, in collaboration with cybersecurity specialists and experts. Those incidents classified as material are reported to the Technology and Information Security Director, relevant Business Directors, and the Board's Audit Committee, with additional review by AMC's Productivity and Risk Committees. . Simultaneously, these processes allow cybersecurity incidents classified as "material" to be promptly disclosed to the SEC in a Form 8-K report within 4 business days of the Company's determination that such incident is in fact a "material" incident.

Oversight of Third-Party Service Providers

Security Assessment Process for IT Service Providers

Our Security Assessment Process for IT Service Providers is based on the ISO 27001 *Information security, cybersecurity, and privacy protection* standard. This standard's guidelines ensure that service providers design and implement procedures and notification mechanisms for incident response management within their technological infrastructure. All contracts with IT service providers must stipulate the service levels required by the Company.

Regular meetings are conducted with IT service providers to assess compliance with contracted services, which includes a report on detected information security and cybersecurity incidents, activities for their remediation, and findings and insights from previous reviews and improvements.

Engagement with External Experts

The Company engages top-tier external cyber security firms as needed and leverage their expertise. This is part of our ongoing effort to evaluate and enhance our cybersecurity program. The information security strategy includes assessments conducted by third parties and the engagement of specialized services for specific tasks, including:

- **a. Internal and External Penetration Testing of SCC's Technology Infrastructure:** This service is contracted at least annually to identify and remediate vulnerabilities that may exist at the infrastructure and critical operation systems levels.
- **b. Cybersecurity Organizational Maturity Assessment:** The objective of this service is to understand the level of risk and maturity of the Company's cybersecurity controls (Cybersecurity Assessment). The results of Cybersecurity Assessments are used to design and implement work plans.

Disclosure of Management's Responsibilities

Technology and Information Security Director and Information Security Subdirector

Our management possesses significant expertise in the assessment and management of cybersecurity risks. TISD, and the Information Security Subdirector ("ISD"), has extensive experience in the areas of information technology, information security risk management, and cybersecurity. Specific to cybersecurity, the TISD and the ISD have the expertise to provide insights into the nature of cyber threats, the Company's readiness, and actions that should be taken to mitigate such risks.

The TISD, under the direction of the Company's Chief Executive Officer, is responsible for overseeing the Company's information technology systems, digital capabilities, and cybersecurity practices. The current TISD has more than 25 years of IT experience and has spent 15+ years overseeing cybersecurity strategy, implementation, and operation. Additionally, he holds a Master's degree in IT Management and a Master's Degree in Business Administration.

The ISD, under the direction of the TISD, is responsible for overseeing the organization's cybersecurity and promoting a security-centric culture throughout our operations. The ISD is at the forefront of enhancing our cybersecurity framework and strengthening the overall cybersecurity program. Additionally, the ISD oversees the cyber risk management function, which identifies cybersecurity threats and assesses cybersecurity risks. Our ISD has more than 12 years of experience in the cybersecurity field and holds a Computer Engineering degree.

Risk Committee and Productivity Committee

The Company's holding company, AMC, has the following Committees, that convene several times a year:

- AMC Productivity Committee
- AMC Risks Committee

These committees provide support to the Company's Board of Directors with respect to information security and cybersecurity matters. In particular, the Risk Committee provides oversight of the Company's risk management, cybersecurity, and operational compliance activities, as well as a means of bringing risk issues to the attention of management.

Disclosure of the Board's Roles and Responsibilities

The Board of Directors is responsible for global oversight of our strategic and operational risks. The Audit Committee assists the Board of Directors with this responsibility by reviewing and discussing our risk assessment and risk management practices, including cybersecurity risks, with members of management. The Audit Committee, in turn, periodically reports its findings to the Board of Directors.

The Audit Committee

The Audit Committee is responsible for overseeing the Company's overall risk management strategies, including cybersecurity risks and disclosures. To keep the Audit Committee informed, our information security strategy is periodically presented to the Audit Committee, which reports to the full Board of Directors. Regular meetings are held to report to the Audit Committee, which include a risk assessment that highlights cybersecurity risks and cybersecurity risk mitigation actions. Additionally, the Audit Committee receives updates on significant incidents and cybersecurity risks that have been presented to or discussed with the Risk Committee.

The Internal Audit Department

The Internal Audit department of SCC operates in accordance to an Annual Plan that has been approved by the SCC Audit Committee. This plan encompasses the design and execution of system audits, including testing of cybersecurity controls and protocols. Recommendations from both Internal and External experts are thoroughly reviewed and evaluated and may be implemented if findings so merit.

Cybersecurity Incident Impact

While we identified no cybersecurity incidents, we have been subject to attempted cybersecurity threats and will likely continue to be subject to such attempts in the future. For additional discussions of risks from cybersecurity threats we face, see Item 1A "Risk Factors". There were no material cybersecurity incidents in 2023.

ITEM 2. PROPERTIES

SUMMARY DISCLOSURE

The following maps show the locations of our principal mines, smelting facilities, refineries and projects. We operate open-pit copper mines in the southern part of Peru—at Toquepala and Cuajone—and in Mexico, at La Caridad and Buenavista. We also own five underground mines, three out of which currently produce zinc, copper, silver and gold.

The below description of the Company's mining operations is qualified in its entirety by reference to the Technical Report Summaries included as exhibits to this report and incorporated by reference into this Item 2.

<u>EXTRACTION, SMELTING AND REFINING PROCESSES</u>

Our operations include open-pit and underground mining, concentrating, copper smelting, copper refining, copper rod production, solvent extraction/electrowinning ("SX-EW"), zinc refining, sulfuric acid production, molybdenum concentrate production and silver and gold refining. The extraction and production process are summarized below.

<u>OPEN-PIT MINING</u>

In an open-pit mine, the production process begins at the mine pit, where waste rock, leaching ore and copper ore are drilled and blasted and then loaded onto diesel-electric trucks by electric shovels. Waste is hauled to dump areas and leaching ore is hauled to leaching dumps. The ore to be milled is transported to the primary crushers.

<u>UNDERGROUND MINING</u>

In an underground mine, the production process begins at the stopes, where copper, zinc and lead veins are drilled and blasted and the ore is hauled to the underground crusher station. The crushed ore is then hoisted to the surface for processing.

<u>CONCENTRATING</u>

The copper ore above an established cut-off from the primary crusher or the copper, zinc and lead-bearing ore from the underground mines is transported to a concentrator plant where gyratory crushers break the ore into sizes no larger than three-quarter of an inch. The ore is then sent to a mill section where it is ground to the consistency of fine powder. The finely ground ore is mixed with water and chemical reagents and pumped as a slurry to the flotation separator, where it is mixed with certain chemicals. In the flotation separator, reagent solutions and air pumped into the flotation cells cause the minerals to separate from the waste rock and bubble to the surface where they are collected and dried.

If the bulk concentrated copper contains molybdenum, it is first processed in a molybdenum plant as described below under "Molybdenum Production." In addition, some of the concentrates contain economic amounts of gold and silver that are recovered in the smelters and refineries.

COPPER SMELTING

Copper concentrates are transported to a smelter, where they are smelted using a furnace, converter and anode furnace to produce either blister copper (which is in the form of cakes with air pockets) or copper anodes (which are cleaned of air pockets). At the smelter, the concentrates are mixed with flux (a chemical substance intentionally included for high temperature processing) and then sent to reverberatory furnaces producing copper matte and slag (a mixture of iron and other impurities). Copper matte contains approximately 65% copper. Copper matte is then sent to the converters, where the material is oxidized in two steps: (i) the iron sulfides in the matte are oxidized with silica, producing slag that is returned to the reverberatory furnaces, and (ii) the copper contained in the matte sulfides is then oxidized to produce copper that, after casting, is called blister copper, containing approximately 98% to 99% copper, or anodes, containing approximately 99.7% copper. Most of the blister and anode production is sent to the refinery and the remainder is sold to customers.

COPPER REFINING

Anodes are suspended in tanks with a solution containing water, sulfuric acid and copper sulfate. A weak electrical current is passed through the anodes and chemical solution and the dissolved copper is deposited on very thin starting sheets to produce copper cathodes containing approximately 99.99% copper. During this process, silver, gold and other metals (for example, palladium, platinum and selenium), along with other impurities, settle on the bottom of the tank (anodic muds). This anodic mud is processed at a precious metal plant where selenium, silver and gold are recovered.

COPPER ROD PLANT

To produce copper rod, copper cathodes are first smelted in a furnace and then dosed in a casting machine. The dosed copper is then extruded and passed through a cooling system that begins solidification of copper into a 60×50 millimeter copper bar. The resulting copper bar is gradually stretched in a rolling mill to achieve the desired diameter. The rolled bar is then cooled and sprayed with wax as a preservation agent and collected into a rod coil that is compacted and sent to market.

SOLVENT EXTRACTION/ELECTROWINNING ("SX-EW")

A complementary processing method is the leaching and SX-EW process. During the SX-EW process, low-grade sulfides ore and copper oxides are leached with sulfuric acid to allow copper content recovery. The acid and copper solution is then agitated with a solvent that contains chemical additives that attract copper ions. As the solvent is lighter than water, it floats to the surface carrying with it the copper content. The solvent is then separated using an acid solution, freeing the copper. The acid solution containing the copper is then moved to electrolytic extraction tanks to produce copper cathodes.

MOLYBDENUM PRODUCTION

Molybdenum is recovered from copper-molybdenum concentrates produced at the concentrator. The copper-molybdenum concentrate is first treated with a thickener until it becomes slurry. The slurry is then agitated in a chemical and water solution and pumped to the flotation separator. The separator creates a froth that carries molybdenum to the surface but not the copper mineral (which is later filtered to produce copper concentrates. The molybdenum froth is skimmed off, filtered and dried to produce molybdenum concentrates.

ZINC REFINING

Metallic zinc is produced through electrolysis using zinc concentrates and zinc oxides. Sulfur is eliminated from the concentrates by roasting and the zinc oxide is dissolved in sulfuric acid solution to eliminate solid impurities. The purified zinc sulfide solution is treated by electrolysis to produce refined zinc and to separate silver and gold, which are recovered as concentrates.

SULFURIC ACID PRODUCTION

Sulfur dioxide gases are produced in the copper smelting and zinc roasting processes. As a part of our environmental preservation program, we treat the sulfur dioxide emissions at two of our Mexican plants and at our Peruvian processing facilities to produce sulfuric acid, some of which is, in turn, used for the copper leaching process; the balance is sold to mining and fertilizer companies located mainly in Mexico, Peru, United States and Chile.

SILVER AND GOLD REFINING

Silver and gold are recovered from copper, zinc and lead concentrates in the smelters and refineries and from slimes through electrolytic refining.

PRODUCTION OVERVIEW

The table below provides an overview of Southern Copper's aggregate annual production for all of its properties during each of the three most recently completed fiscal years:

	Year Ended December 31,			Variance			
				2023 -2022		2022 -2021	
	2023	2022	2021	Volume	%	Volume	%
***COPPER* (thousand pounds)**:							
Mined	2,008,438	1,972,480	2,112,465	35,958	1.8 %	(139,985)	(6.6)%
Smelted	1,383,597	1,405,421	1,319,619	(21,824)	(1.6)%	85,802	6.5 %
Refined	1,419,817	1,495,767	1,401,719	(75,950)	(5.1)%	94,048	6.7 %
Rod	340,182	344,893	330,961	(4,711)	(1.4)%	13,932	4.2 %
***SILVER* (thousand ounces)**							
Mined	18,408	18,562	18,962	(154)	(0.8)%	(400)	(2.1)%
Refined	10,927	14,272	13,691	(3,345)	(23.4)%	581	4.2 %
***MOLYBDENUM* (thousand pounds)**							
Mined	59,164	57,849	66,716	1,315	2.3 %	(8,867)	(13.3)%
***ZINC* (thousand pounds)**							
Mined	144,422	132,300	147,617	12,122	9.2 %	(15,317)	(10.4)%
Refined	222,695	220,225	204,306	2,470	1.1 %	15,919	7.8 %
***GOLD* (ounces)**							
Mined	65,373	65,134	60,631	239	0.4 %	4,503	7.4 %
Refined	37,666	43,306	42,628	(5,640)	(13.0)%	678	1.6 %

KEY PRODUCTION CAPACITY DATA

We own and operate all production facilities. The table below provides details on the locations of production facilities as of December 31, 2023 by reportable segment, the processes used, and the key production and capacity data for each location:

Facility Name	Location	Stage	Process	Nominal Capacity(1)	2023 Production	2023 Capacity Use(3)
PERUVIAN OPEN-PIT SEGMENT						
Mining Operations						
Cuajone open-pit mine	Cuajone (Peru)	Production	Copper ore milling and recovery, copper and molybdenum concentrate production	90.0 ktpd—ore milled	76.1	84.6 %
Toquepala open-pit mine (Concentrator I+II)	Toquepala (Peru)	Production	Copper ore milling and recovery, copper and molybdenum concentrate production	120.0 ktpd—ore milled	114.8	95.6 %
Toquepala SX-EW plant	Toquepala (Peru)	Production	Leaching, solvent extraction and cathode electrowinning	56.3 ktpy—refined	25.3	44.8 %
Processing Operations						
Ilo copper smelter	Ilo (Peru)	Production	Copper smelting, blister, anodes production	1,376.1 ktpy—concentrate feed	1,292.9	94.0 %
Ilo copper refinery	Ilo (Peru)	Production	Copper refining	294.8 ktpy—refined cathodes	289.7	98.3 %
Ilo acid plants	Ilo (Peru)	Production	Sulfuric acid	1,354.93 ktpy—sulfuric acid	1,286.8	95.0 %
Ilo precious metals refinery	Ilo (Peru)	Production	Slime recovery & processing, gold & silver refining	460 tpy	355.0	77.1 %
MEXICAN OPEN-PIT SEGMENT						
Mining Operations						
Buenavista open-pit mine; Concentrator I	Sonora (Mexico)	Production	Copper ore milling & recovery, copper concentrate production	84.0 ktpd—milling	83.2	99.1 %
Concentrator II				115.0 ktpd—milling	115.7	100.6 %
Buenavista: SX-EW plant I	Sonora (Mexico)	Production	Leaching, solvent extraction & refined cathode electrowinning	11.0 ktpy—refined	—	— %
SX-EW plant II	Sonora (Mexico)	Production	Leaching, solvent extraction & refined cathode electrowinning	43.8 ktpy—refined	20.8	47.5 %
SX-EW plant III	Sonora (Mexico)	Production	Leaching, solvent extraction & refined cathode electrowinning	120.0 ktpy—refined	66.8	55.6 %
La Caridad open-pit mine	Sonora (Mexico)	Production	Copper ore milling & recovery, copper & molybdenum concentrate production	94.5 ktpd—milling	96.2	101.8 %
La Caridad SX-EW plant	Sonora (Mexico)	Production	Leaching, solvent extraction & cathode electrowinning	21.9 ktpy—refined	23.0	105.0 %
Processing Operations						
La Caridad copper smelter	Sonora (Mexico)	Production	Concentrate smelting, anode production	1,000 ktpy—concentrate feed	966.6	96.7 %
La Caridad copper refinery	Sonora (Mexico)	Production	Copper refining	300 ktpy copper cathode	218.6	72.9 %
La Caridad copper rod plant	Sonora (Mexico)	Production	Copper rod production	150 ktpy copper rod	154.3	102.9 %
La Caridad precious metals refinery	Sonora (Mexico)	Production	Slime recovery & processing, gold & silver refining	1.8 ktpy—slime	0.9	51.5 %
La Caridad sulfuric acid plant	Sonora (Mexico)	Production	Sulfuric acid	1,565.5 ktpy—sulfuric acid	948.5	60.6 %
IMMSA SEGMENT						
Underground mines						
Charcas	San Luis Potosi (Mexico)	Production	Copper, zinc, lead milling, recovery & concentrate production	1,460 ktpy—ore milled	1,270.1	87.0 %
San Martin	Zacatecas (Mexico)	Production	Lead, zinc, copper & silver mining, milling recovery & concentrate production	1,606 ktpy—ore milled	1,423.5	88.6 %
Santa Barbara	Chihuahua (Mexico)	Production	Lead, copper and zinc mining & concentrates production	2,190 ktpy—ore milled	1,652.1	75.4 %
Santa Eulalia	Chihuahua (Mexico)	Suspended	Lead & zinc mining and milling recovery & concentrate production	547.5 ktpy—ore milled	—	— %

Taxco(2)	Guerrero (Mexico)	Suspended	Lead, zinc silver & gold mining recovery & concentrate production	730 ktpy—ore milled	—	— %
Processing Operations						
San Luis Potosi zinc refinery	San Luis Potosi (Mexico)	Production	Zinc concentrates refining	105.0 ktpy zinc cathode	101.0	96.2 %
San Luis Potosi sulfuric acid plant	San Luis Potosi (Mexico)	Production	Sulfuric acid	180.0 ktpy sulfuric acid	180.0	100.0 %

ktpd = thousands of tonnes per day
ktpy = thousands of tonnes per year
Tpy = tonnes per year

(1) Our estimates of actual capacity under normal operating conditions contemplating an allowance for normal downtime for repairs and maintenance and are based on the average metal content for the relevant period.
(2) The Taxco mine has been on strike since July 2007.
(3) In some cases, real production exceeds nominal capacity due to higher grades and recovery rates.

OTHER PROPERTIES

The table below provides details on the locations and other information as of December 31, 2023 for our properties under development or exploration. These properties are also owned and operated by SCC.

Property Name	Location	Stage	Mineralization	Mineral rights and acreage
Other properties in Peru				
Tia Maria	Arequipa (Peru)	Development	Porphyry copper deposit; economic mineralization is oxide copper.	Consists of 57 concessions covering approximately 34,933 hectares.
Los Chancas	Apurimac (Peru)	Exploration	Porphyry copper–molybdenum deposit; copper sulfides are dominant.	Consists of 35 concessions, covering approximately 24,237 hectares.
Michiquillay	Cajamarca (Peru)	Exploration	Porphyry copper–molybdenum–gold deposit; copper sulfides are dominant.	Consists of 18 concessions covering approximately 4,051 hectares.
Other properties in Mexico				
El Pilar	Sonora (Mexico)	Development	Predominantly consists of the copper oxide mineral chrysocolla.	Consists of 19 concessions covering approximately 9,571 hectares.
El Arco	Baja California (Mexico)	Development	Porphyry copper deposit; mineralization occurs in three sub-horizontal zones.	Consists of 20 concessiones covering approximately 72,131 hectares.

PROPERTY BOOK VALUE

As of December 31, 2023, net book values of property and mine development were as follows (in millions):

Peruvian operations:		
Cuajone	$	597.7
Toquepala		1,925.4
Tia Maria project		282.8
Ilo and other support facilities		548.2
Construction in progress		740.3
Total Peru	$	4,094.4
Mexican open-pit operations:		
Buenavista mine and concentrator plants	$	2,451.6
Buenavista SX-EW and Quebalix		776.6
La Caridad mine and concentrator plant		652.9
La Caridad support facilities		261.2
Construction in progress		464.4
Total Mexico Open Pit	$	4,606.7
Mexican IMMSA unit:		
San Luis Potosi	$	85.2
Zinc electrolytic refinery		80.1
Charcas		103.6
San Martin		132.5
Santa Barbara		140.0
Santa Eulalia		34.7
Other facilities		6.0
Construction in progress		
- Zinc electrolytic refinery		11.0
- Charcas		46.0
- San Martin		18.7
- Santa Barbara		78.0
- Santa Eulalia		15.3
- Other Facilities		3.4
Total IMMSA Unit	$	754.5
Other property:		
El Pilar	$	116.0
Mexicana del Arco		103.1
Total	$	219.1
Mexican administrative offices	$	108.2
Total Mexico	$	5,688.5
Total Southern Copper Corporation	$	9,782.9

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SUMMARY OPERATING DATA

The following table contains certain operating data underlying our financial and operating information for each of the periods indicated.

	Year Ended December 31,			Variance 2023 -2022		Variance 2022 -2021	
	2023	2022	2021	Volume	%	Volume	%
***COPPER* (thousand pounds):**							
Mined							
Peru open-pit							
Toquepala	440,165	385,931	448,913	54,234	14.1 %	(62,982)	(14.0)%
Cuajone	328,990	309,338	372,559	19,652	6.4 %	(63,221)	(17.0)%
SX-EW Toquepala	55,672	58,315	56,777	(2,643)	(4.5)%	1,538	2.7 %
Mexico open-pit							
La Caridad	193,596	195,091	226,390	(1,495)	(0.8)%	(31,299)	(13.8)%
Buenavista	725,216	746,557	752,225	(21,341)	(2.9)%	(5,668)	(0.8)%
SX-EW La Caridad	50,691	51,449	55,942	(758)	(1.5)%	(4,493)	(8.0)%
SX-EW Buenavista	193,024	205,662	180,437	(12,638)	(6.1)%	25,225	14.0 %
IMMSA unit	21,084	20,137	19,222	947	4.7 %	915	4.8 %
Total Mined	**2,008,438**	**1,972,480**	**2,112,465**	**35,958**	**1.8 %**	**(139,985)**	**(6.6)%**
Smelted							
Peru open-pit							
Blister Ilo	4,088	4,508	5,735	(420)	100.0 %	(1,227)	(21.4)%
Anodes Ilo	798,342	771,630	680,263	26,712	3.5 %	91,367	13.4 %
Mexico open-pit							
Anodes La Caridad	581,167	629,283	633,621	(48,116)	(7.6)%	(4,338)	(0.7)%
Total Smelted	**1,383,597**	**1,405,421**	**1,319,619**	**(21,824)**	**(1.6)%**	**85,802**	**6.5 %**
Refined							
Peru Open-pit							
Cathodes Ilo	638,589	638,741	573,583	(152)	(0.0)%	65,158	11.4 %
SX-EW Toquepala	55,672	58,315	56,777	(2,643)	(4.5)%	1,538	2.7 %
Mexico Open-pit							
Cathodes La Caridad	481,841	541,600	534,980	(59,759)	(11.0)%	6,620	1.2 %
SX-EW La Caridad	50,691	51,449	55,942	(758)	(1.5)%	(4,493)	(8.0)%
SX-EW Buenavista	193,024	205,662	180,437	(12,638)	(6.1)%	25,225	14.0 %
Total Refined	**1,419,817**	**1,495,767**	**1,401,719**	**(75,950)**	**(5.1)%**	**94,048**	**6.7 %**
Rod Mexico Open-pit—La Caridad	**340,182**	**344,893**	**330,961**	**(4,711)**	**(1.4)%**	**13,932**	**4.2 %**
***SILVER* (thousand ounces)**							
Mined							
Peru Open-pit							
Toquepala	2,615	2,220	2,681	395	17.7 %	(461)	(17.2)%
Cuajone	2,395	2,298	2,692	97	4.3 %	(394)	(14.6)%
Mexico Open-pit							
La Caridad	2,065	2,086	2,227	(21)	(1.0)%	(141)	(6.3)%
Buenavista	4,669	5,208	4,774	(539)	(10.3)%	434	9.1 %
IMMSA unit	6,664	6,750	6,588	(86)	(1.3)%	162	2.5 %
Total Mined	**18,408**	**18,562**	**18,962**	**(154)**	**(0.8)%**	**(400)**	**(2.1)%**
Refined							
Peru—Ilo	3,526	3,741	3,985	(215)	(5.6)%	(244)	(6.1)%
Mexico—La Caridad	7,398	8,569	7,612	(1,171)	(13.7)%	957	12.6 %
IMMSA unit	3	1,962	2,094	(1,959)	(99.8)%	(132)	(6.3)%
Total Refined	**10,927**	**14,272**	**13,691**	**(3,345)**	**(23.4)%**	**581**	**4.2 %**
***MOLYBDENUM* (thousand pounds)**							
Mined							
Toquepala	13,916	16,934	23,462	(3,018)	(17.8)%	(6,528)	(27.8)%
Cuajone	8,252	7,992	9,237	260	3.3 %	(1,245)	(13.5)%
Buenavista	11,937	11,848	11,524	89	0.8 %	324	2.8 %
La Caridad	25,059	21,075	22,493	3,984	18.9 %	(1,418)	(6.3)%
Total Mined	**59,164**	**57,849**	**66,716**	**1,315**	**2.3 %**	**(8,867)**	**(13.3)%**
***ZINC* (thousand pounds)**							
Mined IMMSA	144,422	132,300	147,617	12,122	9.2 %	(15,317)	(10.4)%
Refined IMMSA	222,695	220,225	204,306	2,470	1.1 %	15,919	7.8 %

(1) Copper production reported under "*smelted*" and "*refined*" is a subset of the mined copper and it is not additive to the mined copper.

SUMMARY DISCLOSURE OF MINERAL RESOURCES

The following table contains the summary of our mineral resources exclusive of mineral reserves as of December 31, 2023, based on long-term price assumptions of $3.80 per pound of copper, $11.50 per pound of molybdenum ($10.35 per pound of molybdenum in the case of our El Arco mine), $23.00 per ounce of silver, $1.32 per pound of zinc, $1.04 per pound of lead and $1,725 per ounce of gold.

	Measured mineral resources			Indicated mineral resources			Measured + Indicated mineral resources			Inferred mineral resources		
	Amount (million tonnes)	**Grades**	**Metal Content (million lb)**	**Amount (million tonnes)**	**Grades**	**Metal Content (million lb)**	**Amount (million tonnes)**	**Grades**	**Metal Content (million lb)**	**Amount (million tonnes)**	**Grades**	**Metal Content (million lb)**
Copper:												
Peru:												
Cuajone Sulfides	—	— %	—	329.5	0.38 %	2,746.6	329.5	0.38 %	2,746.6	836.0	0.32 %	5,831.2
Cuajone Leach	—	— %	—	0.2	0.54 %	2.6	0.2	0.54 %	2.6	0.3	0.51 %	3.4
Toquepala Sulfides	—	— %	—	1,196.7	0.42 %	11,182.3	1,196.7	0.42 %	11,182.3	2,405.1	0.39 %	20,920.9
Toquepala Leach	—	— %	—	1,050.6	0.08 %	1,943.3	1,050.6	0.08 %	1,943.3	2,303.7	0.08 %	4,154.8
La Tapada deposit	—	— %	—	90.4	0.21 %	420.3	90.4	0.21 %	420.3	1.6	0.18 %	6.4
Tia Maria deposit	—	— %	—	35.5	0.17 %	135.2	35.5	0.17 %	135.2	21.8	0.22 %	107.8
Los Chancas Oxide	—	— %	—	98.0	0.45 %	975.2	98.0	0.45 %	975.2	33.0	0.38 %	277.4
Los Chancas Sulfide	—	— %	—	52.0	0.59 %	672.8	52.0	0.59 %	672.8	1,400.0	0.45 %	13,887.6
Michiquillay	—	— %	—	—	— %	—	—	— %	—	2,288.0	0.43 %	21,554.8
Mexico:												
Buenavista Mill	—	— %	—	763.8	0.34 %	5,663.6	763.8	0.34 %	5,663.6	13,015.0	0.21 %	56,583.5
Buenavista Leach	—	— %	—	76.9	0.13 %	196.0	76.9	0.13 %	196.0	2,830.5	0.14 %	8,517.1
Buenavista zinc plant	—	— %	—	148.2	0.46 %	1,561.6	148.2	0.46 %	1,561.6	142.8	0.43 %	1,394.4
La Caridad Mill	—	— %	—	3,927.5	0.16 %	13,680.6	3,927.5	0.16 %	13,680.6	2,972.8	0.14 %	8,913.2
La Caridad Leach	—	— %	—	683.0	0.08 %	1,129.0	683.0	0.08 %	1,129.0	526.0	0.08 %	904.5
Charcas	—	— %	—	6.4	0.52 %	73.8	6.4	0.52 %	73.8	15.2	0.55 %	182.5
Santa Barbara	—	— %	—	25.5	0.52 %	291.8	25.5	0.52 %	291.8	18.2	0.55 %	222.2
San Martin	—	— %	—	13.0	0.65 %	187.0	13.0	0.65 %	187.0	52.3	0.48 %	554.0
El Arco Mill	—	— %	—	826.6	0.41 %	7,544.9	826.6	0.41 %	7,544.9	2,344.9	0.37 %	19,352.3
El Arco Leach	—	—	—	51.3	0.30 %	335.3	51.3	0.30 %	335.3	63.8	0.25 %	350.9
El Pilar	2.2	0.20 %	9.0	81.3	0.18 %	317.0	83.4	0.18 %	326.0	88.6	0.12 %	234.4
Pilares Mill	—	— %	—	—	— %	—	—	— %	—	67.3	0.55 %	817.3
Pilares Leach	—	— %	—	—	— %	—	—	— %	—	0.9	0.34 %	6.8
Total	**2.2**		**9.0**	**9,456.4**		**49,058.8**	**9,458.5**		**49,067.8**	**31,427.9**		**164,777.5**
Molybdenum:												
Peru:												
Cuajone	—	— %	—	329.5	0.014 %	103.4	329.5	0.014 %	103.4	836.0	0.011 %	200.5
Toquepala	—	— %	—	1,196.7	0.023 %	606.7	1,196.7	0.023 %	606.7	2,405.1	0.019 %	1,009.3
Mexico:												
Buenavista Mill	—	— %	—	763.8	0.005 %	88.7	763.8	0.005 %	88.7	13,015.0	0.004 %	1,081.2
Buenavista zinc plant	—	— %	—	148.2	0.002 %	5.4	148.2	0.002 %	5.4	142.8	0.003 %	6.8
La Caridad Mill	—	— %	—	3,927.5	0.028 %	2,424.4	3,927.5	0.028 %	2,424.4	2,972.8	0.025 %	1,638.5
El Arco Mill	—	— %	—	826.6	0.008 %	146.5	826.6	0.008 %	146.5	2,344.9	0.006 %	298.2
Pilares Mill	—	— %	—	—	— %	—	—	— %	—	67.3	0.005 %	7.5
Total	**—**		**—**	**7,192.3**		**3,375.1**	**7,192.3**		**3,375.1**	**21,783.9**		**4,241.9**
Silver: (2)												
Mexico:												
Charcas	—	— %	—	6.4	84.0	17,297.0	6.4	84.0	17,297.0	15.2	98.0	48,005.0
Santa Barbara	—	— %	—	25.5	103.0	84,495.0	25.5	103.0	84,495.0	18.2	95.0	55,444.0
San Martin	—	— %	—	13.0	77.0	32,236.0	13.0	77.0	32,236.0	52.3	72.0	121,500.0
El Arco Mill	—	— %	—	826.6	1.6	41,875.3	826.6	1.6	41,875.3	2,344.9	1.5	110,887.3
Total	**—**		**—**	**871.5**		**175,903.3**	**871.5**		**175,903.3**	**2,430.6**		**335,836.3**
Zinc:												
Mexico:												
Buenavista zinc plant	—	— %	—	148.2	0.78 %	2,416.3	148.2	0.78 %	2,416.3	142.8	0.49 %	1,638.0
Buenavista Cu plant	—	— %	—	763.8	0.07 %	1,182.1	763.8	0.07 %	1,182.1	13,015.0	0.03 %	8,088.8
Charcas	—	— %	—	6.4	3.06 %	431.8	6.4	3.06 %	431.8	15.2	2.78 %	928.0
Santa Barbara	—	— %	—	25.5	3.15 %	1,772.7	25.5	3.15 %	1,772.7	18.2	3.86 %	1,553.5
San Martin	—	— %	—	13.0	1.97 %	565.0	13.0	1.97 %	565.0	52.3	2.66 %	3,072.7
Total	**—**		**—**	**956.9**		**6,367.9**	**956.9**		**6,367.9**	**13,243.5**		**15,281.0**

Lead:											
Mexico:											
Charcas	—	— %	—	6.4	0.39 %	55.0	6.4	0.39 %	55.0	15.2	0.39 %	129.5
Santa Barbara	—	— %	—	25.5	1.99 %	1,121.0	25.5	1.99 %	1,121.0	18.2	2.25 %	906.0
San Martin	—	— %	—	13.0	0.34 %	96.8	13.0	0.34 %	96.8	52.3	0.32 %	369.3
Total	**—**		**—**	**44.9**		**1,272.8**	**44.9**		**1,272.8**	**85.7**		**1,404.8**
Gold: (2)												
Mexico:												
Santa Barbara	—	— %	—	25.5	0.27	221.0	25.5	0.27	221.0	18.2	0.17	98.0
El Arco Mill	—	— %	—	826.6	0.12	3,226.1	826.6	0.12	3,226.1	2,344.9	0.11	8,053.5
Total	**—**		**—**	**852.1**		**3,447**	**852.1**		**3,447**	**2,363.1**		**8,152**

(1) Mineral resources are reported in situ and are current at December 31, 2023. Mineral resources are reported exclusive of mineral reserves. Figures have been rounded.

(2) Gold and silver grades are denominated in grams per tonne. Gold and silver contents are expressed in thousand ounces.

(3) For further information on assumptions used in preparing the mineral resource estimates, for the following operations: Cuajone, Toquepala, Buenavista and La Caridad; please refer to their individual property disclosure in this Form 10-K and the technical report summaries prepared by qualified persons, under Exhibits 96.1, 96.2, 96.6 and 96.7 respectively of 2022 Form 10-K/A filed on February 28, 2023.

(4) For further information on assumptions used in preparing the mineral resource estimates, for the following operations: Charcas, Santa Barbara and San Martin; please refer to their individual property disclosure in this Form 10-K and the technical report summaries prepared by qualified persons, under Exhibits 96.11, 96.12 and 96.13 respectively in this Form 10-K.

(5) For further information on assumptions used in preparing the estimates for the following operations: El Arco, Tia Maria, Los Chancas, Michiquillay, Pilares and El Pilar, please refer to their individual property disclosure in this Form 10-K and Chapter 11 of the project technical report summaries prepared by qualified persons, under Exhibit 96.10, 96.3, 96.4, 96.5, 96.8 and 96.9, respectively of 2021 Form 10-K/A filed on March 7, 2022.

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SUMMARY DISCLOSURE OF MINERAL RESERVES

The following table contains the summary of our mineral reserves as of December 31, 2023, based on long-term price assumptions of $3.30 per pound of copper, $10.00 per pound of molybdenum ($9.00 per pound of molybdenum in the case of our El Arco mine), $20.00 per ounce of silver, $1,500 per ounce of gold and $1.15 per pound of zinc.

	Proven mineral reserves			Probable mineral reserves			Total mineral reserves		
	Amount (million tonnes)	Grades	Metal Content (million lb)	Amount (million tonnes)	Grades	Metal Content (million lb)	Amount (million tonnes)	Grades	Metal Content (million lb)
Copper:									
Peru:									
Cuajone Mill	—	— %	—	1,294.7	0.48 %	13,749.7	1,294.7	0.48 %	13,749.7
Cuajone Leach	—	— %	—	20.6	0.51 %	232.0	20.6	0.51 %	232.0
Toquepala Mill	—	— %	—	2,105.0	0.47 %	21,708.4	2,105.0	0.47 %	21,708.4
Toquepala Leach	—	— %	—	2,545.4	0.15 %	8,691.7	2,545.4	0.15 %	8,691.7
La Tapada deposit	—	— %	—	487.6	0.41 %	4,449.2	487.6	0.41 %	4,449.2
Tia Maria deposit	—	— %	—	223.8	0.29 %	1,412.5	223.8	0.29 %	1,412.5
Mexico:									
Buenavista Sulfides	—	— %	—	2,052.4	0.41 %	18,670.0	2,052.4	0.41 %	18,670.0
Buenavista Leach	—	— %	—	1,033.1	0.22 %	4,948.0	1,033.1	0.22 %	4,948.0
La Caridad Mill	—	— %	—	2,038.7	0.21 %	9,415.0	2,038.7	0.21 %	9,415.0
La Caridad Leach	—	— %	—	196.8	0.09 %	393.0	196.8	0.09 %	393.0
El Arco Mill	—	— %	—	1,229.5	0.40 %	10,822.1	1,229.5	0.40 %	10,822.1
El Arco Leach	—	— %	—	140.5	0.27 %	846.3	140.5	0.27 %	846.3
El Pilar	63.0	0.27 %	370.4	254.0	0.25 %	1,373.5	317.0	0.25 %	1,743.9
Total	**63.0**		**370.4**	**13,622.2**		**96,711.4**	**13,685.2**		**97,081.8**
Molybdenum:									
Peru:									
Cuajone	—	— %	—	1,294.7	0.017 %	493.0	1,294.7	0.017 %	493.0
Toquepala	—	— %	—	2,105.0	0.021 %	996.7	2,105.0	0.021 %	996.7
Mexico:									
Buenavista	—	— %	—	1,961.0	0.007 %	319.0	1,961.0	0.007 %	319.0
La Caridad	—	— %	—	2,038.7	0.028 %	1,244.0	2,038.7	0.028 %	1,244.0
El Arco Mill	—	— %	—	1,229.5	0.006 %	166.7	1,229.5	0.006 %	166.7
Total	**—**		**—**	**8,628.9**		**3,219.4**	**8,628.9**		**3,219.4**
Silver: (2)									
Mexico:									
El Arco	—	— %	—	1,229.5	1.8	70,464.9	1,229.5	1.8	70,464.9
Total	**—**		**—**	**1,229.5**		**70,464.9**	**1,229.5**		**70,464.9**
Zinc:									
Mexico:									
Buenavista zinc plant (3)	—	— %	—	91.4	1.42 %	2,852.0	91.4	1.42 %	2,852.0
Gold: (2)									
Mexico:									
El Arco	—	— %	—	1,229.5	0.14	5,584.8	1,229.5	0.14	5,584.8

(1) Mineral reserves are current at December 31, 2023. The reference point for the estimate is delivery to the process plant. Figures have been rounded.

(2) Gold and silver grades are denominated in grams per tonne. Gold and silver contents are expressed in thousand ounces.

(3) For further information on assumptions used in preparing the mineral reserve estimates, for the following mineral properties: Cuajone, Toquepala, Buenavista and La Caridad, please refer to the individual property disclosure in this Form 10-K and to the technical report summaries prepared by qualified persons, under Exhibits 96.1, 96.2, 96.6 and 96.7 respectively of 2022 Form 10-K/A filed on February 28, 2023.

(6) For further information on assumptions used in preparing the estimates for the following mineral properties: El Arco, Tia Maria and El Pilar, please refer to the individual property disclosure in this Form 10-K and to the project technical report summaries prepared by qualified persons, under Exhibit 96.10, 96.3 and 96.9 respectively of Form 10-K/A, filed on March 7, 2022.

Tailings Dams

Tailings are comprised of solid particles originating at the concentrator plants during the grinding process that, combined with water, are sent to specially built structures where they are impounded. The water is recovered to be reused in the process.

Tailings dams are basically built in two manners: by using the coarse fraction from the same tailings or by using external material, often known as "borrowed material" such as rock, clay etc. We believe SCC's tailings dams are built according to international standards and national accepted engineering practices. We comply with the country's current regulations and adhere to the recommendations of the International Commission on Large Dams (ICOLD). In addition, we have a committee, comprised of both internal and external specialists, which periodically reviews the safety and operation of each dam. In 2020, we implemented the project *"Automation and Real Time Monitoring of geotechnical instrumentation in the Pit and Quebrada Honda Tailings Dam"* and conditioned a location to install three radars to conduct geotechnical monitoring of the Quebrada Honda Tailings Dam. We do not expect that these activities will generate any adverse material effects in our operations.

We have six tailings dams in operation in Mexico and one in Peru as follows:

Country	Operation	Name	Current Height	Material	Method
Mexico	Buenavista	Tailings dam # 3	103 meters	Borrowed	Downstream
Mexico	Buenavista	New tailings dam	99 meters	Borrowed	Downstream
Mexico	La Caridad	Tailings dam # 7	189 meters	Borrowed	Downstream
Mexico	Charcas	Tailings dam	55 meters	Coarse tailings	Upstream
Mexico	Santa Barbara	Noriega dam	52 meters	Coarse tailings	Upstream
Mexico	San Martin	Tailings dam 5 & 7	50 meters	Coarse tailings	Upstream
Peru	Cuajone and Toquepala	Quebrada Honda	143 meters	Coarse tailings	Downstream

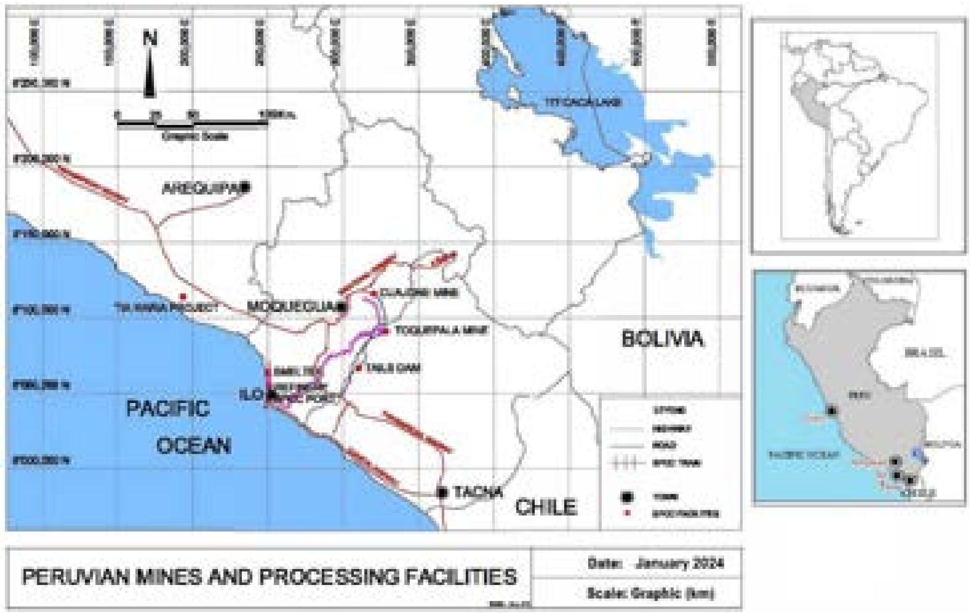
INDIVIDUAL PROPERTY DISCLOSURE

In 2021, we adopted the disclosure requirements of S-K 1300. The definitions and allowed assumptions for mineral reserves under previous guidance (Industry Guide 7) are significantly different from the defined terms and allowed assumptions for mineral reserves under S-K 1300. Additionally, Industry Guide 7 did not permit mineral resource reporting.

PERUVIAN OPERATIONS

Operations in our Peruvian segment include the Cuajone and Toquepala mine complexes and the smelting and refining plants, the industrial railroad that links Ilo, Toquepala and Cuajone and the port facilities. Other properties include our Tia Maria, Los Chancas and Michiquillay projects. We conduct ongoing maintenance and improvement programs to ensure the satisfactory performance of our equipment. We believe all of the equipment at our Peruvian plants is in good physical condition and is suitable for our operations.

The map below indicates the approximate location of, and access to, our Cuajone and Toquepala mine complexes and our Ilo processing facilities:



Cuajone

The Cuajone operations consist of an open-pit copper mine and a concentrator and are located in the Torata District, Mariscal Nieto Region, of Moquegua, approximately 878 km from the city of Lima and 27 km from the city of Moquegua. The Project centroid is at about 17° 3.130'S latitude and 70° 44.499'W longitude, while the open pit is centered at approximately 17° 2.601'S latitude and 70° 42.481'W longitude.

The Cuajone mine is accessible by paved road from Lima or Tacna by the Pan-American Highway. The Quebrada Honda tailings storage facility ("TSF") is about 120 km via local roads, south of the Cuajone operations. Access within the project area is via developed roads that are routinely maintained. Tacna, Moquegua, and Ilo have regularly scheduled air services from Lima. Additionally, a spur railway runs from the Toquepala operations to the Cuajone operations.

The Cuajone operations are owned and operated by SPCC Peru Branch and contain a single mining concession, "Acumulacion Cuajone", which covers an area of 15,024.5 hectares. Power is transmitted for process needs from the Peruvian grid using two Southern Copper-owned transmission lines of 138 kV and 220 kV. Additionally, the Cuajone operations use surface and underground water from a variety of sources as fresh make up water.

The property is currently in the production stage. Southern Copper has had an interest in the Cuajone area since 1954. Predecessor companies included Cerro de Pasco Corporation, Newmont and Asarco. Overburden removal commenced in 1970 and ore production commenced in 1976. Our Cuajone operations utilize a conventional open-pit mining method to drill/blast/haul copper ore for further processing at the concentrator, which has a milling capacity of 90,000 tonnes per day. Book value of the property and its associated plant and equipment is available under "Property Book Value" on page 37 of this report.

The table below shows production information for 2023, 2022 and 2021 for our Cuajone operations:

		2023	2022	2021	Variance 2023 - 2022 Amount	%
Mine annual operating days		365	365	365		
Mine						
Total ore mined	(kt)	27,469	25,049	29,548	2,420	9.7 %
Copper grade	(%)	0.640	0.658	0.674	(0.018)	(2.7)%
Leach material mined	(kt)	913	1,817	1,983	(904)	(49.8)%
Leach material grade	(%)	0.590	0.713	0.668	(0.123)	(17.3)%
Stripping ratio	(x)	4.15	4.21	3.70	(0.06)	(1.4)%
Total material mined	(kt)	146,261	139,916	148,302	6,345	4.5 %
Concentrator						
Total material milled	(kt)	27,398	24,985	29,617	2,413	9.7 %
Copper recovery	(%)	85.30	85.30	84.70	—	— %
Copper concentrate	(kt)	601.4	562.8	670.1	38.6	6.9 %
Copper in concentrate	(kt)	149.2	140.3	169.0	8.9	6.3 %
Copper concentrates average grade	(%)	24.81	24.93	25.22	(0.12)	(0.5)%
Molybdenum						
Molybdenum grade	(%)	0.020	0.023	0.022	(0.003)	(13.0)%
Molybdenum recovery	(%)	63.30	63.22	63.27	0.08	0.1 %
Molybdenum concentrate	(kt)	7.0	6.7	7.8	0.3	4.2 %
Molybdenum concentrate average grade	(%)	53.43	53.86	53.76	(0.43)	(0.8)%
Molybdenum in concentrate	(kt)	3.7	3.6	4.2	0.1	3.0 %

Key: kt = thousand tonnes
x = Stripping ratio obtained dividing waste by leachable material plus ore mined.
Copper and molybdenum grades are referred to as total copper grade and total molybdenum grade, respectively.

Geology

The Cuajone deposit is considered to be an example of a porphyry copper–molybdenum deposit. The basal regional geology consists of Precambrian metamorphic rocks that are cut by Paleozoic granite, unconformably overlain by Upper Triassic to Jurassic marine volcanic and sedimentary lithologies. Overlying these rocks are late Cretaceous to early Tertiary rhyolite, andesite and agglomerate of the Toquepala Group. These lithologies are intruded by the composite, polyphase Cretaceous to Paleogene Coastal (Andean) Batholith.

Mineralization and alteration at the Cuajone deposit is directly related to a multi-stage latite porphyry that intrudes basaltic andesites and the overlying 370 m of rhyolite porphyries of the Toquepala Group. The Cuajone porphyry deposit exhibits a zoned alteration pattern that includes potassic, propylitic, sericitic and intermediate argillic hydrothermal alteration styles. The Cuajone mineralogy is typically simple and consists of pyrite, chalcopyrite, and bornite, with sparse sphalerite, galena, and enargite.

Concentrator

Our Cuajone operations use state-of-the-art computer monitoring systems at the concentrator, the crushing plant and the flotation circuit to coordinate inflows and optimize operations. The process designs were based on existing technologies and proven equipment, and the plants constructed using those designs have been operating for 47 years. Material with a copper grade over 0.25% is loaded to the in-pit crushing and conveying (IPCC) system and sent to the milling circuit, where giant rotating crushers reduce the size of the rocks to approximately one-half of an inch. The ore is then sent to the ball mills, which grind it to the consistency of fine powder. The finely ground powder is agitated in a water and reagents solution and is then transported to flotation cells. Air is pumped into the cells to produce foam for floating the copper and molybdenum minerals while waste materials called tailings are separated. This copper-molybdenum bulk concentrate is then treated by inverse flotation, where molybdenum is floated and copper is depressed. The copper concentrate is shipped by rail to the smelter at Ilo and the molybdenum concentrate is packaged for shipment to customers.

Tailings are sent to thickeners to recover water. The remaining tailings are sent to the Quebrada Honda dam, our principal tailings storage facility.

A major mill expansion was completed in 1999 and the eleventh primary mill began operations in January 2008. In December 2013, the high-pressure grinding roll was put in operation. At the end of 2016, the Larox filter press for molybdenum concentrate began operations. The overland primary crusher began operations in May 2018. The new tailings thickener began operations in September 2019.

In November 2023, the "HPGR optimization as a quaternary crushing circuit" project began operational testing and ramping-up. In the first quarter of 2024, the quaternary crushing circuit is expected to be working at full capacity.

Slope stability

The Cuajone pit is approximately 930 meters deep. Under the present mine plan configuration, the Cuajone pit will reach a depth of 1,320 meters. The increases in the depth of the pit present us with a number of geotechnical challenges. Perhaps the foremost concern is the possibility of slope failure, which all open pit mines face. To meet the geotechnical challenges relating to slope stability of the open pit mines, we have taken the following steps:

At the Cuajone mine, the Company maintains many monitoring systems with radars in order to prevent the risk of slope instability. The equipment acquired through these years have helped to control the walls of the pit and anticipate possible damages. In addition, in 2015 a geotechnical study was conducted to increase the inter ramp angle by an average of three degrees and include 40 meters wide geotechnical berms for inter ramp heights above 150 meters.

In 2020, equipment to extract rock samples was implemented in the rock mechanics laboratory. This equipment allows us to obtain cylindrical rock specimens and perform rock mechanics tests under current technical standards and norms. A drone was also incorporated in the slope reconciliation activities to obtain detailed topographic information on the slopes and identify good practices or opportunities to build stable walls. In 2021, as part of the equipment update and the requirement to improve the slope monitoring coverage due to the growth of the pit, two slope monitoring radars were acquired. Three pieces of monitoring equipment have also been added to monitor slopes in the leaching pads. Likewise, the first study of the physical stability of waste rock deposits was carried out by a consulting firm.

In 2022, seismic refraction equipment was used to record information on fracturing frequency, determine the dynamic parameters of the rock mass, and modify designs in the buffer and pre-split blasting rows, as a complement in minimizing the impact on the final slopes of the pit. A digital inclinometer has been replaced to monitor slopes in the pit and identify potential deformation zones.

In 2023, an evaluation of the physical stability of the waste rock deposits and leach heaps was carried out, in compliance with article 400 of the Supreme Decree 024-2016 and its amendments contained in the Supreme Decree 023-2017 E.M. Eight digital extensometers were also acquired to monitor and control waste rock deposits.

Mineral resources

The following table contains the summary of copper and molybdenum mineral resources for Cuajone as of December 31, 2023, based on long-term price assumptions of $3.80 and $11.50 per pound respectively; theses prices were fixed over the remaining 47 year of mine life:

	2023				2022				
Copper	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Measured mineral resources	—	— %	— %	—	—	— %	— %	—	
Indicated mineral resources									
- Sulfides	329.5	0.38 %	84.8 %	2,746.6	331.6	0.46 %	84.8 %	3,381.5	(18.8)%
- Leach (oxides)	0.2	0.54 %	42.4 %	2.6	0.2	0.62 %	42.4 %	3.2	
Measured + Indicated mineral resources	329.7	0.38 %		2,749.2	331.8	0.46 %		3,384.7	(18.8)%
Inferred mineral resources									
- Sulfides	836.0	0.32 %	84.8 %	5,831.2	850.9	0.31 %	84.8 %	5,901.7	(1.2)%
- Leach (oxides)	0.3	0.51 %	42.4 %	3.4	0.3	0.51 %	42.4 %	3.4	0.0%
Total inferred mineral resources	836.3	0.32 %		5,834.6	851.2	0.31 %		5,905.1	(1.2)%
Molybdenum	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (thousand tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Measured mineral resources	—	— %	— %	—	—	— %	— %	—	
Indicated mineral resources	329.5	0.014 %	62.9 %	103.4	331.6	0.017 %	62.9 %	121.7	(15.0)%
Measured + Indicated mineral resources	329.5	0.014 %	62.9 %	103.4	331.6	0.017 %	62.9 %	121.7	(15.0)%
Inferred mineral resources	836.0	0.011 %	62.9 %	200.5	850.9	0.011 %	62.9 %	201.8	(0.6)%

(1) The Variation column refers to metal content variation.
(2) The point of reference for mineral resources is in place and are current as at December 31, 2023; based on 2022 year-end mineral resource tonnages, grades and contents adjusted only considering the 2023 mine depletion. Mineral resources are reported exclusive of mineral reserves. Wood is the third-party firm comprising mining experts responsible for the estimate.
(3) Mineral resources are constrained within an optimized pit shell based on copper and molybdenum revenue only. Mineral resources are reported within a conceptual pit shell that use the following input parameters: metal prices of $3.80/lb Cu and $11.50/lb Mo; average metallurgical recovery assumptions of 84.8% for copper and 62.9% for molybdenum from a process plant and 42.4% copper recovery from a heap leach; based on mining cost of $1.76/t, mill process operating costs of $7.05/t processed, leach costs of $5.26/t processed; copper concentrate payable price of $3.36/lb Cu, molybdenum concentrate payable price of $9.72/lb Mo, and leach copper payable price of $3.77/lb Cu. These parameters are based on the 2022 year-end figures.
(4) No estimates for molybdenum are reported for leachable material as this element cannot currently be recovered using the leach process envisaged.
(5) The cut-off grade for mineral resources was determined to be 0.112% Cu for sulfide mineralization. The cut-off grade for mineral resources sent to the leach pad was 0.149 %Cu.
(6) Numbers in the table have been rounded. Totals may not sum due to rounding.
(7) For further information on the assumptions used to prepare the estimates and a detailed description of the cut-off determination, please refer to Chapter 11 of the Cuajone operations technical report summary prepared by qualified persons, under Exhibit 96.1 to the 2022 Form 10-K.

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Mineral reserves

The following table contains the summary of copper and molybdenum mineral reserves for Cuajone as of December 31, 2023, based on long-term price assumptions of $3.30 and $10.00 per pound respectively; these prices were fixed over the remaining 47 year of mine life:

	2023				2022				
Copper	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Proven mineral reserves	—	— %	— %	—	—	— %	— %	—	
Probable mineral reserves (mill)	1,294.7	0.48 %	84.4 %	13,749.7	1,336.1	0.48 %	84.4 %	14,216.7	(3.3)%
Probable mineral reserves (leach)	20.6	0.51 %	48.2 %	232.0	21.5	0.51 %	48.2 %	244.5	(5.1)%
Total mineral reserves	1,315.3	0.48 %		13,981.6	1,357.6	0.48 %		14,461.2	(3.3)%
Molybdenum	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Proven mineral reserves	—	— %	— %	—	—	— %	— %	—	
Probable mineral reserves	1,294.7	0.017 %	62.5 %	493.0	1,336.1	0.017 %	62.5 %	508.3	(3.0)%
Total mineral reserves	1,294.7	0.017 %	62.5 %	493.0	1,336.1	0.017 %	62.5 %	508.3	(3.0)%

(1) Mineral reserves are current as of December 31, 2023; based on 2022 year-end tonnages, grades and metal contents adjusted for 2023 mine depletion only. Wood is the third-party firm comprising mining experts that is responsible for the estimates.
(2) The point of reference is the point at which the mineral reserves are delivered to the processing facility.
(3) Numbers in the table have been rounded. Totals may not sum due to rounding.
(4) Mill and leach ore include existing stockpiled material.
(5) Mineral reserves are constrained within an engineered pit based on copper and molybdenum revenues only. The following parameters were used in estimation: assumed open-pit mining methods; assumed concentration and dump leaching processes; copper price of $3.30/lb, molybdenum price of $10.00/lb; variable NSR cut-off values of $7.791–$8.079/t-processed for concentration material, and a NSR cut-off value of $9.061/t-processed for leaching material; mining recovery of 100%; variable metallurgical recoveries (average LOM recoveries of 84.4% for copper by concentration, 62.5 % for molybdenum by concentration, and 48.2% for copper by leaching, including concentration and leach ore existing in stockpiles); average copper recoveries of 97.4% for smelting and 99.9% for refining; variable mining costs that range from $2.337–$3.417/t-mined; average process costs of $7.971/t-processed for concentration material, and $9.061/t for leaching material; average smelting and refining cost of $0.382/lb Cu; selling costs of $-0.0024/lb Cu for concentration process, $1.679/lb Mo for concentration process, and $-0.009/lb Cu for leaching process; and 1% NSR royalty applied to the for Cu and Mo. These parameters are based on and are unchanged from the 2022 year-end figures.
(6) For further information on assumptions used in preparing the estimates and a detailed description of the cut-off determination, please refer to Chapter 12 of the Cuajone operations technical report summary prepared by qualified persons, under Exhibit 96.1 to the 2022 Form 10-K.

Toquepala

The Toquepala operations are situated in Southern Peru, approximately 150 km by road from the city of Tacna and 30 kilometers from Cuajone. The Project centroid is at about 17° 3.130’S latitude and 70° 44.499’W longitude while the open pit is centered at approximately 17° 2.601’S latitude and 70° 42.481’W longitude. Road access from Tacna is via the Pan-American highway and other local roads. Alternative access is from Lima, using the Pan-American highway to Alto Camiara, and then driving for 70 km on a paved road to the Toquepala camp. The Quebrada Honda tailings storage facility (TSF) is 40 km south of the mine and is located at approximately 17° 27.724’S latitude: 70° 47.810’W longitude. The Quebrada Honda tailings can be accessed via the MO-107 route that connects Alto Camiara with Toquepala. Within the operations area, access is by unpaved mine and exploration roads. The city of Tacna has a regional airstrip, with regular service within Peru. Additionally, railways extend from Ilo to Toquepala, and a spur railway runs from the Toquepala operations to the Cuajone operations.

The Toquepala operations are owned and operated by SPCC Peru Branch and contain a single mining concession, "Acumulacion Toquepala 1", which covers an area of 17,552.4 hectares. Power is transmitted for process needs from the Peruvian grid using two Southern Copper-owned transmission lines of 138 kV and 220 kV. Additionally, the Toquepala operations use surface and underground water from a variety of sources as fresh make up water.

The property is currently under the production stage. Our Toquepala operations consist of an open-pit copper mine and two concentrators; each with a milling capacity of 60,000 tonnes per day. We also refine copper at the SX-EW facility through a leaching process. The SX-EW facility has a production capacity of 56,336 tonnes per year of LME grade A copper cathodes. Southern Copper has had an interest in the Project area since 1945. Prior to Southern Copper's Project interests, the area had been subject to artisanal mining activities. Overburden removal commenced in 1957 and ore production commenced in 1960. Our Toquepala operations utilize a conventional open-pit mining method to collect copper ore for further processing in our concentrators. The second concentrator began operations in the fourth quarter of 2018. Book value of the property and its associated plant and equipment is available under "Property Book Value" on page 37 of this report.

The table below contains production information for 2023, 2022 and 2021 for our Toquepala operations:

					Variance 2023 - 2022	
		2023	**2022**	**2021**	**Amount**	**%**
Mine annual operating days		365	365	365		
Mine						
Total ore mined	(kt)	41,657	41,558	40,827	99	0.2 %
Copper grade	(%)	0.529	0.476	0.539	0.053	11.1 %
Leach material mined	(kt)	51,870	41,499	53,226	10,371	25.0 %
Leach material grade	(%)	0.096	0.214	0.225	(0.118)	(55.1)%
Stripping ratio	(x)	1.49	1.53	1.16	(0.04)	(2.6)%
Total material mined	(kt)	232,795	209,745	203,150	23,050	11.0 %
Concentrator						
Total material milled	(kt)	41,547	40,319	41,699	1,228	3.0 %
Copper recovery	(%)	90.80	91.21	90.60	(0.41)	(0.4)%
Copper concentrate	(kt)	787.0	689.8	791.6	97.2	14.1 %
Copper in concentrate	(kt)	199.7	175.1	203.6	24.6	14.0 %
Copper concentrate average grade	(%)	25.37	25.38	25.72	(0.01)	(0.0)%
SX-EW plant						
Estimated leach recovery	(%)	23.87	23.60	23.54	0.27	1.1 %
SX-EW cathode production	(kt)	25.3	26.5	25.8	(1.2)	(4.5)%
Molybdenum						
Molybdenum grade	(%)	0.020	0.026	0.035	(0.006)	(23.1)%
Molybdenum recovery	(%)	72.35	73.27	72.91	(0.92)	(1.3)%
Molybdenum concentrate	(kt)	11.2	13.7	19.0	(2.5)	(18.2)%
Molybdenum concentrate average grade	(%)	56.57	56.27	56.02	0.30	0.5 %
Molybdenum in concentrate	(kt)	6.3	7.7	10.6	(1.4)	(17.8)%

Key: kt = thousand tonnes
x = Stripping ratio obtained by dividing waste tonnes by leachable material plus ore mined.
Copper and molybdenum grades are referred to as total copper grade and total molybdenum grade, respectively.

Geology

The Toquepala deposit is an example of a copper–molybdenum porphyry deposit. The basal regional geology consists of Precambrian metamorphic rocks that are cut by Paleozoic granite, unconformably overlain by Upper Triassic to Jurassic marine volcanic and sedimentary lithologies. Overlying these rocks are late Cretaceous to early Tertiary rhyolite, andesite and agglomerate of the Toquepala Group. These lithologies are intruded by the composite, polyphase Cretaceous to Paleogene Coastal (Andean) Batholith.

Mineralization consists of leached capping, oxide, enriched, transitional and primary mineralization. Leached capping, oxide, enriched and transition mineralization is mostly mined out. Primary mineralization occurs as hypogene sulfides mainly restricted to the dacite porphyry and breccias. Chalcopyrite is the dominant economic mineral with lesser bornite, molybdenite, and enargite as disseminations, fracture fillings, and breccia matrix. Economic molybdenite mineralization is associated with quartz veinlets and locally, with disseminated chalcopyrite.

Concentrators

Our Toquepala concentrators use state-of-the-art computer monitoring systems to coordinate inflows and optimize operations. Material with a copper grade over 0.25% is loaded onto an overland conveyor belt and sent to the crushing circuit, where rotating crushers reduce the size of the rocks by approximately 85% to less than one-half of an inch. The ore is then sent to the rod and ball mills, which grind it in a mix with water to the consistency of fine powder. The finely ground powder mixed with water is then transported to flotation cells. Air is pumped into the cells producing a froth, which carries the copper mineral to the surface but not the waste rock, or tailings. The bulk concentrate with sufficient molybdenum content is processed to recover molybdenum by inverse flotation. This final copper concentrate with a content of approximately 26.5% of copper is filtered to reduce moisture to 8.5% or less. Concentrates are then shipped by rail to the Ilo smelter.

Tailings are sent to thickeners where water is recovered. The remaining tailings are sent to the Quebrada Honda dam, our principal tailings storage facility.

SX-EW Plant

The SX-EW facility at Toquepala produces grade A LME electrowon copper cathodes of 99.999% purity from solutions obtained by leaching low-grade ore stored at the Toquepala mine and copper oxides ore at the Cuajone mine. The leach plant commenced operations in 1995 with a design capacity of 35,629 tonnes per year of copper cathodes. In 1999, the capacity was expanded to 56,336 tonnes per year.

This facility processes copper oxides from Cuajone and copper sulfides from Toquepala. Copper oxides from Cuajone with a copper grade higher than 0.268% and acid solubility index higher than 20% are leached. At Toquepala, the copper sulfides cutoff grade is 0.070% and therefore, material with a total copper grade between 0.070% and 0.15% is leached. Copper in solution produced at Cuajone is sent to Toquepala through an eight-inch pipe laid alongside the Cuajone-Toquepala railroad track.

Plant and equipment are supported by a maintenance plan and a quality management system to assure good physical condition and high availability. The SX-EW plant management quality system (including leaching operations) has been audited periodically since 2002 by an external audit company and found to be in compliance with the requirements of ISO 9001-2015, ISO 14001-2015 and ISO 45000-2018 standard.

Slope stability

Overview of Toquepala Pit Depth: The Toquepala pit is approximately 1,005 meters deep, with plans to reach 1,665 meters. This depth increase presents geotechnical challenges, primarily the risk of slope failure.

Geotechnical Measures from 2007 to 2018: Preventive actions were taken during 2007-2018 to enhance Toquepala pit slope stability, including installing berms, updating monitoring software, and initiating the "Slope Stability Analysis in Deposits of Waste and Leachable Material" study in 2013.

Developments in 2019: External consultants performed an update on slope stability analysis, incorporating the IBIS ArcSAR radar for enhanced monitoring and implementing sub-horizontal drains for pit slope depressurization.

Studies and Implementations in 2020 and 2021: In 2020, external consultants conducted stability studies for the Toquepala Pit and various waste deposits, incorporating an IBIS ArcSAR radar with a five-kilometer range into the pit slope monitoring system. Simultaneously, initiatives included establishing a geotechnical drillhole database and implementing the project "*Automation and Real-Time Monitoring of geotechnical instrumentation in the Pit and Quebrada Honda Tailings Dam*." The installation of three radars for geotechnical monitoring of the Quebrada Honda Tailings Dam was also planned. In 2021, the focus shifted to the "*Stability Study of the Quebrada Honda Tailings Dam – Toquepala Mine*," accompanied by the installation of the Quebrada Honda Radar System, comprising two IBIS M units and one IBIS FM unit for geotechnical monitoring.

Tierra Group International's Contribution: In 2022, Tierra Group International supported various studies related to seismic hazard, including the "*Update of Seismic Hazard Study of Toquepala Mine*", "*Update of the Material Resistance Parameters of Waste and Leachable Deposits,*" (geotechnical field investigation), "*Update of the Hydrogeological Model of the Leachable Deposits,*" "*Study of Physical Stability of Waste and Leachable Deposits in Current Condition*," "*Update of the Numerical Hydrogeological Model of Toquepala Mine*," and "*Study of Anisotropic Physical Stability of Toquepala Mine."*

The Inersia company began conducting satellite monitoring and developing moisture maps for the pit, waste and leachable deposits as well as tailings deposits at Quebrada Honda.

In 2023, Geotechnical – Structural logging, geological logging, in situ tests and hydrogeological laboratory and instrumentation for the Geotechnical Drilling and Update of the Peak Particle Velocity Study of Toquepala mine were rolled out. Software 3D modeling was used to implement the Preliminary Blasting Project and Inersia company began conducting satellite monitoring humidity at Suches, Santallana and kilometer 16. In the Quebrada Honda Tailings Dam, Geotechnical Drilling, including SPT tests and installation of geotechnical instrumentation, CPTu and pit testing, and updates on resistance were conducted.

Mineral resources

The following table contains the summary of copper and molybdenum mineral resources for Toquepala as of December 31, 2023, based on long-term price assumptions of $3.80 and $11.50 per pound respectively; these prices were fixed over the remaining 49 years of mine life:

	2023				2022				
Copper	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Measured mineral resources	—	— %	— %	—	—	— %	— %	—	
Indicated mineral resources									
- Sulfides	1,196.7	0.42 %	88.2 %	11,182.3	1,584.2	0.43 %	88.2 %	15,060.6	(25.8)%
- Leach (low grade sulfides)	1,050.6	0.08 %	16.1 %	1,943.3	521.2	0.09 %	16.1 %	1,024.8	89.6%
Measured + Indicated mineral resources	2,247.3	0.26 %		13,125.6	2,105.4	0.35 %		16,085.4	(18.4)%
Inferred mineral resources									
- Sulfides	2,405.1	0.39 %	88.2 %	20,920.9	2,406.7	0.39 %	88.2 %	20,939.9	(0.1)%
- Leach (low grade sulfides)	2,303.7	0.08 %	16.1 %	4,154.8	2,306.0	0.08 %	16.1 %	4,158.9	(0.1)%
Total inferred mineral resources	4,708.9	0.24 %		25,075.7	4,712.7	0.24 %		25,098.8	(0.1)%
Molybdenum	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Amount (million tonnes)**	**Grades**	**Metallurgical recovery**	**Metal content (million pounds)**	**Variation**
Measured mineral resources	—	— %	— %	—	—	— %	— %	—	
Indicated mineral resources	1,196.7	0.023 %	68.1 %	606.7	1,584.2	0.024 %	68.1 %	829.2	(26.8)%
Measured + Indicated mineral resources	1,196.7	0.023 %	68.1 %	606.7	1,584.2	0.024 %	68.1 %	829.2	(26.8)%
Inferred mineral resources	2,405.1	0.019 %	68.1 %	1,009.3	2,406.7	0.019 %	68.1 %	1,010.2	(0.1)%

(1) The Variation column refers to metal content variation.
(2) The point of reference for the mineral resources is in place and are current as at December 31, 2023; based on 2022 year-end tonnages, grades and contents adjusted only considering the 2023 depletion. Mineral resources are reported exclusive of mineral reserves. Wood is the third-party firm comprising mining experts responsible for the estimate.
(3) Mineral resources are reported within a conceptual pit shell that uses the following input parameters: metal prices of $3.80/lb Cu and $11.50/lb Mo; average metallurgical recovery of 88.2% for copper and 68.1% for molybdenum from a process plant and 16.1% copper recovery from a heap leach; base mining costs of $1.87/t; mill process operating costs of $7.68/t, leach operating costs of $0.70/t; copper concentrate payable price of $3.37/lb Cu, molybdenum concentrate payable price of $9.72/lb Mo, and leach copper payable price of $3.77/lb Cu. These parameters are based on the 2022 year-end figures.
(4) No estimates for molybdenum are reported for leachable material as this element cannot currently be recovered using the leach process envisaged.
(5) The cut-off grade used for mineral resource estimation for sulfide material was 0.146% Cu. Low-grade sulfide material to be sent to the leach dumps was reported at a cut-off of 0.052 %Cu.
(6) Numbers in the table have been rounded. Totals may not sum due to rounding.
(7) For further information on assumptions used in preparing the estimates and a detailed description of the cut-off grade determination, please refer to Chapter 11 of the Toquepala operations technical report summary prepared by qualified persons, under Exhibit 96.2 to the 2022 Form 10-K.

Mineral reserves

The following table contains the summary of copper and molybdenum mineral reserves for Toquepala as of December 31, 2023, based on long-term price assumptions of $3.30 and $10.00 per pound, respectively. The metal prices were fixed over the remaining 49 years of mine life:

Copper	2023 Amount (million tonnes)	2023 Grades	2023 Metallurgical recovery	2023 Metal content (million pounds)	2022 Amount (million tonnes)	2022 Grades	2022 Metallurgical recovery	2022 Metal content (million pounds)	Variation
Proven mineral reserves	—	— %	— %	—	—	— %	— %	—	
Probable mineral reserves (mill)	2,105.0	0.47 %	88.2 %	21,708.4	2,144.6	0.47 %	88.2 %	22,157.2	(2.0)%
Probable mineral reserves (dump leach)	2,545.4	0.15 %	8.0 %	8,691.7	2,503.3	0.15 %	8.0 %	8,668.2	0.3%
Total mineral reserves	4,650.4	0.30 %		30,400.1	4,647.9	0.30 %		30,825.4	(1.4)%

Molybdenum	2023 Amount (million tonnes)	2023 Grades	2023 Metallurgical recovery	2023 Metal content (million pounds)	2022 Amount (million tonnes)	2022 Grades	2022 Metallurgical recovery	2022 Metal content (million pounds)	Variation
Proven mineral reserves	—	— %	— %	—	—	— %	— %	—	
Probable mineral reserves	2,105.0	0.021 %	68.1 %	996.7	2,144.6	0.021 %	68.1 %	1,014.0	(1.7)%
Total mineral reserves	2,105.0	0.021 %	68.1 %	996.7	2,144.6	0.021 %	68.1 %	1,014.0	(1.7)%

(1) Mineral reserves are current as at December 31, 2023, based on 2022 year-end tonnages, grades and contents adjusted for 2023 mine depletion only. Wood is the third-party firm comprising mining experts responsible for the estimates.
(2) The point of reference for the mineral reserves is the point of delivery to the processing facility.
(3) Numbers in the table have been rounded. Totals may not sum due to rounding.
(4) Only 60% of leachable material will be exposed to irrigation on the leach dumps.
(5) The dump leach material includes leachable ore located in the leach dumps. The copper grade in the dump leach represents the estimated grade of material that has been loaded on the leach dumps and material that has been under leach for a period of time.
(6) Mineral reserves are constrained within a smoothed designed pit based on copper and molybdenum only. The following parameters were used in estimation: assumption of open pit mining methods; assumption of concentration and leaching processes; copper price of $3.30/lb, molybdenum price of $10.00/lb; variable NSR cut-off values of $10.84–$12.64/t-processed for concentration material; a NSR cut-off value of $0.819/t-processed for leaching material; mining recovery of 100%; 6% mining dilution; 22% reduction factor applied to molybdenum grade; variable metallurgical recoveries (average LOM recoveries of 88.2% for copper by concentration, 68.1% for molybdenum by concentration, and 16.1% for copper by leaching excluding leach ore existing in leach dumps, and 8.0% for copper by leaching including leach ore existing in leach dumps); average copper recoveries of 97.4% for smelting and 99.9% for refining; variable mining costs that range from $2.46–$4.26/t-mined; average process costs of $8.384/t-processed for concentration material, and $0.819/t-processed for leaching material; average smelting and refining cost of $0.382/lb Cu; selling costs of $-0.0024/lb Cu for concentration process, $1.679/lb Mo for concentration process, and $-0.009/lb Cu for leaching process; 1% NSR royalty applied to Cu and Mo; and 60% of the leachable material will be leached and processed by the SX/EW plant. These parameters are based on and unchanged from the 2022 year-end figures.
(7) For further information on assumptions used in preparing the estimates and a detailed description of the cut-off grade determinination, please refer to Chapter 12 of the Toquepala operations technical report summary prepared by qualified persons, under Exhibit 96.2 to the 2022 Form 10-K.

Processing Facilities—Ilo

Our Ilo smelter and refinery complex is located in the southern part of Peru, 17 kilometers north of the city of Ilo, 121 kilometers from Toquepala, 147 kilometers from Cuajone and 871 kilometers from the city of Lima. The smelter and refinery are located at about 17° 29.924'S latitude; 71° 21.608'W longitude and 17° 34.728'S latitude; 71° 21.188'W longitude respectively. Access is by plane from Lima to Tacna (1:40 hours) and then by highway to the city of Ilo (2:00 hours). Additionally, we operate a port facility in Ilo, from where we ship our products and receive supplies. Products shipped and supplies received are moved between Toquepala, Cuajone and Ilo on our industrial railroad.

Smelter

Our Ilo smelter produces copper anodes for the refinery we operate as part of the same facility. When the copper produced by the smelter exceeds the refinery's capacity, the excess is sold to other refineries around the world. In 2007, we completed a major modernization of the smelter. The nominal installed capacity of the smelter is 1,200,000 tonnes of copper concentrate per year. Copper concentrates from Toquepala and Cuajone are transported by railroad to the smelter, where they are smelted using an ISASMELT furnace, converters and anode furnaces to produce copper anodes with 99.7% copper.

At the smelter, the concentrates are mixed with flux and other material and sent to the ISASMELT furnace producing a mixture of copper matte and slag, which is tapped through a taphole to either of two rotary holding furnaces, where these smelted phases will be separated.

Copper matte contains approximately 63% copper. Copper matte is then sent to the four Pierce Smith converters, where the material is oxidized in two steps: (1) the iron sulfides in the matte are oxidized with oxygen enriched air and silica is added producing slag that is sent to the slag cleaning furnaces, and (2) the copper contained in the matte sulfides is then oxidized to produce blister copper, containing approximately 99.3% copper.

The blister copper is refined in two anode furnaces by oxidation and sulfur is removed with compressed air injected into the bath. Finally, the oxygen content of the molten copper is adjusted by reduction by injecting liquefied petroleum gas with steam into the bath. Anodes, containing approximately 99.7% copper, are cast in two casting wheels. The smelter also can produce blister copper bars, especially when an anode furnace is undergoing general repairs.

The off gases from the smelter are treated to recover over 92% of the incoming sulfur received in the concentrates to produce 98.5% sulfuric acid. The gas stream from the smelter with 11.34% SO_2 is split between two plants: The No. 1 acid plant (double absorption/double contact) and the No. 2 plant (double absorption/double contact). Approximately, 16% of the acid produced is used at our facilities with the balance sold to third parties.

In 2010, the Ilo smelter marine trestle started operations. This facility allows us to offload directly to offshore ships the sulfuric acid produced, avoiding hauling cargo through the city of Ilo. The 500-meter-long marine trestle is the last part of the Ilo smelter modernization project. Currently all overseas shipments of sulfuric acid are being made using the marine trestle.

The smelter also has two oxygen plants. Plant No. 1, which has a production capacity of 272 tonnes per, and Plant No.2, with a capacity of 1,045 tonnes per day.This facility also has auxiliary plants (sea water intake and two desalinization plants).

The table below contains production information for 2023, 2022 and 2021 for our Ilo smelter plant:

					Variance 2023 - 2022	
Smelter		**2023**	**2022**	**2021**	**Volume**	**%**
Concentrate smelted	(kt)	1,292.9	1,242.0	1,089.2	50.9	4.1%
Average copper recovery	(%)	97.1	96.3	97.4	0.8	0.8 %
Anode production	(kt)	362.9	350.8	309.2	12.1	3.4 %
Average anode grade	(%)	99.78	99.78	99.78	—	— %
Blister production	kt	1.9	2.1	2.6	(0.2)	(9.5)%
Average blister grade	(%)	99.28	99.18	99.03	0.10	0.10 %
Sulfuric acid produced	(kt)	1,286.8	1,210.2	1,066.5	76.6	6.3 %

Key: kt = thousand tonnes

Refinery

The Ilo refinery consists of a copper electrolytic plant, a precious metal plant and ancillary facilities. The refinery produces grade A copper cathode of 99.998% purity. The plant was acquired in 1994 and modernized the operation to produce 246,000 t/a of copper cathodes. It was subsequently expanded to the current nominal capacity of 294,763 tonnes per year.

In the electrolytic plant, impure copper anodes are suspended in tanks containing a solution of sulfuric acid and copper sulfate. A low voltage but high amperage electrical current is passed through the anodes, chemical solution and cathodes to dissolve copper which is initially deposited on very thin starting copper sheets until thickness is increased to produce high grade copper cathodes. During this process, silver, gold and other metals, including palladium, platinum and selenium, along with other impurities, settle to the bottom of the tank in the form of anodic slime. This anodic slime is processed in the precious metal plant to produce refined silver, refined gold and commercial grade selenium.

The table below contains production information for 2023, 2022 and 2021 for our Ilo refinery and precious metals plants:

					Variance 2023 - 2022	
Refinery		**2023**	**2022**	**2021**	**Volume**	**%**
Cathodes produced	(kt)	289.7	289.7	260.2	(0.1)	(0.0)%
Average copper grade	(%)	99.999	99.999	99.999	(0.000)	— %
Refined silver produced	(000 Kg)	109.7	116.4	124.0	(6.7)	(5.8)%
Refined gold produced	(kg)	223.1	185.8	215.8	37.3	20.1 %
Commercial grade selenium produced	(tons)	50.0	56.9	48.2	(6.9)	(12.1)%

Key: kt = thousand tonnes

In addition to the processing facilities, the refinery has a production control section, a laboratory that provides sample analysis throughout the Company, a maintenance department, a desalinization plant and other support facilities.

The industrial railroad's main equipment includes locomotives of different types and rolling stock with different types of cars and capacities. The track runs in a single 214 kilometer standard gauge line and supports a 30-ton axle load. The total length of the track system is around 257 kilometers including main yards and sidings. The infrastructure includes 27 kilometers of track under tunnels and one concrete bridge. The industrial railroad includes a car repair shop which is responsible for maintaining and repairing the car fleet. Annual transported tonnage is approximately 5.6 million tonnes.

Tia Maria Project

The Tia Maria Project is in the District of Cocachacra, Mejia and Deán Valdivia, Province of Islay, and Arequipa Region. The Project is located 118 km from Moquegua, 125 km from Arequipa, 120 km from the District of Ilo, and 980 km from Lima. The Project centroid is at approximately 17º 00' 21.06" S and 71º 49' 44.94" W. The mine gate will be situated at Pampa Cachendo. Mine access will be from the Pan-American Highway, diverting off the highway to the Project access road at km 1027–1028, between Arequipa and Moquegua, approximately 17 km before the town of El Fiscal.

The Project covers an area of 36,604.3 hectares in 55 concessions. We have easement agreements in place that cover the proposed powerline route and the planned water pipeline that will run from the envisaged desalination plant to the mine. Additionally, the project currently holds no water rights and the mine plan assumes that water for process operations will be sourced from a desalination plant. The project envisions a 120,000 ton annual SX-EW plant and the mine plans assume conventional open pit mining methods from the La Tapada and Tia Maria deposits.

The property is currently under the development stage. From 1994 through 1999, prior to involvement by Southern Copper, the Tia Maria Project area was evaluated by Teck Corporation, Phelps Dodge and Rio Tinto. We acquired the project in 2003, and we were granted the construction permit on July 2019. Additionally, on October 2019, the Mining Council of the Peruvian Ministry of Energy and Mines ratified the construction permit for the Tia Maria project. We expect the Peruvian government to acknowledge the significant progress the project has made on the social front and the important contributions that Tia Maria will generate for Peru´s economy and, consequently, take the necessary steps to provide SCC with adequate support to initiate construction.

Geology

The La Tapada and Tía Maria deposits are within the northwest–southeast-trending Tambo–El Toro structural corridor that appears to be a large dextral shear zone. There are a number of vein-hosted copper–gold–hematite deposits also associated with the corridor, outside our mineral tenure package. Alteration within the project area is associated with the two porphyry systems currently outlined. The only known mineralization is derived from oxidation of low-grade porphyry copper systems.

Mineral resources

The following table contains the summary of copper mineral resources for the La Tapada and Tia Maria deposits as of December 31, 2023, based on long-term price assumptions of $3.80 per pound, fixed over the 20 year mine life:

La Tapada	Amount (million tonnes)	Grades		Metallurgical recovery		Metal content (million pounds)
Measured mineral resources	—	—	%	—	%	—
Indicated mineral resources	90.4	0.21	%	69	%	420.3
Measured + Indicated mineral resources	90.4	0.21	%	69	%	420.3
Inferred mineral resources	1.6	0.18	%	69	%	6.4

Tia Maria	Amount (million tonnes)	Grades		Metallurgical recovery		Metal content (million pounds)
Measured mineral resources	—	—	%	—	%	—
Indicated mineral resources	35.5	0.17	%	65	%	135.2
Measured + Indicated mineral resources	35.5	0.17	%	65	%	135.2
Inferred mineral resources	21.8	0.22	%	65	%	107.8

(1) Mineral resources are reported in situ and are current as at December 31, 2023. Figures have been rounded.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) The cut-off grade used for mineral resource estimation was 0.08% Cu. Mineral resources are constrained within a wireframe constructed at a 0.1% total copper cut-off grade.
(4) Mineral resources are reported within a conceptual pit shell that uses the following input parameters: metal prices of $3.80/lb Cu; metallurgical recovery assumptions of 69% for La Tapada and 65% for Tia Maria; base mining costs of $1.40/t mined and incremental haul costs of $0.017/t mined; process operating costs of $3.78/t processed for La Tapada and $3.61/t processed for Tia María; general and administrative costs of $0.37/t processed; transport and freight costs of $0.04/lb Cu; an assumed copper cathode premium of $0.03/lb Cu, and a royalty payable of 1%. Average pit slope angles were used for the north and south geotechnical zones in each deposit, and ranged from 35º–39º.
(5) No estimates for gold, silver, or molybdenum are reported for leachable material as these elements cannot currently be recovered using the leach process envisaged.
(6) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determinations, please refer to Chapter 11 of the Tia Maria project technical report summary prepared by qualified persons, under Exhibit 96.3 of Form 10-K/A filed on March 7, 2022.
(7) Wood is the third-party firm; its mining experts were responsible for the estimate.
(8) There were no changes with regard to the figures reported in 2021.

Mineral reserves

The following table contains the summary of copper mineral reserves for the La Tapada and Tia Maria deposits as of December 31, 2023, based on long-term price assumptions of $3.30 per pound, fixed over the estimated 20-year mine life:

La Tapada	Amount (million tonnes)	Grades		Metallurgical recovery		Metal content (million pounds)
Proven mineral reserves	—	—	%	—	%	—
Probable mineral reserves	487.6	0.41	%	69	%	4,449.2
Total mineral reserves	487.6	0.41	%	69	%	4,449.2

Tia Maria	Amount (million tonnes)	Grades		Metallurgical recovery		Metal content (million pounds)
Proven mineral reserves	—	—	%	—	%	—
Probable mineral reserves	223.8	0.29	%	65	%	1,412.5
Total mineral reserves	223.8	0.29	%	65	%	1,412.5

(1) Mineral reserves are current as at December 31, 2023.
(2) The reference point for the estimate is delivery to the process facility.
(3) Four oxide stockpiles for material grading less than the run-of-mine cut-off but >0.08% Cu are planned, with two stockpile locations at each open pit.
(4) Mineral reserves are constrained within an optimized pit shell that uses the following parameters: assumption of open pit mining methods; assumption of heap leach processing; copper price of $3.30/lb; copper cut-off grade of 0.10% Cu; mining recovery of 100%; metallurgical recovery of 69% at La Tapada and 65% at Tía María; total mining costs (base, incremental and sustaining) of $1.466/t mined; process costs of $3.779/t processed at La Tapada and $3.614/t processed at Tía María; process sustaining capital costs of $0.155/t processed, general and administrative costs of $0.373/t processed; transport costs (rail, port, freight) of $0.034/lb Cu; a copper cathode premium payable of $0.026/lb Cu; and assumption of a 1% royalty payment.
(5) For further information on assumptions used in preparing the estimates, including a detailed description on the cut-off determinations, please refer to Chapter 12 of the Tia Maria project technical report summary prepared by qualified persons, under Exhibit 96.3 of Form 10-K/A report filed on March 7, 2022.
(6) Wood is the third-party; its mining experts were responsible for the estimate.
(7) There were no changes with regard to the mineral reserves figures reported in 2021.

Los Chancas Project

The Los Chancas project is located in the Andes Range in southern Peru. The site is approximately 65 km southwest of the city of Abancay in the Department of Apurimac, Peru at coordinates 14° 9.904'S, 73° 6.608'W or UTM 8433300 S, 703,270 E – WGS84. The project site can be accessed using a Highway 1, a paved road, from Lima to Nazca (460 km), from Nazca to Santa Rosa (250 km), using road 30A, and a gravel road from Santa Rosa to the Project site (32 km). Alternatively, access is available from Cuzco, via paved road, to Santa Rosa (170 km), and uses the same gravel road from Santa Rosa to the Project site (32 km). Access within the project area is via gravel roads.

The closest airport is at Cuzco, which is served by daily flights from Lima (approximately one hour flying time). There are a number of port options that may be available to the project for concentrate shipment. These include San Juan de Marcona (approximately 500 km by road), General San Martin at Pisco (about 640–800 km depending on the road route) and Matarani (about 600–750 km depending on the road route).

The project covers 24,200 hectares in 35 concessions. Surface rights are currently being negotiated. The area where surface rights are required is within the Tiaparo and Tapairíhua rural community boundaries. Additionally, we hold two water rights that cover water from four spring sources.

The property is currently under the exploration stage. We commenced exploration in the Los Chancas area in 1997. The initial Environmental Assessment of the Los Chancas Project was conducted in 2001 and updated in 2008. A semi-detailed environmental impact assessment was completed in 2010. Additionally, we completed baseline studies from 2012 through 2020 and have community initiatives in place in the project area of influence. In 2023 we continued to roll out social and environmental improvement efforts in local communities. In 2024, we expect to restart the environmental impact assessment; conduct a diamond drilling campaign for 40,000 meters; and initiate hydrogeological and geotechnical studies to gather additional information on the characteristics of the Los Chancas deposit. Los Chancas envisions an open-pit mine with a combined operation of concentrator and SX-EW processes.

Geology

The Los Chancas deposit is considered to be an example of a porphyry copper–molybdenum deposit. The deposit is about 1,200 m in diameter, extends for at least 1,000 m at depth, and most drill holes bottom in mineralization. The deposit remains open to the southeast and at depth. Sedimentary rocks of the Jurassic–Cretaceous Ferrobamba, Mara, Soraya, and Chuquibambilla Formations form a north-facing anticline that is eroded along the axial plane. The sediments were intruded by three generations of monzonite intrusion.

Mineralization is hosted by quartz monzonite and surrounding quartzite and siltstone country rocks. Sulfide mineralization consists of hypogene chalcopyrite, bornite, molybdenite, and pyrite. Sulfides are hosted in quartz veins, occur as small sulfide streaks/veins, or form disseminations in the intrusive and sedimentary rocks. This primary mineralization was oxidized and leached, and a zone of supergene enrichment developed. The major area of leaching is to the east, and vertically above, the primary mineralized zone. The oxide zone is sub-parallel to topography. Brochantite and chrysocolla are the dominant copper oxide minerals, with subordinate azurite and malachite. Sulfide minerals within the supergene enrichment zone include chalcocite, covellite, digenite, cuprite, and native copper. Copper oxides are also present as a minor constituent.

Mineral resources

The following table contains the summary of copper mineral resources for Los Chancas as of December 31, 2023, based on long-term price assumptions of $3.80 per pound, fixed over the long-term period of time that mineral resources are expected to be produced:

Copper	Amount (million tonnes)	Grades		Metallurgical recovery		Metal content (million pounds)
Measured mineral resources	—	—	%	—	%	—
Oxide	98	0.45				975.2
Sulfide	52	0.59				672.8
Indicated mineral resources	150	0.50	%	82-84	%	1,648
Measured + Indicated mineral resources	150	0.50	%	82-84	%	1,648
Oxide	33	0.38				277.4
Sulfide	1,400	0.45				13,887.6
Inferred mineral resources	1,433	0.45	%	82-84	%	14,165

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported within a conceptual pit shell that uses the following input parameters: metal prices of $3.80/lb Cu; metallurgical recoveries from copper leaching of 81.8% and from copper milling of 84.3%; base mining costs of $1.70/t; sustaining capital costs of $0.25/t processed; heap leach and electrowinning process operating costs of $4.29/t, mill process operating costs of $5.82/t, general and administrative costs of $1.06/t processed; and closure costs of $0.51/t processed. The marginal net smelter return cut-off values were $6.11/t for material amenable to heap leach methods and $7.64/t for material amenable to milling and flotation concentration.
(3) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Los Chancas project technical report summary prepared by qualified persons, under Exhibit 96.4 of Form 10-K/A filed by the Company on March 7, 2022.
(4) Wood is the third-party; its mining experts were responsible for the estimate.
(5) There were no changes with regard to the mineral resource figures reported in 2021.

Michiquillay Project

The Michiquillay project is located in the Western Cordillera of the Andes in northwest Peru, approximately 45 km from Cajamarca and 900 km northeast of Lima. Project centroid coordinates are approximately 7º 02’ 23.65” S and 78º 19’ 23.59” W. The Michiquillay deposit is located at 7º 02’ 17.53” S and 78º 19’ 29.30” W. The datum used is UTM WGS84. The main access route to the Project is via road from Cajamarca. Initially, the paved Route 8B is used from Cajamarca to the town of La Encañada, a distance of approximately 33 km. A gravel road is then used from La Encañada to the project site, approximately 14 km. The communities of Michiquillay and Encañada are 2 km and 14 km from the project, respectively. Access within the project is via various gravel and two-track roads that link areas where drilling is planned. The closest airport is at Cajamarca, which is serviced by regular flights from Lima.

The Michiquillay Project consists of 18 mining concessions with a total area of 4,051.4 hectares. The Michiquillay deposit is located on lands of the Michiquillay Rural Community and the Encañada Rural Community. We have signed surface land use agreements with both communities which allow us to conduct exploration activities. Permits for the use of water for exploration purposes are currently being processed by the National Water Authority and the Marañon Local Authority.

The property is currently under the exploration stage. Previous work in the project was conducted by Northern Peru Mining Company, American Smelting and Refining Company, later Asarco LLC, Minero Peru S.A., and various Anglo

American subsidiaries. In June 2018, Southern Copper purchased the project from Activos Mineros S.A.C. for a total purchase price of $400 million and made an initial payment of $12.5 million. In June 2021, we paid an additional $12.5 million to acquire the project. The remaining balance of $375 million will be paid if we decide to develop the project. In 2021, we signed Social Agreements with the Michiquillay and La Encañada communities. Additionally, on October 1, 2021 the Peruvian Ministry of Energy and Mines approved the semi-detailed Environmental Impact Study for the project. In the fourth quarter of 2022, the Company informed MINEM that it had begun exploration activities and initiated an assessment of existing mineral resources at depth. In 2022, we drilled 1,585 meters. As of December 31, 2023, we had drilled 63,000 meters and obtained 20,137 core samples for chemichal analysis. Geological modeling, cross section interpretation, and drilling logging are currently underway. For 2024, the Company expects to complete the diamond drilling program; geological modeling; and resource evaluation. We will also begin hydrogeological and geotechnical studies and assess the results of metallurgical testing at the deposit.

Geology

The Michiquillay deposit is considered to be an example of a porphyry copper–molybdenum–gold deposit. The project is located within a northwest–southeast-oriented metallogenetic corridor of the Andes, that hosts several porphyry copper deposits in the Cajamarca region. Those deposits are characterized by calc-alkaline magmatic rocks covered by folded and faulted sedimentary formations. Mineralization is zoned vertically due to oxidation and remobilization of copper by supergene processes.

The porphyry mineralization and the porphyritic intrusion at Michiquillay appear to be related to, and controlled by, a regional-scale strike change on a series of pre-mineral west–northwest to northwest striking brittle–ductile fault zones. The porphyry intrusions appear to be controlled by intense, concentrated extension on releasing bends, splays, overlaps in dextral fault segments and on the margins of brittle fault zones with development of multiple extensional phases in stockworks, synthetic/antithetic extensional faults and extensional duplexes.

Mineral resources

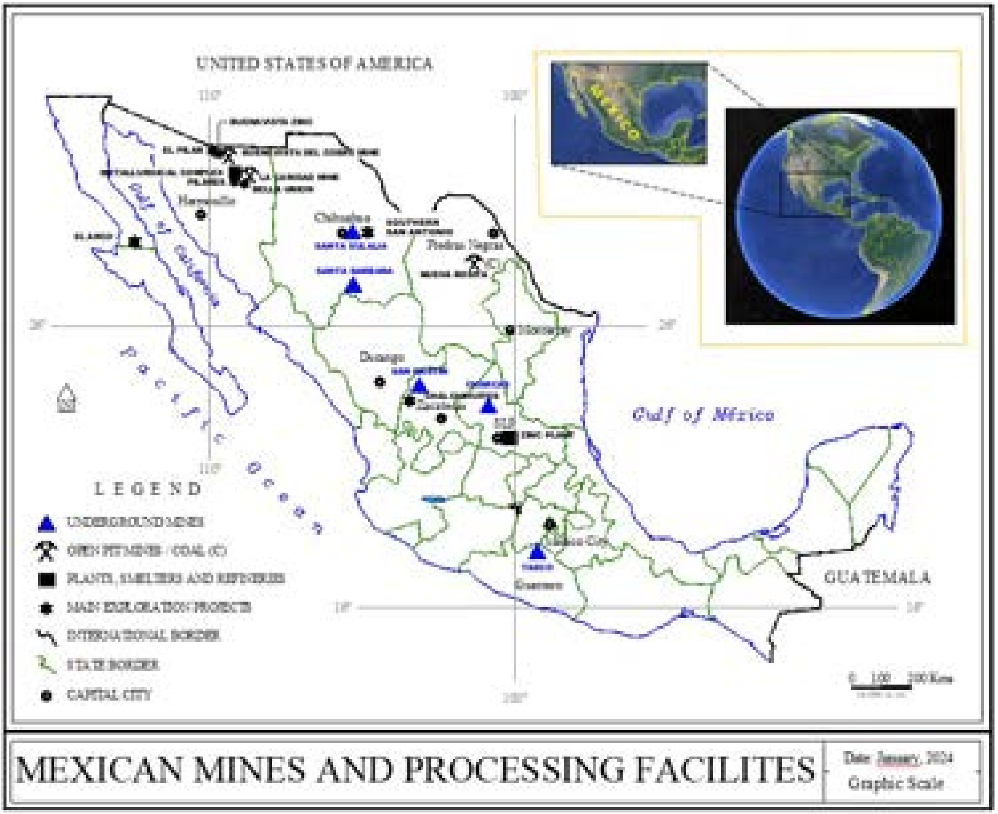
The following table contains the summary of copper mineral resources for Michiquillay as of December 31, 2023, based on long-term price assumptions of $3.80 per pound, fixed over long-term period that would be expected to be required to produce the mineral resources:

Copper	Amount (million tonnes)	Grades	Metallurgical recovery	Metal content (million pounds)
Measured mineral resources	—	— %	— %	—
Indicated mineral resources	—	— %	— %	—
Measured + Indicated mineral resources	—	— %	— %	—
Inferred mineral resources	2,288.0	0.43 %	85 %	21,554.8

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported within a conceptual pit shell that uses the following input parameters: metal prices of $3.80/lb Cu; copper metallurgical recovery assumptions of 85.4%; base mining costs of $1.70/t; mill process operating costs of $5.82/t, general and administrative costs of $1.12/t; variable pit slope angles that vary from 34–38º; 3% NSR royalty payable to Activos Mineros Mineral resources are reported above a cut-off grade of 0.1% Cu.
(3) Wood chose a cut-off grade of 0.1% Cu to report mineral resource estimates as based on the above assumptions it provides reasonable prospects of economic extraction.
(4) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Michiquillay project technical report summary prepared by qualified persons, under Exhibit 96.5 of Form 10-K/A filed by the Company on March 7, 2022.
(5) Wood is the third-party; its mining experts were responsible for the estimate.
(6) There were no changes with regard to the mineral resource figures reported in 2021.

MEXICAN OPERATIONS

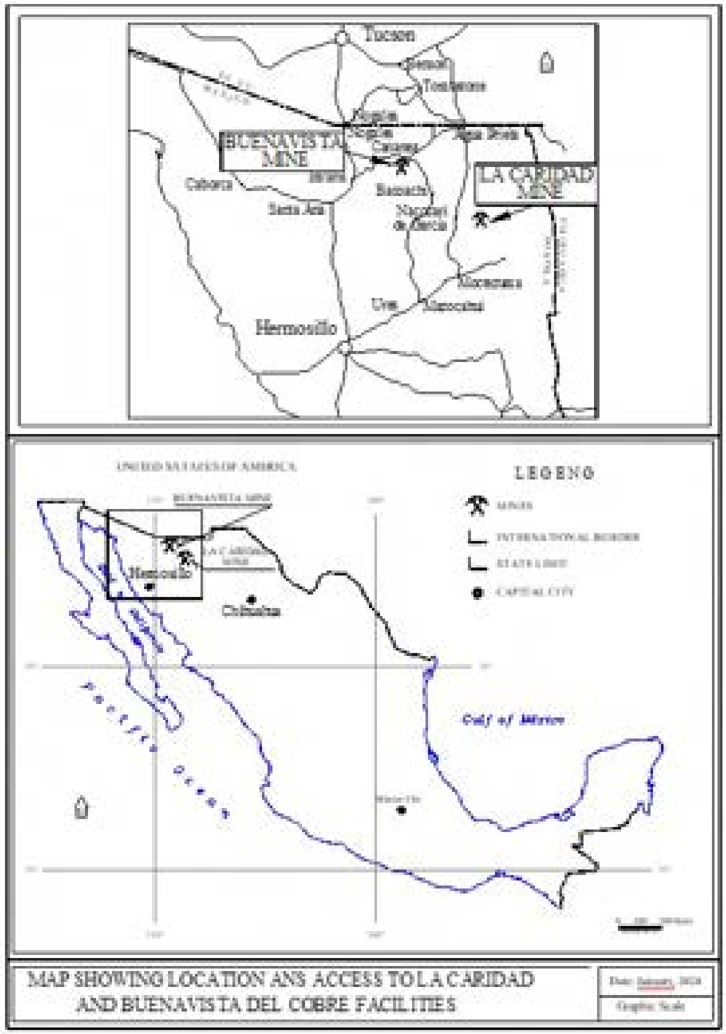
The map below indicates the approximate locations of our Mexican mines and processing facilities:



MEXICAN OPEN-PIT SEGMENT

Our Mexican open-pit segment operations combine two units of Minera Mexico, La Caridad and Buenavista, which include La Caridad and Buenavista mine complexes and smelting and refining plants and support facilities, which service both complexes.

The map below indicates the approximate location of, and access to, our Mexican open-pit mine complexes and our processing facilities:



We have ongoing maintenance and improvement programs to ensure the satisfactory performance of our equipment. We believe all our Mexican open-pit segment equipment is in good physical condition and suitable for our operations.

Buenavista

The Buenavista mining unit operates an open-pit porphyry copper mine, two concentrators and three SX-EW plants. It is located within the Cananea mining district in the north-central part of the State of Sonora, Mexico. The property is located about 222 kilometers northeast of the city of Hermosillo, Sonora and 150 kilometers southeast of the city of Tucson, Arizona. The geographical location of the Cananea mining district is between latitudes 30° 42’ and 31° 16’ north, and longitude meridians 109° 51’ and 110° 33’ west. The Cananea mining district is located at an altitude between 1,600 and 2,485 meters (m) above mean sea level. The property covers an area of 89,220.5 hectares of mining concessions. The elevation of the mine is of the order of 1,604 meters above mean sea level.

The Buenavista del Cobre (“BVC”) deposit contains two pit areas, namely BVC and Buenavista Zinc (“BVZ”). The BVZ pit area lies within the largest BVC pit. Buenavista is connected by paved highways to the border city of Agua Prieta to the northeast, to the town of Nacozari in the southeast and to the town of Imuris to the west. Buenavista is also connected by railway to Agua Prieta and Nogales. A municipal airport is located approximately 20 kilometers to the northeast of Buenavista. All required fixed and permanent infrastructure of power, pipelines and primary roadways, and Project access are established. Drainage, water controls and mine access roads are established for current operations and will be expanded and continued as the pit progresses through its planned life of operations.

In 2016 we concluded our $3.5 billion investment program in Mexico. The program included a third SX-EW plant, which was completed in June 2014 with a rated annual capacity of 120,000 tonnes of copper and a new concentrator, completed in 2015, with an annual copper production capacity of 188,000 tonnes. The program also included two molybdenum plants with a combined annual capacity of 4,600 tonnes. The first plant was completed in 2013 and the second in 2016. Additionally, the program included the Crushing, Conveying and Spreading System for Leachable Ore (Quebalix IV), which was completed on time and under budget and is currently operating steadily. This project will reduce mining costs and increase SX-EW copper recovery, allowing the Buenavista unit to reach its copper production capacity of 500,000 tonnes.

The original concentrator currently has a nominal milling capacity of 82,000 tonnes per day. The second concentrator began operations in 2016 and currently has a nominal milling capacity of 115,000 tonnes per day. The SX-EW facilities have a cathode production capacity of 174,470 tonnes per year. The Buenavista ore body is considered one of the world’s largest porphyry copper deposits. Buenavista is the oldest continuously operated copper mine in North America, with operations dating back to 1899. High grade ore deposits in the district were mined exclusively using underground methods. The Anaconda Company acquired the property in 1917. In the early 1940s, Anaconda started developing the first open-pit in Buenavista. In 1990, through a public auction procedure, Minera Mexico acquired 100% of the Buenavista mining assets for $475 million. Buenavista is currently applying conventional open-pit mining methods to extract copper ore for further processing in the concentrator. Additionally, we have built a new zinc concentrator plant, which will increase milling capacity and will allow us to recover zinc, along with copper contents. Ramping up of the plant began in the first quarter of 2024 after technical adjustments to the concentrator.

The following table contains production information for 2023, 2022 and 2021 for Buenavista:

		2023	2022	2021	2023 - 2022 Variance Volume	%
Mine annual operating days		365	365	365		
Mine:						
Total ore mined	(kt)	72,896	74,180	74,234	(1,284)	(1.7)%
Copper grade	(%)	0.525	0.528	0.527	(0.003)	(0.6)%
Leach material mined	(kt)	121,124	122,630	139,070	(1,506)	(1.2)%
Leach material grade	(%)	0.223	0.21	0.196	0.013	6.2 %
Stripping ratio	(x)	0.66	0.72	0.52	(0.06)	(8.3)%
Total material mined	(kt)	322,142	337,727	324,860	(15,585)	(4.6)%
Concentrator:						
Total material milled	(kt)	72,609	74,121	74,302	(1,512)	(2.0)%
Copper recovery	(%)	86.36	86.57	87.18	(0.21)	(0.2)%
Copper concentrate	(kt)	1,455.6	1,482.3	1,464.9	(26.7)	(1.8)%
Copper in concentrate	(kt)	329.0	339.0	341.0	(10.0)	(2.9)%
Copper concentrate average grade	(%)	22.60	22.87	23.28	(0.3)	(1.2)%
SX-EW plant						
Estimated leach recovery	(%)	70.00	67.00	65.00	3.00	4.5 %
SX-EW cathode production	(kt)	87.6	93.3	81.8	(5.7)	(6.1)%
Molybdenum						
Molybdenum grade	(%)	0.011	0.01	0.01	0.001	10.0 %
Molybdenum recovery	(%)	70.84	70.46	68.97	0.38	0.5 %
Molybdenum concentrate	(kt)	10.49	10.48	10.21	0.01	0.1 %
Molybdenum concentrate average grade	(%)	51.57	51.24	51.22	0.33	0.6 %
Molybdenum in concentrate	(kt)	5.41	5.37	5.23	0.04	0.7 %

Key: kt = thousand tonnes
x = Stripping ratio obtained dividing waste by leachable material plus ore mined.
The copper and molybdenum grade are total grade.

Geology

The Cananea mining district lies within the eastern section of the Sonora Basin and Range Province of northern Mexico. Sustained magmatic activity along the North American Cordillera during the late Mesozoic through Paleogene resulted in the development of numerous porphyry copper deposits. The Precambrian Cananea basement rocks are overlain by several Paleozoic sedimentary units ranging from the Cambrian Capote Quartzite through thick limestone sequence of Upper Paleozoic age. Overlying the Paleozoic sediments and Precambrian granite of Cananea are the Henrietta and Elenita formations which are Triassic to late Jurassic in age and are comprised of volcanic rocks of latite to andesite composition. The youngest volcanic units in the district are andesitic tuffs and rhyolites of the Mesa formation.

The intrusions of diorite, granodiorite and quartz monzonite formed after the emplacement of the Mesa Formation. In the final stage of intrusive activity, diabase dikes intruded faults and fractures with a NW-SE trend. Pipe-like breccias formed as late-stage products of the quartz-monzonite porphyries. During the Cenozoic, alluvian and fluvial sediments were deposited as erosion of the Cananea Mountains occurred. Exhumation of the upper part of the Cananea minig district porphyry system resulted in the formation of a supergene enrichment and an oxidation overburden overlying the porphyry system.

Concentrator

Buenavista uses state-of-the-art computer monitoring systems at the concentrators, the crushing plant and the flotation circuit in order to coordinate inflows and optimize operations. In the original concentrator, material with a copper grade above a cut-off grade of approximately 0.30% is currently loaded onto trucks and sent to the milling circuit, where giant rotating crushers reduce the size of the ore to approximately one-half of an inch. The ore is then sent to the ball mills, which grind it to the consistency of fine powder. The finely ground powder is agitated in a water and reagents solution and is then transported to flotation cells. Air is pumped into the cells producing a froth, which carries the copper mineral to the surface but not the waste rock, or tailings. Recovered copper, with the consistency of froth, is filtered and dried to produce copper concentrates with an average copper content of approximately 24%. Concentrates are then shipped by rail to the smelter at La Caridad.

In the second concentrator, material with a copper grade above a cut-off grade of aprroximately 0.30% is sent to a three-phase milling circuit, where the ore size is reduced to approximately one-half inch. The ore is then sent to a circuit of six ball mills, which grind it to the consistency of fine powder. The finely ground powder is agitated in a water and reagents solution and is then transported to flotation cells. Air is pumped into the cells producing a froth, which carries the copper mineral to the surface but not the waste rock, or tailings. Recovered copper, with the consistency of froth, is filtered and dried to produce copper concentrates with an average copper content of approximately 24%. Concentrates are then sent by trucks or by railroad to the La Caridad smelter or to the Guaymas port, at Sonora, for export.

The current cut-off grade assumptions used on site for both concentrator 1 and 2 and material assigned for leach is recommended to be reassessed. The mineral reserves reported for Buenavista have been estimated by determining economic value of each block containing mineral resource. This takes into account the potential revenue of the block whether it is processed in a concentrator or on the leach pad along with the downstream selling costs. The approximate cut-off grade for the concentrators is estimated to be 0.11% copper and the approximate cut-off grade for the leachable material is estimated to be 0.05% copper. The approximate cut-off grade for the zinc concentrator (once it has been constructed) was estimated to be 0.22% copper equivalent.

As part of the expansion program for this unit, in 2013 we completed the construction of the first molybdenum plant with an annual production capacity of 2,000 tonnes of molybdenum contained in concentrate. The plant was designed to process 1,500 tonnes of copper-molybdenum concentrates per day with a content recovery of approximately 80% copper and 50% molybdenum. The molybdenum plant consists of thickeners, homogenizer tanks, flotation cells, column cells and a holo-flite dryer. The second molybdenum plant was designed to process 3,040 tonnes of copper-molybdenum concentrates per day for a content recovery between 80% and 87% for copper and 60% for molybdenum. The plant generated its first production lot in July 2016 and fully initiated operations in November 2016.

SX-EW Plant

The Buenavista unit operates a leaching facility and three SX-EW plants. All copper ore with a grade lower than the mill cut-off grade of 0.30%, but higher than 0.15%, is delivered to the leach dumps. A cycle of leaching and resting occurs for approximately five years in the run-of-mine dumps and three years for the crushed leach material. A review of the cut-off grades based on economics is recommended to be reassessed as described above.

There are three irrigation systems for the dumps and eleven dams for the pregnant leach solution (PLS). Plant I has four solvent extraction tanks with a nominal capacity of 18,000 liters per minute of PLS and 54 electrowinning cells and has a daily production capacity of 30 tonnes of copper cathodes with 99.999% purity. Plant II has five trains of solvent extraction with a nominal capacity of 62,000 liters per minute of PLS and 220 cells distributed in two bays and has a daily production capacity of 120 tonnes of copper cathodes with 99.9% purity. Plant III has three trains of solvent extraction with a nominal capacity of 167,100 liters per minute of PLS and 270 cells distributed in two bays and has a daily production capacity of 328 tonnes of copper cathodes with 99.9% purity. The plant produces copper cathodes of LME grade A.

Slope stability

At the Buenavista mine, we are following the recommendations produced by a geotechnical evaluation of the design slope for the 15-year pit plan. This evaluation was prepared by an independent mine consulting firm. The assessment included the determination of optimum pit slope design angles and bench design parameters for the proposed mine plan. The objective of the study was: (1) to determine optimum inter-ramp slope angles and bench design parameters for the 15-year plan and (2) to identify and analyze any potential major instability that could adversely impact mine operation. In 2012, we installed a radar system to monitor the walls of the mine.

The following recommendations were made for the Buenavista mine: inter-ramp slope design angles for the 15-year pit plan for all of the 21 design sectors defined on a rock-fabric-based catch bench analysis, using double bench, can range from 48° and 55°, and the inter-ramp slope angles are based on geometries obtained from the back-break analysis using 80% reliability of achieving the required 7.6 meter catch bench width for a single bench configuration and 10.6 meter catch bench width for a double bench configuration. Preliminary observations suggest the 15-year pit walls may be relatively free-draining; the back-break analysis assumed depressurized conditions of mine benches, and the inter-ramp stability analysis were performed for both saturated and depressurized conditions.

A pit dewatering/depressurization plan for the Buenavista mine was also recommended to address the issues of open-pit drainage, dewatering plan and future slope depressurization. Phase I of the geohydrological study was completed by an independent consultant. The analysis included a preliminary assessment and work plan implementation.

Between 2011 and 2014, we conducted well drilling and dewatering programs to ensure the ability to continue with the mining plan. We also executed a geophysical study to determine the best locations for water extraction wells and continued collecting new geotechnical information from two exploration drilling projects. Following the recommendations of the geotechnical evaluation, we continued monitoring the walls using the radar system.

Various studies are now being conducted by outside specialized consultants to establish long-range mine water management objectives and implement recommendations for the efficient use of this resource. We are also conducting a geotechnical study and a diamond drilling program with an independent consulting firm in order to obtain additional geotechnical information, which will allow us to verify the slope stability for the long-term mine plan. In addition, slope monitoring continues with the SSR 160 radar.

In July 2020, the OMNI 505 radar began operating. As such, we currently have two working radars, which allow us to cover 95% of the slopes in the operating areas of the mine. In 2021, we acquired two pieces of equipment for additional monitoring and began developing a geotechnical study for the mine with the support of a specialized consulting firm. The results of the study concluded in 2022 and included recommendations for updates to the bench design which have not been incorporated in the current estimation of Mineral Reserves. These recommendations should be reviewed for potential updates to the ultimate pit design.

During 2022, we continued with the diamond exploration and reverse circulation programs for the quantification and certification of resources and reserves, considering the limits of the final slope design (LOM). During this period, a total of 24,865 linear meters were developed distributed in a total of 35 diamond exploration holes. 8,105 tested samples for 18 chemical elements were generated and 1,425 samples related to QA/QC analysis (control samples) were included. We also drilled 4,332 meters of exploration with reverse circulation that were distributed into 45 holes for short-term planning. All exploration information contains lithological descriptions, geomechanical data, QA/QC data, orientations, densities and final coordinates.

In 2023, we continued to roll out diamond exploration and reverse circulation programs for the quantification and certification of resources and reserves, considering the limits of the updated final slope design. Over the year, a total of 33,810 linear meters were developed distributed in a total of 47 diamond exploration holes. 11,098 tested samples for 18 chemical elements were generated and a total of 2,090 samples related to QA/QC analysis (control samples) were included. In the short-term exploration segment, we drilled 7,606 meters of exploration with reverse circulation distributed in 64 holes. All the exploration information contains lithological descriptions, geomechanical data, QA/QC data, orientations, densities and final coordinates.

Mineral resources

The following table contains the summary of copper, molybdenum and zinc mineral resources exclusive of mineral reserves for Buenavista as of December 31, 2023, based on long-term price assumptions of $3.80, $11.50 and $1.32 per pound, respectively:

2023

Copper plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)	Variation Copper	Variation Molybdenum	Variation Zinc
Measured mineral resources	—	— %	— %	— %	—	—	—	—	—	—
Indicated mineral resources	764	0.34 %	0.005 %	0.07 %	5,664	89	1,182	0.0%	1.1%	0.0%
Measured + Indicated mineral resources	764	0.34 %	0.005 %	0.07 %	5,664	89	1,182	0.0%	1.1%	0.0%
Inferred mineral resources	13,015	0.21 %	0.004 %	0.03 %	56,584	1,080	8,089	0.0%	0.0%	0.0%

Zinc plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)			
Measured mineral resources	—	— %	— %	— %	—	—	—	—	—	—
Indicated mineral resources	148	0.46 %	0.002 %	0.78 %	1,562	5	2,416	0.1%	22.7%	0.0%
Measured + Indicated mineral resources	148	0.46 %	0.002 %	0.78 %	1,562	5	2,416	0.1%	22.7%	0.0%
Inferred mineral resources	143	0.43 %	0.003 %	0.49 %	1,394	7	1,638	0.1%	0.0%	0.0%

Leach plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)			
Measured mineral resources	—	—	— %	— %	—	—	—	—	—	—
Indicated mineral resources	77	0.13 %	— %	— %	196	—	—	0.0%	—	—
Measured + Indicated mineral resources	77	0.13 %	— %	— %	196	—	—	0.0%	—	—
Inferred mineral resources	2,831	0.14 %	— %	— %	8,518	—	—	(0.2)%	—	—

2022

Copper plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)
Measured mineral resources	—	— %	— %	— %	—	—	—
Indicated mineral resources	764	0.34 %	0.005 %	0.07 %	5,664	88	1,182
Measured + Indicated mineral resources	764	0.34 %	0.005 %	0.07 %	5,664	88	1,182
Inferred mineral resources	13,015	0.21 %	0.004 %	0.03 %	56,584	1,080	8,089

Zinc plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)
Measured mineral resources	—	— %	— %	— %	—	—	—
Indicated mineral resources	148	0.46 %	0.002 %	0.78 %	1,561	4	2,416
Measured + Indicated mineral resources	148	0.46 %	0.002 %	0.78 %	1,561	4	2,416
Inferred mineral resources	143	0.43 %	0.003 %	0.49 %	1,393	7	1,638

Leach plant	Amount (million tonnes)	Copper grades	Molybdenum grades	Zinc grades	Contained copper (million pounds)	Contained molybdenum (million pounds)	Contained zinc (million pounds)
Measured mineral resources	—	—	— %	— %	—	—	—
Indicated mineral resources	77	0.13 %	— %	— %	196	—	—
Measured + Indicated mineral resources	77	0.13 %	— %	— %	196	—	—
Inferred mineral resources	2,838	0.14 %	— %	— %	8,538	—	—

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) Mineral recovery was based on historical 3-year averages for mill: 86.5% for Cu, 64% for Mo and 68% for Zn and for Leach (combined ROM and crushed leach): Cu 31.5%.
(4) Cut-off grade: mineral resources are reported on break-even plant and leach profit basis. The estimate was constrained to the Resource pit based on a Cu price of $3.795/lb, Mo price of $11.50/lb and Zn price of $1.323/lb.

(5) It was assumed that ore with solubility index greater than 0.8 had been sent to the leach pad. If more than one process was profitable, then the process with the highest value was chosen.
(6) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Buenavista del Cobre technical report summary prepared by qualified persons, under Exhibit 96.6 to the 2022 Form 10-K.

The variations registered for mineral resources from 2022 to 2023 were attributable to:
- Production depletion for 2023.
- Updated end-of-year topography surfaces for 2022 and 2023 and rounding.

Mineral reserves

The following table contains the summary of copper, molybdenum and zinc mineral reserves for Buenavista as of December 31, 2023, based on long-term price assumptions of $3.30, $10.00 and $1.15 per pound, respectively:

	2023									
Probable mineral reserves	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Zinc grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Contained zinc (million pounds)**	**Variation Copper**	**Variation Molybdenum**	**Variation Zinc**
Sulfide ROM Ore - Copper plant	1,961	0.41 %	0.007 %	— %	17,861	319	—	(3.6)%	(4.2)%	0.0%
Sulfide ROM Ore - Zinc plant	91	0.40 %	— %	1.42 %	809	—	2,852	(1.8)%	0.0%	(5.5)%
Sulfide ROM Ore - Total	**2,052**	**0.41** %	— %	— %	**18,670**	**319**	**2,852**	(3.5)%	(4.2)%	(5.5)%
Leachable Ore	1,033	0.22 %	— %	— %	4,948	—	—	(9.3)%	0.0%	0.0%

	2022						
Probable mineral reserves	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Zinc grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Contained zinc (million pounds)**
Sulfide ROM Ore - Copper plant	2,020	0.42 %	0.007 %	— %	18,529	333	—
Sulfide ROM Ore - Zinc plant	96	0.39 %	— %	1.43 %	824	—	3,018
Sulfide ROM Ore - Total	**2,116**	**0.41** %	— %	— %	**19,353**	**333**	**3,018**
Leachable Ore	1,132	0.22 %	— %	— %	5,456	—	—

(1) Mineral reserves are current as at December 31, 2023.
(2) The reference point for the estimate is delivery to the process plant.
(3) Contained metal in mineral reserves in 2023 decreased slightly compared to 2022 due to mining depletion for the year 2023.
(4) Mineral reserves are reported on an elevated cut of grade for the first three years of the mine schedule and then on a break-even plant and leach profit basis for the remaining LOM schedule. The estimate was based on the long- range schedule, inclusive of processing costs and transport streams and based on a Cu price of $3.30/lb, Mo price of $10.00/lb and Zn price of $1.15/lb.
(5) It was assumed that ore with a solubility index greater than 0.8 had been sent to the leach pad. If more than one process was profitable, then the process with the highest value was chosen.
(6) The Copper mill Cu Cut-off grade was 0.30% (2023 – 2025), 0.25% (2026), 0.20% (2027) and 0.12% (2028+), the leach Cu equivalent Cut-off Grade at 0.06% Cu and the Zinc mill Cu equivalent Cut-off grade at 0.22%.
(7) Mineral recovery is estimated as the last 3-year averages for mill: 86.5% for Cu, 64% for Mo and 68% for Zn and for leach (combined ROM and crushed): 31.5% for Cu.
(8) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 12 of the Buenavista operations technical report summary prepared by qualified persons, under Exhibit 96.6 to the 2022 Form 10-K.

The variations registered for mineral reserves from 2022 to 2023 were attributable to mining depletion as per mine operations during year 2023 and updated end-of-year topography surfaces provided for 2022 and 2023 and rounding.

La Caridad

The La Caridad complex includes an open-pit mine, concentrator, smelter, copper refinery, precious metals refinery, rod plant, SX-EW plant, lime plant and two sulfuric acid plants.

La Caridad mine and mill are located about 23 kilometers southeast of the town of Nacozari in northeastern Sonora at an average altitude of 1,500 meters above mean sea level. Nacozari is about 266 kilometers northeast of the Sonora state capital of Hermosillo and 125 kilometers south of the U.S.—Mexico border. The municipality of Nacozari de Garcia is located between 30°17’ and 30°20’ of north latitude and 109°32’ and 109 35’ of west longitude with regard to the Greenwich meridian. The average elevation is 1,500 meters above mean sea level. Limits of the mining unit using UTM coordinates are listed in the following table:

VERTEX	**UTM Zone 12 WGS 84**	
	Easting	**Northing**
1	629,600.00	3,361,303.35
2	655,325.58	3,361,303.35
3	655,325.58	3,350,065.74
4	629,600.00	3,350,065.74

Nacozari is connected by paved highway with Hermosillo and Agua Prieta and by rail with the international port of Guaymas, and the Mexican and United States rail systems. An airstrip with a reported runway length of 2,500 meters is located 36 kilometers north of Nacozari, less than one kilometer away from the La Caridad copper smelter and refinery. The smelter and the sulfuric acid plants, as well as the refineries and rod plant, are located approximately 24 kilometers from the mine. Access is by paved highway and by railroad.

The mining claims held by La Caridad unit cover an area of about 103,821 hectares for exploration and exploitation activities. Surface rights are held by a combination of private ownership and agreements with local ejidos. Ejidos are agrarian land grants held by a group of people. The agreements allow for exploration and mining activities. The La Caridad complex imports natural gas from the United States through its pipeline (between Douglas, Arizona and Nacozari, Sonora). The electrical power is supplied to site from the utility grid via 230 kV overhead transmission lines. The bulk of demand is supplied by MGE, a subsidiary of Grupo Mexico. The primary fresh water source is the La Angostura Dam located approximately 29 km to the northeast of the La Caridad mine.

The ore at La Caridad is recovered using open-pit conventional truck and shovel mining methods due to the proximity of the ore to the surface and the physical characteristics of the deposit. The concentrator began operations in 1979; the molybdenum plant was added in 1982 and the smelter in 1986; the first sulfuric acid plant was added in 1988 and the SX-EW plant in 1995; the second sulfuric acid plant was added in 1997 and the copper refinery in 1997; the rod plant was added in 1998 and the precious metals refinery in 1999; and the dust and effluents plant was incorporated in 2012.

In 2020, the final ore reserve estimation report for the Bella Union prospect was integrated into the La Caridad Block Model and in 2021 it was considered in the new life of mine that was delivered in January 2022. The Bella Union prospect is a mineralized copper and molybdenum breccia deposit; the site is located at less than one kilometer from the border of La Caridad pit.

The table below contains production information for 2023, 2022 and 2021 for La Caridad:

					Variance 2023 - 2022	
		2023	2022	2021	Volume	%
Mine annual operating days		365	365	365		
Mine						
Total ore mined	(kt)	34,886	34,099	34,876	787.0	2.3 %
Copper grade	(%)	0.296	0.303	0.340	(0.007)	(2.3)%
Leach material mined	(kt)	15,099	30,113	35,230	(15,014.0)	(49.9)%
Leach material grade	(%)	0.250	0.201	0.212	0.049	24.4 %
Stripping ratio	(x)	1.48	0.65	0.43	0.83	127.7 %
Total material mined	(kt)	124,090	106,251	100,412	17,839.0	16.8 %
Concentrator						
Total material milled	(kt)	35,128	34,114	34,929	1,014.0	3.0 %
Copper recovery	(%)	84.45	85.71	86.44	(1.26)	(1.5)%
Copper concentrate	(kt)	387.2	385.3	456.8	1.9	0.5 %
Copper in concentrate	(kt)	87.8	88.5	102.7	(0.7)	(0.8)%
Copper concentrate average grade	(%)	22.68	22.97	22.48	(0.29)	(1.3)%
SX-EW plant						
Estimated leach recovery	(%)	34.97	34.46	38.11	0.51	1.5 %
SX-EW cathode production	(kt)	22.99	23.34	25.38	(0.35)	(1.5)%
Molybdenum						
Molybdenum grade	(%)	0.039	0.034	0.035	0.005	14.7 %
Molybdenum recovery	(%)	82.71	81.67	82.44	1.04	1.3 %
Molybdenum concentrate	(kt)	21	17.8	18.9	3.2	18.0 %
Molybdenum concentrate average grade	(%)	54.15	53.58	53.92	0.57	1.1 %
Molybdenum in concentrate	(kt)	11.4	9.6	10.2	1.8	18.8 %

Key: kt = thousand tonnes
x = Stripping ratio obtained dividing waste by leachable material plus ore mined
The copper and molybdenum grade are total grade.

Geology

La Caridad is a porphyry copper deposit, that is currently the largest copper producer in Mexico and the youngest dated porphyry copper system in the American Southwest region. The La Caridad district lies within the eastern section of the Sonora Basin and Range Province of northern Mexico. Sustained magmatic activity along the North American Cordillera during the late Mesozoic through Paleogene resulted in the development of numerous porphyry copper deposits. The basement rocks of area consist of strongly deformed greenschist-grade volcanic and sedimentary rocks that are intruded by granites emplaced at 1.4 and 1.1 billion years ago. Above the sequence Late Proterozoic and Paelozoic rocks are overlain by volcanic and plutonic rocks of Mesozoic and Cenozoic age. Middle Jurassic rocks characterized by volcanic and volcano-sedimentary sequences, with occasional granite intrusions, outcrop in the northern and northeastern portion of Sonora. In the La Caridad district, these rocks outcrop in the Sierra Cobriza area, west of the town of Nacozari.

The main mineralization at La Caridad occurs in the Quartz-monzonite porphyry and hydrothermal breccias. The host rock at La Caridad are andesites, with the oldest rocks corresponding to the Laramide volcanic rocks, which are regionally correlated with the Tarahumara Formation. Locally, this andesitic volcanic sequence was intruded by a granodiorite which is well exposed to the east-southeast of the La Caridad mine, which are in turn intruded by diorite dikes that range from fine to coarse grain. Discordantly overlying this igneous complex is a sequence of rhyolitic flows.

Concentrator

La Caridad uses state-of-the-art computer monitoring systems at the concentrator, the crushing plant and the flotation circuit to coordinate inflows and optimize operations. The concentrator has a current capacity of 94,500 tonnes of ore per day.

Ore extracted from the mine with a copper grade over 0.30% is currently sent to the concentrator and processed into copper concentrates and molybdenum concentrates. The copper concentrates are sent to the smelter and the molybdenum concentrate is sold to a Mexican customer. The molybdenum recovery plant has a capacity of 2,000 tonnes per day of copper-molybdenum concentrates. The lime plant has a capacity of 340 tonnes of finished product per day.

The mineral reserves estimated for La Caridad were estimated utilizing an economic cut-off to assign material to either the concentrator or leach pad. Each block in the mineral resource model is assigned an economic value based on the total potential revenue whether the block is processed in the concentrator or on a leach pad and takes into account the various recoveries, selling costs, and payability. The resulting cut-off grade for the concentrator is approximately 0.08% copper and the leachable cutoff grade is approximately 0.01% copper.

SX-EW Plant

Approximately 999.0 million tonnes of leaching ore with an average grade of approximately 0.239% copper was extracted from the La Caridad open-pit mine and deposited in leaching dumps to December 31, 2023. All copper ore with a grade lower than the current mill cut-off grade 0.30%, but higher than 0.15% copper, is at present delivered to the leaching dumps. In 1995, we completed the construction of a SX-EW facility at La Caridad that has allowed us to process this ore and certain leach mineral reserves that were not mined; this has led to a subsequent reduction in our copper production costs. The SX-EW facility has an annual design capacity of 21,900 tonnes of copper cathodes. These cut-off grades need to be re-assessed as the mineral reserves stated were estimated utilizing an economic cut-off value.

The plant has three trains of solvent extraction with a nominal capacity of 2,400 cubic meters per hour and has 94 electrowinning cells, which are distributed in a single electrolytic bay. The plant has a daily production capacity of 65 tonnes of copper cathodes with 99.999% purity.

Slope stability

In 2004, our 15-year mine plan study for the La Caridad mine was awarded to an independent consulting firm to conduct a geotechnical evaluation. The purpose of the plan was to develop a program of optimum bench design and inter-ramp slope angles for the open-pit. The results of the evaluation presented by the consultants included a recommendation of a maximum average bench face angle of 72 degrees. Additionally, single benching was recommended for the upper sections of the west, south and east walls of the main pit. Double benching was recommended for the lower levels of the main pit and single benching for the upper slope segments that consist of either alluvial material, mine waste dumps or mineralized stockpile material. Alternatively, slopes in these types of materials, may be designed with an overall 37-degree slope. The geostructural and geotechnical parameters recommended were applied in the pit design for the new life of mine plan for La Caridad mine, which was prepared in 2015. This mine plan replaced the 15-year mine plan prepared in 2010. However, since final pit limits have yet to be established at La Caridad, all current pit walls are effectively working slopes. Geostructural and geotechnical data collected at the open-pit mine from cell-mapping and oriented-core drilling databases provided the basis for the geotechnical evaluation and recommendations. Additional geotechnical drilling is required in the expanded areas of the Mineral Reserve ultimate pit shell which are beyond the design sector limits.

In 2019, we assigned an independent consulting firm to conduct a geotechnical study of La Caridad, which included the Bella Union area, based on a 15-year mining plan. The results of this study included recommendations on geostructural and geotechnical parameters. These were applied to the pit design for the new mine plan for La Caridad, which replaced the 15-year mine plan prepared in 2015. A hydrogeological study was also recommended to determine the distribution of pore pressure. In September 2021, the SSR-OMNI and the SSR-FX radars began operating. These two working radars will allow us to cover up to 80% of the slopes in the operating areas of the mine.

In 2022, a Geotechnical Engineer in charge of the Geotechnical Department, took care of the two radars to create information and to make daily monitoring reports as well as giving recommendations to the Operation Department to have a safer mining process. Geostructural data from cell-mapping is being collected. The inter-ramp slope angles are updated weekly, as the topography changes, to know if we continue within the recommended level.

In 2023, a second Geotechnical Engineer was hired for the Geotechnical Department. The Maptek XR3 scanner is being used to improve structural mapping and make recommendations to the Blasting Department. A “Pit Slope Review” for the 2019 geotechnical study is currently underway along with Hydrogeological Characterization via 15 holes and multi-level piezometers; both studies are expected to be completed in July 2024.

Mineral resources

The following table contains the summary of copper and molybdenum mineral resources exclusive of mineral reserves for La Caridad as of December 31, 2023, based on long-term price assumptions of $3.80 and $11.50 per pound, respectively:

	2023						
Leach process	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Variation Copper**	**Variation Molybdenum**
Measured mineral resources	—	— %	— %	—	—	—	—
Indicated mineral resources	683	0.08 %	— %	1,129.0	—	2.4%	—
Measured + Indicated mineral resources	683	0.08 %	— %	1,129.0	—	2.4%	—
Inferred mineral resources	526	0.08 %	— %	905.0	—	2.6%	—
Mill process	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Variation Copper**	**Variation Molybdenum**
Measured mineral resources	—	— %	— %	—	—	—	—
Indicated mineral resources	3,928	0.16 %	0.028 %	13,681.0	2,424	0.1%	(0.04)%
Measured + Indicated mineral resources	3,928	0.16 %	0.028 %	13,681.0	2,424	0.1%	(0.04)%
Inferred mineral resources	2,973	0.14 %	0.025 %	8,913.0	1,639	1.1%	6.2%

	2022				
Leach process	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**
Measured mineral resources	—	— %	— %	—	—
Indicated mineral resources	684	0.07 %	— %	1,102.3	—
Measured + Indicated mineral resources	684	0.07 %	— %	1,102.3	—
Inferred mineral resources	526	0.08 %	— %	881.8	—
Mill process	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**
Measured mineral resources	—	— %	— %	—	—
Indicated mineral resources	3,934	0.16 %	0.028 %	13,668.6	2,425
Measured + Indicated mineral resources	3,934	0.16 %	0.028 %	13,668.6	2,425
Inferred mineral resources	2,974	0.14 %	0.025 %	8,818.5	1,543

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) Copper content in mineral resources in 2023 remained the same level as in 2022.
(4) Cut-off grade: mineral resources are reported on break-even plant and leach profit basis. The estimate was constrained to the Resource pit based on a Cu price of $3.795/lb, Mo price of $11.50/lb.
(5) It was assumed that ore with solubility index greater than 0.8 had been sent to the leach pad.
(6) Recovery assumed based on 3-year averages of La Caridad 84% Cu and 83% Mo for mill and 40% Cu for heap leach.
(7) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the La Caridad operations technical report summary prepared by qualified persons, under Exhibit 96.7 to the 2022 Form 10-K.

The variations registered for mineral resources from 2022 to 2023 were attributable to:
- Production depletion for 2023
- Updated end-of-year topography surfaces for 2022 and 2023 and rounding

Mineral reserves

The following table contains the summary of copper and molybdenum mineral reserves for La Caridad as of December 31, 2023, based on long-term price assumptions of $3.30 and $10.00 per pound, respectively.

	2023						
Probable mineral reserves	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Variation Copper**	**Variation Molybdenum**
Leach process	197	0.09 %	— %	393	—	(0.5)%	—
Mill process	2,039	0.21 %	0.028 %	9,415	1,244	(3.3)%	(3.3)%

	2022				
Probable mineral reserves	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**
Leach process	198	0.09 %	— %	395	—
Mill process	2,100	0.21 %	0.028 %	9,737	1,286

(1) Mineral reserves are current as at December 31, 2023.
(2) The reference point for the estimate is the leach pad or concentrator.
(3) Cut-off grade: mineral reserves are reported on break-even plant and leach profit basis. The estimate was constrained to an ultimate pit design limited to an elevation of 1,050 ft., or an approximate 60 year life. The design was based on a Cu price of $3.30/lb and a Mo price of $10.00/lb.
(4) It was assumed that ore with solubility index greater than 0.8 was sent to the leach pad.
(5) Copper recovery for the mill process is 83% for Cu and 81% for Mo and recovery for the leach process is 29%.
(6) Contained metal in mineral reserves in 2023 decreased compared with 2022 estimate due to production depletion.
(7) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 12 of the La Caridad operations technical report summary prepared by qualified persons, under Exhibit 96.7 to the 2022 Form 10-K.

The variations registered for mineral reserves from 2022 to 2023 were attributable to:
- Production depletion for 2023
- Updated end-of-year topography surfaces for 2022 and 2023 and rounding

Processing Facilities—La Caridad

Our La Caridad complex includes a smelter, an electrolytic copper refinery, a precious metal refinery, a copper rod plant and an effluent and dust treatment plant. The distance between this complex and the La Caridad mine is approximately 24 kilometers.

Smelter

Copper concentrates from Buenavista, Santa Barbara, Charcas and La Caridad are transported by rail and truck to the La Caridad smelter where they are processed and cast into copper anodes of 99.2% purity. Sulfur dioxide off-gases collected from the flash furnace, the El Teniente converter and conventional converters are processed into sulfuric acid at two sulfuric acid plants. Approximately 2% to 3% of this acid is used by our SX-EW plants and the balance is sold to third parties.

All of the anodes produced in the smelter are sent to the La Caridad copper refinery. The actual installed capacity of the smelter is 1,000,000 tonnes per year, a capacity that is sufficient to treat all the concentrates of La Caridad and almost 40.5% of total production of the OMIMSA I and OMIMSA II concentrators from Buenavista. In 2010, the smelter also began processing concentrates from the IMMSA mines, as we closed the San Luis Potosi smelter.

Other facilities in the smelter include two sulfuric acid plants with capacities of 2,625 and 2,135 tonnes per day, three oxygen plants each with a production capacity of 275 tonnes per day; and one power turbine which generates 11.5 MWh.

Refinery

La Caridad includes an electrolytic copper refinery that uses permanent cathode technology. The installed capacity of the refinery is 300,000 tonnes per year. The refinery consists of an anode plant with a preparation area, an electrolytic plant with an electrolytic cell house with 1,115 cells and 32 liberator cells, two cathode stripping machines, an anode washing machine, a slime treatment plant and a number of ancillary facilities. The refinery is producing grade A (LME) and grade 1 (COMEX) copper cathode of 99.99% purity. Anodic slimes are recovered from the refining process and sent to the slime treatment plant, where additional copper is extracted. The slimes are then filtered, dried, packed and shipped to the La Caridad precious metals refinery to produce silver and gold.

Precious Metals Plant

The operations at the precious metal refinery begin with the reception of anodic slimes, which are dried in a steam dryer. After this, the dried slime is smelted and a gold and silver alloy is obtained, which is known as Dore. The precious metal refinery plant has a hydrometallurgical stage and a pyrometallurgical stage, in addition to a steam dryer, Dore casting system, Kaldo furnace, 20 electrolytic cells in the silver refinery, one induction furnace for fine silver, one silver ingot casting system and two reactors for obtaining fine gold. The process ends with the refining of the gold and silver alloy. We also recover commercial selenium from the gas produced by the Kaldo furnace process.

Copper Rod Plant

A rod plant at the La Caridad complex began operations in 1998 and reached its full annual operating capacity of 150,000 tonnes in 1999. The plant is producing eight-millimeter copper rods with a purity of 99.99%.

Effluent and Dust Treatment Plant

In 2012, we started operating a dust and effluent plant with a treatment capacity of 5,000 tonnes of smelter dusts per year, which will produce 1,500 tonnes of copper by-products and 2,500 tonnes of lead sulfates per year. This plant is designed to reduce dust emissions from La Caridad metallurgical complex.

The table below contains production information for 2023, 2022 and 2021 for the La Caridad processing facilities:

					Variance 2023 - 2022	
		2023	**2022**	**2021**	**Volume**	**%**
Smelter						
Total copper concentrate smelted	(kt)	966.6	1,052.0	1,047.3	(85.4)	(8.1)%
Anode copper production	(kt)	265.3	287.1	289.0	(21.8)	(7.6)%
Average copper content in anode	(%)	99.38	99.43	99.46	(0.05)	(0.1)%
Average smelter recovery	(%)	96.70	96.80	96.3	(0.10)	(0.1)%
Sulfuric acid production	(kt)	948.5	1,001.3	990.0	(52.8)	(5.3)%
Refinery						
Refined cathode production	(kt)	218.6	245.7	242.7	(27.1)	(11.0)%
Refined silver production	(000 kg)	230.1	266.5	236.7	(36.4)	(13.7)%
Refined gold production	(Kg)	948.1	1,096.4	1,029.1	(148.3)	(13.5)%
Rod Plant						
Copper rod production	(kt)	154.3	156.4	150.1	(2.1)	(1.3)%

Key: kt = thousand tonnes
Kg = kilograms

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Pilares Project

Pilares is considered part of the La Caridad unit and ore from Pilares is routed to the leach pads and processing facilities at the La Caridad operations. The Pilares mineral development project is located in northeastern Sonora, Mexico, about 266 kilometers northeast of the city of Hermosillo and 125 kilometers south of the city of Agua Prieta Sonora, Mexico, which is on the international U.S. – Mexico border. The Pilares project is located between 30°19’ and 30°20’ N, and between 109°38’ and 109°37’47’’ W, at elevations ranging between 1,400 to 1,460 meters above mean sea level. It is about 6 kilometers from the La Caridad mining unit and 22 kilometers from the town of Nacozari.

The mining claims held by Pilares project cover an area of about 143.3 hectares for exploration and exploitation activities. Surface rights are held by a combination of private ownership and agreements with the local ejido “Pilares”, which consists of about 40 members. Ejidos are agrarian land grants held by a group of people. The agreements allow for exploration and mining activities, plus conservation of the historical town of Pilares. Additionally, the Pilares Project was included in the regional environmental permit obtained for the entire La Caridad complex dated September 2018 and valid for 60 years.

Geology

The La Caridad mining district, where the Pilares porphyry copper deposit is located, lies within the eastern section of the Sonora Basin and Range Province in Northern Mexico. Sustained magmatic activity along the North American Cordillera during the late Mesozoic through Paleogene resulted in the development of numerous porphyry copper deposits.

The local geology of the Pilares area consists of two main lithological packges, a volcanic sequence and a set of hypabyssal bodies that intrude the volcanic sequence. The volcanic sequence is comprised from the base to the top by the following units: andesitic flows from intercallations of Crystal Tuff, Tobaceous Sandstone, tuff-breccia (ignimbrite), basalt-andesite flows and Lapilli Tuffs. The Lapilli Tuff is composed of lapilli-sized volcanic fragments outcropping in the topographic highs and distributed in the central, southeastern and northeastern portion of the Pilares area. The Lapilli Tuff hosts the mineralized structure of the Pilares Breccia.

Mineral resources

The following table contains the summary of copper and molybdenum mineral resources for Pilares as of December 31, 2023, based on long-term price assumptions of $3.80 and $11.50 per pound, respectively:

		2023							
Process	**Classification**	**Amount (million tonnes)**	**Total copper**	**Copper oxide**	**Molybdenum grade**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Variation Copper**	**Variation Molybdenum**
Leach	Inferred	0.9	0.34 %	0.09 %	0.003 %	6.8	—	(85.0)%	—
Mill	Inferred	67.3	0.55 %	0.04 %	0.005 %	817.3	7.4	(7.1)%	(4.1)%

		2022					
Process	**Classification**	**Amount (million tonnes)**	**Total copper**	**Copper oxide**	**Molybdenum grade**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**
Leach	Inferred	4.8	0.44 %	0.22 %	0.002 %	45.6	—
Mill	Inferred	71.8	0.56 %	0.05 %	0.005 %	879.9	7.7

(1) Mineral resources are reported in situ and effective as at December 31, 2023. Mine development continued in 2023. Changes to mineral resources are due to mining depletion and updated end-of-year topography surfaces provided for 2022 and 2023.
(2) Recovery assumed based on 3-year averages of La Caridad 84% Cu and 83% Mo for mill and 40% Cu for heap leach.
(3) Cut-off grade: mineral resources are reported on break-even plant and leach profit basis. The estimate was constrained to the Resource pit based on a Cu price of $3.795/lb, Mo price of $11.50/lb. Three mineral zones were considered: Zone 1 Oxide, Zone 2 Transition and Zone

3 Sulfide. It was assumed that Zone 1 had been sent to the leach pad. Zone 2 with a solubility index greater than 0.8 was assumed to have been sent to the leach pad. Zoned 2 with a solubility index less than 0.8 was assumed to have been sent to the destination that would have generated the highest profit. Zone 3 was assumed to be sent to the mill. The formulas used to calculate Leach and Mill profits were:
Leach Profit/t = ($28.58 * Cu Grade) - $1.91
Mill Profit/t = (($70.28 * Cu Grade) + ($210.43 * Mo Grade)) - (($4.98 * Cu Grade) + ($32.02 * Mo Grade)) – ($6.408 + $0.249)

(4) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Pilares project technical report summary prepared by qualified persons, under Exhibit 96.8 of the Form 10-K/A filed by the Company on March 7, 2022.

El Pilar Project

The El Pilar Property is located in north central Sonora, Mexico, about 15 kilometers south of the international border with United States. The property is situated within lands of Ejido Miguel Hidalgo (also referred to as San Lazaro), in the Santa Cruz Municipality. The property is situated between UTM coordinates 3,446,000N to 3,455,000N and 526,800 E to 534,700 E. The El Pilar property comprises 9,571.4 hectares in 19 concessions. These concessions are wholly owned by Recursos Stingray de Cobre S.A de C.V., our wholly owned Mexican subsidiary. Additionally, a total of 1,926 hectares of surface rights have been successfully negotiated with the Ejido Miguel Hidalgo, which allows for all required land ownership rights needed for project development.

The El Pilar deposit is located at the southwest margin of the Patagonia Mountains near the base of a mountain range. The topography near the deposit permits sufficient surface space for a mining operation, leaching pads, waste disposal areas, and other facilities. The property can be reached by road from Hermosillo, Sonora in Mexico and from Tucson, Arizona in the United States. The route from Hermosillo to Miguel Hidalgo takes about 3.5 hours of driving time. The route from Tucson to Miguel Hidalgo is currently a two-hour drive. The site is a green-field mining site with no existing infrastructure. Experienced mining personnel and related contractors are available within driving distance.

The project area climate allows year-round mining and processing operations. A power line is located 3 km to the south, in the village of Miguel Hidalgo where SCC has an office and warehouse facilities, but the project will require the construction of a high voltage power line from the site to connect with the high voltage power lines accessible in Nogales, which is 28 km northwest of the property. A railroad is located 3 km south of the deposit. Construction of a new railway spur approximately 4 km in length is planned for the delivery of molten sulfur or sulfuric acid.

Geology

The deposit is located within the Sonora-Arizona Porphyry Copper Province, along the southwest flank of the Patagonia Mountains. The geology of the El Pilar property consists of Precambrian intrusive rocks overlain by Paleozoic sedimentary rocks. These units are overlain by Tertiary sedimentary rocks. Intrusives of granitic to monzonitic composition with some pegmatitic and aplitic facies intrude all the older units. Tertiary and Quaternary alluvial fan and alluvial wash sediments cover the flanks of the ranges and the intervening valleys.

The El Pilar copper deposit occurs within unconsolidated, poorly sorted, poorly bedded, proximal facies alluvial wash deposits that are overlain by dissected younger alluvial fan deposits. The copper bearing sediments at El Pilar are comprised solely of alluvial wash gravels deposited into a paleo topographic range-front depression. At the northern boundary of the deposit, these basin-fill sediments are juxtaposed against unmineralized Precambrian granitic rocks by an east-west to northwest-trending, south dipping zone of faulting and hydrothermal brecciation. Mineralization predominantly consists of the copper oxide mineral chrysocolla, which occurs as coatings on clasts of highly silicified breccia and as grains in the sedimentary gravel matrix.

Mineral resources

The following table contains the summary of copper mineral resources exclusive of mineral reserves for El Pilar as of December 31, 2023, based on long-term price assumptions of $3.80 per pound:

	2023					
Copper	**Amount (million tonnes)**	**Total copper**		**Soluble copper**		**Contained copper (million pounds)**
Measured mineral resources	2.2	0.20	%	0.10	%	9
Indicated mineral resources	81.3	0.18	%	0.08	%	317
Measured + Indicated mineral resources	83.4	0.18	%	0.08	%	326
Inferred mineral resources	88.6	0.12	%	0.06	%	234

(1) Mineral resources are reported in situ and effective as at December 31, 2021 as reported in the Technical Report Summary dated February 28, 2022. Southern Copper has reported that minor contractor activity conducted at the site since that time has not materially impacted the total Mineral Resource estimates effective as at December 31, 2021. Therefore, the estimates at December 31, 2021 are deemed to be current as at December 31, 2023. The qualified person ("QP") has not visited the site since August 2021 and cannot independently determine whether the contractor activities have impacted the Mineral Resources.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) Metallurgical Recovery: Cu Recovery = 0.3349 x LN (Soluble Cu/Total Cu) + 0.7949
(4) Cut-Off Grade: Calculated on break-even profit basis and constrained within the pit shell outlined using a Cu price of $3.795/lb.
(5) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the El Pilar project technical report summary prepared by qualified persons, under Exhibit 96.9 of Form 10-K/A for the fiscal year ended December 31, 2021, filed on March 7, 2022.
(6) There were no changes in resources with regard to 2021's figures. Technical Studies are underway.

Mineral reserves

The following table contains the summary of copper mineral reserves for El Pilar as of December 31, 2023, based on long-term price assumptions of $3.30 per pound:

	2023				
Copper	**ROM Ore (million tonnes)**	**Copper grade**		**Contained copper (thousand tonnes)**	**Recovered copper (million pounds)**
Proven mineral reserves	63	0.27	%	168	370
Probable mineral reserves	254	0.25	%	623	1,374
Total mineral reserves	317	0.25	%	790	1,744

(1) Mineral reserves are effective as at December 31, 2021 as reported in the Technical Report Summary dated February 28, 2022. Southern Copper has reported that minor contractor activity conducted at the site since that time has not materially impacted the original Mineral Reserves estimates. Therefore, the estimates at December 31, 2021 are deemed to be current as at December 31, 2023. The QP has not visited the site since August 2021 and cannot independently determine whether the contractor activities have impacted the Mineral Reserves.
(2) The reference point for the estimate is delivery to the leach pad.
(3) The recovered copper estimate utilizes the following recovery formula: (Cu Rec % = 0.3349 x LN(Cu_Ratio) + 0.7949)
(4) Cut-Off Grade: Measured and Indicated Blocks within the ultimate pit design with a value greater than or equal to zero were considered ore. The following "Value Equation" was used to calculate that value using a Cu price of $3.30/lb. Value / tonne = ($0.73 * Cu Recovery * Cu Grade) – ($0.15 * Cu Recovery * Cu Grade) - $0.57
(5) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 12 of the La Caridad operations technical report summary prepared by qualified persons, under Exhibit 96.9 of the Company´s Form 10-K/A for the fiscal year ended December 31, 2021, filed on March 7, 2022.
(7) There were no changes in reserves with regard to 2021's figures. Technical Studies are underway.

El Arco Project

The El Arco deposit is located near the village of El Arco in Baja California, Mexico, which lies near the center of the Baja California Peninsula in the municipalities of San Quintin, Baja California and Mulegé, Baja California Sur, Mexico. The Project centroid is at approximately 28°03' 24.08" N; 113° 27' 35.23" W. The center of the El Arco deposit is located at approximately 28° 02' 02.97" N; 113° 23' 46.75" W. Route 1 is the only paved highway connecting the northern and southern parts of the Baja Peninsula. El Arco located between the towns of Santa Rosalía and Guerrero Negro at kilometer 189. The El Arco site is accessed by taking Highway 1 approximately 30 kilometers south of the town of Guerrero Negro to the intersection with the highway MX 18, and following MX 18 for 42 kilometers east to the project site. Highway 1 is paved and in good condition and Highway 18 was originally paved but currently all pavement is gone, leaving a gravel roadbed.

The nearest port is Santa Rosalía on the Sea of Cortez, 240 km by road southeast of El Arco. We plan to construct a port at El Barril, located 70 km northeast of the proposed mine site. The site is currently a greenfields site with limited infrastructure that is only suitable to support exploration-level activities. Planned on-site infrastructure includes an open pit mine, two waste rock storage facilities, mill complex and oxide fine crushing facilities, temporary ore stockpile, heap leach facility, tailings storage facility, administration building, truck shop and warehouse, main 230 kV electrical substation and a water storage dam and reservoir.

We hold 20 mining concessions, covering 72,131 hectares. Surfaces rights in the deposit area are held by a combination of agrarian cooperatives (ejidos) and private owners. Project water is planned to be sourced from a desalination plant, to be constructed at El Barril. Additionally, we expect to obtain power from a private provider.

Geology

The El Arco deposit is considered to be an example of a porphyry copper deposit. The Alisitos arc is an approximately 300 × 30 kilometer oceanic arc terrane that accreted to the western edge of the Peninsular Ranges batholith within the North American Cordillera. A chain of granitic batholithic intrusions intrude the Alisitos Formation, and El Arco, the oldest known porphyry deposit in this chain, is located at the extreme southern end of the chain.

The El Arco area basement consists of serpentinite, with blocks of peridotite, pyroxenite and amphibolite that are tectonically overlain by diorites, gabbros, and rocks interpreted to be pillow lavas. These units are overlain by metavolcanic agglomerates, metagraywackes, meta-andesite flows and breccias, and thinly-bedded marble. Andesite flows in the upper part of this sequence host granodiorite porphyry intrusions that generated the El Arco deposit. Barren diabase dikes cut the andesite and granodiorite porphyry. All lithologies have been subject to greenschist facies metamorphism, characterized by development of chlorite–epidote–calcite–quartz. Mineralization at El Arco occurs in three sub-horizontal zones.

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Mineral resources

The following table contains the summary of mineral resources for El Arco as of December 31, 2023, based on long-term price assumptions of $3.80 and $10.35 per pound for copper and molybdenum, respectively, and fixed over the 35-year expected mine life.

	2023								
Mill plant	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Gold grade (g/t)**	**Silver grade (g/t)**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Contained gold (million ounces)**	**Contained silver (million ounces)**
Measured mineral resources	—	— %	— %	—	—	—	—	—	—
Indicated mineral resources	826.6	0.41 %	0.008 %	0.12	1.6	7,544.9	146.5	3.23	41.88
Measured + Indicated mineral resources	826.6	0.41 %	0.008 %	0.12	1.6	7,544.9	146.5	3.23	41.88
Inferred mineral resources	2,344.9	0.37 %	0.006 %	0.11	1.5	19,352.3	298.2	8.05	110.89
Leach plant	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Gold grade (g/t)**	**Silver grade (g/t)**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Contained gold (million ounces)**	**Contained silver (million ounces)**
Measured mineral resources	—	— %	— %	—	—	—	—	—	—
Indicated mineral resources	51.3	0.30 %	— %	—	—	335.3	—	—	—
Measured + Indicated mineral resources	51.3	0.30 %	— %	—	—	335.3	—	—	—
Inferred mineral resources	63.8	0.25 %	— %	—	—	350.9	—	—	—

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
(3) Mineral resources are reported within a conceptual pit shell that is based on copper and molybdenum values only. The pit shell uses the following input parameters: metal prices of $3.80/lb Cu and $10.35/lb Mo; variable net smelter return cut-offs; mining recovery of 100%; metallurgical recoveries of 86% Cu, and 55% Mo for material sent to the mill facility, and recovery of 80% Cu (Total copper) for material sent to the heap leach pad; total mining costs (base, incremental and sustaining) of $1.206/t mined; total mill process costs (base, sustaining, tailings, G&A and molybdenum plant) of $7.80/t milled, total leaching costs (operating and SX-EW) of $1.60/t leached; miscellaneous costs (closure, payments) of $0.10/t processed; copper refining cost of $0.09/lb, copper smelting cost of $90/t concentrate, copper transport costs of $107.69/t concentrate, molybdenum transport costs of $73.67/t concentrate, and molybdenum refining/treatment cost of 12.50% (of molybdenum price). Mineral resources are constrained within a wireframe constructed at a 0.1% total copper cut-off grade.
(4) Gold and silver are not used in the pit optimization. The gold and silver metallurgical recoveries for material that will be sent to the mill facility are forecast at 55.7% Au, and 50.2% Ag, respectively. Molybdenum, gold and silver are not expected to be recovered from the leach process.
(5) Mineral resources are constrained within a wireframe constructed at a 0.1% total copper cut-off grade.
(6) For further information on assumptions used in preparing the estimates, please refer to Chapter 11 of the El Arco project technical report summary prepared by qualified persons, under Exhibit 96.10 of the Company´s Form 10-K/A for the fiscal year ended December 31, 2021, filed on March 7, 2022.
(7) There were no changes in mineral resources with regard to the figures reported in 2021.

Mineral reserves

The following table contains the summary of copper mineral reserves for El Arco as of December 31, 2023, based on long-term price assumptions of $3.30 and $9.00 per pound for copper and molybdenum, respectively, and were fixed over the 35 year expected mine life.

	2023								
Probable mineral reserves	**Amount (million tonnes)**	**Copper grades**	**Molybdenum grades**	**Gold grade (g/t)**	**Silver grade (g/t)**	**Contained copper (million pounds)**	**Contained molybdenum (million pounds)**	**Contained gold (million ounces)**	**Contained silver (million ounces)**
Sulfide mill	1,229.5	0.40 %	0.006 %	0.14	1.8	10,822	166.7	5.6	70.5
Oxide leach	140.5	0.27 %	— %	—	—	846	—	—	—

(1) Mineral reserves are current as at December 31, 2023.

(2) The reference point for the estimate is the point of delivery to the processing facility.
(3) Mineral reserves are constrained within an optimized pit shell based on copper and molybdenum only.
(4) The following parameters were used in estimation: assumption of open pit mining methods; assumption of heap leach and concentrate processing; copper price of $3.30/lb, molybdenum price of $9.00/lb; variable net smelter return cut-offs; mining recovery of 100%; metallurgical recoveries of 86% Cu, and 55% Mo for material sent to the mill facility, and recovery of 80% Cu (Total copper) for material sent to the heap leach pad; total mining costs (base, incremental and sustaining) of $1.206/t mined; total mill process costs (base, sustaining, tailings, G&A and molybdenum plant) of $7.80/t milled, total leaching costs (operating and SX-EW) of $1.60/t leached; miscellaneous costs (closure, payments) of $0.10/t processed; copper refining cost of $0.09/lb, copper smelting cost of $90/t concentrate, copper transport costs of $107.69/t concentrate, molybdenum transport costs of $73.67/t concentrate, and molybdenum refining/treatment cost of 12.50% (of molybdenum price).
(5) Gold and silver are not used in the pit optimization. The gold and silver metallurgical recoveries for material that will be sent to the mill facility are forecast at 55.7% Au, and 50.2% Ag, respectively. Molybdenum, gold and silver are not expected to be recovered from the leach process.
(6) For the leaching process, the internal copper cut-off was 0.049% while the breakeven copper cut-off was 0.057%.
(7) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 12 of the El Arco operations technical report summary prepared by qualified persons, under Exhibit 96.10 of the Company´s Form 10-K/A for the fiscal year ended December 31, 2021, filed on March 7, 2022.
(8) There were no changes in mineral reserves with regard to the figures reported in 2021.

MEXICAN IMMSA UNIT

Our IMMSA unit (underground mining poly-metallic division) owns five underground mining complexes situated in central and northern Mexico, three of which are currently operating. It produces zinc, lead, copper, silver and gold. These complexes include industrial processing facilities for zinc, lead, copper and silver. All of IMMSA’s mining facilities employ exploitation systems and conventional equipment. We believe that all the plants and equipment are in satisfactory operating condition. IMMSA’s principal mining facilities are Charcas, Santa Barbara, San Martin, Santa Eulalia and Taxco.

The table below contains production information for 2023, 2022 and 2021 for our Mexican IMMSA unit:

		2023	2022	2021	Variance 2023 - 2022 Volume	%
Average annual operating days(*)		301	307	336		
Total material mined and milled	(kt)	4,346	4,100	3,965	246	6.0 %
Zinc:						
Average ore grade	(%)	1.88	1.79	2.04	0.09	5.0 %
Average recovery	(%)	80.22	81.62	82.87	(1.40)	(1.7)%
Concentrate produced	(kt)	132.0	124.0	135.1	8.0	6.5 %
Concentrate average grade	(%)	49.64	48.38	49.58	1.26	2.6 %
Zinc in concentrate	(kt)	65.5	60.0	67.0	5.5	9.2 %
Lead:						
Average ore grade	(%)	0.63	0.58	0.62	0.05	8.6 %
Average recovery	(%)	68.78	69.49	69.20	(0.71)	(1.0)%
Concentrate produced	(kt)	33.6	32.5	33.8	1.1	3.4 %
Concentrate average grade	(%)	55.71	51.00	50.66	4.71	9.2 %
Lead in concentrate	(kt)	18.7	16.6	17.1	2.1	12.7 %
Copper:						
Average ore grade	(%)	0.38	0.39	0.41	(0.01)	(2.6)%
Average recovery	(%)	57.52	56.71	53.71	0.81	1.4 %
Concentrate produced	(kt)	43.9	40.3	38.0	3.6	8.9 %
Concentrate average grade	(%)	21.80	22.65	22.94	(0.85)	(3.8)%
Copper in concentrate	(kt)	9.6	9.1	8.7	0.5	5.5 %
Silver:						
Average ore grade	(ounces)	1.97	2.13	2.17	(0.16)	(7.5)%
Average recovery	(%)	77.88	77.22	76.59	0.66	0.9 %
Concentrate average grade	(%)	31.8	34.3	31.9	(2.5)	(7.3)%
Silver in concentrates	((000) ounces)	6,664.00	6,749.6	6,588.5	(85.6)	(1.3)%

kt = thousand tonnes

(*) Weighted average annual operating days based on total material mined and milled in the three active mines: Charcas, Santa Barbara and San Martin.

Charcas

The Charcas mining complex is located approximately 110 kilometers north of the city of San Luis Potosi in the State of San Luis Potosi, Mexico. The mine uses the Universal Transverse Mercator (UTM) World Geodetic System (WGS84) Zone 14Q coordinate system and is located at 2 560 223 N and 280 042 E at an altitude of 2,150 meters above sea level. Charcas is connected to the state capital by a paved highway of 130 kilometers. It was discovered in 1573 and operations in the 20th century began in 1911. The complex includes three underground mines (San Bartolo, Rey-Reina and La Aurora) and one flotation plant that produces zinc, lead and copper concentrates with significant amounts of silver. The Charcas mine is characterized by low operating costs and good quality ores and is situated near the zinc refinery. Charcas is exploited underground by room and pillar with hydraulic cut and fill. The crushed ore is transported to the surface for processing in the flotation plant.

We currently hold 13 mining concessions over the Charcas property, which covers a total area of 88,643.26 hectares. Additionally, we own surface lands covering an area of 1,744.4 hectares with rights to conduct any work or exploration required to advance or continue of activities within the Charcas project. Water is obtained from three main sources: recovery of process water from the tailings dam, recovery of the working water from the mine and fresh water from concession wells. Additionally, the unit receives a power supply of 115,000 volts in two 7.5-Mega Volt-Amp (MVA) transformers, distributed to electrical substations located in the different areas of mining operation. Fuel comes from a local distribution point in the city of San Luis Potosi and is stored in a series of tanks located on the surface.

Geology

The Charcas mining district is in the east-central part of the central mesa of Mexico, which is part of the larger metallogenic province of Sierra Madre. The mineral deposits found within the Charcas mining district are tertiary polymetallic skarn (silver, lead, zinc and copper) deposits hosted in carbonate rocks of the Jurassic-Cretaceous periods and in shales and sandstones of the Late Triassic. In the carbonate rocks, veins and mantos form the predominant mineralization, while less mineralized fractures tend to occur within the shales and sandstones. The varied style of mineralization largely corresponds to the lithological variety of units that serve as host rocks.

The Charcas intrusive complex ("CIC") was emplaced in Triassic to upper Cretaceous sedimentary rocks. Some dikes from the CIC have developed metamorphic halos with related polymetallic mineralization. There are two recognized stages of mineralization. In the first stage, the mineralization is enriched in silver, lead, and zinc and characterized with calcite and small quantities of quartz and chalcopyrite (CuFeS) present. In the second stage, the mineralization is copper and silver rich with lesser amounts of chalcopyrite. The mineralization also includes lead ore with associated silver, plus pyrite and only minor amounts of sphalerite (ZnS). The mineralization occurs as replacement sulfides in carbonate rocks and as filling fracture veins. The typical sulfides found at the Charcas include chalcopyrite, sphalerite, galena (PbS), and silver minerals.

Mineral resources

The following table contains the summary of mineral resources for Charcas as of December 31, 2023, based on long-term metal price assumptions:

	2023				2022				
Silver	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	23.00	6,410	84	17,297	23.00	6,057	88	17,165	0.8%
Measured + Indicated mineral resources	23.00	6,410	84	17,297	23.00	6,057	88	17,165	0.8%
Inferred mineral resources	23.00	15,162	98	48,005	23.00	15,446	97	48,207	(0.4)%

Zinc	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	— %	—	—	—	— %	—	—
Indicated mineral resources	1.32	6,410	3.06 %	195.9	1.32	6,057	3.13 %	189.7	3.3%
Measured + Indicated mineral resources	1.32	6,410	3.06 %	195.9	1.32	6,057	3.13 %	189.7	3.3%
Inferred mineral resources	1.32	15,162	2.78 %	421.0	1.32	15,446	2.70 %	416.6	1.1%

Lead	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	— %	—	—	—	— %	—	—
Indicated mineral resources	1.09	6,410	0.39 %	24.9	1.04	6,057	0.39 %	23.5	6.0%
Measured + Indicated mineral resources	1.09	6,410	0.39 %	24.9	1.04	6,057	0.39 %	23.5	6.0%
Inferred mineral resources	1.09	15,162	0.39 %	58.7	1.04	15,446	0.39 %	60.1	(2.3)%

Copper	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	— %	—	—	—	— %	—	—
Indicated mineral resources	3.80	6,410	0.52 %	33.5	3.80	6,057	0.54 %	32.6	2.8%
Measured + Indicated mineral resources	3.80	6,410	0.52 %	33.5	3.80	6,057	0.54 %	32.6	2.8%
Inferred mineral resources	3.80	15,162	0.55 %	82.8	3.80	15,446	0.54 %	84.0	(1.4)%

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves.

(3) Metallurgical recovery assumptions (in payable concentrates) are: 78% for silver, 47% for lead, 69% for copper and 90% for zinc.
(4) Mineral resources are reported at metal-equivalent Cut-Off Grades (COG) based on metal price assumptions, variable metallurgical recovery assumptions, mining costs, processing costs, G&A costs, and variable Net Smelter Recovery (NSR) factors. Mining, processing, and G&A costs total $67.33/t with metal prices of $1,725/tr oz for Au, $23/tr oz for Ag, $1.09/lb for Pb, $1.32 /lb for Zn and $3.80/lb for Cu.
(5) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Charcas operations technical report summary prepared by qualified persons, under Exhibit 96.11 to this Form 10-K.
(6) Variations in mineral resources in 2023 were attributable to additional exploration drilling and production depletion in 2023.

Santa Barbara

The Santa Barbara mining complex is located approximately 26 kilometers southwest of the city of Hidalgo del Parral in southern Chihuahua, Mexico. The mine uses the Universal Transverse Mercator (UTM) World Geodetic System (WGS84) Zone 13R coordinate system and is located at 2 965 880 N and 418 948 E at an altitude of 2,000 m above sea level. The area can be reached via a paved road of from Hidalgo del Parral, a city on a federal highway. The area is also connected to the state capital of Chihuahua 250 km along Highway 24. It was discovered in 1536 and mining activities in the 20th century began in 1913. Santa Barbara includes three main underground mines (San Diego, Segovedad and Tecolotes) as well as a flotation plant and produces lead, copper and zinc concentrates, with significant amounts of silver.

IMMSA currently holds 33 mining concessions over the Santa Barbara property, covering a total area of 27,772.51 hectares (ha), with the titles held 100% by the Company. There are also surface lands that cover an area of 20.92 hectares and are owned by IMMSA, which provide us within sufficient rights to any work or exploration that we require to carry out for the advancement and continuity of activities in the Santa Barbara property. There are an additional 371.07 hectares covered by a contract with the community of Santa Barbara that allows for any further work or exploration required.

Due to the variable characteristics of the ore bodies, four types of mining methods are used: shrinkage stoping, long-hole drilled open stoping, cut-and-fill stoping and horizontal bench stoping. The ore, once crushed, is processed in the flotation plant to produce concentrates. All the water used in industrial operations at Santa Barbara comes from the mine and the concentrator plant, where a large part of this water is recovered from the tailings dam, creating a closed circuit for its proper use. Electricity is supplied by Eolica el Retiro, Energia Chihuahua, S.A. de C.V. and the CFE.

Geology

The pre-mineral rock types found at Santa Barbara consist of a thick calcareous shale formation and andesite flows. The post-mineral rock types consist of dikes and sills of rhyolite and diabase, a thin conglomerate formation, basalt flows, and unconsolidated stream sediments. Pre-mineral faulting took place in two stages, forming four fault systems. All faults within each system have similar strike and dip. Movement along these faults, vertical in the first-stage faults and horizontal in the second-stage faults, formed openings and breccia zones.

Hydrothermal solutions, emanating from depth, were introduced into the faults. The walls and breccia fragments within the faults were silicified, and the high-temperature silicates, garnet, pyroxene, and epidote were formed. Accompanying and following the formation of the silicates, the sulfides, such as sphalerite, galena, chalcopyrite, pyrite, and arsenopyrite, with associated gold and a silver mineral, were introduced with quartz, calcite, and fluorite. Most of these minerals replaced the silicates and altered shale. The parts of the faults where wide pre-mineral openings were located filled with quartz and a higher ratio of sulfides than in the narrow portions of the faults. Quartz, calcite, fluorite, and barite were among the last minerals deposited.

Mineral resources

The following table contains the summary of mineral resources for Santa Barbara as of December 31, 2023, based on long-term metal price assumptions:

	2023				2022				
Silver	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	23.00	25,512	103	84,495	23.00	23,470	100	75,343	12.1%
Measured + Indicated mineral resources	23.00	25,512	103	84,495	23.00	23,470	100	75,343	12.1%
Inferred mineral resources	23.00	18,238	95	55,444	23.00	19,664	100	63,479	(12.7)%

Zinc	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	1.32	25,512	3.15 %	804.1	1.32	23,470	3.17 %	744.2	8.1%
Measured + Indicated mineral resources	1.32	25,512	3.15 %	804.1	1.32	23,470	3.17 %	744.2	8.1%
Inferred mineral resources	1.32	18,238	3.86 %	704.7	1.32	19,664	4.03 %	792.3	(11.1)%

Lead	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	1.09	25,512	1.99 %	508.5	1.04	23,470	1.89 %	442.6	14.9%
Measured + Indicated mineral resources	1.09	25,512	1.99 %	508.5	1.04	23,470	1.89 %	442.6	14.9%
Inferred mineral resources	1.09	18,238	2.25 %	410.9	1.04	19,664	2.36 %	464.9	(11.6)%

Copper	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	3.80	25,512	0.52 %	132.3	3.80	23,470	0.52 %	122.9	7.7%
Measured + Indicated mineral resources	3.80	25,512	0.52 %	132.3	3.80	23,470	0.52 %	122.9	7.7%
Inferred mineral resources	3.80	18,238	0.55 %	100.8	3.80	19,664	0.56 %	109.8	(8.2)%

Gold	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	1,725	25,512	0.27	221	1,725	23,470	0.28	210	5.2%
Measured + Indicated mineral resources	1,725	25,512	0.27	221	1,725	23,470	0.28	210	5.2%
Inferred mineral resources	1,725	18,238	0.17	98	1,725	19,664	0.17	107	(8.4)%

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) Metallurgical recovery assumptions (in payable concentrates) are: 33% for Gold, 82% for silver, 79% for lead, 63% for copper and 81% for zinc.
(4) Mineral resources are reported at metal-equivalent Cut-Off Grades (COG) based on metal price assumptions, variable metallurgical recovery assumptions, mining costs, processing costs, G&A costs, and variable Net Smelter Recovery (NSR) factors. Mining, processing, and G&A costs total $83.4/t. with metal prices of $1,725/tr oz for Au, $23/tr oz for Ag, $1.09/lb for Pb, $1.32 /lb for Zn and $3.80/lb for Cu.

(5) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the Santa Barbara operations technical report summary prepared by qualified persons, under Exhibit 96.12 to this Form 10-K.
(6) Variations in mineral resources in 2023 were attributable to additional exploration drilling and production depletion in 2023.

San Martin

The San Martin mining complex is located in the municipality of Sombrerete in the northwestern part of the state of Zacatecas, Mexico. It is located approximately 185 kilometers from the city of Zacatecas. The elevation of the San Martin mining complex is approximately 2,600 meters (m) with geographic coordinates of 629,000 E and 2,614,000 N (WGS84, UTM Zona 13). The nearest major town is the municipality of Sombrerete (17 km away) in the Sierra Madre Occidental geographic province. It was discovered in 1555 and mining operations in the 20th century began in 1949. The complex includes an underground mine and a flotation plant. The ore body contains lead, copper and zinc concentrates, with significant amounts of silver. The state of Zacatecas has an extensive infrastructure of roads and highways that connect the San Martín to the rest of the country. The San Martin mining unit has a paved road to Highway 45, which leads to the town of Sombrerete, 17 kilometers away. Highway 45 then connects Sombrete to Fresnillo, Zacatecas and Durango at distances of 110,171 and 125 kilometers, respectively.

The San Martin property consists of 73 mining concessions with a total surface of 10,360.95 hectares, with the titles held by IMMSA. Water is currently extracted via three deep wells in the Proaño area, storing it in a pool adjacent to the wells. Electric power is provided by the national grid via a 45 kilometer extension. The unit receives a power supply of 115 KV, the main substation has a capacity of 24 MWA.

After eleven years of an illegal stoppage, we resumed control of the San Martin mine in August 2018. The San Martin facilities deteriorated during this period and we undertook a major renovation to restart operations in the second quarter of 2019, with a total expense of approximately $90.5 million. Production at this mine was restored to full capacity at the end of the third quarter of 2019.

Geology

San Martín mine is located in the Central Mesa of Mexico, between Sierra Madre Occidental and Sierra Madre Oriental. The Cuesta del Cura (Upper Cretaceous) limestone is the main sedimentary formation in the district. This is a sequence of shallow marine limestone and black chert which is overlain by Indura Formation that consists of alternating shales and fine-grained clayey limestones.

The mineral deposits in this district are associated with replacement veins and bodies formed in the skarn in close proximity to the Cerro de la Gloria granodiorite intrusion. The main mineralized veins are San Marcial, Ibarra and Gallo-Gallina which are oriented parallel to the intrusive contact and have thicknesses varying from 0.4 m to 4 m and horizontal extents of up to 1,000 m to the east/northeast from the granodiorite contact. The mineralization is associated with massive and disseminated sulfides occurring in replacement ore bodies between the main veins and in the skarn and include chalcopyrite (CuFeS), sphalerite (ZnS), galena (PbS), bornite (CuFeS), tetrahedrite (CuFe Sb S), native Silver (Ag), Pyrite (FeS), arsenopyrite (FeAsS) and stibnite (SbS).

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Mineral resources

The following table contains the summary of mineral resources for San Martin as of December 31, 2023, based on long-term metal price assumptions:

	2023				2022				
Silver	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Metal price (per ounce)**	**Amount (thousand tonnes)**	**Grades (grams per tonne)**	**Metal content (thousand ounces)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	—	—	—
Indicated mineral resources	23.00	12,978	77	32,236	23.00	11,542	92	34,311	(6.0)%
Measured + Indicated mineral resources	23.00	12,978	77	32,236	23.00	11,542	92	34,311	(6.0)%
Inferred mineral resources	23.00	52,330	72	121,500	23.00	9,176	112	32,894	269.4%

Zinc	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	— %	—	—
Indicated mineral resources	1.32	12,978	1.97 %	256.3	1.32	11,542	2.48 %	285.9	(10.4)%
Measured + Indicated mineral resources	1.32	12,978	1.97 %	256.3	1.32	11,542	2.48 %	285.9	(10.4)%
Inferred mineral resources	1.32	52,330	2.66 %	1,393.8	1.32	9,176	2.05 %	187.8	642.2%

Lead	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	— %	—	—
Indicated mineral resources	1.04	12,978	0.34 %	43.9	1.04	11,542	0.49 %	56.6	(22.4)%
Measured + Indicated mineral resources	1.04	12,978	0.34 %	43.9	1.04	11,542	0.49 %	56.6	(22.4)%
Inferred mineral resources	1.04	52,330	0.32 %	167.5	1.04	9,176	0.62 %	56.4	197.0%

Copper	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Metal price (per pound)**	**Amount (thousand tonnes)**	**Grades**	**Metal content (thousand tonnes)**	**Variation**
Measured mineral resources	—	—	—	—	—	—	— %	—	—
Indicated mineral resources	3.80	12,978	0.65 %	84.8	3.80	11,542	0.61 %	70.2	20.8%
Measured + Indicated mineral resources	3.80	12,978	0.65 %	84.8	3.80	11,542	0.61 %	70.2	20.8%
Inferred mineral resources	3.80	52,330	0.48 %	251.3	3.80	9,176	0.49 %	45.4	453.5%

(1) Mineral resources are reported in situ and are current as at December 31, 2023.
(2) Mineral resources are reported exclusive of mineral reserves.
(3) Metallurgical recovery assumptions (in payable concentrates) are 71% for silver, 31% for lead, 67% for copper and 75% for zinc.
(4) Mineral resources are reported at metal-equivalent Cut-Off Grades (COG) based on metal price assumptions, variable metallurgical recovery assumptions, mining costs, processing costs, G&A costs, and variable Net Smelter Recovery (NSR) factors. Mining, processing, and G&A costs total $63.1/t. with metal prices of $1,725/tr oz for Au, $23/tr oz for Ag, $1.04/lb for Pb, $1.32 /lb for Zn and $3.80/lb for Cu.
(5) For further information on assumptions used in preparing the estimates, including a detailed description of the cut-off determination, please refer to Chapter 11 of the San Martin operations technical report summary prepared by qualified persons, dated February 05, 2024.
(6) Variations in mineral resources in 2023 were attributable to the implementation of 3D implicit geological modeling, geostatistical analysis, block model construction and mineral resource estimation, involving changes in the method of evaluating capping, use of statistical tools and grade continuity evaluation through variography analysis.
(7) The inferred continuity of the mineralized structures was based on the variography analysis and the geological evidence that resulted in a significant increase in inferred resources.
(8) Additional exploration drilling and production depletion in 2023 resulted in additional variations in mineral resources in 2023 .

Santa Eulalia

The mining district of Santa Eulalia is located in the central part of the state of Chihuahua, Mexico, approximately 26 kilometers east of the city of Chihuahua, and is connected to the city of Chihuahua by a paved road (highway no. 45). It was discovered in 1590 but exploitation began in 1870. The main mines in Santa Eulalia are The Buena Tierra mine and the San Antonio mine.

Regarding its geology, the majority of mineralization corresponds to ore skarns: silicoaluminates of calcium, iron and manganese with variable quantities of lead, zinc, copper and iron sulfides. Economic ore include sphalerite (ZnS), galena (PbS) and small quantities of pyrargyrite (Ag_3SbS_3).

In the first quarter of 2020, the Santa Eulalia mine temporarily suspended its operations due to flooding. We are currently evaluating different options to supply the Santa Eulalia concentrator. We are also evaluating drainage at the mining facilities and determining if it is possible to sell the water for agricultural or other uses.

Taxco

The Taxco mining complex has been on strike since July 2007. It is located on the outskirts of the city of Taxco in the northern part of the state of Guerrero, Mexico. It was discovered in 1519 and mining activities in the 20th century began in 1918. The complex includes several underground mines (San Antonio, Guerrero and Remedios) and a flotation plant. The ore contains lead and zinc concentrates, with some amounts of gold and silver.

There was no mine exploration drilling at Taxco during the three-year period ended December 31, 2023 due to the strikes. Please see Note 13 "Commitments and Contingencies—Labor matters" to the consolidated financial statements.

Processing Facilities—San Luis Potosi

Our San Luis Potosi electrolytic zinc refinery is located in the city of San Luis Potosi, in the state of San Luis Potosi, Mexico. The city of San Luis Potosi is connected to our refinery by a major highway.

Zinc Refinery

The San Luis Potosi electrolytic zinc refinery was built in 1982 and was designed to produce 105,000 tonnes of refined zinc per year by treating up to 200,000 tonnes of zinc concentrate from our own mines, principally Charcas, which is located 113 kilometers from the refinery. The refinery produces special high-grade zinc (99.995%), high-grade zinc (over 99.9%) and zinc-based alloys with aluminum, lead, copper or magnesium in varying quantities and sizes depending on market demand. Refined silver and gold production is obtained from tolling services provided by a third party mining company.

The electrolytic zinc refinery has an acid plant, a steam recovery boiler and a roaster. There is also a calcine processing area with five leaching stages: neutral, hot acid, intermediate acid, acid, purified fourth and jarosite, as well as two stages for solution purifying.

The table below contains production information for 2023, 2022 and 2021 for our San Luis Potosi zinc refinery:

					Variance 2023 - 2022	
		2023	**2022**	**2021**	**Volume**	**%**
Total zinc concentrate treated	(kt)	215.2	215.3	203.6	(0.1)	(0.0)%
Refined zinc produced	(kt)	101.0	99.9	92.7	1.1	1.1 %
Sulfuric acid produced	(kt)	179.9	182.1	172.4	(2.2)	(1.2)%
Refined silver produced	(kt)	13.9	18.9	19.1	(5.0)	(26.5)%
Refined gold produced	(k)	21.7	21.5	20.5	0.2	0.9 %
Refined cadmium produced	(kt)	0.5	0.6	0.5	(0.1)	(15.0)%
Average refinery recovery	(%)	92.2	93.1	91.9	(0.9)	(1.0)%

kt = thousand tonnes

MINERAL RESOURCES AND RESERVES

Mineral resources are concentrations or occurrences of 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 economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. Such a deposit cannot qualify as recoverable proven and probable mineral reserves until engineering, legal and economic feasibility are confirmed based upon a comprehensive evaluation of development and operating costs, grades, recoveries and other material factors. Mineral resources include measured, indicated and inferred mineral classifications.

Measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project, may not be converted to a mineral reserve and no assurance can be given that the estimated mineral resources not included in mineral reserves will become proven and probable mineral reserves.

Mineral reserves are estimates of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. Mineral reserves, as used in the mineral reserve data presented in this report, means the economically mineable part of a measured or indicated resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. Proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource. Probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource.

Our estimates of mineral reserves and mineral resources have been prepared in accordance with the disclosure requirements of S-K 1300. Pursuant to SEC guidance, qualified persons used forecast metal prices for mineral resource and mineral reserve estimation and the economic analysis. These projected prices were derived from forecasts from several analysts and banks. The commodity price forecast covered the period 2021–2025 and provided a long-term forecast for 2025 onward. As of December 31, 2023, we considered $3.30 per pound of copper and $10.00 per pound of molybdenum.

Our engineering department reviews reserve computations in detail on an annual basis. In addition, our engineering department reviews the computation when changes in assumptions occur. Changes can occur for price or cost assumptions, results in field drilling or new geotechnical parameters. We also engage third party consultants to review mine planning procedures.

We periodically reevaluate estimates of our mineral reserves, which represent our estimate as to the amount of unmined copper remaining in our existing mine locations that can be produced and sold at a profit. These estimates are based on engineering evaluations derived from samples of drill holes and other openings, combined with assumptions about copper market prices and production costs at each of our mines. See Risk Factors in Item 1A for a discussion of risks associated with our estimates of mineral reserves and resources.

The qualified persons responsible for mineral reserve and resource estimates are as follows:

Peruvian open-pit:

Cuajone mine – Wood Group USA Inc.
Toquepala mine - Wood Group USA Inc.

Tia Maria project:

Wood Group USA Inc.

Chancas project:

Wood Group USA Inc.

Michiquillay project:

Wood Group USA Inc.

Mexican open-pit:

La Caridad - Golder Associates USA Inc.
Buenavista del Cobre - Golder Associates USA Inc.

IMMSA unit:

Santa Barbara - SRK Consulting (U.S.), Inc.
Charcas - SRK Consulting (U.S.), Inc.
San Martin – SRK Consulting (U.S.), Inc.

El Arco project:

Wood Group USA Inc.

El Pilar project:

M3 Engineering & Technology Corp., Ingenieria Geomex, S.A. de C.V., and Golder Associates USA Inc.

Pilares project:

Golder Associates USA Inc.

MINERAL RESERVES AND MINERAL RESOURCES INTERNAL CONTROLS DISCLOSURE

In 2021, we adopted the new requirements of S-K 1300. As part of this process, we developed an implementation plan with a high-level cross functional team, which performed a completeness assessment over the Technical Report Summaries for each material property prepared by a third-party Qualified Person. Additionally, we established new policies, procedures and internal controls related to the new regulation. The review includes, among others, an analysis of the reasonableness of technical information, a thorough review of the mineral resources and reserves estimates, and the economic analysis which supports these estimates.

In addition, as part of the adoption of the requirements of S-K 1300, a significant component of our internal controls and quality assurance procedures on the information from material properties was performed by qualified persons responsible for mineral reserve and resource estimates. These include an intensive review of our procedures, as well as database verification, validation of mineral resource and reserve estimates, and the elaboration of technical report summaries. These controls and methods help to validate the reasonabless of the estimates. The effectiveness of the controls are reviewed periodically to address changes in conditions and the degree of compliance with policies and procedures.

EXPLORATION ACTIVITIES

We are engaged in ongoing extensive exploration to locate additional ore bodies in Peru, Mexico, Argentina, Ecuador and Chile. We also conduct exploration in the areas of our current mining operations. We invested $55.0 million on exploration programs in 2023, $41.7 million in 2022 and $43.4 million in 2021 and we expect to spend approximately $65 million on exploration programs in 2024.

Currently, we directly control 156,818 hectares and 502,688 hectares of concessions in Peru and Mexico, respectively. We also currently hold 168,200 hectares and 28,453 hectares of exploration concessions in Argentina and Chile, respectively.

Peru

In 2023, we finished a diamond drilling program of 4,500 meters at the Chaparra Project and determined the existence of low-grade copper mineralization. We will not continue exploration work on this project. Regarding the exploration programs in southern Peru, we conducted a diamond drilling program of 2,031 meters in the Qori Project and the results are currently under evaluation. We also concluded the geophysical studies of the Atico Project to determine potential levels of copper mineralization.

In 2024, we plan to conduct a diamond drilling program for 5,000 meter to explore prospective areas for copper mineralization, primarily in Southern Peru. Additionally, we will carry out prospecting work in metallogenic zones associated with copper porphyry systems.

Mexico

In addition to exploration and drilling programs at existing mines, we are currently conducting exploration to locate mineral deposits at various other sites in Mexico. The following are some of the more significant exploration projects:

The Chalchihuites. This is a skarn type deposit located in the state of Zacatecas, close to the San Martin mining unit. Drilling programs conducted between 1980 and 2014 identified 12.6 million of mineralized material with an average silver content of 110 grams per ton, 2.66% of zinc, 0.37% of lead and 0.67% of copper. Current results indicate that mineralization consists of a complex mixture of oxides and sulfides of silver, lead and zinc that requires additional metallurgical research. In 2017, we started a new drilling program of 21,000 meters to continue metallurgical research and testing. In 2018, this exploration program, which included 48 drill holes was completed. This program has been carried out in compliance with QA/QC protocol, which includes testing the specific density of different rocks and mineralized types and geochemistry sampling. In addition, 5,000 meters of core sample from the drilling program were analyzed with a hyperspectral scanner, and a study of 498 kilometers of hyperspectral imaging was conducted to recognize the geology of the entire Chalchihuites mineral district. In 2019, with the complete data from the diamond drilling program, we made a geological model of the Cronos deposit using Leapfrog software. In 2020, the sample design for a metallurgical test was completed and three metallurgical samples were delivered to an external consultant. Metallurgical tests for silver recovery will continue with semi-sulfide and oxide ores. In 2022 and 2023, we drilled a total 5,000 meters and included 16 drill holes in the area known as Virgen Morena. Exploration activities at this area did not render positive results and they were suspended. Metallurgical tests were concluded and confirmed that recoveries in sulphide flotation are good for Zn, Cu, Pb and Ag; however it was not possible to separate lead from the copper concentrate. Dynamic acid leaching tests were performed for oxides and mixed oxides. The results were positive. In 2024, Cu-Pb separation tests will be carried out using an extended kinetics simulation in a microbubble cell and then at the laboratory level, to determine flotation of Cu/Pb concentrate. We will evaluate the possibility of building an access ramp to obtain ore and process it in a pilot plant.

Campo Medio (Santa Eulalia). This prospect is located close to the west border of the Santa Eulalia mine. Results of geological surveying and drilling programs indicated that its mineralization consists of sulfides with 2.85 meters of width, 219 grams of silver, 6.60% of lead and 7.55% of zinc. Exploration at the Campo Medio area did not render positive results and exploration activities were suspended. We abandoned the project because the mineralized intervals intercepted by core drilling were insufficient to determine drilling targets of economic interest.

San Antonio Sur (Santa Eulalia). It is located in the San Antonio mine, eastern field zone in Santa Eulalia. There is evidence of mineralization at Level 8 inside the mine. The drilling program is in place to verify the continuity of mineralization. The mine is currently flooded. In December 2023, the gauging stage with the new pumping system began, but it is currently not clear if the mine can be dewatered.

Chile

El Salado (Montonero). A copper-gold prospect located in the Atacama region, northern Chile has been under exploration for copper and molybdenum porphyry since 2014. In 2016 and 2017, we conducted a diamond drilling program of 22,108 meters and finished the conceptual study. In 2022, we concluded the pre-feasibility study of the project. We are currently evaluating this deposit and expect to complete an economic evaluation in 2024.

In 2023, we conducted diamond drilling programs of 2,397 meters and 3,000 meters at the Chapalele and Taruca prospects respectively, both located in the Atacama Region, Province of Huasco. These prospects have copper porphyry characteristics; the results indicated no occurrence of mineralization of economic interest.

Ecuador

Chaucha. The Ruta del Cobre (“Copper Road”) project is located in the west of Cuenca city and south of Guayaquil. The mineralization in this area is characteristic of a copper-molybdenum porphyry system which is being explored since 2014. In 2021, the infill-drilling program was concluded, totaling 121,000 meters of diamond drilling. With this information, we prepared the project’s feasibility study, which concluded in 2022. The results of this study did not meet the Company´s commercial expectations and efforts were suspended in 2023.

Argentina

In 2011, we started exploration activities in Argentina in the Neuquen province. In 2015, we performed geological exploration in the Salta, Rio Negro and Neuquen provinces where we expected to locate copper porphyry with precious metals epithermal systems. Starting 2017, we performed prospection and geological evaluation work in the provinces of San Juan and Rio Negro with the exploration of silver-gold epithermal systems through geological mapping and surface sampling. In 2021, superficial geological and geochemical work was concluded at the Cerro La Mina and Tanque Negro prospects. In 2023, we developed surface geochemical and geological studies at the La Hoyada and La Chilena prospects, both located in the province of Catamarca. With the results of these studies, we expect to perform a diamond drilling program of 2,000 meters in 2024.

Cañadon del Moro. This is a low sulfidation epithermal deposit with high longitude seams located in the Rio Negro province. We conducted a diamond drilling program of 1,300 meters through 2021. In 2022, we conducted a diamond drilling program of 8,864 meters to evaluate the resource. In 2023, we started the Conceptual Study and expect to finish it in 2024. So far, the results are positive.

ITEM 3. LEGAL PROCEEDINGS

Reference is made to the information under the caption “Litigation Matters” in the consolidated financial statement Note 13 “Commitments and contingencies.”

ITEM 4. MINE SAFETY DISCLOSURE

Not applicable.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

SCC COMMON STOCK:

SCC's common stock is traded on the New York Stock Exchange ("NYSE") and the Lima Stock Exchange ("BVL"). SCC's common stock symbol is SCCO on both the NYSE and the BVL. At December 31, 2023, there were 842 holders of record of our common stock.

DIRECTORS' STOCK AWARD PLAN:

The following table contains certain information related to our shares held as treasury stock for the Directors' stock award plan as of December 31, 2023:

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance
Directors' stock award plan	N/A	N/A	171,200

For additional information see Note 14—"Stockholders Equity—Directors' Stock Award Plan."

SCC COMMON STOCK REPURCHASE PLAN:

In 2008, our BOD authorized a $500 million share repurchase program that has since been increased by the BOD and is currently authorized to $3 billion. Pursuant to this program, the Company purchased common stock as shown in the table below. These shares are available for general corporate purposes. The Company may purchase additional shares of its common stock from time to time, based on market conditions and other factors. This repurchase program has no expiration date and may be modified or discontinued at any time.

Period						
From	**To**	**Total Number of Shares Purchased**	**Average Price Paid per Share**	**Total Number of Shares Purchased as Part of Publicly Announced Plan**	**Maximum Number of Shares that May Yet Be Purchased Under the Plan @ $86.07(1)**	**Total Cost ($ in millions)**
2008	**2012**	46,914,486	$ 18.72	46,914,486		878.1
2013:		10,245,000	27.47	57,159,486		281.4
2014:		22,711,428	30.06	79,870,914		682.8
2015:		36,689,052	27.38	116,559,966		1,004.4
2016:		2,937,801	24.42	119,497,767		71.7
Total purchased		119,497,767	$ 24.42		948,453	$ 2,918.4

(1) NYSE closing price of SCC common shares at December 31, 2023.

The SCC share repurchase program has registered no activity since the third quarter of 2016. The NYSE closing price of SCC common shares at December 31, 2023 was $86.07 and the maximum number of shares that the Company could purchase at that price was 0.9 million.

As a result of the repurchase of shares of SCC's common stock, Grupo Mexico's direct and indirect ownership was 88.9% as of December 31, 2023 and 2022.

SHAREHOLDER RETURN PERFORMANCE PRESENTATION

Set forth below is a line graph comparing the yearly change in the cumulative total returns on the Company's common stock against cumulative total return on the S&P 500 Stock Index and the S&P Metals and Mining Select Industry Index for the five-year period ending December 31, 2023. The chart below analyzes the total return on SCC's common stock for the period commencing December 31, 2018 and ending December 31, 2023, compared to the total return of the S&P 500 and the S&P Metals and Mining Select Industry Index for the same five-year period.

Comparison of Five Year Cumulative Total Return *
SCC Stock, S&P 500 Index and S&P Metals and Mining Select Industry Index **

* Total return assumes reinvestment of dividends
** The comparison assumes $100 invested on December 31, 2017

	Total Return per Year				
	2019	**2020**	**2021**	**2022**	**2023**
SCC	44.6 %	59.0 %	(0.4)%	3.5 %	49.1 %
S&P 500	28.9 %	16.3 %	26.9 %	(19.4)%	24.2 %
S&P M + MS	13.0 %	14.4 %	34.0 %	11.5 %	20.1 %

The foregoing Performance Graph and related information shall not be deemed "soliciting material" or "filed" with the SEC or subject to Section 18 of the Securities Exchange Act of 1934, as amended, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that the Company specifically incorporates it by reference into such filing.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

EXECUTIVE SUMMARY

This Management's Discussion and Analysis of Financial Condition and Results of Operations relates to and should be read together with our Audited Consolidated Financial Statements as of and for each of the years in the three-year period ended December 31, 2023. Therefore, unless otherwise noted, the discussion below of our financial condition and results of operations is for Southern Copper Corporation and its subsidiaries (collectively, "SCC," "Southern Copper," "the Company," "our," and "we") on a consolidated basis for all periods. Our financial results may not be indicative of our future results.

This discussion contains forward-looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ materially from those currently anticipated and expressed in the forward-looking statements as a result of a number of factors. See Item 1 "Business—Cautionary Statement."

For details on the discussion on variations between 2022 and 2021, please see Management´s Discussion and Analysis of Financial Condition and Results of Operations, on the 2022 Form 10-K.

EXECUTIVE OVERVIEW

Business: Our business is primarily the production and sale of copper. In the process of producing copper, a number of valuable metallurgical by-products are recovered, which we also produce and sell. Market forces outside of our control largely determine the sale prices for our products. Our management, therefore, focuses on value creation through copper production, cost control, production enhancement and maintaining a prudent capital structure to remain profitable. We endeavor to achieve these goals through capital spending programs, exploration efforts and cost reduction programs. Our aim is to remain profitable during periods of low copper prices and to maximize financial performance in periods of high copper prices. We are one of the world's largest copper mining companies in terms of production and sales and our principal operations are in Peru and Mexico. We also have an active ongoing exploration program in Chile and Argentina.

We believe we hold one of the world's largest copper reserves and resources positions. As of December 31, 2023, our copper mineral reserves, calculated at a copper price of $3.30 per pound, totaled 97,082 million pounds of contained copper, at the following locations:

Copper contained in ore reserves	Million pounds
Mexican open-pit	33,426
Peruvian operations	44,382
Development projects	19,274
Total	**97,082**

Outlook: Various key factors affect our outcome. These include, but are not limited to, the following:

- Sales structure: In the last three years, approximately 77.6% of our revenues came from the sale of copper; 10.9% from molybdenum; 4.2% from silver; 3.1% from zinc; and 4.2% from various other products, including gold, sulfuric acid and other materials.

- Copper: In 2023, representing approximately 76.7% of our sales, the LME copper price increased from an average of $3.63 per pound in the fourth quarter of 2022 to $3.71 (+2.2%) in the same period of 2023 At the beginning of the last quarter of 2023, we were expecting a market surplus for this year. However, after a significant reduction in copper production was announced by some producers, market expectations for a surplus ceased and were replaced with concerns about potential deficits due to the extremely low available inventories.

Even though significant uncertainty continues to exist regarding global GDP growth, which will be impacted by a slow recovery of the Chinese economy, a recession in Europe and a soft landing or minor recession in the US, we believe copper prices should remain stable through 2024.

- Molybdenum: Represented approximately 11.4% of our sales in 2023. Molybdenum prices averaged $23.73 per pound in 2023, compared to $18.61 in 2022, a 27.5% increase.

  For 2024, we believe that prices will hold at the current level of about $19.00 per moly pound reflecting the supply/demand dynamics in a context of lower Asian production.

- Silver: We believe that silver prices will have support due to its industrial uses as well as being perceived as a value shelter in times of economic uncertainty. Silver represented 4.2% of our sales in 2023.

- Zinc: Average zinc prices decreased by 24.1% in 2023 compared with 2022. We consider zinc has very good long-term fundamentals due high levels of industrial consumption and expected production. Zinc represented 3.0% of our sales in 2023.

- Production: For 2024, we expect our copper production to reach 935,900 tonnes, an increase of 2.7 % over final production in 2023. Last year we drove our Pilares project to full capacity and initiated ramp-up at the Buenavista zinc concentrator. For 2024, we expect these two projects to contribute 44,000 tons of copper.

  We also expect to produce 25,500 tonnes of molybdenum, which represents a decrease of 4.9% compared to 2023 production levels. In 2024, we expect to produce 20.7 million ounces of silver, and increase of 12.2% compared with 2023 production. Additionally, we expect to produce 117,800 tonnes of zinc from our mines, up 79.8% from 2023´s production level. This growth will be driven by start-up at the Buenavista Zinc concentrator (+54,400 tonnes). For 2025 and the coming years, we expect to produce over 170,000 tons of zinc per year on average.

- Capital investments: Capital investments were $1,008.6 million for 2023. This is 6.3% higher than in 2022, and represented 41.2% of net income. Our growth program to develop the full production potential of our Company is underway. We are currently developing a new organic growth plan whose goal is to increase our copper volume production to 1.3 million tonnes by the end of this decade.

For 2024, the Board of Directors approved a capital investment program of $1,103.7 million.

KEY MATTERS

Below, we discuss several matters that we believe are important to understand our results of operations and financial condition. These matters include (i) earnings, (ii) production, (iii) “operating cash costs” as a measure of our performance, (iv) metal prices, (v) business segments, (vi) the effect of inflation and other local currency issues and (vii) our capital investment and exploration program.

Earnings: The table below highlights key financial and operational data of our Company for the three years ended December 31, 2023 (in millions, except copper price and per share amounts):

	2023	2022	2021	Variance 2023 - 2022	Variance 2022 - 2021
Copper price LME	3.85	4.00	4.23	(0.15)	(0.23)
Pounds of copper sold	1,961.8	1,920.4	2,052.9	41.4	(132.5)
Net sales	$ 9,895.8	$ 10,047.9	$ 10,934.1	$ (152.1)	$ (886.2)
Operating income	$ 4,192.3	$ 4,435.8	$ 6,065.1	$ (243.5)	$ (1,629.3)
Income before income taxes	$ 3,955.8	$ 4,247.8	$ 5,696.8	$ (292.0)	$ (1,449.0)
Net income attributable to SCC	$ 2,425.2	$ 2,638.5	$ 3,397.1	$ (213.3)	$ (758.6)
Earnings per share	$ 3.14	$ 3.41	$ 4.39	$ (0.27)	$ (0.98)
Dividends per share	$ 4.00	$ 3.50	$ 3.20	$ 0.50	$ 0.30

Net sales in 2023 totaled $9,895.8 million, which represented a slight decrease compared to net sales in 2022. This decrease was influenced by lower copper (-3.8% - LME) and zinc (-24.1%) prices, along with a reduction in the sales volumes of silver (-4.3%) and zinc (-1.4%). The aforementioned was partially offset by higher sales volumes for copper (+2.2%) and molybdenum (+2.3%) and an uptick in prices for molybdenum (+27.5%) and silver (+7.6%). Additionally, net sales in 2023 were negatively impacted by downward adjustments of $406.0 million arising from provisionally priced sales due to decreases in metal prices. Our estimates indicate that 2023 sales were also affected by a larger copper anode inventory in process at year-end. Net sales in 2022 of $10.0 billion were close to our historical high in 2021 of $10.9 million.

The slight increase in costs of sales in 2023 was driven primarily by higher expenses in various areas. While there was a slight increase in labor costs, contributing to a modest upward trend, the main sources of variation in costs came from higher expenses related to operating contractors and a slight increase in fuel costs, along with additional expenditures in sales expenses and inventory consumption. These results were mitigated by a drop in expenses, diven primarily by a decrease in copper purchased from third parties and a reduction in worker participation. In this context, the overall impact on the costs of sales was relatively moderate, with opposing factors balancing out variations.

In 2023, the net income attributable to SCC was $2,425.2 million, reflecting a 8.1% decrease from the 2022 net income. This decline was primarily driven by increased costs of sales and a minor reduction in sales volumes toward year-end. Net income attributable to SCC in 2022 was 22.3% below 2021's net income; this was mainly due to higher costs of sales and a slight reduction in sales volumes.

Production: The table below contains mine production data of our Company for the three years ended December 31, 2023:

				Variance			
				2023 - 2022		2022 - 2021	
	2023	2022	2021	Volume	%	Volume	%
Copper (in million pounds)	2,008.4	1,972.5	2,112.5	35.9	1.8 %	(140.0)	(6.6)%
Molybdenum (in million pounds)	59.2	57.8	66.7	1.3	2.3 %	(8.9)	(13.3)%
Zinc (in million pounds)	144.4	132.3	147.6	12.1	9.2 %	(15.3)	(10.4)%
Silver (in million ounces)	18.4	18.6	19.0	(0.2)	(0.8)%	(0.4)	(2.1)%

The table below contains copper production data from each of our mines for the three years ended December 31, 2023:

				Variance			
				2023 - 2022		2022 - 2021	
Copper (in million pounds):	**2023**	**2022**	**2021**	**Volume**	**%**	**Volume**	**%**
Toquepala	495.8	444.2	505.7	51.6	11.6 %	(61.5)	(12.2)%
Cuajone	329.0	309.4	372.6	19.6	6.4 %	(63.2)	(17.0)%
La Caridad	244.3	246.5	282.4	(2.2)	(0.9)%	(35.9)	(12.7)%
Buenavista	918.2	952.3	932.6	(34.1)	(3.6)%	19.7	2.1 %
IMMSA	21.1	20.1	19.2	1.0	4.7 %	0.9	4.8 %
Total mined copper	2,008.4	1,972.5	2,112.5	35.9	1.8 %	(140.0)	(6.6)%

2023 compared to 2022:

Copper mine production in 2023 increased 1.8% to 2,008.4 million pounds. This increase was primarily driven by an uptick in production levels at Toquepala (+11.6%; higher ore grades), Cuajone (+6.4%; higher ore grades) and IMMSA (+4.7%; higher ore grades). This was partially offset by reduction in production at the Buenavista and La Caridad mines which was mainly driven by a drop in ore grades, mineral processing and recovery.

In the second half of 2023, we experienced a reduction of fresh water at our Buenavista operation, which was generated by inadequate rainfall and a lack in the reception of permits to build a pipeline (approximately 20 km) to transport water from the wells to the operations and nearby townsites. For 2024, the Company has decided to transport water through other means to secure the supplies required to ensure that Buenavista can operate at full capacity for copper production and the ramp up of new zinc concentrator operations.

Molybdenum production increased 2.3 % to 59.2 million pounds, up from 57.8 million pounds in 2022. This increase was due to higher production at all our mines, with the exception of Toquepala mine (-17.8%), where grades and recoveries dropped.

Mined zinc production rose 9.2 % in 2023, driven by increases in production at our Santa Barbara (+29.0%) and Charcas (+9.0%) mines due to higher grades.

Mined silver production fell 0.8 % in 2023 in YoY terms; this was mainly due to lower production at our Mexican operations, which was partially offset by an increase in production at our Peruvian operations.

Operating Cash Costs: An overall benchmark used by us and a common industry metric to measure performance is operating cash costs per pound of copper produced. Operating cash cost is a non-GAAP measure that does not have a standardized meaning and may not be comparable to similarly titled measures provided by other companies. This non-GAAP information should not be considered in isolation or as substitute for measures of performance determined in accordance with GAAP. A reconciliation of our operating cash cost per pound of copper produced to the cost of sales (exclusive of depreciation, amortization and depletion) as presented in the consolidated statement of earnings is presented under the subheading, “Non-GAAP Information Reconciliation” on page 119. We disclose operating cash cost per pound of copper produced, both before and net of by-product revenues.

We define ***operating cash cost per pound of copper produced before by-product revenues*** as cost of sales (exclusive of depreciation, amortization and depletion), plus selling, general and administrative charges, treatment and refining charges net of sales premiums; less the cost of purchased concentrates, workers’ participation and other miscellaneous charges, including royalty charges, and the change in inventory levels; divided by total pounds of copper produced by our own mines.

In our calculation of operating cash cost per pound of copper produced, we exclude depreciation, amortization and depletion, which are considered non-cash expenses. Exploration is considered a discretionary expenditure and is also excluded. Workers’ participation provisions are determined on the basis of pre-tax earnings and are also excluded. Additional exclusions from operating cash costs are items of a non-recurring nature and the mining royalty charge as it is based on various calculations of taxable income, depending on which jurisdiction, Peru or Mexico, is imposing the charge. We believe these adjustments will allow our management and stakeholders to see a presentation of our controllable cash cost, which we believe is one of the lowest of all copper-producing companies of similar size.

We define ***operating cash cost per pound of copper produced net of by-product revenues*** as operating cash cost per pound of copper produced, as defined in the previous paragraph, less by-product revenues and net revenue (loss) on sale of metal purchased from third parties.

In our calculation of operating cash cost per pound of copper produced, net of by-product revenues, we credit against our costs the revenues from the sale of all our by-products, including, molybdenum, zinc, silver, gold, etc. and the net revenue (loss) on sale of metals purchased from third parties. We disclose this measure including the by-product revenues in this way because we consider our principal business to be the production and sale of copper. As part of our copper production process, much of our by-products are recovered. These by-products, as well as the processing of copper purchased from third parties, are a supplemental part of our production process and their sales value contribute to covering part of our incurred fixed costs. We believe that our Company is viewed by the investment community as a copper company, and is valued, in large part, by the investment community's view of the copper market and our ability to produce copper at a reasonable cost.

We believe that both of these measures are useful tools for our management and our stakeholders. Our cash costs before by-product revenues allow us to monitor our cost structure and address areas of concern within operating management. The measure operating cash cost per pound of copper produced net of by-product revenues is a common measure used in the copper industry and is a useful management tool that allows us to track our performance and better allocate our resources. This measure is also used in our investment project evaluation process to determine a project's potential contribution to our operations, its competitiveness and its relative strength in different price scenarios. The expected contribution of by-products is generally a significant factor used by the copper industry to determine whether to move forward or not in the development of a new mining project. As the price of our by-product commodities can have significant fluctuations from period to period, the value of its contribution to our costs can be volatile.

Our operating cash cost per pound of copper produced, as defined above, is presented in the table below for the three years ended December 31, 2023:

Operating cash cost per pound of copper produced(1)
(In millions, except cost per pound and percentages)

				2023 - 2022		2022 - 2021	
	2023	**2022**	**2021**	**Value**	**%**	**Value**	**%**
Total operating cash cost before by-product revenues	$ 4,235.0	$ 3,825.7	$ 3,357.4	$ 409.3	10.7 %	$ 468.3	13.9 %
Total by-product revenues	$ (2,243.8)	$ (2,355.8)	$ (1,997.7)	$ 112.0	(4.8)%	(358.1)	17.9 %
Total operating cash cost net of by-product revenues	$ 1,991.2	$ 1,469.9	$ 1,359.7	$ 521.3	35.5 %	$ 110.2	8.1 %
Total pounds of copper produced(2)	1,935.4	1,894.7	2,041.7	40.7	2.1 %	(147.0)	(7.2)%
Operating cash cost per pound before by-product revenues	**$ 2.19**	**$ 2.02**	**$ 1.64**	**$ 0.17**	**8.4 %**	**$ 0.38**	**22.8 %**
By-products per pound revenues	**$ (1.16)**	**$ (1.24)**	**$ (0.97)**	**$ 0.08**	**(6.8)%**	**$ (0.27)**	**27.1 %**
Operating cash cost per pound net of by-product revenues	**$ 1.03**	**$ 0.78**	**$ 0.67**	**$ 0.25**	**32.6 %**	**$ 0.11**	**16.5 %**

(1) These are non-GAAP measures, see page 119 for reconciliation to GAAP measure.
(2) Net of metallurgical losses.

2023 compared to 2022:

As seen in the table above, our per pound cash cost before by-product revenues in 2023 was 8.4% higher than the figure in 2022. This result was mainly attributable to an increase in production costs. Our cash cost per pound net of by-product revenues for 2023 was 32.6% above the figure for the same period of 2022 and was mainly attributable to an increase in the production cost of 16.2 cents per pound and a reduction of 8 cents in by-product revenue credits.

Metal Prices: The profitability of our operations is dependent on, and our financial performance is significantly affected by, the international market prices for the products we produce, especially for copper, molybdenum, zinc and silver.

We are subject to market risks arising from the volatility of copper and other metals prices. For instance, during the period from January 2014 through December 2023, the London Metal Exchange (LME) copper settlement price varied from a low of $1.96 per pound in 2016 to a record high of $4.87 per pound in 2022, and the Metals Week Molybdenum Dealer Oxide weekly average price ranged from a low of $4.30 per pound in 2015 to a high of $38.50 per pound in 2023. Metal prices historically have been subject to wide fluctuations and are affected by numerous factors beyond our control, as described further in Item 1A *Risk Factors*. These factors, which affect each commodity to varying degrees, include international economic and political conditions, levels of supply and demand, the availability and cost of substitutes, inventory levels maintained by producers and others and, to a lesser degree, inventory carrying costs and currency exchange rates. In addition, the market prices of certain metals have on occasion been subject to rapid short-term changes due to economic concerns and financial investments.

For 2024, assuming that expected metal production and sales are achieved; 2023 tax rates are unchanged and giving no effects relative to potential hedging programs, metal price sensitivity factors indicate the following change in estimated annual net income attributable to SCC resulting from metal price changes:

	Copper	Molybdenum	Zinc	Silver
Change in metal prices (per pound except silver—per ounce)	$ 0.10	$ 1.00	$ 0.10	$ 1.00
Change in net earnings (in millions)	$ 122.0	$ 34.0	$ 21.3	$ 13.3

Business Segments: We view our Company as having three reportable segments and manage it on the basis of these segments. These segments are (1) our Peruvian operations, (2) our Mexican open-pit operations and (3) our Mexican underground operations, known as our IMMSA unit. Our Peruvian operations include the Toquepala and Cuajone mine complexes and the smelting and refining plants, industrial railroad and port facilities that service both mines. Our Mexican open-pit operations include La Caridad and Buenavista mine complexes, the smelting and refining plants and support facilities, which service both mines. Our IMMSA unit includes five underground mines-and several industrial processing facilities.

Segment information is included in our review of "Results of Operations" in this item and also in Note 19 "Segment and Related Information" of the consolidated financial statements.

Inflation and Exchange Rate Effect of the Peruvian sol and the Mexican peso: Our functional currency is the U.S. dollar and our revenues are primarily denominated in U.S. dollars. Significant portions of our operating costs are denominated in Peruvian sol and Mexican pesos. Accordingly, when inflation and currency devaluation/appreciation of the Peruvian and Mexican currency occur, our operating results can be affected. In recent years, exchange rate volatility has been high but has had a limited effect on our results. Please see Item 7A "Quantitative and Qualitative Disclosures about Market Risk" for more detailed information.

Capital Investment Program: We made capital investments of $1,008.6 million in 2023 and $948.5 million in 2022. In general, the capital investments and projects described below are intended to increase production, decrease costs or address social and environmental commitments.

The table below contains information on our capital investments for the three years ended December 31, 2023 (in millions):

	2023	2022	2021
Peruvian projects:			
Toquepala expansion project	$ 5.8	$ 6.6	$ 21.8
Quebrada Honda dam expansion	8.4	20.3	86.3
Relocation of facilities at Toquepala	0.9	6.3	23.8
HPGR optimization at Cuajone	54.2	35.4	0.9
Fresh water pipeline replacement at Suches	0.9	10.6	6.2
Tailings disposal—Quebrada Honda dam	(2.2)	1.5	0.8
Maintenance workshops at Toquepala concentrator	9.7	21.9	6.3
Quebrada Honda filter plant	16.1	18.3	2.1
Maintenance workshops at Cuajone	17.2	4.2	0.9
Other projects	15.6	25.4	25.3
Sub-total projects	126.6	150.5	174.4
Maintenance and replacement	193.1	196.3	150.6
Net change in capital expenditures incurred but not yet paid	3.0	8.2	(4.1)
Total Peruvian expenditures	322.7	355.0	320.9
Mexican projects:			
New Buenavista concentrator	12.3	15.0	18.9
Buenavista Zinc project	66.5	99.8	126.1
Pilares Mine	33.5	29.6	30.9
Expansion of mine pit at Buenavista	17.3	11.3	24.6
Lime plant - Sonora	9.7	19.3	30.7
MexCobre - Bella Union Mine	56.4	—	—
IMMSA - Mine development	39.4	33.6	11.0
Project MexArco	23.4	22.6	8.6
Shooting rehabilitation San Fernando	8.3	7.2	5.2
New tailing disposal deposit at Buenavista mine	65.6	27.3	59.7
Over elevation of tailings deposit N° 7 at La Caridad mine	5.8	2.8	1.4
San Martin mine restoration	0.7	1.6	20.7
Other projects	112.1	113.3	37.9
Sub-total projects	451.0	383.4	375.7
Maintenance and replacement	235.4	212.2	184.0
Net change in capital expenditures incurred but not yet paid	(0.5)	(2.1)	11.7
Total Mexican expenditures	685.9	593.5	571.4
Total capital investments	**$ 1,008.6**	**$ 948.5**	**$ 892.3**

In 2024, we plan to invest $1,103.7 million in capital projects. In addition to our ongoing capital maintenance and replacement spending, our principal capital programs include the following:

Projects in Mexico:

Buenavista Zinc - Sonora: This project is located within the Buenavista deposit, where we have built a new concentrator plant. This facility has a production capacity of 100,000 tonnes of zinc and 20,000 tonnes of copper per year. When operating, the concentrator will double the Company's zinc production capacity and will provide more than 2,000 jobs on the operating front.

Project update: the capital budget for the project is $439 million, most of which has already been invested. Progress is 99%; we have initiated the commissioning process. The ramping up of the plant began in the first quarter of 2024 after technical adjustments to the concentrator. We expect to produce 54,500 tonnes of zinc and 11,900 tonnes of copper in 2024 and an average of 90,200 tonnes of zinc and 20,700 of copper per year in the next five years.

Pilares - Sonora: Located six kilometers from La Caridad, this is currently an open-pit mine operation with an annual production capacity of 35,000 tonnes of copper in concentrate. This project will significantly improve the overall mineral ore grade (considering the 0.78% expected from Pilares with 0.29% from La Caridad).

Project update: The budget for Pilares is $176 million, of which $145 million has been invested. Pilares is fully integrated in our operations and is delivering copper ore to the La Caridad concentrator according to plans. Consequently, this will be the last time that we report on Pilares as a project.

El Pilar - Sonora: This low-capital intensity copper greenfield project is strategically located in Sonora, Mexico, approximately 45 kilometers from our Buenavista mine. Its copper oxide mineralization contains estimated proven and probable reserves of 317 million tonnes of ore with an average copper grade of 0.249%. We anticipate that El Pilar will operate as a conventional open-pit mine with an annual production capacity of 36,000 tonnes of copper cathodes. This operation will use highly cost efficient and environmentally friendly SX-EW technology. The budget for El Pilar is $310 million.

Project update: The results from experimental pads in the leaching process have confirmed adequate levels of copper recovery and we are evaluating different options to drive optimization. The basic engineering study has been completed and the Company is engaging in project development and onsite environmental activities. Project engineering is being developed by an external engineering and technology company. Mine life is estimated at 13 years.

Projects in Peru:

Quebrada Honda dam expansion – Tacna: This project aims to enlarge the main and lateral dams in Quebrada Honda and includes the relocation and repowered of some facilities due to dam growth and implementation of other facilities for water recovery, among other factors. As of December 31, 2023, the drainage works and removal of Eolic material for the main and lateral dam, as well as complementary operational works had been completed. We have also installed two cyclone nests for the main dam, which are currently operating. Additionally, purchases are pending for equipment for tailings hauling. We intend to build administrative facilities down the line. This project has a total budget of $165.0 million, of which we have invested $152.3 million as of December 31, 2023.

Tia Maria - Arequipa: This greenfield project, located in Arequipa, Peru, will use state of the art SX-EW technology with the highest international environmental standards to produce 120,000 tonnes of SX- EW copper cathodes per year. The estimated capital budget for the project is $1.4 billion.

The Company has been consistently working to promote the welfare of the population of the Islay province. As part of these efforts, we have implemented successful social programs in education, healthcare and productive development to improve the quality-of-life in the region. We have also promoted agricultural and livestock activities in the Tambo Valley and supported growth in manufacturing, fishing and tourism in Islay.

We reiterate our view that the initiation of construction activities at Tia Maria will generate significant economic opportunities for the Islay province and the Arequipa region. Given the current Peruvian economic situation, it is crucial to move ahead on projects that will stimulate a sustainable growth cycle. We expect to begin the construction phase of the project in the near future. We will make it a priority to hire local labor to fill the 9,000 jobs that we expect to generate during Tia Maria's construction. Additionally, from day one of our operations, we will generate significant contributions to revenues in the Arequipa region.

Potential projects:

We have a number of other projects that we may develop in the future. We continuously evaluate new projects on the basis of our long-term corporate objectives, strategic and operating fit, expected return on investment, required investment, estimated production, estimated cash-flow profile, social and environmental considerations, among other factors. All capital spending plans will continue to be reviewed and adjusted to respond to changes in the economy and market conditions.

El Arco - Baja California: This is a world-class copper deposit located in the central part of the Baja California peninsula with ore reserves of over 1,230 million tonnes with an average ore grade of 0.40% and 141 million tonnes of leach material with an average ore grade of 0.27%. The project includes an open-pit mine with a combined concentrator and SX-EW operations. Annual production is expected to total 190,000 tonnes of copper and 105,000 ounces of gold.

Project update: The Company has completed the environmental baseline study for the mine, concentrator and industrial facilities and will proceed to submit the Environmental Impact Statement (Manifestacion de Impacto Ambiental “MIA”) to the Secretary of Environment and Natural Resources “SEMARNAT” to request the respective environmental impact permits. The Company is currently preparing studies for the port, power lines, townsites and auxiliary facilities.

Los Chancas—Apurimac: This greenfield project, located in Apurimac, Peru, is a copper and molybdenum porphyry deposit. Current estimates of indicated copper mineral resources are 98 million tonnes of oxides with a copper content of 0.45% and 52 million tonnes of sulfides with a copper content of 0.59%. The Los Chancas project envisions an open-pit mine with a combined operation of concentrator and SX-EW processes to produce 130,000 tonnes of copper and 7,500 tonnes of molybdenum annually. The estimated capital investment is $2,600 million and the project is expected to be in operation in 2030. We continue to engage in social and environmental improvements for the local communities and work on the project´s environmental impact assessment.

Project update: In a coordinated effort with the Peruvian authorities the Company has made significant progress in eradicating illegal mining activities at our concession. Once this process is completed, we will restart environmental impact assessment; conduct a diamond drilling campaign for 40,000 meters; and initiate hydrogeological and geotechnical studies to gather additional information on the characteristics of the Los Chancas deposit.

Michiquillay Project—Cajamarca: In June 2018, Southern Copper signed a contract for the acquisition of the Michiquillay project in Cajamarca, Peru. Michiquillay is a world class mining project with inferred mineral resources of 2,288 million tonnes with an estimated copper grade of 0.43%. When developed, we expect Michiquillay to produce 225,000 tonnes of copper per year (along with by-products of molybdenum, gold and silver) for an initial mine life of more than 25 years and at a competitive cash-cost. We estimate an investment of approximately $2.5 billion will be required and expect production start-up by 2032. Michiquillay will become one of Peru´s largest copper mines and will create significant business opportunities in the Cajamarca region; generate new jobs for the local communities; and contribute with taxes and royalties to the local, regional and national governments.

Project update: As of December 31, 2023, we had drilled 63,000 meters and obtained 20,137 core samples for chemichal analysis. Geological modeling, cross section interpretation, and drilling logging are currently underway. For 2024, the Company expects to complete the diamond drilling program; geological modeling; and resource evaluation. We will also begin hydrogeological and geotechnical studies and assess the results of metallurgical testing at the deposit.

The Company continues working with the Michiquillay and La Encañada communities following the guidelines of the social agreements signed with them.

The above information is based on estimates only. We cannot make any assurances that we will undertake any of these projects or that the information noted is accurate.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (“ESG”) PRACTICES

Our Special ESG Committee, named in 2022, has continued to roll out efforts to implement and promote best ESG practices at the Company.

In April 2023, Grupo Mexico issued its 2022 Sustainability Development Annual Report, which includes detailed information about Southern Copper’s efforts on the social, environmental, and corporate governance fronts. To provide more clarity regarding Southern Copper's performance on ESG issues, we have published a supplement to the 2022

Sustainable Development Report and have also incorporated new topics on our sustainable development web-page to address biodiversity, our people, human rights and the supply chain.

In 2023, we continued to make progress in our sustainability ratings. The results registered by S&P Global in its Corporate Sustainability Assessment (CSA) indicate that Southern Copper Corporation had achieved a place among the top 10% of performers in the mining sector with a rating that exceeded the industry average by 100%. These results reflect our ongoing commitment to improving our sustainability practices and maintaining the Company's inclusion in the Dow Jones Sustainability Index (DJSI) for the Latin American region. This year marks our fifth consecutive year in the DJSI. In 2023, SCC achieved some of the highest scores in the sector for key CSA indicators, including transparency and disclosure, occupational safety and health, operations closure, and human capital development.

We obtained a score of 90 out of 100 on CSA's climate governance index. This attests to the progress the Company has made in this area. Additionally, we achieved a score of 100 in the Task Force on Climate-Related Disclosures (TCDF) category, which focuses on management and disclosure of financial risks and opportunities related to climate change. Additionally, the investor-led Climate Action 100+ initiative recognized our efforts to develop an emissions reduction roadmap and awarded us a full compliance rating in the Task Force on Climate-Related Financial Disclosures (TCFD) category. Furthermore, the rating agency Sustainalytics reduced the Company's risk by two levels between 2020 and 2023.

Regarding the Climate Disclosure Project (CDP), we maintained a B score for the "Climate change" and "Water security" questionnaires. At the behest of our investors, we expanded our responses to include the "Forests" questionnaire, however as of the date of publication of this report, the score was not available.

The implementation and promotion of best practices has helped SCC secure and maintain a place on the S&P/BVL Peru General ESG Sustainability Index of the Stock Exchange of Lima.

HEALTH AND SAFETY

The health and safety of our employees is our priority. Therefore, respecting human rights and preserving the health, safety and wellbeing of our employees and contractors constitute core values at SCC and are embedded in all of our activities. Safety at work is of paramount importance to SCC and is everyone's responsibility. All employees are aware of this fact and are expected to follow policies and procedures to ensure physical integrity and preserve our installations. Please consult Grupo Mexico Sustainability Report at https://www.gmexico.com/en/Pages/development.aspx for further information on SCC's performance with regard to health and safety.

In 2023, our unit in Ilo, located in Moquegua, Peru, achieved the first place in the Smelter and Refinery category of the XXVI Concurso Nacional de Seguridad Minera (National Competition for Mining Safety) organized by Instituto de Seguridad Minera (the Institute of Mining Safety). This distinction recognizes SCC's performance with regard to indicators of our employees' occupational safety and health and is a reflection of our on-going commitment to ensuring the sustainability of our operations.

Additionally, our Buenavista del Cobre unit in Sonora received "Safe and Healthy Work Environments" ("ELSSA") recognition from the Mexican government after successfully passing an audit conducted by the Mexican Social Security Institute. All of our other Mexican units also hold this recognition, which is awarded to companies that implement effective strategies and preventive actions for occupational health and safety. We continue to make progress with our Critical Risk Registry and the performance levels of the controls in place to prevent or mitigate undesirable events have improved. To achieve this, we have involved the heads of each operating unit in the process to establish and continuously monitor controls. All results are reported to managing executives on a monthly basis to facilitate supervision and subsequent monitoring by the Board of Directors.

Regarding risk prevention and management, all of SCC's operating units hit a milestone set in 2018 to obtain ISO 45001 for occupational health and safety management. Our efforts to prevent security risks are supported by our ISO systems and reflect our alignment with best international practices. The represents a significant step in our quest to obtain accreditation for responsible copper production in the framework of The Copper Mark certification.

We continue to make progress in the development of our Critical Risk Registry. This tool strengthens environmental and safety risk management by increasing the visibility of these components at all levels of the organization. The registry creates a knowledge base for informed decision making and ensures rigorous follow-up on controls for prevention and mitigation to avoid or respond to unwanted events.

ENVIRONMENT

Southern Copper Corporation aims to fulfill the needs of future generations by promoting development that benefits all, both today and down the line. We are committed to continuously improving our environmental performance and to promoting the adoption of the best environmental practices at our operations to contribute to the transition to a green economy. To this end, we have certified all our operations environmental management systems in ISO 14001. We are also committed to preserving and improving the environment by implementing actions to generate a positive impact on biodiversity through our operations. To fulfil this commitment, which is outlined in the Company's Environmental Policy, we have developed action plans for biodiversity management that are aligned with the guide for Good Practice Guidance for Mining and Biodiversity published by the International Council on Mining and Metals (ICMM). We believe these plans further improve the Company's capacity to implement effective mitigation measures and contribute to the preservation and improvement of the environment at our operations.

Regarding our environmental risk management, we are aligning our tailings systems to the recently published ICMM's (International Council on Mining and Metals) Global Standard on Tailings Management and have improved our governance framework by implementing a brand-new Internal Committee for Review of Tailings Systems to bolster safety management and communication between operations and top management.

With the purpose of increasing our water efficiency, we are currently recovering about six thousand cubic meters of water per day through the new tailings filtering plant in Quebrada Honda, Peru, which is equivalent to 0.6 m3 of water per ton of tailings. With a design capacity of 10,000 tons/day and an investment to date of $27 million, this dam filter is the largest tailings processing unit of its kind in the market.

Furthermore, in order to reduce our dependency on underground water, the Company is working to identify new sources of water to use in its processes, including recycling wastewater from urban areas. This constitutes a win-win scenario that generates sanitation solution for urban areas while reducing competition for water.

In terms of biodiversity, in March 2023, the Environmental Management Unit at Buenavista del Cobre obtained certification from the Wildlife Habitat Council in recognition of our contributions to efforts to prevent the extinction of the Mexican grey wolf. Thanks to these actions, populations of this species, which was on the brink of extinction in the wild, have multiplied in their natural habitat in Mexico. Going forward, we will continue to work side-by-side with institutions and authorities to serve the common good in the regions in which we operate.

In 2023, we reforested three times the area impacted in the same period (1,437 hectares replanted versus 446 hectares impacted) and implemented works to retain 10,722 tons of soil that would have otherwise been lost to erosion in the state of Sonora, Mexico. For the third consecutive year, we have reforested an area larger than the area impacted. These actions are within the framework of our strategy to achieve zero net deforestation and generate a net positive impact on biodiversity, particularly in areas close to our operations.

COMMUNITY OUTREACH

Southern Copper Corporation prioritizes being a good neighbor in the localities close to our operations. Working together with the communities, we have the opportunity to collaborate and forge a path based on common objectives for social and economic development as we work to support the United Nations' Sustainable Development Goals. We believe that community outreach must be based on transparency and trust and strive to promote long-lasting ties.

Our Community Development model has three components: 1) responsible coexistence: to foster a positive and healthy coexistence with our neighbor communities, and to have open and ongoing channels of communication to address complaints and concerns; 2) economic development: it is important to share the economic value our operations generate with the community, and 3) human development: to optimize the skills of members of the communities where we work, to ensure that these individuals become the principal drivers of development in their communities.

The primary tool to ensure a responsible coexistence is our grievance mechanism for external stakeholders (Community Attention Service) that operates at 100% of our sites and gives resolution to complaints in an average of three days.

For economic development, during 2023, we trained 2,087 people in mining communities: 833 for employment, 1,145 in regional vocational and productive skills and 109 from local businesses to support the development of small and medium mining suppliers. In addition, we recorded a 97% increase in year-to-year investment in social infrastructure. In Mexico $35.9 million was allocated to these efforts, including a project that was focused on improving water infrastructure for the communities of Cananea and Nacozari for the benefit of 54,000 people. In Peru, $45.7 million was invested in social infrastructure, including the progress in building the wastewater treatment plant (PTAR) in Ilo.

The Company also prioritized educational infrastructure development in Peru and will invest in it upon successful previous initiatives in Moquegua and Tacna. As part of our on-going commitment, the Company is actively expanding educational infrastructure to benefit the community under the Works for Taxes modality. This effort includes setting up five high-performance schools (Colegios de Alto Rendimiento - COAR) for 1,500 students to strengthen the capacities of outstanding students in the state educational circuit. Two schools are currently under construction in the Moquegua and Tacna regions. These investments have made SCC the primary private investor in Peru in national educational infrastructure.

In Mexico, we recently renovated two community centers (called Casa Grande) in Santa Barbara, Chihuahua and Charcas, San Luis Potosi. These facilities allow us to double our capacity and improve the quality of our services. Both centers are equipped with a library, recreational area, audiovisual room, computer centers, physical activaty spaces, areas for temporary exhibits, and green spaces. We currently operate 29 community centers that provided services to 286,000 people during 2023, in Mexico and Peru, with social programs. We believe these efforts positively impact the human development and quality of life of the residents in the communities where we work.

In 2023, we served more than 900 women from communities close to our operations in Southern Peru via our Community Wellbeing Program, by which we conducted a mobile health campaign to prevent breast and uterine cancer.

Furthermore, the Youth Orchestras promoted by SCC were recognized at the Mexican Polymetallic Seminar in 2023. These orchestras support 1,646 students in Mexico and Peru. Additionally, in collaboration with the Instituto de Cultura del Estado, we held our first exhibition of the Traveling Workshop for Documentary Film at the Cineteca in the State of Sonora, Mexico. During this event, 17 original short films, which were produced by some of the 747 students from communities that participated in the workshop, were screened.

CLIMATE CHANGE

SCC recognizes the importance and urgency of tackling climate change, and the Company is committed to support the objective of the Paris Agreement on climate change, preserve the environment, minimize the environmental footprint of our operations, and efficiently manage climate-related risks and opportunities. We recognize that climate change will likely influence our strategy in various ways, and we aim to meet the expectations of the global business trends that are moving to demand products with lower carbon footprint. Our focus is to seek continuous improvement in the responsible use of natural resources while complying with applicable legal standards for prevention, mitigation, control and remediation of environmental impacts.

The Company is committed to continually improve its management performance with respect to the aforementioned issues, which is why it has initiated a multi-year process to align its disclosures on climate change with the TCFD recommendations. As a result beginning in 2020, Grupo Mexico's Sustainable Development Report included sections on climate-related risks and opportunities, and more detailed information about new short, medium and long term Scope 1 and 2 climate targets, strategy and governance mechanisms, as well as new emissions and energy metrics informed by SASB standards. In our 2023 Sustainability Development Report, we will include Scope 3 targets and preliminary capital allocation figures on decarbonization projects. The report can be accessed at https://www.gmexico.com/en/Pages/development.aspx. We are referring our investors to Grupo Mexico's internet site for details on the aforementioned initiatives for informative purposes only. We do not intend for this internet link to be an active link or to otherwise incorporate the contents of the website into this Report on Form 10-K.

Since 2016, SCC has been participating annually in the evaluation on Climate Change of CDP and in 2022, for the first time in the evaluation of Water Security. In both questionnaires we achieved "B" result (third best score on a scale of eight levels), which is one level above the mining sector average score and the North America region overall score.

Additionally, we have participated in the sustainability evaluation carried out by S&P Global through the CSA since 2020. In climate governance, we obtained in 2023 a rating of 90 out of 100, ratifying the progress that the company has made in this area, mainly associated to the publication of our Climate Policy and the supervision of the implementation of our climate change strategy, including the management of risks and opportunities associated with climate change by the Sustainable Development Committee at the Board level of Southern Copper Corporation. Also, we achieved a score of 100 in the TCFD category, which focuses on the management and disclosure of financial risks and opportunities related to climate change. In addition, the investor-led Climate Action 100+ initiative recognized the establishment of our emissions reduction roadmap and gave us a full compliance rating in the TCFD category.

As part of the CDP evaluation, in 2023 we calculated for the first time the increased revenues resulting from the increasing demand of copper in the medium and in the long term, partly as a result of the energy transition. The International Copper Association (ICA) highlights that the copper industry will be essential in the transition towards a low-carbon economy, since it produces an essential metal for the manufacture of clean technologies that will be used intensively to reduce greenhouse gas emissions globally. In this context, the ICA expects the demand of copper will practically double by 2050. For this reason, we consider our business activities as the main transition opportunity for SCC, as copper sales will translate into greater development for the sector and our company.

In 2024, we will continue to identify further financial impacts related to the climate risks and opportunities that our company will face in the future.

HUMAN RIGHTS

At SCC we are committed to enforcing the United Nations Guiding Principles on Business and Human Rights. We have a series of policies and procedures that serve as a guide to all employees and suppliers: General Human Rights Policy; Policy of Respect for the Rights of Indigenous Peoples and Communities; Diversity, Inclusion and Non-Discrimination, No Workplace or Sexual Harassment Policy; and the Code of Conduct for Suppliers, Contractors and Relevant Business Partners, which includes several sections related to human rights.

The company has a human rights' due diligence process in place to identify, prevent, mitigate or remediate adverse impacts on the human rights of communities. In the Mining and Infrastructure divisions, this process has three main components:
1)Participatory Social Diagnosis to allow the communities to voice their concerns regarding human rights,
2) Social Management Plans that define actions to address those concerns, and
3)the Community Care Service (SAC), a tool that was designed with the advice of the United Nations High Commissioner for Human Rights Mexico Office and allows the community to immediately communicate its concerns to the Company.

SCC also has a human rights' due diligence process in place to protect the rights of employees (both the Company's and those of contractors). The work climate surveys, Complaint Hotlines and the due diligence process of suppliers are tools that enable the Company to comply with the commitments included in the General Human Rights Policy. We are currently implementing a Diversity and Inclusion Strategic Plan, which focuses primarily on capacity building; communication campaigns; revision of human resources processes to promote greater participation and retention of women; and physical changes to working areas to address women's needs.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our significant accounting policies are discussed in Note 2 "Summary of Significant Accounting Policies" of the Notes to Consolidated Financial Statements, included in Item 8 "Financial Statements and Supplementary Data" of this Annual Report.

Our discussion and analysis of financial condition and results of operations, as well as quantitative and qualitative disclosures about market risks, are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. Preparation of these consolidated financial statements requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We make our best estimate of the ultimate outcome for these items based on historical trends and other information available when the financial statements are prepared. Changes in estimates are recognized in accordance with the accounting rules for the estimate, which is typically in the period when new information becomes available to management. Areas where the nature of the estimate makes it reasonably possible that actual results could materially differ from amounts estimated include: mineral reserves, revenue recognition, ore stockpiles on leach pads and related amortization, estimated impairment of assets, asset retirement obligations, determination of discount rates related to the operating lease liabilities, valuation allowances for deferred tax assets and unrecognized tax benefits. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Mineral Reserves: For ore reserve estimation, we use metal price assumptions of $3.30 per pound for copper and $10.00 per pound for molybdenum. These prices are intended to conservatively approximate average prices over the long term and are based on internal estimates for the curves of long-term metal prices.

Certain financial information is based on reserve estimates calculated on the basis of current average prices. These include amortization of intangible assets and mine development. Variations in ore reserve calculations from changes in metal price assumptions generally do not create material changes in our financial results. However, significant decreases in metal prices could adversely affect our earnings by causing, among other things, asset impairment charges, please see "Assets impairment" below.

Ore stockpiles on leach pads: The leaching process is an integral part of the mining operations carried out at our open-pit mines. We capitalize the production cost of leachable material at our Toquepala, La Caridad and Buenavista mines recognizing it as inventory. The estimates of recoverable mineral content contained in the leaching dumps are supported by engineering studies. As the production cycle of the leaching process is significantly longer than the conventional process of concentrating, smelting and electrolytic refining, we include current leach inventory (as part of work-in-process inventories) and long-term leach inventory on our balance sheet. Amortization of leachable material is recorded by the units of production method.

The capitalization of long-term inventory-Ore stockpiles in leach pads is based on the allocation of copper content recoverable between ore and leach material. In addition, inventory consumption is valued at the average unit cost.

Asset Retirement Obligation: Our mining and exploration activities are subject to various laws and regulations governing the protection of the environment. Accounting for reclamation and remediation obligations requires management to make estimates unique to each mining operation of the future costs we will incur to complete the reclamation and remediation work required to comply with existing laws and regulations. These estimates are based in part on our inflation and credit rate assumptions. Actual costs incurred in future periods could differ from amounts estimated. Additionally, future changes to environmental laws and regulations could increase the extent of reclamation and remediation work required to be performed by us. Any such increases in future costs could materially impact the amounts charged to operations for reclamation and remediation.

Asset retirement obligations are further discussed in Note 10 “Asset Retirement Obligation” to the consolidated financial statements included herein.

Revenue Recognition: For certain of our sales of copper and molybdenum products, customer contracts allow for pricing based on a month subsequent to shipping, in most cases within the following three months and in a few cases, in a period that can exceed three months. In such cases, revenue is recorded at a provisional price at the time of shipment. The provisionally priced copper sales are adjusted to reflect forward LME or COMEX copper prices at the end of each month until a final adjustment is made to the price of the shipments upon settlement with customers pursuant to the terms of the contract. In the case of molybdenum sales, for which there are no published forward prices, the provisionally priced sales are adjusted to reflect the market prices at the end of each month until a final adjustment is made to the price of the shipments upon settlement with customers pursuant to the terms of the contract. (See details in “Provisionally Priced Sales” under this Item 7).

Income Taxes: In preparing our consolidated financial statements, we recognize income taxes in each of the jurisdictions in which we operate. For each jurisdiction, we calculate the actual amount currently payable or receivable, as well as deferred tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in rate is recognized through the income tax provision in the period that the change is enacted.

A valuation allowance is provided for those deferred tax assets for which it is more likely than not that the related benefits will not be realized. In determining the amount of the valuation allowance, we consider estimated future taxable income, as well as feasible tax planning strategies in each jurisdiction. If we determine that we will not realize all or a portion of our deferred tax assets, we will increase our valuation allowance with a charge to income tax expense. Conversely, if we determine that we will ultimately be able to realize all or a portion of the related benefits for which a valuation allowance has been provided, all or a portion of the related valuation allowance will be reduced with a credit to income tax expense.

The Company’s operations are in multiple jurisdictions where uncertainties can arise in the application of complex tax regulations. The final taxes paid are dependent upon many factors, including audits and negotiations with tax authorities. The Company recognizes potential liabilities and records tax liabilities for anticipated tax audit issues based on its estimate of whether, and the extent to which, additional taxes will be due. The Company adjusts these estimates in light of changing facts and circumstances; however, due to the complexity of some of these uncertainties, final taxes paid may be materially different from the Company’s current estimate of the tax liabilities. If its estimate of tax liabilities proves to be less than the ultimate assessment, or payment of these amounts ultimately proves to be more than the recorded amounts, the difference would be recognized in the period when the Company determines the change.

Asset Impairments: We evaluate our long-term assets when events or changes in economic circumstances indicate that the carrying amount of such assets may not be recoverable. Our evaluations are based on business plans that are prepared using a time horizon that is reflective of our expectations of metal prices over our business cycle. We are currently using an average copper price of $2.20 per pound and an average molybdenum price of $5.00 per pound, which reflect what we believe, for impairment test purposes, is the lower range of the current price environment. The results of our impairment sensitivity analysis, which included a stress test using a copper price assumption of $2.00 per pound and a molybdenum price assumption of $4.00 per pound, showed projected discounted cash flows in excess of the carrying amounts of long-lived assets by margins ranging from 1.7 to 4.3 times such carrying amount.

We use an estimate of the future undiscounted net cash flows of the related asset or asset group over the remaining life to measure whether the assets are recoverable and measure any impairment compared to fair value.

Leases: The Company has concluded that all of its existing lease contracts are operating lease contracts. Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent an obligation by the Company to make lease payments that arise from the lease. Lease right-of-use assets and liabilities are recognized at the inception date based on the present value of lease payments over the lease term. As the Company's lease contracts do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the inception date to determine the present value of lease payments.

RESULTS OF OPERATIONS

The following table highlights key financial results for each of the years in the three-year period ended December 31, 2023 (in millions):

				Variance	
Statement of Earnings Data	**2023**	**2022**	**2021**	**2023 - 2022**	**2022 - 2021**
Net sales	$ 9,895.8	$ 10,047.9	$ 10,934.1	$ (152.1)	$ (886.2)
Operating costs and expenses	(5,703.5)	(5,612.1)	(4,869.0)	(91.4)	(743.1)
Operating income	4,192.3	4,435.8	6,065.1	(243.5)	(1,629.3)
Non-operating income (expense)	(236.5)	(188.0)	(368.3)	(48.5)	180.3
Income before income taxes	3,955.8	4,247.8	5,696.8	(292.0)	(1,449.0)
Income taxes	(1,578.0)	(1,477.5)	(2,425.5)	(100.5)	948.0
Deferred income taxes	59.1	(118.6)	126.3	177.7	(244.9)
Equity earnings of affiliate	(2.2)	(3.7)	13.6	1.5	(17.3)
Net income attributable to non-controlling interest	(9.5)	(9.5)	(14.1)	—	4.6
Net income attributable to SCC	$ 2,425.2	$ 2,638.5	$ 3,397.1	$ (213.3)	$ (758.6)

NET SALES

2023-2022: Net sales in 2023 totaled $9,895.8 million, which represents a slight decrease compared to 2022 net sales of $10,047.9 million. This decrease was driven by lower copper (-3.8% - LME) and zinc (-24.1%) prices, along with a reduction in the sales volumes of silver (-4.3%) and zinc (-1.4%). This impact was partially offset by increased sales volumes for copper (+2.2%) and molybdenum (+2.3%) and by better prices for molybdenum (+27.5%) and silver (+7.6%). Net sales in 2023 were adversely affected by downward adjustments of $406.0 million arising from provisionally priced sales due to decreases in metal prices.

The table below outlines the average published market metals prices for our metals for each of the three years in the three-year period ended December 31, 2023:

				% Variance	
	2023	**2022**	**2021**	**2023 - 2022**	**2022 - 2021**
Copper price ($per pound—LME)	$ 3.85	$ 4.00	$ 4.23	(3.8)%	(5.4)%
Copper price ($per pound—COMEX)	$ 3.86	$ 4.01	$ 4.24	(3.7)%	(5.4)%
Molybdenum price ($per pound)(1)	$ 23.73	$ 18.61	$ 15.51	27.5 %	20.0 %
Zinc price ($per pound—LME)	$ 1.20	$ 1.58	$ 1.36	(24.1)%	16.2 %
Silver price ($per ounce—COMEX)	$ 23.41	$ 21.76	$ 25.18	7.6 %	(13.6)%

(1) Platt's Metals Week Dealer Oxide.

The table below provides our metal sales as a percentage of our total net sales:

Sales as a percentage of total net sales	Year Ended December 31, 2023	2022	2021
Copper	76.7 %	75.0 %	80.7 %
Molybdenum	11.4 %	11.9 %	9.6 %
Silver	4.2 %	4.0 %	4.3 %
Zinc	3.0 %	3.7 %	2.7 %
Other by-products	4.7 %	5.4 %	2.7 %
Total	100.0 %	100.0 %	100.0 %

The table below provides our copper sales by type of product (in million pounds). The difference in value between products is the level of processing. At the market price, concentrates take a discount since they require smelting and refining processes, while refined and rod copper receive premiums due to their purity and presentation.

Copper Sales (million pounds)	2023	2022	2021	Variance 2023 - 2022	2022 - 2021
Refined (including SX-EW)	1,064.1	1,046.7	893.4	17.4	153.3
Rod	338.0	411.5	470.3	(73.5)	(58.8)
Concentrates and other	559.7	462.2	689.2	97.5	(227.0)
Total	1,961.8	1,920.4	2,052.9	41.4	(132.5)

The table below provides our copper sales volume by type of product as a percentage of our total copper sales volume:

Copper Sales by product type	Year ended December 31, 2023	2022	2021
Refined (including SX-EW)	54.2 %	54.5 %	43.5 %
Rod	17.2 %	21.4 %	22.9 %
Concentrates and other	28.5 %	24.1 %	33.6 %
Total	100.0 %	100.0 %	100.0 %

OPERATING COSTS AND EXPENSES

The table below summarizes the production cost structure by major components for the three years ended 2023 as a percentage of total production cost:

	Year ended December 31, 2023	2022	2021
Power	13.3 %	16.7 %	17.1 %
Labor	11.6 %	10.8 %	13.4 %
Fuel	15.7 %	16.8 %	14.4 %
Maintenance	21.4 %	19.6 %	20.1 %
Operating material	19.6 %	20.1 %	17.2 %
Other	18.4 %	16.0 %	17.8 %
Total	100.0 %	100.0 %	100.0 %

2023-2022: Operating costs and expenses in 2023 increased $91.4 million, compared to 2022, primarily due to:

Operating cost and expenses for 2022 ($ in millions)		$ 5,612.1
Plus:		
• Increase in other cost of sales (exclusive of depreciation, amortization and depletion), which is mainly attributable to:		159.5
- Repairing materials, principally heavy equipment spare parts	126.6	
- Labor costs	62.7	
- Operating contractors	60.6	
- Inventory variance	36.8	
- Sales expenses	36.0	
- Fuel	27.7	
- Water	26.3	
- Workers participation	(123.1)	
- Energy costs	(73.2)	
- Natural gas	(17.6)	
- Other net	(3.3)	
• Increase in depreciation, amortization and depletion expense.		37.3
• Increase in exploration expense.		13.3
• Increase in selling, general and administrative expenses.		2.2
Less:		
• Decrease in volume and cost of metals purchased from third parties.		(120.9)
Operating cost and expenses for 2023 ($ in millions)		$ 5,703.5

NON-OPERATING INCOME (EXPENSE)	2023	2022	2021	Variance 2023 - 2022	Variance 2022 - 2021
Interest expense	$ (376.3)	$ (387.1)	$ (387.9)	$ 10.8	$ 0.8
Capitalized interest	49.6	47.0	30.8	2.6	16.2
Other income (expense)	3.6	117.1	(18.4)	(113.5)	135.5
Interest income	86.6	35.0	7.2	51.6	27.8
Total non-operating income (expense)	$ (236.5)	$ (188.0)	$ (368.3)	$ (48.5)	$ 180.3

2023-2022: Non-operating income and expense were a net expense of $236.5 million in 2023, compared to a net expense of $188.0 million in 2022. The $48.5 million increase in net expense in 2023 was mainly due to:

- $113.5 million decrease in other income, net, which includes a $78.8 million drop in insurance recovery in Mexico, $16.1 million in derecognized assets in Mexico and an insurance recovery from Carla Lacey, which was received in 2022. This was partially offset by
- $13.4 million decrease in interest expense net of capitalized interest and
- $51.6 million increase in interest income.

Income taxes

	Year Ended December 31, 2023	2022	2021
Provision for income taxes ($ in millions)	$ 1,518.9	$ 1,596.1	$ 2,299.2
Effective income tax rate	38.4 %	37.6 %	40.4 %

The income tax provision includes Peruvian, Mexican and U.S. federal income taxes.

Components of income tax provision for 2023, 2022 and 2021 include the following ($ in millions):

	2023	2022	2021
Statutory income tax provision	$ 1,284.0	$ 1,361.6	$ 1,874.6
Peruvian royalty	44.6	35.8	97.8
Mexican royalty	118.6	142.3	212.8
Peruvian special mining tax	71.7	56.4	114.0
Total income tax provision	$ 1,518.9	$ 1,596.1	$ 2,299.2

The increase in the effective income tax rate in 2023 compared to the same period in 2022 was primarily attributable to uncertain tax positions recorded in the U.S., Peruvian and Mexican jurisdictions.

Equity earnings of affiliate

In 2023, 2022 and 2021 we recognized $(2.2) million, $(3.7) million and $13.6 million in equity earnings, respectively, which were associated with our 44.2% interest in the Tantahuatay mine.

Net Income attributable to the non-controlling interest

Net income attributable to the non-controlling interest in 2023 and in 2022 was $9.5 million, while in 2021, it was $14.1 million in 2021.

Net Income attributable to SCC

Our net income attributable to SCC in 2023 was $2,425.2 million, compared to $2,638.5 million in 2022. The decrease in net income attributable to SCC in 2023 was mainly fueled by a drop in copper prices.

<u>SEGMENT RESULTS ANALYSIS</u>

We have three segments: the Peruvian operations, the Mexican open-pit operations and the Mexican underground mining operations. Please see a detailed definition of these segments in Item 1 “Business—Business Reporting Segments.”

The following table presents the volume of sales by segment of copper and our significant by-products for each of the years in the three-year period ended December 31, 2023:

				Variance	
Copper Sales (million pounds)	**2023**	**2022**	**2021**	**2023 - 2022**	**2022 - 2021**
Peruvian operations	805.8	792.8	859.8	13.0	(67.0)
Mexican open-pit	1,151.5	1,166.3	1,189.6	(14.8)	(23.3)
Mexican IMMSA unit	26.3	25.0	24.3	1.3	0.7
Other and intersegment elimination	(21.8)	(63.7)	(20.8)	41.9	(42.9)
Total copper sales	1,961.8	1,920.4	2,052.9	41.4	(132.5)

By-product Sales (million pounds, except silver—million ounces)	2023	2022	2021	Variance 2023 - 2022	Variance 2022 - 2021
Peruvian operations:					
Molybdenum contained in concentrate	22.1	25.0	32.8	(2.9)	(7.8)
Silver	4.4	4.5	5.6	(0.1)	(1.1)
Mexican open-pit operations:					
Molybdenum contained in concentrate	37.2	32.9	34.0	4.3	(1.1)
Silver	9.9	11.2	10.0	(1.3)	1.2
IMMSA unit					
Zinc-refined and in concentrate	219.7	223.0	201.9	(3.3)	21.1
Silver	6.9	6.4	6.2	0.5	0.2
Other and intersegment elimination					
Silver	(3.2)	(3.3)	(2.6)	0.1	(0.7)
Total by-product sales					
Molybdenum contained in concentrate	59.3	57.9	66.8	1.4	(8.9)
Zinc-refined and in concentrate	219.7	223.0	201.9	(3.3)	21.1
Silver	18.0	18.8	19.2	(0.8)	(0.4)

Peruvian Open-pit Operations:

	2023	2022	2021	Variance 2023 - 2022	Variance 2022 - 2021
Net sales	$ 3,854.3	$ 3,908.5	$ 4,370.8	$ (54.2)	$ (462.3)
Operating costs and expenses	(2,380.9)	(2,440.7)	(2,037.6)	59.8	(403.1)
Operating income	$ 1,473.4	$ 1,467.8	$ 2,333.2	$ 5.6	$ (865.4)

Net sales:

2023-2022: Net sales in 2023 fell $54.2 million versus the figure in 2022. This decrease was primarily influenced by a reduction in copper prices (-3.8% - LME) and lower sales volumes for molybdenum (-11.5%) and silver (-3.3%). The impact of these factors was partially mitigated by an uptick in sales volumes for copper (+1.6%) and higher prices for molybdenum (+27.5%) and silver (+7.6%). Net sales in 2023 were also adversely affected by an annual accounting adjustment of $185.2 million, which reflects the impact of lower metal prices on sales.

Operating costs and expenses:

2023-2022: Operating costs and expenses in 2023 decreased by $59.8 million compared to 2022, which was primarily due to:

Operating costs and expenses for 2022 ($ in millions)		$	2,440.7
Plus:			
• Increase in other cost of sales (exclusive of depreciation, amortization and depletion), mainly attributable to:			106.4
- Repairing materials	77.7		
- Reagents	20.1		
- Operations contractors	19.1		
- Labor costs	17.6		
- Energy	13.9		
- Sales expenses	12.1		
- Other net	3.6		
- Exchange rate variance	(30.6)		
- Fuel	(27.1)		
• Increase in depreciation, amortization and depletion expense.			17.0
• Increase in exploration expenses.			10.6
Less:			
• Decrease in cost of metals purchased from third parties.			(193.0)
• Decrease in selling, general and administrative expenses.			(0.8)
Operating costs and expenses for 2023 ($ in millions)		$	2,380.9

Mexican Open-pit Operations:

							Variance			
		2023		**2022**		**2021**		**2023 - 2022**		**2022 - 2021**
Net sales	$	5,562.3	$	5,772.6	$	6,109.0	$	(210.3)	$	(336.4)
Operating costs and expenses		(2,787.5)		(2,817.9)		(2,411.2)		30.4		(406.7)
Operating income	$	2,774.8	$	2,954.7	$	3,697.8	$	(179.9)	$	(743.1)

Net sales:

2023-2022: Net sales in 2023 dropped $210.3 million compared to the figure reported at the end of 2022. This decrease was primarily driven by reduced sales volumes for copper (-1.3%) and silver (-11.2%), as well as a decrease in copper prices (-3.8% – LME). However, this impact was partially offset by increased sales volumes for molybdenum (+12.8%) and higher prices for both molybdenum (+27.5%) and silver (+7.6%). In addition, the net sales in 2023 were adversely affected by an annual accounting adjustment of $220.8 million, reflecting the impact of lower metal prices on sales.

Operating costs and expenses:

2023-2022: Operating costs and expenses in 2023 decreased by $30.4 million compared to 2022, which was mainly attributable to:

Operating costs and expenses for 2022 ($ in millions)		$	2,817.9
Less:			
• Decrease in cost and volume of metals purchased from third parties.			(29.8)
• Decrease in other cost of sales (exclusive of depreciation, amortization and depletion), mainly attributable to:			(17.0)
- Workers participation	(116.4)		
- Energy	(96.1)		
- Leachable material	(47.4)		
- Fuel	52.4		
- Repairing materials	43.0		
- Inventory variance	33.1		
- Operations contractors	29.6		
- Labor	25.7		
- Water	25.3		
- Sales expenses	21.6		
- Other net	12.2		
Plus:			
• Increase in depreciation, amortization and depletion expense.			9.1
• Increase in selling, general and administrative expenses.			4.2
• Increase in exploration expenses.			3.1
Operating costs and expenses for 2023 ($ in millions)		$	2,787.5

IMMSA unit:

								Variance		
		2023		2022		2021		2023 - 2022		2022 - 2021
Net sales	$	630.8	$	666.5	$	600.2	$	(35.7)	$	66.3
Operating costs and expenses		(635.0)		(605.9)		(511.4)		(29.1)		(94.5)
Operating income	$	(4.2)	$	60.6	$	88.8	$	(64.8)	$	(28.2)

Net sales:

2023-2022: Net sales in 2023 dropped $35.7 million versus the figure in 2022. This evolution was primarily fueled by lower prices for zinc (-24.1%) and copper (-3.8% - LME) and reduced sales volumes of zinc (-1.4%). The aforementioned was partially offset by higher prices for silver (+7.6%) and sales volumes for copper (+5.0%) and silver (+6.6%).

Operating costs and expenses:

2023-2022: Operating costs and expenses in 2023 increased by $29.1 million compared to 2022; this was principally due to:

Operating costs and expenses for 2022 ($ in millions)		$	605.9
Plus:			
• Increase in other cost of sales (exclusive of depreciation, amortization and depletion), mainly attributable to:			58.0
- Labor	19.4		
- Operations contractors	11.9		
- Energy	9.0		
- Inventory variance	8.8		
- Repairing materials	5.9		
- Other net	20.6		
- Workers participation	(17.6)		
• Increase in depreciation, amortization and depletion expense.			12.8
• Increase in exploration expenses.			3.2
• Increase in selling, general and administrative expenses.			0.2
Less:			
• Decrease in cost of metals purchased from third parties.			(45.1)
Operating costs and expenses for 2023 ($ in millions)		$	635.0

Intersegment Eliminations and Adjustments:

The net sales, operating costs and expenses and operating income discussed above will not be directly equal to amounts in our consolidated statement of earnings because the adjustments to intersegment operating revenues and expenses must be taken into account. Please see Note 19 “Segment and Related Information” of the consolidated financial statements.

LIQUIDITY AND CAPITAL RESOURCES

The following discussion relates to our liquidity and capital resources for each of the years in the three-year period ended December 31, 2023.

Cash Flow:

The following table shows the cash flow for the three year period ended December 31, 2023 (in millions):

				Variance	
	2023	2022	2021	2023 - 2022	2022 - 2021
Net cash provided by operating activities	$ 3,573.1	$ 2,802.5	$ 4,292.4	$ 770.6	$ (1,489.9)
Net cash used in investing activities	$ (1,398.4)	$ (666.8)	$ (972.9)	$ (731.6)	$ 306.1
Net cash used in financing activities	$ (3,101.2)	$ (3,011.0)	$ (2,480.2)	$ (90.2)	$ (530.8)

Net cash provided by operating activities:

The 2023, 2022 and 2021 change in net cash from operating activities include (in millions):

				Variance	
	2023	2022	2021	2023 - 2022	2022 - 2021
Net income	$ 2,434.7	$ 2,648.0	$ 3,411.2	$ (213.3)	$ (763.2)
Depreciation, amortization and depletion	833.6	796.3	806.0	37.3	(9.7)
Provision for deferred income taxes	(59.1)	118.6	(126.3)	(177.7)	244.9
Loss on foreign currency transaction effect	10.4	41.9	(25.8)	(31.5)	67.7
Other adjustments to net income	17.4	21.5	18.7	(4.1)	2.8
Operating assets and liabilities	310.0	(840.2)	190.7	1,150.2	(1,030.9)
Net cash provided by operating activities	$ 3,547.0	$ 2,786.1	$ 4,274.5	$ 760.9	$ (1,488.4)

Significant items added to (deducted from) net income to arrive at operating cash flow include depreciation, amortization and depletion, deferred tax amounts and changes in operating assets and liabilities.

2023: Net income was $2,434.7 million, which represented 68.6% of the net operating cash flow.

Changes in operating assets and liabilities increased cash flow by $310.0 million due the following variances:
- $253.0 million decrease in trade accounts receivable, principally at our Mexican operations.
- $152.1 million increase in accounts payable and accrued liabilities, which was mainly driven by an increase in accrued income taxes at our Peruvian operations.
- $(60.4) million net increase in inventory; principally at our Mexican operations.
- $(34.7) million increase in other operating assets and liabilities, net.

Net cash used in investing activities:

2023: Net cash used for investing activities in 2023 included $1,008.6 million for capital investments. This included $685.9 million of investments at our Mexican operations and $322.7 million at our Peruvian operations. For further information, please see "Capital Investment Program" under this Item on page 99.

The 2023 investing activities also included net purchases of short-term investments of $391.0 million.

2022: Net cash used for investing activities in 2022 included $948.5 million for capital investments. This included $593.5 million of investments at our Mexican operations and $355.0 million at our Peruvian operations. For further information, please see "Capital Investment Program" under this Item on page 99.

The 2022 investing activities also included net sales of short-term investments of $278.5 million.

Net cash used in financing activities:

2023: Net cash used in financing activities in 2023 was $3,101.2 million and included a dividend distribution of $3,092.4 million.

2022: Net cash used in financing activities in 2022 was $3,011.0 million and included a dividend distribution of $2,705.8 million; as well as a debt repayment of $300 million.

Other Liquidity Considerations

We expect that we will meet our cash requirements for 2024 and beyond from cash on hand and internally generated funds. In addition, we believe that we will be able to access additional external financing on reasonable terms, if required.

As of December 31, 2023, $512.2 million of the Company´s total cash, cash equivalents and short-term investments of $1,750.8 million were held by foreign subsidiaries. The cash, cash equivalents and short-term investments maintained in our foreign operations are generally used to cover local operating and investment expenses. Earnings of the Company's Peruvian branch are not subject to transition taxes since they are taxed in the United States on a current basis.

Dividend: On January 25, 2024, the BOD authorized a dividend of $0.80 per share paid on February 29, 2024, to shareholders of record at the close of business on February 13, 2024.

FINANCING

Our total debt at December 31, 2023 was $ 6,254.6 million, compared to $6,251.2 million at December 31, 2022, net of the unamortized discount and issuance costs of notes issued under par for $96.5 million and $100.0 million as of December 31, 2023 and 2022 respectively. This debt is all denominated in dollars at fixed interest rates, weighed at 5.82%.

Please see Note 11 "Financing" for a discussion about the covenants requirements related to our long-term debt.

Capital Investment Program

A discussion of our capital investment program is an important part of understanding our liquidity and capital resources. We expect to meet the cash requirements for these capital investments from cash on hand, internally generated funds and from additional external financing if required. For information regarding our capital expenditure programs, please see the discussion under the caption "Capital Investment Program" under this Item 7.

CONTRACTUAL AND OTHER OBLIGATIONS

As of December 31, 2023, our most significant contractual obligations include interest and principal on debt, workers' participation, pension and post-retirement obligations, payments for operating leases, asset retirement obligations, and commitments for purchasing energy and for capital investment projects.

Interest on debt is calculated at rates in effect at December 31, 2023. As all our debt is at fixed rates, future expenditures will not change due to rate changes. Please refer to Note 11 "Financing" of the consolidated financial statements for a description of our long-term debt arrangements and credit facilities.

Workers' participation is currently calculated based on Peruvian Branch and Mexican pre-tax earnings. In Peru, the provision for workers' participation is calculated at 8% of pre-tax earnings. The current portion of this participation, which is accrued during the year, is based on the Peruvian Branch's taxable income and is largely distributed to workers after final results are determined for the year. Amounts in excess of 18 times a worker's salary are distributed to governmental bodies. In Mexico, workers' participation is determined using the guidelines established in the Mexican income tax law at a rate of 10% of pre-tax earnings as adjusted by the tax law. In 2021, there was a change in the Ley Federal del Trabajo ("Federal Labor Law"), effective in 2022. Under this change, the amount payable to a worker cannot be higher than the maximum between the worker's salary for a three-month period and the average of the participation received in the last three years.

Operating leases include lease payments for power generating facilities to MGE, vehicles and properties. Please refer to Note 9 "Leases" of the consolidated financial statements.

Pension and post retirement obligations include the benefits expected to be paid under our pension and post-retirement benefit plans. Please refer to Note 12 "Benefit Plans" of the consolidated financial statements.

Asset retirement obligations include the aggregate amount of closure and remediation costs for our Peruvian mines and facilities to be paid under the mine closure plans approved by MINEM and the closure and remediation costs of our Mexican operations. See Note 10 "Asset Retirement Obligation" of the consolidated financial statements.

In June 2014, we entered into a power purchase agreement for 120 megawatt ("MW") with the state company Electroperu S.A., which began supplying energy for our Peruvian operations for twenty years starting on April 17, 2017. In July 2014, we entered into a power purchase agreement for 120MW with a private power generator Kallpa Generacion S.A. ("Kallpa"), which began supplying energy for our Peruvian operations for ten years starting on April 17, 2017. In May 2016, we signed an additional power purchase agreement for a maximum of 80MW with Kallpa, under which Kallpa will supply energy to the operations related to the Toquepala Expansion and to other minor projects for ten years starting on May 1, 2017 and ending after ten years of commercial operation of the Toquepala Expansion or on April 30, 2029; whichever occurs first.

Additionally, we have a commitment to purchase power for our Mexican operations from MGE, a subsidiary of Grupo Mexico through 2032. See Note 13 "Commitment and Contingencies—Other commitments".

Our long-term estimated power costs-are subject to change as energy generation costs change and our forecasted power requirements through the life of the agreements change. In addition, as of December 31, 2023, the Company has committed approximately $348.2 million for the development of its capital investment projects. These include committed purchase orders and executed contracts for our Mexican projects and for our Peruvian expansion projects.

NON-GAAP INFORMATION RECONCILIATION

Operating cash cost: Following is a reconciliation of "Operating Cash Cost" (see page 96) to cost of sales (exclusive of depreciation, amortization and depletion) as reported in our consolidated statement of earnings, in millions of dollars and dollars per pound in the table below:

	2023		2022		2021	
	$ millions	$ per pound	$ millions	$ per pound	$ millions	$ per pound
Cost of sales (exclusive of depreciation, amortization and depletion)	$ 4,687.7	$ 2.42	$ 4,649.1	$ 2.45	$ 3,894.4	$ 1.90
Add:						
Selling, general and administrative	127.2	0.07	125.0	0.07	125.2	0.06
Sales premiums, net of treatment and refining charges	(7.7)	(0.00)	(21.0)	(0.01)	(25.6)	(0.01)
Less:						
Workers' participation	(253.2)	(0.13)	(282.9)	(0.15)	(267.2)	(0.13)
Cost of metals purchased from third parties	(195.8)	(0.10)	(316.8)	(0.17)	(225.8)	(0.11)
Royalty charge and other, net	(116.7)	(0.06)	(300.9)	(0.16)	(158.6)	(0.08)
Inventory change	(6.5)	(0.00)	(26.8)	(0.01)	15.0	0.01
Operating Cash Cost before by-product revenues	**$ 4,235.0**	**$ 2.19**	**$ 3,825.7**	**$ 2.02**	**$ 3,357.4**	**$ 1.64**
Add:						
By-product revenues(1)	(2,194.0)	(1.13)	(2,327.2)	(1.22)	(1,974.8)	(0.96)
Net revenue on sale of metal purchased from third parties	(49.8)	(0.03)	(28.6)	(0.02)	(22.9)	(0.01)
Total by-product revenues	(2,243.8)	(1.16)	(2,355.8)	(1.24)	(1,997.7)	(0.97)
Operating Cash Cost net of by-product revenues	**1,991.2**	**1.03**	**1,469.9**	**0.78**	**1,359.7**	**0.67**
Total pounds of copper produced (in millions)	1,935.4		1,894.7		2,041.7	

(1) By-product revenues included in our presentation of operating cash cost contain the following:

	2023		2022		2021	
	$ millions	$ per pound	$ millions	$ per pound	$ millions	$ per pound
Molybdenum	$ (1,129.7)	$ (0.58)	$ (1,192.7)	$ (0.63)	$ (1,053.1)	$ (0.51)
Silver	(390.6)	(0.20)	(370.5)	(0.20)	(445.3)	(0.22)
Zinc	(226.0)	(0.12)	(242.9)	(0.13)	(196.9)	(0.10)
Sulfuric Acid	(318.4)	(0.17)	(395.8)	(0.21)	(164.6)	(0.08)
Gold	(77.4)	(0.04)	(81.0)	(0.04)	(67.5)	(0.03)
Other	(51.9)	(0.03)	(44.3)	(0.01)	(47.4)	(0.02)
Total	**$ (2,194.0)**	**$ (1.13)**	**$ (2,327.2)**	**$ (1.22)**	**$ (1,974.8)**	**$ (0.96)**

The by-product revenue presented does not match with the sales value reported by segment on page 175 because the above table excludes purchases from third parties, which are reclassified to net revenue on sale of metal purchased from third parties.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Commodity price risk:
For additional information on metal price sensitivity, refer to "Metal Prices" in Part II, Item 7 of this annual report.

Open sales risk:
Our provisional copper and molybdenum sales contain an embedded derivative that is required to be separate from the host contract for accounting purposes. The host contract is the receivable from the sale of copper or molybdenum concentrates at prevailing market prices at the time of the sale. The embedded derivative, which does not qualify for hedge accounting, is marked to market through earnings in each period prior to settlement. See Note 19 to the consolidated financial statements for further information about these provisional sales.

Foreign currency exchange rate risk:
Our functional currency is the U.S. dollar. Portions of our operating costs are denominated in Peruvian soles and Mexican pesos. Given that our revenues are primarily denominated in U.S. dollars, when inflation or deflation in our Mexican or Peruvian operations is not offset by a change in the exchange rate of the sol or the peso to the dollar, our financial position, results of operations and cash flows could be affected by local cost conversion when expressed in U.S. dollars. In addition, the dollar value of our net monetary assets denominated in soles or pesos can be affected by an exchange rate variance of the sol or the peso, resulting in a re-measurement gain or loss in our financial statements. Recent inflation and exchange rate variances for the three years ended December 31, 2023 are provided in the table below:

	Year Ended December 31,		
	2023	2022	2021
Peru:			
Peruvian inflation rate	3.2 %	8.5 %	6.4 %
Initial exchange rate	3.820	3.998	3.624
Closing exchange rate	3.713	3.820	3.998
Appreciation/(devaluation)	2.8 %	4.5 %	(10.3)%
Mexico:			
Mexican inflation rate	4.7 %	7.8 %	7.4 %
Initial exchange rate	19.362	20.584	19.949
Closing exchange rate	16.894	19.362	20.584
Appreciation/(devaluation)	12.7 %	5.9 %	(3.2)%

Change in monetary position:

Assuming an exchange rate variance of 10% at December 31, 2023, we estimate our net monetary position in Peruvian sol and Mexican peso would increase (decrease) our net earnings as follows:

	Effect in net earnings ($ in millions)
Appreciation of 10% in U.S. dollar vs. Peruvian sol	$ 18.3
Devaluation of 10% in U.S. dollar vs. Peruvian sol	$ (22.3)
Appreciation of 10% in U.S. dollar vs. Mexican peso	$ (22.5)
Devaluation of 10% in U.S. dollar vs. Mexican peso	$ 27.5

The net monetary position is net of those assets and liabilities that are sol or peso denominated as of December 31, 2023.

Short-term investments:

For additional information on our trading securities and available-for-sale investments, refer to Note 3 Short-term Investments in Part II, Item 8 of this annual report.

Derivative Instruments:

From time to time, we use derivative instruments to manage our cash flows exposure to changes in commodity prices. We do not enter into derivative contracts unless we anticipate that the possibility exists that future activity will expose our future cash flows to deterioration. Derivative contracts for commodities are entered into to manage the price risk associated with forecasted purchases of the commodities that we use in our manufacturing process.

Cash Flow Hedges of Natural Gas

In the third quarter of 2021, the Company acquired two derivative instruments that became effective in November 2021 and expired in March 2022. The Company's objective in using natural gas derivatives was to protect the stability of natural gas costs and manage exposure to natural gas price increases. The Company assessed these derivative instruments as Cash Flow Hedges. As such, the effective portions of said hedges were recorded as earnings in the same period or periods in which the hedged transaction affected earnings. The Company did not identify any ineffective portions of these derivatives. As of December 31, 2023, the Company held no derivative instruments.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTAL DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Southern Copper Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Southern Copper Corporation and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of earnings, comprehensive income, changes in stockholders´ equity, and cash flows for each of the three years in the period ended December 31, 2023 and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2023 based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 29, 2024 expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Ore stockpiles on Leach Pads – Capitalization of costs attributable to leachable material - Refer to Note 4 to the consolidated financial statements

Critical Audit Matter Description

The Company has Ore stockpiles on leach pads related to the capitalization of costs attributable to leachable material mainly from the Mexican operations presented as part of the current inventory and as part of the non-current assets.

The capitalization of costs in the inventory of Ore stockpiles in leach pads is based on the allocation of copper content recoverable between ore and leach material. The Company used the copper content grade, the solubility index and the recovery rate when determining the allocation of costs to be capitalized related to leachable material. The leachable material inventory determined could be misstated if the copper content grade, the solubility index and the recovery rate used by the Company does not correspond to the actual results obtained from the laboratories and engineering studies.

We identified the capitalization of costs attributable to leachable material from Mexican operations as a critical audit matter because of the complexity of the process and judgments made by management to support its assertion that these capitalized costs are probable of recovery. Addressing this matter required a high degree of auditor judgement and significant audit effort, which includes the involvement of our technical specialists in evaluating whether the audit evidence obtained supports management's assertion that these costs are probable of future recovery.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's assertions that extraction and production costs are capitalized in the appropriate amounts included the following, among others:

- We obtained an understanding and evaluated the Company's methodology for determining the productions costs capitalized and the estimates of recoverable mineral content contained in the leaching material deposited in the leaching pads.
- We tested the effectiveness of controls over management's review of the copper content grade, the solubility index and the recovery rate used to determine the monthly average rate to be used in the calculation, which included an evaluation of the competence, objectivity and authority of the personnel involved and management's experts in the determination of the copper content grade, the solubility index and the recovery rate; the identification of costs to be capitalized as part of the leaching process; and reconciliations of mineral received for the leaching process.
- We tested the effectiveness of general IT controls for the relevant systems identified that process information that is considered significant in the calculation of the Company's estimate.
- We independently recalculated the monthly average copper content grade and the monthly average solubility index to obtain the reasonability of the inputs used in the estimate.
- We involved technical specialists to evaluate the methodology and inputs used by the Company to determine the recoverability of copper from the leach pads and challenge, from a technical perspective, if the balance as of December 31, 2023 represents copper that will be recovered as estimated by the Company. Such involvement also consisted in site visits to the Mexican mining operations where ore stockpiles on leach pads existed.

Galaz, Yamazaki, Ruiz Urquiza, S.C.
Member of Deloitte Touche Tohmatsu Limited

/s/ PAULINA RAMOS RAMIREZ

C.P.C. Paulina Ramos Ramirez
Mexico City, Mexico
February 29, 2024
We have served as the Company's auditor since 2009

Southern Copper Corporation
and Subsidiaries

CONSOLIDATED STATEMENTS OF EARNINGS

For the years ended December 31, (in millions, except for per share amounts)	2023	2022	2021
Net sales (including sales to related parties, see note 18)	$ 9,895.8	$ 10,047.9	$ 10,934.1
Operating cost and expenses:			
Cost of sales (exclusive of depreciation, amortization and depletion shown separately below)	4,687.7	4,649.1	3,894.4
Selling, general and administrative	127.2	125.0	125.2
Depreciation, amortization and depletion	833.6	796.3	806.0
Exploration	55.0	41.7	43.4
Total operating costs and expenses	5,703.5	5,612.1	4,869.0
Operating income	4,192.3	4,435.8	6,065.1
Interest expense	(376.3)	(387.1)	(387.9)
Capitalized interest	49.6	47.0	30.8
Other income (expense)	3.6	117.1	(18.4)
Interest income	86.6	35.0	7.2
Income before income taxes	3,955.8	4,247.8	5,696.8
Income taxes (including royalty taxes, see Note 7)	1,578.0	1,477.5	2,425.5
Deferred income taxes	(59.1)	118.6	(126.3)
Net income before equity earnings of affiliate	2,436.9	2,651.7	3,397.6
Equity earnings of affiliate, net of income tax	(2.2)	(3.7)	13.6
Net income	2,434.7	2,648.0	3,411.2
Less: Net income attributable to the non-controlling interest	9.5	9.5	14.1
Net income attributable to SCC	$ 2,425.2	$ 2,638.5	$ 3,397.1
Per common share amounts attributable to SCC:			
Net earnings-basic and diluted	$ 3.14	$ 3.41	$ 4.39
Weighted average shares outstanding-basic and diluted	773.1	773.1	773.1

The accompanying notes are an integral part of these consolidated financial statements.

Southern Copper Corporation
and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	2023	2022	2021
		(in millions)	
COMPREHENSIVE INCOME:			
Net income and comprehensive income	$ 2,434.7	$ 2,648.0	$ 3,411.2
Other comprehensive income (loss) net of tax:			
—Decrease (increase) in pension and other post-retirement benefits (net of income tax of $(0.4), $(0.2) and $1.2, respectively)	1.0	1.0	(1.7)
- Unrealized (loss) on derivative instruments classified as cash flow hedge (net of income tax of $0.2 million in 2022 and $0.3 million in 2021)	—	(0.6)	0.6
Total other comprehensive income (loss)	1.0	0.4	(1.1)
Total comprehensive income	2,435.7	2,648.4	3,410.1
Comprehensive income attributable to the non-controlling interest	9.5	9.5	14.1
Comprehensive income attributable to SCC	$ 2,426.2	$ 2,638.9	$ 3,396.0

The accompanying notes are an integral part of these consolidated financial statements.

Southern Copper Corporation
and Subsidiaries

CONSOLIDATED BALANCE SHEETS

	December 31, 2023	December 31, 2022
	(in millions)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,151.5	$ 2,069.7
Short-term investments	599.3	208.3
Accounts receivable trade	1,141.1	1,394.1
Accounts receivable other (including related parties 2023- $27.3 and 2022 - $33.3	87.2	79.7
Inventories	1,016.9	1,013.9
Prepaid taxes	395.4	377.6
Other current assets	38.1	44.4
Total current assets	4,429.5	5,187.7
Property and mine development, net	9,782.9	9,596.6
Ore stockpiles on leach pads	1,121.7	1,064.3
Intangible assets, net	130.2	134.7
Right-of-use assets	775.4	851.4
Deferred income tax	256.1	237.3
Equity method investment	108.2	110.8
Other non-current assets	121.3	94.6
Total assets	$ 16,725.3	$ 17,277.4
LIABILITIES		
Current liabilities:		
Accounts payable (including related parties 2023 - $93.6 and 2022 - $120.2	652.6	657.6
Accrued income taxes	278.3	138.1
Accrued workers' participation	245.7	236.3
Accrued interest	97.1	97.1
Lease liabilities current	78.0	77.3
Other accrued liabilities	36.8	29.3
Total current liabilities	1,388.5	1,235.7
Long-term debt, net of current portion	6,254.6	6,251.2
Lease liabilities	697.4	774.1
Deferred income taxes	132.2	161.2
Non-current taxes payable	92.7	40.6
Other liabilities and reserves	66.2	82.4
Asset retirement obligation	612.5	585.3
Total non-current liabilities	7,855.6	7,894.8
Commitments and contingencies (Note 13)		
STOCKHOLDERS' EQUITY (NOTE 14)		
Common stock par value $0.01; shares authorized, 2023 and 2022–2,000; shares issued, 2023 and 2022–884.6	8.8	8.8
Additional paid-in capital	3,532.8	3,489.7
Retained earnings	7,033.5	7,702.3
Accumulated other comprehensive income	(8.0)	(9.0)
Treasury stock, at cost, common shares	(3,149.0)	(3,107.6)
Total Southern Copper Corporation stockholders' equity	7,418.1	8,084.2
Non-controlling interest	63.1	62.7
Total equity	7,481.2	8,146.9
Total liabilities and equity	$ 16,725.3	$ 17,277.4

The accompanying notes are an integral part of these consolidated financial statements.

Southern Copper Corporation
and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Year Ended December 31, **(in millions)**	**2023**	**2022**	**2021**
OPERATING ACTIVITIES			
Net income	$ 2,434.7	$ 2,648.0	$ 3,411.2
Adjustments to reconcile net earnings to net cash provided from operating activities:			
Depreciation, amortization and depletion	833.6	796.3	806.0
Equity earnings of affiliate, net of dividends received	2.6	4.6	(1.1)
Loss (gain) on foreign currency transaction effect	10.4	41.9	(25.8)
(Benefit) provision for deferred income taxes	(59.1)	118.6	(126.3)
Net charges for asset retirement obligations, including accretion	26.1	16.4	17.9
Other, net	14.8	16.9	19.8
Change in operating assets and liabilities:			
Decrease (increase) in accounts receivable	253.0	(35.4)	(289.8)
(Increase) decrease in inventories	(60.4)	(7.7)	4.7
Increase (decrease) in accounts payable and accrued liabilities	152.1	(718.0)	558.2
(Increase) in other operating assets and liabilities	(34.7)	(79.1)	(82.4)
Net cash provided by operating activities	3,573.1	2,802.5	4,292.4
INVESTING ACTIVITIES			
Capital expenditures	(1,008.6)	(948.5)	(892.3)
Purchase of short-term investments	(808.7)	(486.2)	(1,653.1)
Proceeds on sale of short-term investment	417.7	764.7	1,577.0
Other, net	1.2	3.2	(4.5)
Net cash used in investing activities	(1,398.4)	(666.8)	(972.9)
FINANCING ACTIVITIES			
Repayments of debt	—	(300.0)	—
Cash dividends paid to common stockholders	(3,092.4)	(2,705.8)	(2,473.8)
Distributions to non-controlling interest	(9.1)	(5.5)	(6.7)
Other, net	0.3	0.3	0.3
Net cash used in financing activities	(3,101.2)	(3,011.0)	(2,480.2)
Effect of exchange rate changes on cash and cash equivalents	8.3	(57.0)	(20.9)
(Decrease) increase in cash and cash equivalents	(918.2)	(932.3)	818.4
Cash and cash equivalents, at beginning of year	2,069.7	3,002.0	2,183.6
Cash and cash equivalents, at end of year	$ 1,151.5	$ 2,069.7	$ 3,002.0

	2023	**2022** **(in millions)**	**2021**
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest	$ 369.7	$ 380.2	$ 380.2
Income taxes	$ 1,434.0	$ 2,391.5	$ 1,947.1
Workers' participation	$ 258.2	$ 450.6	$ 258.4
Supplemental schedule of non-cash operating, investing and financing activities:			
Decrease (increase) in pension and other post-retirement benefits	$ 1.0	$ 1.0	$ (1.7)
Capital expenditures incurred but not yet paid	$ 16.1	$ 18.5	$ 24.6

The accompanying notes are an integral part of these consolidated financial statements.

Southern Copper Corporation
and Subsidiaries

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	2023	2022	2021
TOTAL EQUITY, beginning of year	$ 8,146.9	$ 8,207.8	$ 7,276.0
STOCKHOLDERS' EQUITY, beginning of year	8,084.2	8,149.2	7,224.8
CAPITAL STOCK:			
Balance at beginning and end of year:	8.8	8.8	8.8
ADDITIONAL PAID-IN CAPITAL:			
Balance at beginning of year	3,489.7	3,454.1	3,441.5
Other activity of the period	43.1	35.6	12.6
Balance at end of year	3,532.8	3,489.7	3,454.1
TREASURY STOCK:			
Southern Copper common shares			
Balance at beginning of the year	(2,766.9)	(2,767.2)	(2,767.5)
Used for corporate purposes	0.3	0.3	0.3
Balance at end of year	(2,766.6)	(2,766.9)	(2,767.2)
Parent Company common shares			
Balance at beginning of year	(340.7)	(306.8)	(296.0)
Other activity, including dividend, interest and foreign currency transaction effect	(41.7)	(33.9)	(10.8)
Balance at end of year	(382.4)	(340.7)	(306.8)
Treasury stock balance at end of year	(3,149.0)	(3,107.6)	(3,074.0)
RETAINED EARNINGS:			
Balance at beginning of year	7,702.3	7,769.7	6,846.4
Net earnings	2,425.2	2,638.5	3,397.1
Dividends declared and paid, common stock, per share, 2023- $4.00, 2022– $3.50, 2021 - $3.20	(3,092.4)	(2,705.8)	(2,473.8)
Other activity of the period	(1.6)	—	—
Balance at end of year	7,033.5	7,702.3	7,769.7
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS):			
Balance at beginning of year	(9.0)	(9.4)	(8.4)
Other comprehensive income (loss)	1.0	0.4	(1.0)
Balance at end of year	(8.0)	(9.0)	(9.4)
STOCKHOLDERS' EQUITY, end of year	7,418.1	8,084.2	8,149.2
NON-CONTROLLING INTEREST, beginning of year	62.7	58.6	51.2
Net earnings	9.5	9.5	14.1
Distributions paid	(9.1)	(5.5)	(6.7)
NON-CONTROLLING INTEREST, end of year	63.1	62.7	58.6
TOTAL EQUITY, end of year	$ 7,481.2	$ 8,146.9	$ 8,207.8

The accompanying notes are an integral part of these consolidated financial statements.

NOTE 1—DESCRIPTION OF THE BUSINESS:

The Company is a majority-owned, indirect subsidiary of Grupo Mexico S.A.B. de C.V. (“Grupo Mexico”). At December 31, 2023, Grupo Mexico through its wholly-owned subsidiary Americas Mining Corporation (“AMC”) owned 88.9% of the Company’s capital stock. The consolidated financial statements presented herein consist of the accounts of Southern Copper Corporation ("SCC", "Southern Copper" or the “Company”), a Delaware corporation, and its subsidiaries. The Company is an integrated producer of copper and other minerals, and operates mining, smelting and refining facilities in Peru and Mexico. The Company conducts its primary operations in Peru through a registered branch (the "Peruvian Branch" or “Branch” or “SPCC Peru Branch”). The Peruvian Branch is not a corporation separate from the Company. The Company's Mexican operations are conducted through subsidiaries. The Company also conducts exploration activities in Argentina, Chile, Ecuador, Mexico and Peru.

NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Principles of consolidation—

The consolidated financial statements include the accounts of subsidiaries of which the Company has voting control, in accordance with Accounting Standards Codification (“ASC”) 810 *Consolidation*. Such financial statements are prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP").

Use of estimates—

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the carrying value of mineral reserves that are the basis for future cash flow estimates and amortization calculations; environmental reclamation, closure and retirement obligations; estimates of recoverable copper in mill and leach stockpiles; asset impairments (including estimates of future cash flows); unrecognized tax benefits; valuation allowances for deferred tax assets; and fair value of financial instruments. Management bases its estimates on the Company's historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

Revenue recognition—

The Company accounts for a contract with a customer when there is a legally enforceable contract between the Company and the customer, the rights of the parties are identified, the contract has commercial substance, and collectability of the contract consideration is probable. The Company's revenues are measured based on consideration specified in the contract with each customer. Disclosures regarding disaggregation of revenues and contract balances are disclosed within Note 19 "Segment and related information".

The Company’s marketing strategy and annual sales planning emphasize developing and maintaining long-term customer relationships. Generally, 80% to 90% of the Company’s metal production is sold under annual or longer-term contracts, which specify a volume of mineral to be sold over a stated period and delivery schedule; the price at which mineral will be sold at each delivery date is generally determined by the weekly or monthly average rate of the commodity published by major metal exchanges at specific dates stipulated within each contract. The Company considers each contract to be a single performance obligation, represented by the delivery of a series of distinct goods that are substantially the same, with the same pattern of transfer to the Company’s customers. The Company concluded this as, based on the nature of its contracts, customers receive the benefit of mineral sold as it is shipped per the terms of the contracts at each contractual delivery date. Likewise, each shipment of product represents the same measure of progress as other shipments within the contract. Accordingly, the Company recognizes revenues for each contract over the period of time in which the specified quantity of mineral is delivered. In doing so, the Company considers that it has a right to consideration from its customers in an amount that corresponds directly to the value transferred to those customers that being the quantity of mineral delivered at the price per unit delivered. Accordingly, the Company recognizes revenue at the amount to which it has the right to invoice (the invoice practical expedient), as it believes that this method is a faithful depiction of the transfer of goods to its customers.

For contracts with a term greater than one year, the Company is unable to disclose an allocation of the transaction price to the remaining unsatisfied performance obligation, given that unit prices of mineral sold are determined by published commodity prices at specified dates within the contract. The volume of mineral to be delivered after the first year of the contract is subject to annual volume negotiations in accordance with the terms of the contract. As of December 31, 2023, the Company has long-term contracts with promises to deliver in 2024 for a total of 185,000 metric tonnes of copper concentrate, 48,000 metric tonnes of copper cathodes, 18,830 tonnes of molybdenum concentrate and 330,000 tonnes of sulfuric acid. This is an estimate that will vary in 2024 and 2025 based on the negotiations with the customers as mentioned above.

The remainder of the Company's revenues, including its by-product revenues, are generated by spot sales that are recognized at a point in time.

Under both sales models, revenue is recognized when or as the performance obligations are satisfied, when the Company transfers control of the goods and title passes to the customer. Considering the International Commercial Terms (Incoterms) utilized by the Company, control is transferred generally upon the completion of loading the material at the point of origin. This is the point at which the customer obtains legal title to the product as well as the ability to direct the use of and obtain substantially all of the remaining benefits of ownership of the asset. Additionally, payment is generally due upon the delivery of the shipping and title documents at the point of origin, customers typically have 30 days to remit payment. Copper and non-copper revenues are measured based on the monthly average of prevailing commodity prices according to the terms of the contracts. The Company provides allowances for doubtful accounts based upon historical bad debt and claims experience and periodic evaluation of specific customer accounts.

Substantially all of the Company's sales are made under carriage and insurance paid to, or cost, insurance and freight Incoterms, whereby the Company is responsible for providing shipping and insurance after control of the inventory has been transferred to the customer. According to the terms of the Company's contracts, these services are not distinct within the context of the contract, and they are not separately identifiable from the other promises within the contract. Additionally, it is the Company policy and it has a long-standing history of providing shipping and insurance services to its customers. Accordingly, shipping and insurance are not considered separate performance obligations. The related costs of shipping and insurance are presented within the cost of sales line in the accompanying consolidated statements of income.

Furthermore, the Company considered the impact of the shipping and insurance services on the determination of when control is transferred to its customers. It has concluded that the terms of these services do not impact its customers' ability to sell, pledge, or otherwise use the products in shipment. Also, there is a small likelihood and minimal history of lost or damaged goods during shipment. Considering these factors, combined with the other indicators of control previously mentioned, the Company has concluded that these services do not impact the determination that control is transferred at the point of origin.

For certain of the Company's sales of copper and molybdenum products, customer contracts allow for pricing based on a month subsequent to shipping, in most cases within the following three months and occasionally in some cases a few additional months. In such cases, revenue is recorded at a provisional price at the time of shipment. The provisionally priced copper sales are adjusted to reflect forward LME or COMEX copper prices at the end of each month until a final adjustment is made to the price of the shipments upon settlement with customers pursuant to the terms of the contract. In the case of molybdenum sales, for which there are no published forward prices, the provisionally priced sales are adjusted to reflect the market prices at the end of each month until a final adjustment is made to the price of the shipments upon settlement with customers pursuant to the terms of the contract.

These provisional pricing arrangements are accounted for separately from the contract as an embedded derivative instrument under ASC 815-30 "Derivatives and Hedging—Cash Flow Hedges." The Company sells copper in concentrate, anode, blister and refined form at industry standard commercial terms. Net sales include the invoiced value of copper, zinc, silver, molybdenum, sulfuric acid and other metals and the corresponding fair value adjustment of the related forward contract of copper and molybdenum. Disclosure regarding adjustments to sales for provisionally priced contracts is disclosed within Note 19 “Segment and related information”.

Cash and cash equivalents—

Cash and cash equivalents include bank deposits, certificates of deposit and short-term investment funds with original maturities of three months or less at the date of purchase. The carrying value of cash and cash equivalents approximates fair value.

Short-term investments—

The Company accounts for short-term investments in accordance with ASC 320-10 “Investments Debt and Equity Securities-Recognition.” The Company determines the appropriate classification of all short-term investments as held-to-maturity, available-for-sale or trading at the time of purchase and re-evaluates such classifications as of each balance sheet date. Unrealized gains and losses on available-for-sale investments, net of taxes, are reported as a component of accumulated other comprehensive income (loss) in stockholders’ equity, unless such loss is deemed to be other than temporary.

Inventories—

The Company principally produces copper and, in the production process, obtains several by-products, including molybdenum, silver, zinc, sulfuric acid and other metals.

Metal inventories, consisting of work-in-process and finished goods, are carried at the lower of average cost or net realizable value (NRV). Costs of work-in-process inventories and finished goods mainly include power, labor, fuel, operating and repair materials, depreciation, amortization, depletion, and other necessary costs related to the extraction and processing of ore, including mining, milling, concentrating, smelting, refining, leaching and chemical processing. Costs incurred in the production of metal inventories exclude general and administrative costs. Once molybdenum, silver, zinc and other by-products are identified, they are transferred to their respective production facilities and the incremental cost required to complete production is assigned to their inventory value.

Work-in-process inventories represent materials that are in the process of being converted into a saleable product. Conversion processes vary depending on the nature of the copper ore and the specific mining operation. For sulfide ores, processing includes milling and concentrating and results in the production of copper and molybdenum concentrates.

Finished goods include saleable products (e.g., copper concentrates, copper anodes, copper cathodes, copper rod, molybdenum concentrate and other metallurgical products).

Supplies inventories are carried at the lower of average cost or net realizable value (NRV).

Long-term inventory-Ore stockpiles on leach pads.

The leaching process is an integral part of the mining operations carried out at the Company’s open-pit mines. The Company capitalizes the production cost of leachable material at its Toquepala, La Caridad and Buenavista mines, recognizing it as inventory. This cost includes mining and haulage costs incurred to deliver ore to leach pads, depreciation, amortization, depletion and site overhead costs. The estimates of recoverable mineral content contained in the leaching dumps are supported by engineering studies. As the production cycle of the leaching process is significantly longer than the conventional process of concentrating, smelting and electrolytic refining, the Company includes current leach inventory (included in work-in-process inventories) and long-term leach inventory on its balance sheet.

The capitalization of long-term inventory-Ore stockpiles in leach pads is based on the allocation of copper content recoverable between ore and leach material. In addition, inventory consumption is valued at the average unit cost.

Property—

Property is recorded at acquisition cost, net of accumulated depreciation and amortization. Cost includes major expenditures for improvements and replacements, which extend useful lives or increase capacity and interest costs associated with significant capital additions. Maintenance, repairs, normal development costs at existing mines and gains or losses on assets retired or sold are reflected in earnings as incurred.

Buildings and equipment are depreciated on the straight-line method over estimated lives from two to 50 years or the estimated life of the mine if shorter.

Mine development—

Mine development includes primarily the cost of acquiring land rights to an exploitable ore body, pre-production stripping costs at new mines that are commercially exploitable, costs associated with bringing new mineral properties into production, and removal of overburden to prepare unique and identifiable areas outside the current mining area for such future production. Mine development costs are amortized on a unit of production basis over the remaining life of the mines.

Diverse practices exist in the mining industry relative to the treatment of drilling and other related costs to delineate new mineral reserves. The Company follows the practices outlined in the next two paragraphs in its treatment of drilling and related costs.

Drilling and other associated costs incurred in the Company's efforts to delineate new resources, whether near-mine or Greenfield are expensed as incurred. These costs are classified as mineral exploration costs. Once the Company determines through feasibility studies that proven and probable reserves exist and that the drilling and other associated costs embody a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflow, then the costs are classified as mine development costs. These mine development costs incurred prospectively to develop the property are capitalized as incurred, until the commencement of production, and are amortized using the units of production method over estimated life of the ore body. During the production stage, drilling and other related costs incurred to maintain production are included in production cost in the period in which they are incurred.

Drilling and other related costs incurred in the Company’s efforts to delineate a major expansion of reserves at an existing production property are expensed as incurred. Once the Company determines through feasibility studies that proven and probable incremental reserves exist and that the drilling and other associated costs embody a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflow, then the costs are classified as mine development costs. These incremental mine development costs are capitalized as incurred, until the commencement of production and amortized using the units of production method over the estimated life of the ore body. A major expansion of reserves is one that increases total reserves at a property by approximately 10% or more.

For the years ended December 31, 2023, 2022 and 2021, the Company did not capitalize any drilling and related costs.

Asset retirement obligations (reclamation and remediation costs)—

The fair value of a liability for asset retirement obligations is recognized in the period in which the liability is incurred. The liability is measured at fair value and is adjusted to its present value in subsequent periods as accretion expense is recorded. The corresponding asset retirement costs are capitalized as part of the carrying value of the related long-lived assets and depreciated over the asset's useful life.

Intangible assets—

Intangible assets include primarily the excess amount paid over the book value for investment shares, which are presented as mining concessions, and mining and engineering development studies. Intangible assets are carried at acquisition costs, net of accumulated amortization and are amortized principally on a unit of production basis over the estimated remaining life of the mines. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable.

Debt issuance costs—

Debt issuance costs related to a recognized debt liability are presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with the treatment of a debt discount.

Mineral reserves—

The Company periodically reevaluates estimates of its mineral reserves, which represent the Company's estimate as to the amount of unmined copper remaining in its existing mine locations that can be produced and sold at a profit. Such estimates are based on engineering evaluations derived from samples of drill holes and other openings, combined with assumptions about copper market prices and production costs at each of the respective mines.

The Company updates its estimate of mineral reserves at the beginning of each year. In 2021, the Company adopted SEC's mining property disclosure requirements (Regulation S-K, Subpart 1300). Consequently, in 2022 and 2023, the Company based its mineral reserve estimates on a long-term price assumption of $3.30 per pound of copper. Mineral reserves at the end of 2020 were estimated under previous standards at current prices per pound of copper of $2.816. The ore reserve estimates are used to determine the amortization of mine development and intangible assets.

Once the Company determines through feasibility studies that proven and probable reserves exist and that drilling and other associated costs embody a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflow, then the costs are classified as mine development costs and the Company discloses the related mineral reserves.

Exploration—

Tangible and intangible costs incurred in the search for mineral properties are charged against earnings when incurred.

Income taxes—

Provisions for income taxes are based on taxes payable or refundable for the current year and deferred taxes on temporary differences between the amount of taxable income and pretax financial income and between the tax bases of assets and liabilities and their reported amounts in the financial statements. Deferred tax assets and liabilities are included in the financial statements at currently enacted income tax rates applicable to the period in which the deferred tax assets and liabilities are expected to be realized and settled as prescribed in ASC 740 "Income taxes." As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes. Deferred income tax assets are reduced by any benefits that, in the opinion of management, are more likely not to be realized.

The Company's operations involve dealing with uncertainties and judgments in the application of complex tax regulations in multiple jurisdictions. The final taxes paid are dependent upon many factors, including negotiations with tax authorities in various jurisdictions and resolution of disputes arising from federal, state, and international tax audits. The Company recognizes potential liabilities and records tax liabilities for anticipated tax audit issues in the U.S. and other tax jurisdictions based on its estimate of whether, and the extent to which, additional taxes will be due. The Company follows the guidance of ASC 740 "Income taxes" to record these liabilities. (See Note 7 "Income taxes" of the consolidated financial statements for additional information). The Company adjusts these reserves with information on changing facts and circumstances; however, due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from the Company's current estimate of the tax liabilities. If its estimate of tax liabilities proves to be less than the ultimate assessment, an additional charge to expense would result. If payment of these amounts ultimately proves to be less than the recorded amounts, the reversal of the liabilities would result in tax benefits being recognized in the period when the Company determines the liabilities are no longer necessary.

The Company classifies income tax-related interest and penalties as income taxes in the financial statements, as well as interest and penalties, if any, related to unrecognized tax benefits.

Foreign exchange—

The Company's functional currency is the U.S. dollar. As required by local law, both the Peruvian Branch and Minera Mexico maintain their books of accounts in Peruvian soles and Mexican pesos, respectively. Foreign currency assets and liabilities are remeasured into U.S. dollars at current exchange rates, except for non-monetary items such as inventory, property, intangible assets and other assets which are remeasured at historical exchange rates. Revenues and expenses are generally translated at actual exchange rates in effect during the period, except for those items related to balance sheet amounts that are remeasured at historical exchange rates. Gains and losses from foreign currency remeasurement are included in earnings of the period.

Gains and (losses) resulting from foreign currency transactions are included in "Cost of sales (exclusive of depreciation, amortization and depletion)."

Asset impairments -

The Company evaluates long-term assets when events or changes in economic circumstances indicate that the carrying amount of such assets may not be recoverable. These evaluations are based on business plans that are prepared using a time horizon that is reflective of the Company's expectations of metal prices over its business cycle. The Company is currently using a long-term average copper price and an average molybdenum price for impairment tests, reflective of what the Company believes is the lower level of the current price environment. The results of its impairment tests using these long-term copper and molybdenum prices show no impairment in the carrying value of their assets.

The Company uses an estimate of the future undiscounted net cash flows of the related asset or asset group over the remaining life to measure whether the assets are recoverable and measures any impairment by reference to fair value.

Other comprehensive income—

Comprehensive income represents changes in equity during a period, except those resulting from investments by owners and distributions to owners. During the fiscal years ended December 31, 2023, 2022 and 2021, the components of "other comprehensive income (loss)" were, the unrecognized gain (loss) on employee benefit obligations and unrealized gain (loss) on derivative instruments classified as cash flow hedge.

Business segments-

Company management views Southern Copper as having three reportable segments and manages it on the basis of these segments. The segments identified by the Company are: 1) the Peruvian operations, which include the two open-pit copper mines in Peru and the plants and services supporting such mines, 2) the Mexican open-pit copper mines, which include La Caridad and Buenavista mine complexes and their supporting facilities and 3) the Mexican underground mining operations, which include five underground mines that produce zinc, lead, copper, silver and gold, a coal mine and a zinc refinery. Please see Note 19 "Segments and Related Information."

The Chief Operating Decision Maker of the Company focuses on operating income as measure of performance to evaluate different segments, and to make decisions to allocate resources to the reported segments. This is a common measure in the mining industry.

Leases -

The Company determined if a contract is or contained a lease at its inception. The Company evaluated if a contract gave the right to obtain substantially all of the economic benefits from use of an identified asset and the right to direct the use of the asset, in order to determine if a contract contained a lease. All of the Company's existing lease contracts are operating lease contracts. For these leases, the Company recognized right-of-use assets and the corresponding operating lease liabilities on its consolidated balance sheet. Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent an obligation by the Company to make lease payments which arise from the lease. Lease right-of-use assets and liabilities are recognized at the inception date based on the present value of lease payments over the lease term. As the Company's lease contracts do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the inception date in order to determine the present value of lease payments. Lease expense for lease payments is recognized on a straight-line basis over the lease term, in the cost of sales and operating expenses. The Company elected the transition approach whereby it applied the new leases standard at the adoption date and recognized a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The Company elected the short-term lease recognition exemption (short-term lease practical expedient) by class of underlying asset (which results in off-balance-sheet accounting for the lease).

NOTE 3—SHORT-TERM INVESTMENTS:

Short-term investments were as follows ($ in millions):

	At December 31, 2023	At December 31, 2022
Trading securities	$ 599.1	$ 208.0
Weighted average interest rate	5.7 %	4.5 %
Available-for-sale	$ 0.2	$ 0.3
Weighted average interest rate	0.8 %	0.8 %
Total	$ 599.3	$ 208.3

Trading securities consist of bonds issued by public companies and are publicly traded. Each financial instrument is independent of the others. The Company has the intention to sell these bonds in the short-term.

Available-for-sale investments consist of securities issued by public companies. Each security is independent of the others and, as of December 31, 2023 and 2022, included asset and mortgage backed obligations. As of December 31, 2023 and 2022, gross unrealized gains and losses on available-for-sale securities were not material.

The Company earned interest related to these investments, which was recorded as interest income in the consolidated statement of earnings. Also the Company redeemed some of these securities and recognized gains (losses) due to changes in fair value, which were recorded as other income (expense) in the consolidated statement of earnings.

The following table summarizes the activity of these investments by category (in millions):

	Years ended December 31, 2023	Years ended December 31, 2022
Trading:		
Interest earned	$ 21.0	$ 4.4
Unrealized gain (loss) at the end of the period	$ (*)	$ (*)
Available-for-sale:		
Interest earned	$ (*)	$ (*)
Investment redeemed	$ 0.1	$ 0.1

(*) Less than $0.1 million

At December 31, 2023 and 2022, contractual maturities of the available-for-sale debt securities are as follows (in millions):

	2023	2022
One year or less	$ —	$ —
Maturing after one year through five years	—	—
Maturing after five years through ten years	—	—
Due after 10 years	0.2	0.3
Total debt securities	$ 0.2	$ 0.3

NOTE 4—INVENTORIES:

(in millions)	At December 31, 2023	At December 31, 2022
Inventory, current:		
Metals at average cost:		
Finished goods	$ 68.8	$ 78.5
Work-in-process	313.0	330.5
Ore stockpiles on leach pads	230.9	259.7
Supplies at average cost	404.2	345.2
Total current inventory	$ 1,016.9	$ 1,013.9
Inventory, long-term:		
Ore stockpiles on leach pads	$ 1,121.7	$ 1,064.3

Total leaching costs added as long-term inventory of ore stockpiles in leach pads amounted to $291.6 million, $264.3 million and $247.4 million in 2023, 2022 and 2021, respectively. Long-term leaching inventories recognized as cost of sales amounted to $263.0 million, $297.5 million and $313.7 million in 2023, 2022 and 2021, respectively.

NOTE 5—PROPERTY:

(in millions)	At December 31, 2023	At December 31, 2022
Buildings and equipment	$ 17,439.3	$ 16,718.3
Construction in progress	1,664.8	1,747.0
Mine development	320.7	273.2
Mineral assets	83.2	83.2
Land, other than mineral	277.5	275.4
Total property	19,785.5	19,097.1
Accumulated depreciation, amortization and depletion	(10,002.6)	(9,500.5)
Total property and mine development, net	$ 9,782.9	$ 9,596.6

Depreciation and depletion expense for the years ended December 31, 2023, 2022 and 2021, amounted to $825.7 million, $790.3 million and $797.3 million, respectively.

NOTE 6—INTANGIBLE ASSETS:

(in millions)	At December 31, 2023	2022
Mining concessions	$ 121.2	$ 121.2
Mine engineering and development studies	19.8	19.8
Software	74.3	70.3
	215.3	211.3
Accumulated amortization:		
Mining concessions	(44.2)	(42.2)
Mine engineering and development studies	(19.8)	(19.2)
Software	(63.0)	(57.1)
	(127.0)	(118.5)
Goodwill	41.9	41.9
Intangible assets, net	$ 130.2	$ 134.7

Amortization of intangibles for the years ended December 31, 2023, 2022 and 2021, amounted to $7.9 million, $7.3 million and $8.7 million, respectively. Estimated amortization is as follows:

Estimated amortization expense (in millions):	
2024	$ 6.3
2025	6.0
2026	2.1
2027	2.1
2028	2.0
Total 2024 - 2028	$ 18.5
Average annual	$ 3.7

Goodwill includes $17.0 million generated in 1997 as a result of purchasing a third party interest in the Buenavista mine. It also includes $24.9 million representing the amount of the purchase price in excess of the fair value of the net assets acquired from El Pilar mine. This goodwill is attributable to future benefits that the Company expects to realize from the mine and will not be deductible for income tax purposes.

NOTE 7—INCOME TAXES:

Since March 2009, Grupo Mexico, through its wholly-owned subsidiary AMC, owns an interest in excess of 80% of SCC. Accordingly, SCC's results are included in the consolidated tax return for AMC for U.S. federal income tax reporting.

Following its policy regarding the use of estimates, the Company estimates income taxes currently payable or receivable as well as deferred income tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The Company provides current and deferred income taxes, as if it were filing a separate U.S. federal income tax return.

The components of the provision for income taxes for the three years ended December 31, 2023, are as follows:

(in millions)	2023	2022	2021
U.S. federal and state:			
Current	$ 4.6	$ 0.1	$ —
Deferred	—	—	—
Uncertain tax positions	0.6	—	—
	5.2	0.1	—
Foreign (Peru and Mexico):			
Current	1,491.0	1,443.1	2,425.5
Deferred	(59.1)	118.6	(126.3)
Uncertain tax positions	81.8	34.3	—
	1,513.7	1,596.0	2,299.2
Total provision for income taxes	$ 1,518.9	$ 1,596.1	$ 2,299.2

The source of income is as follows:

(in millions)	2023	2022	2021
Earnings by location:			
U.S.	$ 23.3	$ 0.5	$ (32.4)
Foreign			
Peru	1,151.3	1,167.8	1,962.8
Mexico	2,781.2	3,079.5	3,766.4
	3,932.5	4,247.3	5,729.2
Earnings before taxes on income	$ 3,955.8	$ 4,247.8	$ 5,696.8

The reconciliation of the statutory income tax rate to the effective tax rate for the three years ended December 31, 2023, is as follows (in percentage points):

	2023	2022	2021
Expected tax at U.S. statutory rate	21.0 %	21.0 %	21.0 %
Foreign tax at other than statutory rate, net of foreign tax credit benefit (1)	15.3	14.7	13.8
Percentage depletion	(2.4)	(2.1)	(1.8)
Other permanent differences	(0.3)	(0.1)	(0.3)
Additional valuation allowance on U.S. deferred tax assets, foreign tax credits and U.S. tax effect on Peruvian deferred taxes	6.3	5.5	8.4
Increase (decrease) in unrecognized tax benefits for uncertain tax positions	1.9	1.5	(0.5)
Amounts (over) / under provided in prior years	(0.4)	(1.7)	—
Other	(3.0)	(1.2)	(0.2)
	38.4 %	37.6 %	40.4 %

(1) Foreign tax at other than statutory rates, net of foreign tax credit benefit, also includes the effects of permanent differences in Peru and Mexico, that are determined at the local statutory rate.

The Company files income tax returns in three jurisdictions; Peru, Mexico and the United States. For the three years presented above, the statutory income tax rate for Mexico was 30%, the United States tax rate was 21%, and the Peruvian tax rate was 29.5%. While the largest components of income taxes are the Peruvian and Mexican taxes, the Company is a domestic U.S. entity. Therefore, the rate used in the above reconciliation is the U.S. statutory rate.

For all of the years presented, both the Peruvian branch and Minera Mexico filed separate tax returns in their respective tax jurisdictions. Although the tax rules and regulations imposed in the separate tax jurisdictions may vary significantly, similar permanent items exist, such as items that are nondeductible or nontaxable. Some permanent differences relate specifically to SCC, such as the allowance in the United States for percentage depletion.

On May 31, 2019, the Organization for Economic Cooperation and Development ("OECD") published a two-pillar system designed to address the tax challenges created by an increasing digitalized economy. Pillar One focuses on the allocation of group profits among taxing jurisdictions based on a market-based concept rather than on historic "permanent establishment" concepts, but includes explicit exclusions for Extractives and as such, is not expected to have a material impact on the Company. Pillar Two addresses the remaining Base Erosion and Profit Shifting ("BEPS") risk of profit shifting to entities in low tax jurisdictions by introducing a global minimum tax of 15% and a proposed tax on base eroding payments. Certain aspects of Pillar Two take effect January 1, 2024, while other aspects go into effect January 1, 2025. If jurisdictions do want to implement the GloBE rules, these rules will need to be implemented through domestic legislation. The countries in which the Company has significant operations have yet to enact Pillar Two into law and have not formally announced plans to implement these rules. The Company will continue to monitor the situation and analyze the potential impact that Pillar Two will have on future results.

Deferred taxes include the U.S., Peruvian and Mexican tax effects of the following types of temporary differences and carryforwards:

	At December 31,	
(in millions)	**2023**	**2022**
Assets:		
Inventories	$ 52.4	$ 28.5
Capitalized exploration expenses	15.6	12.4
U.S. foreign tax credit carryforward, net of Uncertain Tax Positions	1,904.1	1,653.5
U.S. tax effect of Peruvian deferred tax liability	83.5	112.5
U.S. tax effect of Peruvian Uncertain Tax Positions	69.6	45.1
Reserves	315.4	249.6
Deferred workers participation	12.2	15.9
Accrued salaries, wages and vacations	7.7	7.4
Sales price adjustment (PUI)	(0.3)	—
Deferred charges	—	28.6
Valuation allowance on U.S. deferred tax assets, foreign tax credits and U.S. tax effect of Peruvian deferreds	(2,301.7)	(2,053.7)
Accrued royalty and special mining tax	29.6	10.8
Other	16.5	21.9
Total deferred tax assets	204.6	132.5

	At December 31,	
(in millions)	**2023**	**2022**
Liabilities:		
Property, plant and equipment	(68.1)	(19.7)
Social responsibility expenses	(9.7)	(7.7)
Sales price adjustment (PUI)	—	(29.0)
Deferred charges	(2.9)	—
Total deferred tax liabilities	(80.7)	(56.4)
Total net deferred tax (liabilities) / assets	$ 123.9	$ 76.1

The valuation allowance increased by $248.0 million in 2023, which was primarily due to the valuation of unutilized Foreign Tax Credits generated in 2023 and the valuation of the anticipatory foreign tax credits for the U.S. Tax effect of Peruvian deferred tax related to uncertain tax position liabilities. The Peru branch operations are taxed in the U.S. as a flow through entity to SCC. Since the Peruvian tax rate of 29.5% now exceeds the U.S. tax rate of 21%, management expects that it is more likely than not that the benefit of excess credits generated in the current year will not be realizable.

U.S. Tax Matters—

As of December 31, 2023, the Company considers its ownership of the stock of Minera Mexico to be essentially permanent in duration. Income from subsidiaries, such as Minera Mexico, is included in the Global Intangible Low Tax Income (“GILTI”) on a current year basis.
GILTI imposes a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. The Company has not had U.S. tax liability from the GILTI inclusion since the introduction of this tax in 2018 and does not anticipate a tax in the future because of increased fixed asset amounts and the Mexican tax rate of 30%. No U.S. deferred taxes have been recorded as the Company has elected that if GILTI were to apply in the future, a current period expense would be recorded when incurred.

The Base Erosion Anti-Abuse Tax (“BEAT”) is a 10% minimum tax for the years 2019 through 2025 and 12.5% in years thereafter. It is calculated on a base equal to the Company’s income determined without the tax benefit arising from base erosion payments. Since this tax was imposed in 2018 the Company has had no U.S. tax liability for BEAT since it has met the safe harbor rule that provides a Company is not to be subject to the BEAT if related party payments from the U.S. to foreign entities do not exceed 3% of expenses, excluding cost of goods sold. The Company will continue to analyze the applicability of the BEAT provisions yearly.

As of December 31, 2023, $512.2 million of the Company´s total cash, cash equivalents and short-term investments of $1,750.8 million were held by foreign subsidiaries. The cash, cash equivalents and short-term investments maintained in our foreign operations are generally used to cover local operating and investment expenses. The Company has determined that as of December 31, 2023, a deferred tax asset of $0.1 billion exists with respect to its investment in foreign subsidiaries. Tax accounting guidance provided in ASC 740 requires this asset to be recognized only if the basis difference will reverse in the foreseeable future. Management has no plans that would result in the reversal of this temporary difference and consequently, no deferred tax asset has been recorded. Future dividends from these subsidiaries may not be subject to federal income tax in the U.S., and the Company incurs no state income tax liability. Additionally, there are no withholding taxes due to the tax treaty between the United States and Mexico. Distributions of earnings from the Company's Peruvian branch to the United States are not subject to U.S. taxes on repatriation. The Company's branch operations are not foreign corporations. They are mainly comprised of operations that are branches of the Company's U.S. operations and are taxed on a current basis.

As of December 31, 2023, there were $1,915.8 million of foreign tax credits available for carryback or carryforward. These credits have a one-year carryback and a ten-year carryforward period and can only be used to reduce U.S. income tax on foreign earnings. There were no other unused U.S. tax credits as of December 31, 2023. These credits will expire if not utilized by the end of the years listed below:

Year		**Amount**
2024		59.7
2025		146.7
2026		95.1
2027		-
2028		171.8
2029		219.9
2030		247.6
2031		582.3
2032		161.2
2033		231.5
Total	$	1,915.8

These foreign tax credits are presented above on a gross basis and have not been adjusted for any unrecognized tax benefits. In accordance with ASC 740, the Company has recorded $11.7 million for the U.S. jurisdiction unrecognized tax benefit as an offset to the Company’s deferred tax asset for foreign tax credits. The remaining foreign tax credits of $1,904.1 million have a full valuation allowance against them at December 31, 2023. It is the expectation of management that with the reduction in the U.S. corporate tax rate to 21% and considering the corporate tax rates in

Mexico of 30% and in Peru at 29.5%, it is unlikely the excess foreign tax credits can be utilized. Additionally, foreign dividends may no longer be taxed in the U.S. due to the GILTI rules and thereby reducing the U.S. tax on foreign source income and limiting the ability to utilize foreign tax credits generated before the 2017 Tax Cuts and Jobs Act.

On December 28, 2021, the U.S. Treasury and the IRS released final regulations addressing various aspects of the foreign tax credit regime. The regulations apply to years beginning after December 28, 2021. The Company reviewed and revised the foreign tax credits generated under the new regulations, which is not expected to have a material impact on the Company's financial statements as excess foreign tax credits generated are fully valued. See below for discussion of Peruvian tax mattes and the Peruvian Special Mining Tax.

On August 16, 2022, the U.S. enacted the Inflation Reduction Act of 2022 (the "Inflation Reduction Act"), which includes, among other provisions, (i) a new corporate alternative minimum tax of 15% on the adjusted financial statement income (AFSI) of corporations with average AFSI exceeding $1.0 billion over a three-year period, and (ii) a new excise tax of 1% on the fair market value of net corporate stock repurchases. The provisions of the Inflation Reduction Act are effective for tax years beginning in fiscal year 2023. The Company continues to analyze the impacts that the Inflation Reduction Act will have on future operating results.

Beginning in fiscal year 2022, the U.S. Tax Cuts and Jobs Act of 2017 ("TCJA") enactment of IRC Section 174 requires the capitalization and amortization of research and experimental expenditures. The Company does not believe this legislation will have a material impact on the Company's Consolidated Financial Statements and will continue to assess the effects.

Peruvian Tax Matters—

Mining royalty charge: The royalty charge is based on operating income margins with graduated rates ranging from 1% to 12% of operating profits, with a minimum royalty charge assessed at 1% of net sales. The minimum royalty charge is recorded as cost of sales and those amounts assessed at higher rates are included in the income tax provision. The Company has accrued $84.8 million, $71.4 million and $140.8 million of royalty charges in 2023, 2022 and 2021, respectively, of which $44.6 million, $35.8 million and $97.8 million were included in income taxes in 2023, 2022 and 2021, respectively.

Peruvian special mining tax: This tax is based on operating income with graduated rates increasing from 2% to 8.4%. The Company recognized $71.7 million, $56.4 million and $114.0 million in 2023, 2022 and 2021, respectively for this tax. These amounts were included as income taxes in the Consolidated Statement of Earnings.

Mexican Tax Matters—

Since 2014, Mexican mining entities have been required to pay a mining royalty of 7.5% on taxable earnings before taxes, depreciation, and interest; and an additional royalty of 0.5% over gross receipts from sales of gold, silver and platinum. In 2023, the mining royalty was $142.8 million and the additional royalty was $1.5 million.

On September 8, 2022, the Federal Executive, through the Ministry of Finance and Public Credit, presented the tax bill package for the year 2023 to the Congress of the Union, which relies on the General Criteria for Economic Policy (CGPE). The Revenue Law (LIF) for 2023 was approved by both the House of Deputies and Senators in October.

As has been the case in recent years, the Federal Executive proposed no new taxes or tax rate increases. However, more requirements to make tax deductible expenses and investments have been added to the tax laws, and the tax authorities are exercising more scrutiny via audits.

Accounting for Uncertainty in Income Taxes—

The total amount of unrecognized tax benefits, excluding interest and penalties, in 2023, 2022 and 2021, was as follows (in millions):

	2023	2022	2021
Unrecognized tax benefits, opening balance	$ 56.0	$ —	$ 66.1
Gross decreases—tax positions in prior period	—	—	(10.9)
Gross increases—tax positions in prior period	50.2	104.2	—
Gross increases—current-period tax positions	8.6	—	—
Gross decreases—current-period tax positions	—	(10.7)	(1.1)
Decreases related to settlements with taxing authorities	(15.7)	(37.5)	(54.1)
Lapse in statute of Limitations	10.8	—	—
Foreign Currency Effects	1.1	—	—
	55.0	56.0	(66.1)
Unrecognized tax benefits, ending balance	$ 111.0	$ 56.0	$ —

The Company recognizes interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes within the Consolidated Statements of Earnings. For the Peruvian jurisdiction, the Company recorded $19.7 million and $26.7 million of accrued interest and penalties in 2023 and 2022, respectively. For the U.S. jurisdiction, the Company recorded $0.2 million of accrued interest and penalties in 2023. There were no interest or penalties accrued in the Mexican jurisdiction for uncertain tax positions in any of the years presented above.

The amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate was $99.3 million at December 31, 2023 and relates to the Peruvian, Mexican and U.S. jurisdictions.

Unrecognized tax benefits in the U.S. jurisdiction of $11.7 million were offset by U.S. deferred tax assets including foreign tax credits. Offsetting expense related to the change in liability for uncertain tax positions within the U.S. jurisdiction and the change in valuation allowance of the U.S. deferred tax asset for foreign tax credits was presented as a net amount in the components of income taxes.

The Company expects that foreign exchange rates will have an impact on the amount of unrecognized tax benefits in the Peruvian and Mexican jurisdictions.

As of December 31, 2023, the Company’s liability for uncertain tax positions included penalties and interest of $0.2 million in the U.S. jurisdiction and $46.4 million in the Peruvian jurisdiction. There was no liability for uncertain tax positions penalties and interest for the Mexican jurisdictions as of December 31, 2023. Interest and penalties are not included in the table of unrecognized tax benefits above.

The following tax years remain open to examination and adjustment in the Company’s three major tax jurisdictions:

Peru:	2018 and all subsequent years
U.S.:	2020 and all subsequent years
Mexico:	2016 and all subsequent years

Management does not expect that any of the open years will result in a cash payment within the U.S. and Mexican jurisdictions in the upcoming twelve months ending December 31, 2024. Management expects to make cash payments of $67.8 million within the Peruvian jurisdiction in the upcoming twelve months ending December 31, 2024.

NOTE 8—WORKERS’ PARTICIPATION:

The Company's operations in Peru and Mexico are subject to statutory workers' participation.

In Peru, the provision for workers' participation is calculated at 8% of pre-tax earnings. The current portion of this participation, which is accrued during the year, is based on the Peruvian Branch's taxable income and is distributed to workers following determination of final results for the year. The annual amount payable to an individual worker is capped at the worker's salary for an 18 month period. Amounts determined in excess of the 18 months of worker's salary is no longer made as a payment to the worker and is levied first for the benefit of the "Fondo Nacional de Capacitacion Laboral y de Promocion del Empleo" (National Workers' Training and Employment Promotion Fund) until this entity receives from all employers in its region an amount equivalent to 2,200 Peruvian taxable units (approximately $2.9 million in 2023). Any remaining excess is levied as payment for the benefit of the regional governments. These levies fund worker training, employment promotion, entrepreneurship and various other programs.

In Mexico, workers' participation is determined using the guidelines established in the Mexican income tax law at a rate of 10% of pre-tax earnings as adjusted by the tax law. In 2021, there was a change in the Ley Federal del Trabajo ("Federal Labor Law"), effective in 2022. Under this change, the amount payable to a worker cannot be higher than the maximum between the worker's salary for a three-month period and the average of the participation received in the last three years.

The provision for workers' participation is allocated to "Cost of sales (exclusive of depreciation, amortization and depletion)". Workers' participation expense for the three years ended December 31, 2023 was as follows (in millions):

	2023	2022	2021
Current	$ 265.0	$ 347.2	$ 344.5
Deferred	(11.8)	29.1	(72.8)
	$ 253.2	$ 376.3	$ 271.7

NOTE 9—LEASES:

The Company has operating leases for power generating facilities, vehicles and properties. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. Some of the Company's leases include both lease and non-lease components which are accounted for separately. The Company's leases have remaining lease terms of less than one year to nine years, and do not include options to extend the leases. The Company's lease agreements do not contain options to purchase the leased assets or to terminate the leases before the expiration date. In addition, the Company's lease contracts do not have any material residual value guarantees or material restrictive covenants. As none of the Company's leases provides an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments.

The weighted average remaining lease term for the Company's leases is seven years, and the weighted average discount rate for these leases is 4.03%.

The operating lease expense recognized in the years ended December 31, 2023, 2022 and 2021 was classified as follows (in millions):

Classification	2023	2022	2021
Cost of sales (exclusive of depreciation, amortization and depletion)	$ 115.4	$ 115.5	$ 108.1
Selling, general and administrative	0.1	0.1	0.1
Exploration	0.1	0.1	0.2
Total lease expense	$ 115.6	$ 115.7	$ 108.4

Maturities of lease liabilities are as follows:

Year		Lease liabilities (in millions)
2024	$	112.7
2025		105.6
2026		105.4
2027		105.1
2028		104.7
After 2028		416.4
Total lease payments	$	949.9
Less: interest on lease liabilities		(174.5)
Present value of lease payments	$	775.4

NOTE 10—ASSET RETIREMENT OBLIGATION:

Peruvian operations:

The Company maintains an asset retirement obligation for its mining properties in Peru, as required by the Peruvian Mine Closure Law. In accordance with the requirements of this law the Company's closure plans were approved by the Peruvian Ministry of Energy and Mines ("MINEM"). As part of the closure plans, the Company is required to provide annual guarantees over the estimated life of the mines, based on a present value approach, and to furnish the funds for the asset retirement obligation. This law requires a review of closing plans every five years.

On June 24, 2019, MINEM approved a change to the guarantees required for the mining closure plans. The new regulation specifies that annual guarantees can be secured with real estate up to a maximum of 50% and the remaining amount with credit instruments. Currently, the Company has pledged the value of its Lima office complex for the 50% of the guarantee and with a stand-by letter of credit for the other 50% as security for this obligation. Through January 2024, the Company has provided total guarantees of $87.7 million.

On July 20, 2021, the Peruvian Government published Law 31347, which requires companies in the production stage to set aside additional guarantees for progressive closure of its operations. The resources that back these guarantees will be returned to the Company when activities cease and the regulatory agency verifies that all closure measures have been satisfactorily completed. Under this Law, companies must include activities for environmental remediation within the closure schedule and assume costs associated with environmental impacts that are identified during audits. As of December 31, 2023, the regulation attached to this Law had yet to be published. The Company is currently evaluating the possible financial impact of the Law but cannot fully estimate the magnitude until the Law's regulation is published.

The closure cost recognized for this liability includes the cost, as outlined in its closure plans, of dismantling the Toquepala and Cuajone concentrators, the Ilo smelter and refinery, and the shops and auxiliary facilities at the three units. In March 2016, MINEM approved the Mining Closure Plan for the Toquepala expansion project and the revised closure plans for the Cuajone mine and the Ilo facilities were approved in January and October 2019, respectively. As a result of these new estimates, the Company increased the asset retirement obligation by $28.1 million in 2019. The closure plan for the Tia Maria project was approved in February 2017. The Company, however, has not recorded a retirement obligation for the project because the work on the project is on hold. The Company believes that under these circumstances the recording of a retirement obligation is not appropriate.

In 2022, the Company made a change in the estimate for the asset retirement obligation for its Peruvian operations, mainly due to a detailed review of the closing activities required for each facility. The effect of this change was a decrease in the asset retirement liability by $59.5 million, which was recorded in December 2022, reducing the asset retirement asset by $43.3 million and the difference of $16.2 million was recorded as a reduction in cost of goods sold.

Mexican operations:

The Company has recognized an estimated asset retirement obligation for its mining properties in Mexico as part of its environmental commitment. Even though there is currently no enacted law, statute, ordinance, written or oral contract requiring the Company to carry out mine closure and environmental remediation activities, the Company believes that an obligation presently exists based on historical government requirements for the closure of any facility. The overall cost recognized for mining closure in Mexico includes the estimated costs of dismantling concentrators, smelter and refinery plants, shops and other facilities.

In the first quarter of 2022, the Company adjusted its estimate for the asset retirement obligation for its Mexican operations following a detailed review of the closing activities required. The effect was an increase in the asset retirement obligation to the order of $43.3 million.

The following table summarizes the asset retirement obligation activity for the years ended December 31, 2023 and 2022 (in millions):

	2023	2022
Balance as of January 1	$ 585.3	$ 562.9
Changes in estimates	0.2	(10.8)
Additions	1.0	11.9
Closure payments	(0.3)	(7.1)
Accretion expense	26.3	28.4
Balance as of December 31,	$ 612.5	$ 585.3

NOTE 11—FINANCING:

Long-term debt (in millions):

	Face amount	Issuance discount	Issuance costs	Carrying value as of December 31, 2023
3.875% Senior unsecured notes due 2025	500	(0.4)	(0.4)	499.2
9.250% Yankee bonds due 2028	51.2	—	—	51.2
7.500% Senior unsecured notes due 2035	1,000	(10.5)	(7.0)	982.5
6.750% Senior unsecured notes due 2040	1,100	(6.3)	(5.1)	1,088.6
5.250% Senior unsecured notes due 2042	1,200	(17.1)	(5.7)	1,177.2
5.875% Senior unsecured notes due 2045	1,500	(15.1)	(8.0)	1,476.9
4.500% Minera Mexico Senior unsecured notes due 2050	1,000	(11.8)	(9.2)	979.0
Total	$ 6,351.2	$ (61.2)	$ (35.4)	6,254.6
Less, current portion				—
Total long-term debt				$ 6,254.6

	Face amount	Issuance discount	Issuance costs	Carrying value as of December 31, 2022
3.875% Senior unsecured notes due 2025	$ 500	$ (0.7)	$ (0.7)	$ 498.6
9.250% Yankee bonds due 2028	51.2	—	—	51.2
7.500% Senior unsecured notes due 2035	1,000	(11.0)	(7.3)	981.7
6.750% Senior unsecured notes due 2040	1,100	(6.6)	(5.2)	1,088.2
5.250% Senior unsecured notes due 2042	1,200	(17.6)	(5.9)	1,176.5
5.875% Senior unsecured notes due 2045	1,500	(15.4)	(8.2)	1,476.4
4.500% Minera Mexico Senior unsecured notes due 2050	1,000	(12.1)	(9.3)	978.6
Total	$ 6,351.2	$ (63.4)	$ (36.6)	6,251.2
Less, current portion				—
Total long-term debt				$ 6,251.2

The bonds, referred above as "Yankee bonds", contain a covenant requiring Minera Mexico to maintain a ratio of EBITDA to interest expense of not less than 2.5 to 1.0 as such terms are defined in the debt instrument. At December 31, 2023, Minera Mexico was in compliance with this covenant.

Between July 2005 and April 2015 the Company issued fixed-rate senior unsecured notes eight times for a total of $6.2 billion, as listed above. Interest on the notes is paid semi-annually in arrears. The notes rank *pari passu* with each other and rank *pari passu* in right of payment with all of the Company's other existing and future unsecured and unsubordinated indebtedness. Net proceeds are being used for general corporate purposes, including the financing of the Company´s capital investment program. The notes were issued with an underwriters' discount. The unamortized balance of the discount and the costs of these notes are presented net of the carrying value of the debt issued and are amortized as interest expense over the life of the loan.

The indentures relating to the notes contain certain restrictive covenants, including limitations on liens, limitations on sale and leaseback transactions, rights of the holders of the notes upon the occurrence of a change of control triggering event, limitations on subsidiary indebtedness and limitations on consolidations, mergers, sales or conveyances. Certain of these covenants cease to be applicable before the notes mature if the Company obtains an investment grade rating. The Company obtained investment grade rating in 2005. The Company has registered these notes under the Securities Act of 1933, as amended. The Company may issue additional debt from time to time pursuant to certain of the indentures.

If the Company experiences a "Change of Control Triggering Event", the Company must offer to repurchase the notes at a purchase price equal to 101% of the principal amount thereof, plus accrued and unpaid interest, if any. A Change of Control Trigger Event means a Change of Control (as defined) and a rating decline (as defined), that is, if the rating of the notes, by at least one of the rating agencies shall be decreased by one or more gradations.

At December 31, 2023, the Company was in compliance with the covenants of the notes.

On September 26, 2019, SCC's subsidiary Minera Mexico S.A. de C.V. issued $1.0 billion of fixed-rate senior notes with a discount of $12.7 million. Additionally, issuance costs of $9.8 million associated with these notes were paid and deferred. The unamortized balance of the discount and the costs are presented net of the carrying value of the debt issued and are amortized as interest expense over the life of the loan. This debt was issued in one tranche, due in 2050 at an annual interest rate of 4.5%. Interest on the notes is paid semi-annually in arrears. The Company intends to use the net proceeds from this offering (i) to finance Minera Mexico expansion program, including the Buenavista Zinc, Pilares and El Pilar projects, (ii) for other capital expenditures and (iii) for general corporate purposes.

The notes constitute general unsecured obligations of Minera Mexico. The notes were issued in an unregistered offering pursuant to Rule 144A and Regulation S under the Securities Act of 1933. The Company capitalized the costs associated with the issuance of this facility, which are included as part of the amortized cost of the long-term debt in the consolidated balance sheet.

In connection with the transaction, on September 26, 2019, Minera Mexico entered into an indenture with Wells Fargo Bank, National Association, as trustee, which provided for the issuance, and set forth the terms of the notes described above. The indenture contains covenants that limit Minera Mexico's ability to, among other things, incur certain liens securing indebtedness, engage in certain sale and leaseback transactions, and enter into certain consolidations, mergers, conveyances, transfers or leases of all or substantially all of Minera Mexico's assets.

Aggregate maturities of the outstanding borrowings at December 31, 2023, are as follows:

Years	Principal Due(*) (in millions)
2024	$ —
2025	500.0
2026	—
2027	—
2028	51.2
Thereafter	5,800.0
Total	$ 6,351.2

(*) Total debt maturities do not include the debt discount valuation account of $96.5 million.

NOTE 12—BENEFIT PLANS:

Post retirement defined benefit plans and defined contribution plan

The Company has two noncontributory defined benefit pension plans covering former salaried employees in the United States and certain former expatriate employees in Peru (the “Expatriate Plan”). Effective October 31, 2000, the Board of Directors amended the qualified pension plan to suspend the accrual of benefits. In addition, the Company’s Mexican subsidiaries have a defined contribution pension plan for salaried employees and a non-contributory defined benefit pension plan for union employees (the “Mexican Plan”).

The components of net periodic benefit costs calculated in accordance with ASC 715 “Compensation retirement benefits,” using December 31 as a measurement date, consist of the following:

(in millions)	2023	2022	2021
Service cost	$ 2.3	$ 1.8	$ 1.4
Interest cost	3.6	2.3	1.5
Expected return on plan assets	(5.9)	(3.9)	(3.3)
Amortization of net actuarial loss	0.1	0.1	(0.1)
Amortization of prior service cost / (credit)	0.7	0.2	0.2
Amortization of net loss/(gain)	0.3	0.3	0.3
Net periodic benefit cost	$ 1.1	$ 0.8	$ —

The change in benefit obligation and plan assets and a reconciliation of funded status are as follows:

(in millions)	As of December 31, 2023	2022
Change in benefit obligation:		
Projected benefit obligation at beginning of year	$ 38.6	$ 36.3
Service cost	2.3	1.8
Interest cost	3.6	2.3
Benefits paid	(3.9)	(2.8)
Actuarial loss	1.8	1.0
Actuarial loss (gain) assumption changes	0.6	(1.7)
Inflation adjustment	4.4	1.7
Projected benefit obligation at end of year	$ 47.4	$ 38.6
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 59.2	$ 56.0
Actual return on plan assets	8.8	1.9
Employer contributions	(1.0)	(0.8)
Benefits paid	(0.9)	(0.8)
Currency exchange rate adjustment	7.1	2.9
Fair value of plan assets at end of year	$ 73.2	$ 59.2
Funded status at end of year:	$ 25.8	$ 20.6
ASC-715 amounts recognized in statement of financial position consists of:		
Non-current assets	$ 25.8	$ 20.6
Total	$ 25.8	$ 20.6
ASC-715 amounts recognized in accumulated other comprehensive income (net of income taxes of $(4.7) million and $(4.8) million in 2023 and 2022, respectively) consists of:		
Net loss (gain)	$ 6.2	$ 6.7
Prior service cost	1.1	1.1
Total	$ 7.3	$ 7.8

The following table summarizes the changes in accumulated other comprehensive income for the years ended December 31, related to the defined benefit pension plan, net of income tax:

(in millions)	2023	2022
Reconciliation of accumulated other comprehensive income:		
Accumulated other comprehensive income at beginning of plan year	$ 7.8	$ 7.2
Net (gain) loss ocurring during the year	(0.6)	0.8
Net (gain) amortized during the year	(0.4)	(0.4)
Prior service cost (credit)	0.3	—
Settlement	(0.4)	—
Currency exchange rate adjustment	0.6	0.2
Net adjustment to accumulated other comprehensive income (net of income taxes of $0.1 million and $(0.5) million in 2023 and 2022, respectively)	(0.5)	0.6
Accumulated other comprehensive income at end of plan year	$ 7.3	$ 7.8

The following table summarizes the amounts in accumulated other comprehensive income amortized and recognized as a component of net periodic benefit cost in 2023 and 2022, net of income tax:

(in millions)	2023	2022
Net loss / (gain)	$ (0.6)	$ 0.8
Amortization of net (loss) gain	(0.4)	(0.4)
Amortization of prior services cost (credit)	0.3	—
Total amortization expenses	$ (0.7)	$ 0.4

The assumptions used to determine the pension obligations are:

Expatriate Plan	2023	2022	2021
Discount rate	4.65 %	4.85 %	2.40 %
Expected long-term rate of return on plan asset	4.50 %	4.00 %	3.00 %
Rate of increase in future compensation level	N/A	N/A	N/A

Mexican Plan(*)	2023	2022	2021
Discount rate	9.98 %	10.09 %	8.02 %
Expected long-term rate of return on plan asset	9.98 %	10.09 %	8.02 %
Rate of increase in future compensation level	5.00 %	4.75 %	4.50 %

(*) These rates are based on Mexican pesos as pension obligations are denominated in this currency.

The scheduled maturities of the benefits expected to be paid in each of the next five years, and thereafter, are as follows:

Years	Expected Benefit Payments (in millions)
2024	$ 9.3
2025	4.0
2026	4.2
2027	4.9
2028	4.7
2029 to 2033	25.5
Total	$ 52.6

Expatriate Plan

The Company’s funding policy is to contribute amounts to the qualified plan sufficient to meet the minimum funding requirements set forth in the Employee Retirement Income Security Act of 1974 plus such additional amounts as the Company may determine to be appropriate.

Plan assets are invested in a group annuity contract with Metropolitan Life Insurance Company (“MetLife”). The Contract invests in the MetLife General Account Payment Fund (the "General Account") and the MetLife Broad Market Core Bond Account (the “Bond Fund”) managed by BlackRock, Inc.

The General Account is broadly diversified across asset classes and backed by the total capital of MetLife.

The Bond Fund seeks to outperform the Bloomberg U.S. Aggregate Bond Index, net of fees, over a full market cycle. The Bond Fund invests in publicly traded, investment grade securities. These may include corporate securities, mortgage securities, treasuries and cash, agency securities, commercial mortgage backed securities and other investment vehicles adhering to the fund’s investment objectives. These investments are classified as Level 1 because they are valued using quoted prices of the same securities as they consist of instruments which are publicly traded.

Plan assets are invested with the objective of maximizing returns with an acceptable level of risk and maintaining adequate liquidity to fund expected benefit payments. The Company's policy for determining asset mix-targets to meet investment objectives includes periodic consultation with recognized third-party investment consultants.

The expected long-term rate of return on plan assets is reviewed annually, taking into consideration asset allocations, historical returns and the current economic environment. Based on these factors the Company expects its assets will earn an average of 4.50% per annum assuming its long-term mix will be consistent with its current mix.

Mexican Plan

Minera Mexico’s policy for determining asset mix targets includes periodic consultation with recognized third-party investment consultants. The expected long-term rate of return on plan assets is updated periodically, taking into consideration assets allocations, historical returns and the current economic environment. The fair value of plan assets is impacted by general market conditions. If actual returns on plan assets vary from the expected returns, actual results could differ.

The plan assets are managed by two financial institutions, Actinver S.A. and GBM Grupo Bursatil Mexicano, S.A. 73% of the funds are invested in Mexican government securities, including treasury certificates and development bonds of the Mexican government. The remaining 27% is invested in common shares of Grupo Mexico. The plan assets are invested without restriction in active markets that are accessible when required and are therefore considered as level 1, in accordance with ASC 820 “Fair Value Measurement.”

These plans accounted for approximately 100% of benefit obligations. The following table represents the asset mix of the investment portfolio as of December 31:

	2023	2022
Asset category:		
Treasury bills	73 %	76 %
Equity securities	27 %	24 %
	100 %	100 %

The amount of contributions that the Company expects to pay to the plan in 2024 total $1.7 million.

Post-retirement Health Care Plan

In Mexico, health services are provided by the Mexican Social Security Institute.

The components of net period benefit costs for the three years ended December 31, 2023 are as follows:

(in millions)	2023	2022	2021
Interest cost	$ 2.2	$ 1.7	$ 1.6
Amortization of net loss (gain)	—	0.1	0.2
Net periodic benefit cost	$ 2.2	$ 1.8	$ 1.8

The change in benefit obligation and a reconciliation of funded status are as follows:

(in millions)	As of December 31, 2023	2022
Change in benefit obligation:		
Projected benefit obligation at beginning of year	$ 20.3	$ 21.4
Interest cost	2.2	1.7
Benefits paid	(1.1)	(1.6)
Actuarial (gain)	(1.6)	(2.6)
Inflation adjustment	2.9	1.4
Projected benefit obligation at end of year	$ 22.7	$ 20.3
Funded status at end of year:	$ 22.7	$ 20.3
ASC-715 amounts recognized in statement of financial position consists of:		
Current liabilities	$ —	$ —
Non-current liabilities	(22.7)	(20.3)
Total	$ (22.7)	$ (20.3)
ASC-715 amounts recognized in accumulated other comprehensive income consists of:		
Net loss (gain)	$ 0.9	$ 1.6
Total (net of income taxes of $(0.4) million and $(0.5) million in 2023 and 2022, respectively)	$ 0.9	$ 1.6

The following table summarizes the changes in accumulated other comprehensive income for the years ended December 31, related to the post-retirement health care plan, net of income tax:

(in millions)	As of December 31, 2023	2022
Reconciliation of accumulated other comprehensive income:		
Accumulated other comprehensive income at beginning of plan year	$ 1.6	$ 3.3
Net loss/(gain) occurring during the year	(0.8)	(1.8)
Net loss/(gain) amortized during the year	—	(0.1)
Currency exchange rate adjustment	0.2	0.2
Net adjustment to accumulated other comprehensive income (net of income taxes of $(0.4) million and $(0.5) million in 2023 and 2022, respectively)	(0.7)	(1.7)
Accumulated other comprehensive income at end of plan year	$ 0.9	$ 1.6

The following table summarizes the amounts in accumulated other comprehensive income amortized and recognized as a component of net periodic benefit cost in 2023 and 2022, net of income tax:

(in millions)	As of December 31, 2023	2022
Net loss / (gain)	$ (0.8)	$ (1.8)
Amortization of net (loss) gain	—	(0.1)
Total amortization expenses	$ (0.8)	$ (1.9)

The discount rates used in the calculation of other post-retirement benefits and cost as of December 31 were:

	2023	2022	2021
Expatriate health plan			
Discount rate	4.65 %	4.85 %	2.40 %
Mexican health plan			
Weighted average discount rate	9.98 %	10.09 %	8.02 %

The benefits expected to be paid in each of the next five years, and thereafter, are as follows:

Year	Expected Benefit Payments (in millions)
2024	$ 1.7
2025	1.8
2026	1.8
2027	1.9
2028	2.0
2029 to 2033	10.6
Total	$ 19.8

Mexican Health Plan

For measurement purposes, a 5.0% annual rate of increase in the per capita cost of covered health care benefits was assumed for 2023 and remains at that level thereafter.

An increase in other benefit cost trend rates have a significant effect on the amount of the reported obligations, as well as component cost of the other benefit plan. One percentage-point change in assumed other benefits cost trend rates would have the following effects:

	One Percentage Point	
(in millions)	Increase	Decrease
Effect on total service and interest cost components	$ 2.4	$ 1.9
Effect on the post-retirement benefit obligation	$ 23.4	$ 21.3

NOTE 13—COMMITMENTS AND CONTINGENCIES:

Environmental matters:

The Company has established comprehensive environmental conservation programs at its mining facilities in Peru and Mexico. The Company's environmental programs include water recovery systems to conserve water and minimize the impact on nearby streams, reforestation programs to stabilize the surface of the tailings dams and the implementation of scrubbing technology in the mines to reduce dust emissions, among others.

Environmental capital investments in years 2023, 2022 and 2021, were as follows (in millions):

	2023	2022	2021
Peruvian operations	$ 7.7	$ 8.7	$ 6.4
Mexican operations	100.6	52.7	62.3
	$ 108.3	$ 61.4	$ 68.7

Peruvian operations: The Company's operations are subject to applicable Peruvian environmental laws and regulations. The Peruvian government, through the Ministry of Environment ("MINAM") conducts annual audits of the Company's Peruvian mining and metallurgical operations. Through these environmental audits, matters relating to environmental and legal compliance, atmospheric emissions, effluent monitoring and waste management are reviewed. The Company believes that it is in material compliance with applicable Peruvian environmental laws and regulations. Peruvian law requires that companies in the mining industry provide assurances for future mine closure and remediation. In accordance with the requirements of this law, the Company's closure plans were approved by MINEM. See Note 10 "Asset retirement obligation" for further discussion of this matter.

Air Quality Standards ("AQS"): In June 2017, MINAM enacted a supreme decree which defined new AQS for daily sulfur dioxide in the air. As of December 31, 2023, the Company maintains the daily average level of µg/m3 of SO2, below the requirement of the AQS.

In November 2023, MINAM enacted a new *AQS* for Cadmium, Arsenic and Chromium in particulate matter less than ten microns (PM_{10}). A review of the Company´s chemical monitoring results has determined that the Company´s operations will not be significantly impacted by the new standards and concentration values in place. Our results are expected to continue to fall below regulatory *AQS*.

Soil Environmental Quality Standards ("SQS"): In 2013, the Peruvian government enacted Soil Quality Standards. In accordance with the regulatory requirements of the law, the Company prepared Soil Decontamination Plans ("SDP") for environmentally impacted sites at each of its operation units (Toquepala, Cuajone and Ilo) with the assistance of consulting companies. The costs of these SDPs are not material, either individually or in aggregated form, for the financial statements of the Company.

Climate change: On April 17, 2018, the Peruvian government enacted Law N. 30754, which promotes public and private investments in climate change management and establishes a Climate Change Framework. The law proposes creating an institutional framework to address climate change in Peru and outlines new measures for climate change mitigation, such as provisions to address an increase in carbon capture and use of carbon sinks; afforestation and reforestation practices; land use changes; sustainable systems of transportation, solid waste management, and energy systems. This climate change framework law incorporates obligations from the Paris Agreement. Supreme Decree 013-2019 published on December 31, 2019, enacted statutory regulations, which are applicable to all Peruvian institutions and agencies. It is expected that additional Peruvian regulations will be applicable to non governmental entities. However, no carbon pricing mechanism is currently applicable to the Company's operations in Peru.

Mexican operations: The Company's operations are subject to applicable Mexican federal, state and municipal environmental laws, to Mexican official standards, and to regulations for the protection of the environment, including regulations relating to water supply, water quality, air quality, noise levels and hazardous and solid waste.

The principal legislation applicable to the Company's Mexican operations is the Federal General Law of Ecological Balance and Environmental Protection (the "General Law"), which is enforced by the Federal Bureau of Environmental Protection ("PROFEPA"). PROFEPA monitors compliance with environmental legislation and enforces Mexican environmental laws, regulations and official standards. It may also initiate administrative proceedings against companies that violate environmental laws, which in the most extreme cases may result in the temporary or permanent shutdown of non-complying facilities, the revocation of operating licenses and/or other sanctions or fines.

In 2011, the General Law was amended to provide an individual or entity the ability to contest administrative acts, including environmental authorizations, permits or concessions granted, without the need to demonstrate the actual existence of harm to the environment as long as it can be argued that the harm may be caused. Additionally, amendments to the Civil Federal Procedures Code ("CFPC") were enacted in 2011 and established three categories of collective actions under which a group of 30 or more individuals can be considered sufficient to prove a "legitimate interest" to file civil actions for injuries arising out of alleged violations of environmental, consumer protection, financial services and Antitrust laws. The group can seek restitution or economic compensation for the alleged injuries or suspension of the activities which allegedly caused the injuries in question. The amendments to the CFPC may result in more litigation, with plaintiffs seeking remedies, including suspension of the activities alleged to cause harm.

In 2013, the Environmental Liability Federal Law was enacted. The law establishes general guidelines for actions considered likely to cause environmental harm. If a possible determination regarding harm occurs, environmental clean-up and remedial actions sufficient to restore the environment to a pre-existing condition must be taken. If restoration is not possible, compensation measures should be provided. Criminal penalties and monetary fines can be imposed under this law.

Guaymas sulfuric acid spill: On July 9, 2019, there was an incident at the Company´s Marine Terminal in Guaymas, Sonora, that caused the discharge of approximately three cubic meters of sulfuric acid into the sea in the industrial port area.

On July 10, 2019, PROFEPA made a first inspection of the area, concluding that the Company executed all the appropriate procedures to contain the discharge, and no reference was made to the existence of negative impacts on the environment resulting from the incident. On July 19, 2019, PROFEPA revisited the facilities to carry out a second inspection and declared a partial temporary shutdown that only affected the storage process and transportation of sulfuric acid at the terminal, arguing the absence of an authorization of environmental impact. It is important to note that these facilities have been in operation since 1979, prior to the 1988 Mexican General Law of Ecological Balance and the Protection of the Environment. Companies that were operating before the enactment of the aforementioned law are exempt from the permit requirement.

The Company has solved this issue and will restart operations soon.

Climate change: Several taxes are applicable to the Company's mining operations in Mexico, including federal and state fossil fuel taxes, and the requirements associated with Mexico's emission trading scheme. These taxes range from $US9/tCO2 to $US18/tCO2 in 2023, approximately. These regional taxes are applicable in the States of Baja California, Zacatecas and San Luis Potosí, as well as a federal tax linked to the import of fuels. In addition, an emission trading scheme (ETS) in Mexico is currently available to the Company which is only applicable to two business units, the metallurgic and lime plants in Sonora, which both generate annual GHG emissions levels above the threshold of 100,000 tCO2 per year contemplated by the scheme. These two units are required to report and verify their emissions once a year with average costs of less than $6,000 per unit. Units that emit more than 25,000 tonnes CO2 equivalent per year (all our Mexican units) are required to report their emissions to the National Emissions Registry (RENE) every year and to verify the reported emissions every three years. As a result, the total expenses for ensure annual compliance with climate change regulations in Mexico were not material to the Company.

The Company believes that all of its facilities in Peru and Mexico are in material compliance with environmental, mining and other applicable laws and regulations. The Company also believes that continued compliance with environmental laws of Mexico and Peru will have no material adverse effects on the Company's business, properties, or operating results.

On May 09, 2023, Mexican Congress approved several changes effective immediately to the Mining Law, National Waters Law, the General Law of Ecological Balance and Environmental Protection, and the General Law for the Prevention and Integral Management of Waste. The main changes are reducing mining concession terms from 50 to 30 years; new restrictions and conditions on water use; requirements to provide guarantees for closure and remediation of operations; and a requirement to contribute 5% of net earnings to indigenous communities for new projects and significant changes to exploration rules.

These amendments to the law have been challenged and are being reviewed by the Supreme Court. The company is not expecting any negative impacts on its operations.

Litigation matters:

Peruvian operations:

The Tia Maria Mining Project

There are five lawsuits filed against the Peruvian Branch of the Company related to the Tia Maria project. The lawsuits seek (i) to declare null and void the resolution that approved the Environmental Impact Assessment of the project; (ii) the cancellation of the project and the withdrawal of mining activities in the area; (iii) to annul the mining concession application for the Tia Maria project; and (iv) to annul the resolution that approved the construction license. The lawsuits were filed by Messrs. Ernesto Mendoza Padilla (filed May 26, 2015), Juan Alberto Guillen Lopez (filed June 18, 2015), Junta de Usuarios del Valle del Tambo (filed April 30, 2015), Gobierno Regional de Arequipa (filed December 16, 2019) and Municipalidad Distrital de Dean Valdivia (filed in January 2020 but notified in August 2022).

The Mendoza Padilla case was initially rejected by the lower court on July 8, 2015. This ruling was confirmed by the Superior Court on June 14, 2016. On July 12, 2016, the case was appealed before the Constitutional Court. On November 20, 2018, the Constitutional Court reversed the previous decisions and remanded the case to the lower court for further action. In the third quarter of 2020, the Company was notified that the complaint had been reinstated. The Company answered the complaint on September 15, 2020. On December 2, 2020, the lower court issued a resolution, considering the complaint answered. On September 27, 2021, the Court ordered to temporarily archive the case. As of December 31, 2023, the case remains pending resolution.

The Guillen Lopez case is currently before the lower court. Oral arguments took place on July 19, 2019. On January 7, 2020, the Judge decided to suspend the proceedings until the del Carpio Lazo case is concluded. On March 8, 2022, SCC's Peruvian Branch informed the Court that the del Carpio Lazo case had concluded. On September 7, 2023, the Judge cancelled the suspension and declared the case ready for a resolution. The company has yet to be notified of this decision. As of December 31, 2023, the case remains pending resolution.

The Junta de Usuarios del Valle del Tambo case is currently before the lower court. In May 2016, the Company was included in the process after the Ministry of Energy and Mines filed a civil complaint. On March 6, 2019, the Company was formally notified of the lawsuit and answered the complaint on March 20, 2019. On July 8, 2019, the Company requested the suspension of the proceeding until the del Carpio Lazo case is concluded. On March 11, 2022, SCC's Peruvian Branch informed the Court that the del Carpio Lazo case had concluded. As of December 31, 2023, the case remains pending resolution.

The Gobierno Regional de Arequipa case is currently before the lower court. The Company answered the complaint on September 15, 2020. On February 8, 2021, the Judge decided to suspend the proceeding until the del Carpio Lazo case was concluded. On March 24, 2022, SCC's Peruvian Branch informed the Court that the del Carpio Lazo case had concluded. On March 28, 2022, the Judge cancelled the suspension. On May 24, 2022, the parties presented their closing arguments. On March 15, 2023, the Judge dismissed the lawsuit. The plaintiff missed the chance to appeal the ruling, therefore, the Judge declared the case had concluded in favor of SCC's Peruvian Branch. On April 20, 2023 the plaintiff appealed this ruling. On October 20, 2023 the Superior Court declared that the plaintiff had not been properly informed of the ruling and ordered issuance of a new notification. As of December 31, 2023, the case is pending resolution.

The Municipalidad Distrital de Dean Valdivia case is currently before the lower court. On August 17, 2022, the Company was formally notified of the lawsuit and answered the complaint on September 2, 2022. SCC's Peruvian Branch informed the Court the result of the del Carpio Lazo case. As of December 31, 2023, the case is pending resolution.

The Company asserts that these lawsuits are without merit and is vigorously defending against them. The potential contingency amount for these cases cannot be reasonably estimated by management at this time.

Special Regional Pasto Grande Project ("Pasto Grande Project")

In 2012, the Pasto Grande Project, an entity of the Regional Government of Moquegua, filed a lawsuit against SCC's Peruvian Branch alleging property rights over a certain area used by the Peruvian Branch and seeking the demolition of the tailings dam where SCC's Peruvian Branch has deposited its tailings from the Toquepala and Cuajone operations since 1995. The Peruvian Branch has had title to use the area in question since 1960 and has constructed and operated the tailings dams with proper governmental authorization since 1995. Following a motion filed by the Peruvian Branch, the lower court included MINEM as a defendant in this lawsuit. MINEM has answered the complaint and denied the validity of the claim. On July 2, 2022, the case was temporarily archived. On May 26, 2023, the Judge ordered termination of the proceeding due to the lack of interest of the plaintiff. On June 2, 2023, the plaintiff appealed the termination of the proceeding. On September 18, 2023, the Superior Court reversed the termination and ordered the Judge to continue the proceeding. As of December 31, 2023, the case is pending resolution.

SCC's Peruvian Branch asserts that the lawsuit is without merit and is vigorously defending against it. The amount of this contingency cannot be reasonably estimated by management at this time.

Mexican operations

The Accidental Spill at Buenavista Mine of 2014

In relation to the 2014 accidental spill of copper sulfate solution at a leaching pond in the Buenavista mine, the following legal procedures are pending against the Company:

On August 19, 2014, PROFEPA, as part of the administrative proceeding initiated after the spill, announced the filing of a criminal complaint against Buenavista del Cobre S.A. de C.V. ("BVC"), a subsidiary of the Company to determine those responsible for environmental damages. During the second quarter of 2018, the criminal complaint was dismissed. This decision was appealed and was pending resolution as of December 31, 2023. On October 12, 2023, SEMARNAT publicly announced the filing of another criminal complaint regarding the Sonora River spill, arguing that remediation of damages to the river was incomplete and compensation for said damages was insufficient. The Company has been directed to provide information regarding remediation activities and compensation for damages. In due course, BVC will analyze this new complaint. Nonetheless, the Company strongly believes that it has duly completed all remediation and compensation-related activities as required by the competent Mexican authorities and as such, this new complaint lacks merit.

Through the first half of 2015, six collective action lawsuits were filed in federal courts in Mexico City and Sonora against two subsidiaries of the Company seeking economic compensation, clean up and remedial activities in order to restore the environment to its pre-existing conditions. Three of the collective action lawsuits have been dismissed by the court. As of December 31, 2023, three lawsuits are still pending: two were filed by Acciones Colectivas de Sinaloa, A.C. and one, by Defensa Colectiva, A.C.; requesting precautionary measures about construction of facilities for monitoring public health services and prohibiting the closure of the Rio Sonora Trust.

Similarly, during 2015, eight civil action lawsuits were filed against BVC in the state courts of Sonora seeking damages for alleged injuries and for moral damages as a consequence of the spill. The plaintiffs in the state court lawsuits are: Jose Vicente Arriola Nunez et al; Santana Ruiz Molina et al; Andres Nogales Romero et al; Teodoro Javier Robles et al; Gildardo Vasquez Carvajal et al; Rafael Noriega Souffle et al; Grupo Banamichi Unido de Sonora El Dorado, S.C. de R.L. de C.V; and Marcelino Mercado Cruz. In 2016, three additional civil action lawsuits, claiming similar damages, were filed by Juan Melquicedec Lebaron; Blanca Lidia Valenzuela Rivera et al and Ramona Franco Quijada et al. In 2017, BVC was served with thirty-three additional civil action lawsuits, claiming similar damages. The lawsuits were filed by Francisco Javier Molina Peralta et al; Anacleto Cohen Machini et al; Francisco Rafael Alvarez Ruiz et al; Jose Alberto Martinez Bracamonte et al; Gloria del Carmen Ramirez Duarte et al; Flor Margarita Sabori et al; Blanca Esthela Ruiz Toledo et al; Julio Alfonso Corral Dominguez et al; Maria Eduwiges Bracamonte Villa et al; Francisca Marquez Dominguez et al; Jose Juan Romo Bravo et al; Jose Alfredo Garcia Leyva et al; Gloria Irma Dominguez Perez et al; Maria del Refugio Romero et al; Miguel Rivas Medina et al; Yolanda Valenzuela Garrobo et al; Maria Elena Garcia Leyva et al; Manuel Alfonso Ortiz Valenzuela et al; Francisco Alberto Arvayo Romero et al; Maria del Carmen Villanueva Lopez et al; Manuel Martin Garcia Salazar; Miguel Garcia Arguelles et al; Dora Elena Rodriguez Ochoa et al; Honora Eduwiges Ortiz Rodriguez et al; Francisco Jose Martinez Lopez et al; Maria Eduwiges Lopez Bustamante; Rodolfo Barron Villa et al, Jose Carlos Martinez Fernandez et al, Maria de los Angeles Fabela et al; Rafaela Edith Haro et al; Luz Mercedes Cruz et al; Juan Pedro Montaño et al; and Juana Irma Alday Villa. In the first quarter of 2018, BVC was served with another civil action lawsuit, claiming similar damages. The lawsuit was filed by Alma Angelina Del Cid Rivera et al. In the last quarter of 2018, BVC was served with other three civil action lawsuits, claiming similar damages. These lawsuits were filed by Los Corrales de la Estancia, S.C. de R.L.; Jose Antonio Navarro; Jesus Maria Peña Molina, et al; these actions were dismissed by the court, because they have expired. As of December 31, 2023, forty-five cases were pending resolution.

In 2015, four constitutional lawsuits (juicios de amparo) were filed before Federal Courts against various authorities and against a subsidiary of the Company, arguing; (i) the alleged lack of a waste management program approved by SEMARNAT; (ii) the alleged lack of a remediation plan approved by SEMARNAT with regard to the August 2014 spill;

(iii) the alleged lack of community approval regarding the environmental impact authorizations granted by SEMARNAT to one subsidiary of the Company; and (iv) the alleged inactivity of the authorities with regard of the spill in August 2014. The plaintiffs of these lawsuits are: Francisca Garcia Enriquez, et al filed two lawsuits, Francisco Ramon Miranda, et al and Jesus David Lopez Peralta et al. In the third quarter of 2016, four additional constitutional lawsuits, claiming similar damages were filed by Mario Alberto Salcido et al; Maria Elena Heredia Bustamante et al; Martin Eligio Ortiz Gamez et al; and Maria de los Angeles Enriquez Bacame et al. In the third quarter of 2017, BVC was served with another constitutional lawsuit filed by Francisca García Enriquez et al. In 2018, BVC was served with two additional constitutional lawsuits that were filed against SEMARNAT by Norberto Bustamante et al. With regard to the constitutional lawsuit filed by Maria Elena Heredia Bustamante et al; in which it was claimed the lack of community approval regarding the authorization granted by SEMARNAT to build the new BVC tailings dam, on September 5, 2018, the Supreme Court of Justice issued a resolution establishing that such authorization was granted to BVC in compliance with the applicable legislation. However, SEMARNAT must carry out a public meeting to inform the community of the technical aspects required to build the dam, potential impacts and prevention measures. This public meeting will have no material effects to BVC's operations. SEMARNAT has carried out the consultation ordered by the Supreme Court. As a result, it has informed the corresponding Judge about its compliance with the resolution, in which BVC was required to implement additional measures of environmental impact prevention, such as: (i) the building of at least three monitoring wells downstream from the curtain of the contingency dam in a period of six months; (ii) monitoring of the groundwater level and water quality every six months; (iii) carrying out rain collection work in order to restore water to the Sonora River basin, with six months granted to present the execution program; (iv) determine the location of wildlife conservation and protection areas and define the need to establish biological corridors; (v) obtain photographic or videographic evidence every six months; (vi) submitting to SEMARNAT two years before the closure and abandonment of the site, or earlier if necessary, the closure program that includes the cleaning and restoration of the soil including Mexican regulation NOM-141; (vii) include the measures in the Environmental Monitoring Program according to the environmental components impacted; and (viii) hiring an external environmental consultant to validate compliance with the current and new conditions imposed. The foregoing does not impact BVC's operations. Additionally, the lawsuits filed by Maria de los Angeles Enriquez Bacame and Norberto Bustamante have been dismissed and closed without prejudice to the Company. As of December 31, 2023, the remaining cases were pending resolution.

It is currently not possible to determine the extent of the damages sought in these state and federal lawsuits but the Company believes that these lawsuits are without merit. Accordingly, the Company is vigorously defending against them. Nevertheless, the Company believes that none of the legal proceedings resulting from the spill, individually or in the aggregate, would have a material effect on its financial position or results of operations.

Labor matters:

Peruvian operations: 60.9% of the Company's 4,979 Peruvian employees were unionized at December 31, 2023. Currently, there are six separate unions, none of which represents the majority of workers, as defined by current Peruvian labor legislation.

During 2021, the Company held talks with the six unions to sign collective bargaining agreements prior to their effective dates. As a result, between the duration of the agreement, a long-term agreement bonus of S/10,000 (approximately $2,670) was granted in June and December 2021, the Company signed collective bargaining agreements with the six unions with durations between three to six years. All of them granted annual salary increases of 5%. Additionally, each agreement granted, among other things, a signing bonus of between S/45,000 (approximately $12,013) and S/90,000 (approximately $24,026), depending on the union that signed a six-year extension of the collective bargaining agreement. All these concepts were recorded as labor expense. In 2022, these collective bargaining agreements were executed and the Company does not have any collective agreement pending to be negotiated with the unions.

In December 2022, the Company reached a settlement with one of the unions regarding compliance with an 2018-2019 Arbitration Award. As part of this settlement, the Company made a one-time payment to each union member of S/4,000 (approximately $1,068) as a compensation bonus and also paid a signing bonus of S/1,000 (approximately $267).

In the first quarter of 2023, the Company began applying the terms of the agreement entered into with the six unions pursuant to Law 31632, which stipulates new conditions for compensation of leaves granted during COVID-19. Within the current framework of labor regulations and the agreements with all six unions, this compensation has been adapted to align with current working hours of the mining sector. These conditions were in effect until December 1, 2023.

In June 2023, the Company held two meetings with the unions to discuss different issues of collective interest. In these meetings, the unions expressed concerns regarding the current economic situation, including the rise in the cost of living in Peru, as well as issues related to the provision of services granted by the Company. In this regard, in the third quarter of 2023, the Company released a formal response to each union where it is confirmed that there are collective labor agreements in force with each union. These agreements have regulated all the benefits related to salaries and working conditions. The Company has been complying with all its obligations under such collective labor agreements and guarantees it will continue to maintain on-going communication with the unions to ensure harmony.

In the last quarter of 2023, one of the unions which represents 24.7% of affiliated workers in the Company's three productive units, held elections for 2023-2025. Another union, which represents 25.7% of affiliated workers, is in the process of electing its new representatives.

The Company maintains permanent communication with union representatives to ensure labor harmony and proper management of labor relations. Southern Peru has collective bargaining agreements with each of the six unions, the earliest expiration of these agreements is in 2024 and the lastest, in 2027. These agreements regulate benefits related to remuneration and working conditions.

An important development in labor relations with the Company´s unions stems from a ruling by the Peruvian Supreme Court that was notified to the Company on October 23, 2023. After 12 years of litigation, the Court ruled in favor of the Company to settle a suit involving a worker payment the amount of S/11,000 (approximately $2,936) that a lower court had ordered the Company to pay to one of the unions in 2011. The Company had been legally pursuing recovery of the total amount paid to the workers. The union has expressed its intention to comply with the court order and to reach an agreement to return the amount paid by the Company.

Mexican operations: In recent years, the Mexican operations have experienced a positive improvement in their labor environment, as workers opted to change their affiliation from the Sindicato Nacional de Trabajadores Mineros, Metalurgicos y Similares de la Republica Mexicana (the "National Mining Union") to other less politicized unions.

The workers of the San Martin mine were on strike since July 2007. On February 28, 2018, the striking workers of the San Martín mine of IMMSA held an election to vote on the union that would hold the collective bargaining agreement at the San Martin mine. The Federacion Nacional de Sindicatos Independientes (the National Federation of Independent Unions) won the vote by a majority. Nevertheless, the vote was challenged by the National Mining Union. On June 26, 2018, the Federal Mediation and Arbitration Board issued a ruling recognizing the election results. Due to the agreement between workers and the Company to end the protracted strike, on August 22, 2018, the Federal Mediation and Arbitration Board authorized the restart of operations of the San Martin mine. Such authorization was challenged by the National Mining Union. On April 4, 2019, the Federal Mediation and Arbitration Board recognized, once again, the election results from February 28, 2018, by which the National Federation of Independent Unions won by a majority. In the last quarter of 2019, a Federal Court issued a resolution that established that the Labor Court should analyze the list of workers with the right to vote in the union election. The Company and the National Federation of Independent Unions challenged such determination before the Supreme Court of Justice. Such challenges were dismissed by the Supreme Court. Consequently, on September 6, 2021, the Federal Mediation and Arbitration Board issued a new resolution determining that, based on the documents submitted by the National Federation of Independent Unions and given the status of the strike until 2018, it was not possible to create a registry of workers holding a right to vote. Therefore, in case of a strike, any collective bargaining proceedings shall remain suspended. On June 9, 2023, the Federal Mediation and Arbitration Board, in a ruling that veered from its previous stance, did not recognize the common representatives of the coalition workers and consequently ruled that the agreement which such representatives had made with the Company to lift the strike in 2018 lacked validity. Notwithstanding, on June 14, 2023, in an arbitration proceeding initiated at IMMSA's request, the Federal Mediation and Arbitration Board handed down a ruling that terminated the strike and ordered workers to resume activities within 15 days. The Mining Union filed a protective action (Amparo) against this resolution, which is pending resolution as of December 31, 2023.

Additionally, the Mining Union has filed a complaint before the Government of the United States of America under the rules of the Rapid Response Mechanism contained in the Mexico-United States-Canada Treaty (“T-MEC”), alleging denial of free association rights.

The Company´s operations at the San Martin unit continue to evolve normally and the conflict is expected to be resolved in accordance with the legal framework set by labor authorities; any actions taken will respect the will of the workers

In the case of the Taxco mine, its workers have been on strike since July 2007. After several legal procedures, in August 2015, the Supreme Court decided to assert jurisdiction over the case and to rule on it directly. As of December 31, 2023, the case was pending resolution without further developments.

It is expected that operations at the Taxco mine will remain suspended until the labor issues are resolved. In view of the lengthy strike, the Company has reviewed the carrying value of the Taxco mine to ascertain whether impairment exists. The Company concluded that there is a non-material impairment of the assets located at this mine.

Other legal matters:

The Company is involved in various other legal proceedings incidental to its operations, but the Company does not believe that decisions adverse to it in any such proceedings, individually or in the aggregate, would have a material effect on its financial position or results of operations.

Other commitments:

Peruvian Operations:

Michiquillay:

In June 2018, the Company signed a contract for the acquisition of the Michiquillay copper project in Cajamarca, Peru, at a purchase price of $400 million. Michiquillay is a world-class mining project with estimated inferred mineral resources of 2,288 million tonnes with an estimated copper grade of 0.43%. It is expected to produce 225,000 tonnes of copper per year (along with by-products of molybdenum, gold and silver) for an initial mine life of more than 25 years.

As per the purchase agreement, the Company paid $12.5 million at the signing of the contract and $12.5 million in June 2021. The remaining balance of $375.0 million will be paid if the Company decides to develop the project. Therefore, it is not a present obligation. In June 2022, the Company notified the Peruvian authorities of the end of the suspension period and the start of the preoperational period that lasts 12 years and it can be extended for three more years. The start of the preoperational period does not imply a payment obligation. The Company must support an investment of $20 million in the next five years which includes exploration activities as well as the development of social programs.

In 2021, the Company signed social agreements with the Michiquillay and La Encañada communities. In addition, in October 2021, the Peruvian Ministry of Energy and Mines approved the semi-detailed environmental impact study for the project. In the last quarter of 2022, the Company informed MINEM that exploration activities had begun and that it initiated an in-depth assessment of existing mineral resources. In 2023, in accordance with the social agreements with the Michiquillay and La Encañada communities, the Company has hired unskilled labor and is paying for the use of surface land. The Company is supporting social programs in both communities. Additionally, the Company continues exploration activities on this project and as of December 31, 2023 it had drilled 63,000 meters and obtained 20,137 core samples, which are currently under evaluation. Geological modeling, cross section interpretation, and drilling logging are currently underway.

Social agreements with the Michiquillay and La Encañada communities represent an opportunity to improve quality of life for their residents through the Company´s strong social programs, backed by a solid framework for technical work at the project level. The main commitments signed by the Company regarding the social agreements are related to providing support for agricultural and livestock activities, financial support for local initiatives, and social programs in favor of education, water management, waste disposal, and healthcare for vulnerable groups.

Corporate Social Responsibility:

The Company has a corporate social responsibility policy to maintain and promote the continuity of its mining operations while obtaining the best results. The main objective of this policy is to integrate the Company´s operations with local communities in the areas of influence of its operations by creating permanent positive relationships to develop optimum social conditions and promote sustainable development in the area. Accordingly, the Company has made the following commitments:

Tacna Region: In connection with the Toquepala concentrator expansion, the Company has committed to fund various social and infrastructure improvement projects in Toquepala's neighboring communities. The total amount committed for these purposes is S/445.0 million (approximately $118.8 million). In relation to this commitment, the Company has completed the construction of a school with an investment of S/18.8 million (approximately $5.0 million), infrastructure projects with an investment of S/10.7 million (approximately $2.9 million) and three irrigation systems with an investment of S/4.1 million (approximately $1.1 million). Additionally, the Company has co-financed the construction of the Cularjahuira dam for S/15.6 million (approximately $4.2 million) and is preparing the engineering study for the Callazas dam for S/2.6 million (approximately $0.7 million). The Company is also building a drinking water project for S/9.6 million (approximately $2.6 million).

As the Toquepala expansion project was completed, the Company considers that these commitments constitute present obligations of the Company and consequently has recorded a liability of $14.3 million in its consolidated financial statements as of December 31, 2023.

In addition, the Company has committed S/97.7 million (approximately $26.1 million) for the construction of a high-achievement school in the Tacna region under the "Works for Taxes" (obras por impuestos) program, which allows the Company to use these amounts as an advance payment of taxes..

Moquegua Region: In the Moquegua region, the Company participates in a "development roundtable" with local municipal authorities and community representatives to discuss social needs to determine how the Company can contribute to sustainable development in the region. Although the development roundtable is not currently meeting, during previous sessions it discussed the possibility of creating a Moquegua Region Development Fund, for which the Company has offered a contribution of S/1,000 million (approximately $267.0 million). While the final funding agreement has yet to be signed, the Company has already committed to contributing S/244.4 million (approximately $65.2 million) to different projects, including S/108.4 million (approximately $28.9 million) to fund an educational project for which S/106.7 million (approximately $28.5 million) has already been invested; this project is close to completion. Additionally outlays have begun to build a residual water treatment plant in Ilo, which entails a total investment of S/105.5 million (approximately $28.2 million), is currently underway and as of December 31, 2023, had advanced 32%. There are civil works ongoing and the procurement process has already started. Also, sanitation permits are under review by the Municipal authorities and the Company´s legal area. On the education front, S/18.2 million (approximately $4.9 million) has been executed to build three schools in Moquegua, all of which have been completed. Lastly, S/6.2 million (approximately ($1.7 million) has been invested to develop sidewalks in Pacocha and S/5.9 million (approximately $1.6 million) has been used for feasibility studies and other smaller-scale efforts.

In addition, the Company has committed S/143.6 million (approximately $38.3 million) to build three infrastructure projects in the Moquegua region and has financed pre-investment studies for basic sanitation for S/0.3 million (approximately $0.1 million), all of that under the "Works for Taxes" (obras por impuestos) program, which allows the Company to use these amounts as an advance payment of taxes.

Apurimac Region: The Company has committed S/81.6 million (approximately $21.8 million) to build two educational infrastructure projects under the "Works for Taxes" (obras por impuestos) program, which allows the Company to use these amounts as an advance payment of taxes.

Arequipa Region: The Company has completed the financing of the studies for a sport infrastructure project for S/0.7 million (approximately $0.2 million) and has committed S/104.3 million (approximately $27.8 million) to build two educational infrastructure projects, under the "Works for Taxes" (obras por impuestos) program, which allows the Company to use these amounts as an advance payment of taxes.

Power purchase agreements:

- *Electroperu S.A.:* In June 2014, the Company entered into a power purchase agreement for 120 megawatt ("MW") with the state power company Electroperu S.A., under which Electroperu S.A. began supplying energy for the Peruvian operations for twenty years starting on April 17, 2017.

- *Kallpa Generacion S.A. ("Kallpa"):* In July 2014, the Company entered into a power purchase agreement for 120MW with Kallpa, an independent Israeli owned power company, under which Kallpa will supply energy for the Peruvian operations for ten years starting on April 17, 2017 and ending on April 30, 2027. In May 2016, the Company signed an additional power purchase agreement for a maximum of 80MW with Kallpa, under which Kallpa began supplying energy for the Peruvian operations related to the Toquepala Expansion and other minor projects starting on May 1, 2017 and ending on October 31, 2029.

Mexican operations

Power purchase agreements:

- MGE: In 2012, the Company signed a power purchase agreement with MGE, an indirect subsidiary of Grupo Mexico, to supply power to some of the Company's Mexican operations through 2032. For further information, please see Note 18 "Related party transactions".

- Eolica el Retiro, S.A.P.I. de C.V.: In 2013, the Company signed a power purchase agreement with Eolica el Retiro, S.A.P.I de C.V. a windfarm energy producer that is an indirect subsidiary of Grupo Mexico, to supply power to some of the Company's Mexican operations. For further information, please see Note 18 "Related party transactions".

- *Parque Eolico de Fenicias, S. de R.L. de C.V.:* On February 20, 2020, the Company signed a power purchase agreement with Parque Eolico de Fenicias, S. de R.L. de C.V., an indirect subsidiary of Grupo Mexico, to supply 611,400 MWh of power per year to some of the Company´s Mexican operations for 20 years. This agreement is expected to become effective during the second quarter of 2024.

Corporate operations

Commitment for Capital projects:

As of December 31, 2023, the Company has committed approximately $348.2 million for the development of its capital investment projects.

Tax contingency matters:

Tax contingencies are provided for under ASC 740-10-50-15 Uncertain tax position (see Note 7 "Income taxes").

NOTE 14—STOCKHOLDERS' EQUITY

Treasury Stock:

Activity in treasury stock in the years 2023 and 2022 was as follows (in millions):

	2023	2022
Southern Copper common shares		
Balance as of January 1,	$ 2,766.9	$ 2,767.2
Used for corporate purposes	(0.3)	(0.3)
Balance as of December 31,	2,766.6	2,766.9
Parent Company (Grupo Mexico) common shares		
Balance as of January 1,	340.7	306.8
Other activity, including dividend, interest and foreign currency transaction effect	41.7	33.9
Balance as of December 31,	382.4	340.7
Treasury stock balance as of December 31,	$ 3,149.0	$ 3,107.6

Common Stock:

In September 2022, Grupo Mexico, through its wholly owned subsidiary AMC, purchased 350,000 shares of SCC's Common Stock. With this purchase and the Company's repurchase of shares of its Common Stock, the indirect ownership of Grupo Mexico increased to 88.92% at December 31, 2022.

SCC shares of common stock in treasury:

At December 31, 2023 and 2022, treasury stock holds 111,485,617 shares and 111,497,617 shares of SCC's common stock with a cost of $2,766.6 million and $2,766.9 million, respectively. The shares of SCC's common stock held in treasury are used for Director's stock award plans and available for general corporate purposes.

SCC share repurchase program:

In 2008, the BOD authorized a $500 million share repurchase program that has since been increased by the BOD and is currently authorized to $3 billion. Pursuant to this program, the Company has purchased 119.5 million shares of common stock at a cost of $2.9 billion. These shares are available for general corporate purposes. The Company may purchase additional shares of its common stock from time to time, based on market conditions and other factors. This repurchase program has no expiration date and may be modified or discontinued at any time.

There has been no activity in the SCC share repurchase program since the third quarter of 2016. The NYSE closing price of SCC common shares at December 31, 2023 was $86.07 and the maximum number of shares that the Company could purchase at that price was 0.9 million.

Grupo Mexico's direct and indirect ownership remains at 88.9% as of December 31, 2023.

Directors' Stock Award Plan:

The Company established a Director´s Stock Award Plan for certain non-employee directors. Southern Copper has reserved 600,000 shares of common stock for the plan. Under this plan, participants are entitled to an award of 1,600 shares of common stock upon election to the Board of Directors and are eligible to receive 1,600 additional shares of common stock per year thereafter. Commencing with the second quarter of 2021, Directors receive quarterly awards of 400 shares, contingent upon attendance of each quarterly Board meeting. The fair value of the award is measured each year at the date of the grant. On May 27, 2022, the Company's stockholders approved a five-year extension of the Plan until January 27, 2028. The award is not subject to vesting requirements.

For 2023 and 2022, the stock-based compensation expense associated with this plan amounted to $0.3 million for both years.

The activity of this plan for the years ended December 31, 2023 and 2022 was as follows:

	2023	2022
Total SCC shares reserved for the plan	600,000	600,000
Total shares granted at January 1,	(416,800)	(405,200)
Granted in the period	(12,000)	(11,600)
Total shares granted at December 31,	(428,800)	(416,800)
Remaining shares reserved	171,200	183,200

Parent Company common shares:

At December 31, 2023 and 2022, there were in treasury 67,793,020 and 74,367,673 of Grupo Mexico's common shares, respectively.

Employee Stock Purchase Plan:

2015 Plan: In January 2015, the Company offered to eligible employees a new stock purchase plan through a trust that acquires series B shares of Grupo Mexico stock for sale to its employees, and employees of subsidiaries, and certain affiliated companies. The purchase price was established at 38.44 Mexican pesos (approximately $2.63) for the initial subscription, which expires in January 2023. Every two years employees will be able to acquire title to 50% of the shares paid in the previous two years. The employees will pay for shares purchased through monthly payroll deductions over the eight-year period of the plan. At the end of the eight-year period, the Company will grant the participant a bonus of 1 share for every 10 shares purchased by the employee. Any future subscription will be at the average market price at the date of acquisition or the grant date.

If Grupo Mexico pays dividends on shares during the eight-year period, the participants will be entitled to receive the dividend in cash for all shares that have been fully purchased and paid as of the date that the dividend is paid. If the participant has only partially paid for shares, the entitled dividends will be used to reduce the remaining liability owed for purchased shares.

In the case of voluntary or involuntary resignation/termination of the employee, the Company will pay to the employee the fair market sales price at the date of resignation of the fully paid shares, net of costs and taxes. When the fair market sales value of the shares is higher than the purchase price, the Company will apply a deduction over the amount to be paid to the employee based on a decreasing schedule specified in the plan.

In case of retirement or death of the employee, the Company will render the buyer or his legal beneficiary, the fair market sales value as of the date of retirement or death of the shares effectively paid, net of costs and taxes.

The stock-based compensation expense for the years ended December 31, 2023, 2022 and 2021 and the unrecognized compensation expense under this plan were as follows (in millions):

	2023	2022	2021
Stock based compensation expense	$ 0.2	$ 0.6	$ 0.6
Unrecognized compensation expense	$ —	$ 0.2	$ 0.8

The plan ended in January 2023.

The following table presents the stock award activity of this plan for the years ended December 31, 2023 and 2022:

	Shares	Unit Weighted Average Grant Date Fair Value
Outstanding shares at January 1, 2023	845,895	$ 2.63
Granted	—	—
Exercised	(801,056)	$ 2.63
Forfeited	—	—
Outstanding shares at December 31, 2023	44,839	$ 2.63
Outstanding shares at January 1, 2022	867,234	$ 2.63
Granted	—	—
Exercised	(21,339)	$ 2.63
Forfeited	—	—
Outstanding shares at December 31, 2022	845,895	$ 2.63

2018 Plan: In November 2018, the Company offered to eligible employees a new stock purchase plan (the "New Employee Stock Purchase Plan") through a trust that acquires series B shares of Grupo Mexico stock for sale to its employees, and employees of subsidiaries, and certain affiliated companies. The purchase price was established at 37.89 Mexican pesos (approximately $1.86) for the initial subscription, which expires in October 2026. Every two years employees will be able to acquire title to 50% of the shares paid in the previous two years. The employees will pay for shares purchased through monthly payroll deductions over the eight-year period of the plan. At the end of the eight-year period, the Company will grant the participant a bonus of 1 share for every 10 shares purchased by the employee. Any future subscription will be at the average market price at the date of acquisition or the grant date.

If Grupo Mexico pays dividends on shares during the eight-year period, the participants will be entitled to receive the dividend in cash for all shares that have been fully purchased and paid as of the date that the dividend is paid. If the participant has only partially paid for shares, the entitled dividends will be used to reduce the remaining liability owed for purchased shares.

In the case of voluntary or involuntary resignation/termination of the employee, the Company will pay to the employee the fair market sales price at the date of resignation of the fully paid shares, net of costs and taxes. When the fair market sales value of the shares is higher than the purchase price, the Company will apply a deduction over the amount to be paid to the employee based on a decreasing schedule specified in the plan.

In case of retirement or death of the employee, the Company will render the buyer or his legal beneficiary, the fair market sales value as of the date of retirement or death of the shares effectively paid, net of costs and taxes.

The stock-based compensation expense for the years ended December 31, 2023, 2022 and 2021 and the unrecognized compensation expense under this plan were as follows (in millions):

	2023	2022	2021
Stock based compensation expense	$ 0.7	$ 0.7	$ 0.7
Unrecognized compensation expense	$ 1.7	$ 2.4	$ 3.1

The following table presents the stock award activity of this plan for the years ended December 31, 2023 and 2022:

	Shares	Unit Weighted Average Grant Date Fair Value
Outstanding shares at January 1, 2023	2,754,506	$ 1.86
Granted	—	—
Exercised	(791,570)	$ 1.86
Forfeited	—	—
Outstanding shares at December 31, 2023	1,962,936	$ 1.86
Outstanding shares at January 1, 2022	3,173,924	$ 1.86
Granted	—	—
Exercised	(419,418)	$ 1.86
Forfeited	—	—
Outstanding shares at December 31, 2022	2,754,506	$ 1.86

Executive Stock Purchase Plan:

Grupo Mexico also offers a stock purchase plan for certain members of its executive management and the executive management of its subsidiaries and certain affiliated companies. Under this plan, participants will receive incentive cash bonuses which are used to purchase shares of Grupo Mexico which are deposited in a trust.

Non-controlling interest:

For all the years presented, in the consolidated statement of earnings the income attributable to non-controlling interest is based on the earnings of the Company's Peruvian Branch.

The non-controlling interest of the Company's Peruvian Branch is for investment shares. These shares were generated by legislation in place in Peru from the 1970s through 1991; such legislation provided for the participation of mining workers in the profits of the enterprises for which they worked. This participation was divided between equity and cash. The investment shares included in the non-controlling interest on the consolidated balance sheets reflect outstanding equity distributions made to the Peruvian Branch's employees.

In prior years, the Company acquired some Peruvian investment shares in exchange for newly issued common shares of the Company and through purchases at market value. These acquisitions were accounted for as purchases of non-controlling interests. The excess paid over the carrying value was assigned to intangible assets and is being amortized based on production. As a result of these acquisitions, the remaining investment shareholders hold a 0.71% interest in the Peruvian Branch and are entitled to a pro rata participation in the cash distributions made by the Peruvian Branch. The shares are recorded as a non-controlling interest in the Company's financial statements.

NOTE 15 – DERIVATIVE INSTRUMENTS:

From time to time, the Company uses derivative instruments to manage its cash flows exposure to changes in commodity prices. The Company does not enter into derivative contracts unless it anticipates that the possibility exists that future activity will expose the Company's future cash flows to deterioration. Derivative contracts for commodities are entered into to manage the price risk associated with forecasted purchases of the commodities that the Company uses in its manufacturing process.

Cash Flow Hedges of Natural Gas

In the third quarter of 2021, the Company acquired two derivative instruments that became effective in November 2021 and expired in March 2022. The Company's objective in using natural gas derivatives was to protect the stability of natural gas costs and manage exposure to natural gas price increases. The Company assessed these derivative instruments as Cash Flow Hedges. As such, the effective portions of said hedges were recorded as earnings in the same period or periods in which the hedged transaction affected earnings. The Company did not identify any ineffective portions of these derivatives. As of December 31, 2023, the Company held no derivative instruments.

NOTE 16—FAIR VALUE MEASUREMENT:

Subtopic 820-10 of ASC "Fair value measurement and disclosures -Overall" establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under Subtopic 820-10 are described below:

Level 1 -Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2 -Inputs that are observable, either directly or indirectly, but do not qualify as Level 1 inputs. (i.e., quoted prices for similar assets or liabilities).

Level 3 -Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

The carrying amounts of certain financial instruments, including cash and cash equivalents, accounts receivable (other than accounts receivable associated with provisionally priced sales) and accounts payable approximate fair value due to their short maturities. Consequently, such financial instruments are not included in the following table that provides information about the carrying amounts and estimated fair values of other financial instruments that are not measured at fair value in the consolidated balance sheet as of December 31, 2023 and December 31, 2022 (in millions):

	At December 31, 2023		At December 31, 2022	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Liabilities:				
Long-term debt level 1	$ 6,203.4	$ 6,431.9	$ 6,200.0	$ 6,372.6
Long-term debt level 2	51.2	54.0	51.2	54.2
Total long-term debt	$ 6,254.6	$ 6,485.9	$ 6,251.2	$ 6,426.8

Long-term debt is carried at amortized cost and its estimated fair value is based on quoted market prices classified as Level 1 in the fair value hierarchy except for the case of the Yankee bonds, which qualify as Level 2 in the fair value hierarchy as they are based on quoted priced in market that are not active.

Fair values of assets and liabilities measured at fair value on a recurring basis were calculated as of December 31, 2023 and 2022, as follows (in millions):

		Fair Value at Measurement Date Using:		
Description	Fair Value as of December 31, 2023	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets:				
Short term investment:				
—Trading securities	$ 599.1	$ 599.1	$ —	$ —
—Available-for-sale debt securities:				
Asset backed securities	0.1	—	0.1	—
Mortgage backed securities	0.1	—	0.1	—
Accounts receivable:				
—Embedded derivatives—Not classified as hedges:				
Provisionally priced sales:				
Copper	657.5	657.5	—	—
Molybdenum	264.9	264.9	—	—
Total	$ 1,521.7	$ 1,521.5	$ 0.2	$ —

		Fair Value at Measurement Date Using:		
Description	Fair Value as of December 31, 2022	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets:				
Short term investment:				
—Trading securities	$ 208.0	$ 208.0	$ —	$ —
—Available-for-sale debt securities:				
Asset backed securities	0.1	—	0.1	—
Mortgage backed securities	0.2	—	0.2	—
Accounts receivable:				
—Embedded derivatives-Not classified as hedges:				
Provisionally priced sales:				
Copper	1,052.0	1,052.0	—	—
Molybdenum	456.9	456.9	—	—
Total	$ 1,717.2	$ 1,716.9	$ 0.3	$ —

The Company's short-term trading securities investments are classified as Level 1 because they are valued using quoted prices of the same securities as they consist of bonds issued by public companies and publicly traded. The Company's short-term available-for-sale investments are classified as Level 2 because they are valued using quoted prices for similar investments.

The Company's accounts receivables associated with provisionally priced copper sales are valued using quoted market prices based on the forward price on the LME or on the COMEX. Such value is classified within Level 1 of the fair value hierarchy. Molybdenum prices are established by reference to the publication Platt's Metals Week and are considered Level 1 in the fair value hierarchy.

In addition, in the third quarter of 2021, the Company acquired two derivative instruments to protect natural gas costs from estimated price increases in the winter season. These derivative instruments covered the period from November 2021 through March 2022. For further information please refer to Note 15 "Derivative instruments."

NOTE 17—CONCENTRATION OF RISK:

The Company operates four open-pit copper mines, five underground poly-metallic mines, two smelters and nine refineries in Peru and Mexico and substantially all of its assets are located in these countries. No assurances can be made that any operations and assets of the Company that are subject to the jurisdiction of the governments of Peru and Mexico will not be adversely affected by future actions of such governments. Much of the Company's products are exported from Peru and Mexico to customers principally in the United States, Europe, Asia and South America.

Financial instruments, which potentially subject the Company to a concentration of credit risk, consist primarily of cash and cash equivalents, short-term investments and trade accounts receivable. The Company invests or maintains available cash with various banks, principally in the United States, Canada, Mexico, Europe and Peru, or in commercial papers of highly-rated companies. As part of its cash management process, the Company regularly monitors the relative credit standing of these institutions. At December 31, 2023, SCC had invested its cash and cash equivalents and short-term investments as follows:

Country	$ in million	% of total cash (1)	% in one institution of country	% in one institution of total cash
United States	$ 1,294.9	74.0 %	14.7 %	10.9 %
Canada	122.0	7.0 %	100.0 %	7.0 %
Switzerland	222.3	12.7 %	100.0 %	12.7 %
Peru	26.5	1.5 %	87.8 %	1.3 %
Mexico	85.1	4.8 %	87.1 %	4.2 %
Total cash and short-term investment	$ 1,750.8	100.0 %		

(1) 98.0% of the Company's cash is in U.S. dollars.

During the normal course of business, the Company provides credit to its customers. Although the receivables resulting from these transactions are not collateralized, the Company has not experienced significant problems with the collection of receivables.

The Company's largest customers as percentage of accounts receivable and total sales were as follows:

	2023	2022	2021
Accounts receivable trade as of December 31,			
Five largest customers	32.6 %	34.2 %	31.3 %
Largest customer	9.7 %	10.4 %	11.8 %
Total sales in year			
Five largest customers	24.7 %	25.7 %	25.0 %
Largest customer	7.7 %	6.8 %	7.2 %

NOTE 18—RELATED PARTY TRANSACTIONS:

The Company has entered into certain transactions in the ordinary course of business with parties that are controlling shareholders or their affiliates. These transactions include the lease of office space, air and railroad transportation, construction services, energy supply, and other products and services related to mining and refining. The Company lends and borrows funds among affiliates for acquisitions and other corporate purposes. These financial transactions bear interest and are subject to review and approval by senior management, as are all related party transactions. Article Nine of the Amended and Restated Certificate of Incorporation of the Company prohibits the Company from engaging in a Material Affiliate Transaction that was not the subject of prior review by a committee of the Board of Directors with at least three members, each of whom is independent, and defines a Material Affiliate Transaction as a transaction or series of related transactions between Grupo Mexico or one of its affiliates (other than the Company or its subsidiaries), on the one hand, and the Company or one of its subsidiaries, on the other hand, that involves consideration of more than $10.0 million in the aggregate. It is the Company's policy that (i) a Material Affiliate Transaction not be entered into or continued without the review and approval by the Audit Committee or its subcommittee of related party transactions comprised of independent directors,(ii) any potential related party transaction process with aggregate consideration between $8.0 million and $10.0 million be authorized by the General Counsel and Chief Financial Officer of the Company and (iii) all related party transactions, including any Material Affiliate Transaction, be reported to the Audit Committee of the Board of Directors or to its subcommittee of related party transactions.

Receivable and payable balances with related parties are shown below (in millions):

	At December 31,	
	2023	2022
Related parties receivable current:		
Grupo Mexico and affiliates:		
Asarco LLC	$ 9.4	$ 9.2
AMMINCO Apoyo Administrativo, S.A. de C.V. (“AMMINCO”)	(*)	(*)
Compania Perforadora Mexico S.A.P.I. de C.V. and affiliates	—	0.3
Ferrocarril Mexicano, S.A. de C.V.	(*)	(*)
Mexico Generadora de Energia S. de R.L. ("MGE")	17.1	23.4
Mexico Compania Constructora S.A de C.V.	(*)	(*)
Grupo Mexico Servicios de Ingenieria, S.A. de C.V.	—	0.2
Related to the controlling group:		
Boutique Bowling de Mexico S.A. de C.V.	—	0.1
Empresarios Industriales de Mexico, S.A. de C.V.	0.6	—
Mexico Transportes Aereos, S.A. de C.V. ("Mextransport")	0.1	—
Operadora de Cinemas S.A. de C.V.	0.1	0.1
	$ 27.3	$ 33.3
Related parties payable:		
Grupo Mexico and affiliates:		
AMMINCO	$ 5.0	$ 5.0
Asarco LLC	13.8	23.8
Eolica El Retiro, S.A.P.I. de C.V.	0.2	0.4
Ferrocarril Mexicano S.A. de C.V.	7.9	5.6
Grupo Mexico Servicios	2.7	20.2
MGE	50.3	57.5
Mexico Compania Constructora S.A de C.V.	9.5	5.9
Grupo Mexico Servicios de Ingenieria, S.A. de C.V.	3.5	1.2
Related to the controlling group:		
Boutique Bowling de Mexico S.A. de C.V.	0.3	0.3
Mexico Transportes Aereos S.A. de C.V. (“Mextransport”)	0.3	0.1
Operadora de Cinemas S.A. de C.V.	0.1	0.2
	$ 93.6	$ 120.2

(*) Less than $0.1 million.

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Purchase and sale activity:

Grupo Mexico and affiliates:

The following table summarizes the purchase and sale activities with Grupo Mexico and its affiliates in 2023, 2022 and 2021 (in millions):

	2023	2022	2021
Purchase activity			
Asarco LLC	$ 30.4	$ 66.3	$ 31.3
AMMINCO	10.0	10.0	8.9
Controladora de Infraestructura Energetica S.A. de C.V	—	0.8	—
Eolica El Retiro, S.A.P.I. de C.V.	2.3	3.0	9.3
Ferrocarril Mexicano, S.A. de C.V.	53.0	42.9	41.8
Grupo Mexico Servicios	20.1	20.1	20.1
Intermodal Mexico S.A. de C.V.	—	—	0.5
MGE	224.6	331.0	287.3
Mexico Compania Constructora S.A de C.V.	59.8	43.8	44.5
Grupo Mexico Servicios de Ingenieria, S.A. de C.V.	18.0	16.7	10.3
Peru Mining Exploration & Development Company	—	—	0.4
Total purchases	$ 418.2	$ 534.6	$ 454.4
Sales activity			
Asarco LLC	$ 39.6	$ 48.0	$ 33.4
AMMINCO	(*)	(*)	0.1
AMC	—	—	0.1
MGE	66.3	165.0	126.9
Total sales	$ 105.9	$ 213.0	$ 160.5

(*) Less than $0.1 million

Grupo Mexico, the parent and the majority indirect stockholder of the Company, and its affiliates provide various services to the Company. These services are primarily related to accounting, legal, tax, financial, treasury, human resources, price risk assessment and hedging, purchasing, procurement and logistics, sales and administrative and other support services. The Company pays AMMINCO and Grupo Mexico Servicios, both subsidiaries of Grupo Mexico, for these services and expects to continue requiring these services in the future.

In 2023, 2022 and 2021, the Company donated $4.3 million, $3.5 million and $0.9 million, respectively, to Fundacion Grupo Mexico, A.C., an organization dedicated to promote the social and economic development of the communities close to the Company's Mexican operations.

The Company's Mexican operations paid fees for freight services provided by Ferrocarril Mexicano, S.A de C.V. and, in 2021, for construction services provided by Intermodal Mexico, S.A. de C.V., which are all subsidiaries of Grupo Mexico. Additionally, in 2022, the Company´s Mexican operations paid fees for specialized technical and environmental services to obtain the energy license for El Arco project provided by Controladora de Infraestructura Energetica S.A. de C.V., a subsidiary of Infraestructura y Transportes Mexico S.A. de C.V., which is a subsidiary of Grupo Mexico.

In addition, the Company´s Peruvian and Mexican operations paid fees for engineering services provided by Grupo Mexico Servicios de Ingenieria, S.A. de C.V., and the Company's Mexican operations paid fees for construction services provided by Mexico Compania Constructora S.A. de C.V. Both companies are subsidiaries of Mexico Proyectos y Desarrollos, S.A. de C.V., which is a subsidiary of Grupo Mexico.

In addition, in 2021, the Company's Peruvian operations purchased three mining concessions from Peru Mining Exploration & Development Company, a subsidiary of Grupo Mexico.

The Company's Mexican operations purchased copper concentrates, starter sheets, cathodes, bars and a fixed asset from Asarco LLC and also paid fees for tolling services. Additionally, the Company´s Mexican operations purchased power from MGE. Both companies are subsidiaries of Grupo Mexico.

In 2012, the Company signed a power purchase agreement with MGE, whereby MGE will supply some of the Company's Mexican operations with power through 2032. MGE has two natural gas-fired combined cycle power generating units, with a net total capacity of 516.2 megawatts and has been supplying power to the Company since December 2013. Currently, MGE is supplying 7.6% of its power output to third-party energy users; compared to 1.4% at December 31, 2022.

In 2014, Mexico Generadora de Energia Eolica, S. de R.L. de C.V, an indirect subsidiary of Grupo Mexico, located in Oaxaca, Mexico, acquired Eolica el Retiro, a windfarm with 37 wind turbines. This company started operations in January 2014 and began to sell power to Industrial Minera Mexico, S.A. de C.V. and subsidiaries (IMMSA) and other subsidiaries of Grupo Mexico in the third quarter of 2014. Currently, Eolica el Retiro is supplying approximately 12% of its power output to IMMSA and Mexcobre; compared to 27.0% at December 31, 2022.

The Company sold sulfuric acid and lime to Asarco LLC. The Company´s Mexican operations received fees for transportation and administrative services that were provided to Asarco and also received fees for natural gas and services provided to MGE, a subsidiary of Grupo Mexico. In addition, the Company´s Mexican operations received rental fees from AMMINCO.

Companies with relationships with the controlling group:

The following table summarizes the purchase and sales activities with other Larrea family companies in 2023, 2022 and 2021 (in millions):

	2023	2022	2021
Purchase activity			
Boutique Bowling de Mexico S.A. de C.V.	$ 0.7	$ 0.4	$ 0.3
Mextransport	2.8	2.1	1.8
Operadora de Cinemas S.A. de C.V.	0.4	0.2	0.4
Total purchases	$ 3.9	$ 2.7	$ 2.5
Sales activity			
Boutique Bowling de Mexico S.A. de C.V.	$ 0.1	$ 0.1	$ 0.1
Empresarios Industriales de Mexico, S.A. de C.V.	0.5	—	—
Mextransport	2.3	1.9	1.8
Operadora de Cinemas S.A. de C.V.	0.1	0.1	0.1
Total sales	$ 3.0	$ 2.1	$ 2.0

The Larrea family controls a majority of the capital stock of Grupo Mexico, and has extensive interests in other businesses, including transportation, real estate and entertainment. The Company engages in certain transactions in the ordinary course of business with other entities controlled by the Larrea family relating to the lease of office space, air transportation and entertainment.

The Company's Mexican operations paid fees for entertainment services provided by Boutique Bowling de Mexico S.A de C.V. and Operadora de Cinemas S.A. de C.V. Both companies are controlled by the Larrea family. MexTransport provides aviation services to the Company's Mexican operations. This is a company controlled by the Larrea family.

In addition, the Company received fees for building rental and maintenance services provided to Boutique Bowling de Mexico S.A de C.V. and Operadora de Cinemas S.A. de C.V. The Company´s Mexican operations received fees from Mextransport for reimbursement of maintenance expenses for rental services and also received fees from Empresarios Industriales de Mexico S.A. de C.V. for security services.

Equity Investment in Affiliate: The Company has a 44.2% participation in Compañia Minera Coimolache S.A. ("Coimolache"), which it accounts for on the equity method. Coimolache owns Tantahuatay, a gold mine located in northern Peru.

In addition, the Company has a 30.0% participation in Apu Coropuna S.R.L. ("Apu Coropuna"), which it accounts for on the equity method. Apu Coropuna is a company, which undertakes exploration activities in the Pucay prospect, located in Arequipa, Peru.

It is anticipated that in the future the Company will enter into similar transactions with these same parties.

NOTE 19—SEGMENT AND RELATED INFORMATION:

Company management views Southern Copper as having three reportable segments and manages it on the basis of these segments. The reportable segments identified by the Company are: the Peruvian operations, the Mexican open-pit operations and the Mexican underground mining operations segment identified as the IMMSA unit.

The three reportable segments identified are groups of mines, each of which constitute an operating segment, with similar economic characteristics, type of products, processes and support facilities, similar regulatory environments, similar employee bargaining contracts and similar currency risks. In addition, each mine within the individual group earns revenues from similar type of customers for their products and services and each group incurs expenses independently, including commercial transactions between groups.

Intersegment sales are based on arm's length prices at the time of sale. These may not be reflective of actual prices realized by the Company due to various factors, including additional processing, timing of sales to outside customers and transportation cost. Added to the segment data is information regarding the Company's sales. The segments identified by the Company are:

1. Peruvian operations, which include the Toquepala and Cuajone mine complexes and the smelting and refining plants, including a precious metals plant, industrial railroad and port facilities that service both mines. The Peruvian operations produce copper, with production of by-products of molybdenum, silver and other material.

2. Mexican open-pit operations, which include La Caridad and Buenavista mine complexes and the smelting and refining plants, including a precious metals plant and a copper rod plant and support facilities that service both mines. The Mexican open-pit operations produce copper, with production of by-products of molybdenum, silver and other material.

3. Mexican underground mining operations, which include five underground mines that produce zinc, copper, silver and gold, and a zinc refinery. This group is identified as the IMMSA unit.

The Peruvian operations include two open-pit copper mines whose mineral output is transported by rail to Ilo, Peru where it is processed at the Company's Ilo smelter and refinery, without distinguishing between the products of the two mines. The resulting product, anodes and refined copper, are then shipped to customers throughout the world. These shipments are recorded as revenue of the Company's Peruvian mines.

The Mexican open-pit segment includes two copper mines whose mineral output is processed in the same smelter and refinery without distinguishing between the products of the two mines. The resultant product, anodes and refined copper, are then shipped to customers throughout the world. These shipments are recorded as revenues of the Company's Mexican open-pit mines.

The Company has determined that it is necessary to classify the Peruvian open-pit operations as an operating segment that is separate from the Mexican open-pit operations due to the very distinct regulatory and political environments in which they operate. The Company's Chief Operating Decision Maker ("CODM") must consider the operations in each country separately when analyzing results of the Company and making key decisions. The open-pit mines in Peru must comply with stricter environmental rules and must deal with a political climate that has a very distinct vision of the mining industry than that seen in Mexico. In addition, the collective bargaining agreement contracts are negotiated differently in each of the countries. These key differences result in the Company taking varying decisions with regard to open-pit operations in the two countries.

The IMMSA segment includes five mines whose minerals are processed in the same refinery. Sales of product from this segment are recorded as revenues of the Company's IMMSA unit. While the Mexican underground mines are subject to a regulatory environment that is very similar to that applicable to Mexican open-pit mines, the nature of the products and processes of the two Mexican operations vary considerably. These differences cause the Company's CODM to take a very different approach when analyzing results and making decisions regarding the two Mexican operations.

Financial information is regularly prepared for each of the three segments and the results of the Company's operations are regularly reported to the CODM on the segment basis. The CODM of the Company focuses on operating income and on total assets as measures of performance to evaluate different segments and to make decisions to allocate resources to the reported segments. These are common measures in the mining industry.

Financial information relating to Company's segments is as follows:

	Year Ended December 31, 2023 (in millions)				
	Mexican Open-pit	**Mexican IMMSA Unit**	**Peruvian Operations**	**Corporate, other and eliminations**	**Consolidated**
Net sales outside of segments	$ 5,562.3	$ 479.2	$ 3,854.3	$ —	$ 9,895.8
Intersegment sales	—	151.6	—	(151.6)	—
Cost of sales (exclusive of depreciation, amortization and depletion)	2,325.1	545.6	1,974.7	(157.7)	4,687.7
Selling, general and administrative	70.1	10.4	38.4	8.3	127.2
Depreciation, amortization and depletion	386.1	70.4	338.7	38.4	833.6
Exploration	6.2	8.6	29.1	11.1	55.0
Operating income	**$ 2,774.8**	**$ (4.2)**	**$ 1,473.4**	**$ (51.7)**	**4,192.3**
Less:					
Interest, net					(240.1)
Other income (expense)					3.6
Income taxes					(1,518.9)
Equity earnings of affiliate					(2.2)
Non-controlling interest					(9.5)
Net income attributable to SCC					**$ 2,425.2**
Capital investment	$ 521.8	$ 147.7	$ 322.7	$ 16.4	$ 1,008.6
Property and mine development, net	$ 4,590.1	$ 751.0	$ 3,624.2	$ 817.6	$ 9,782.9
Total assets	$ 8,695.6	$ 1,166.1	$ 4,635.5	$ 2,228.1	$ 16,725.3

	Year Ended December 31, 2022 (in millions)				
	Mexican Open-pit	Mexican IMMSA Unit	Peruvian Operations	Corporate, other and eliminations	Consolidated
Net sales outside of segments	$ 5,610.9	$ 528.5	$ 3,908.5	$ —	$ 10,047.9
Intersegment sales	161.7	138.0	—	(299.7)	—
Cost of sales (exclusive of depreciation, amortization and depletion)	2,371.9	532.8	2,061.3	(316.9)	4,649.1
Selling, general and administrative	65.9	10.2	39.2	9.7	125.0
Depreciation, amortization and depletion	377.0	57.6	321.7	40.0	796.3
Exploration	3.1	5.4	18.5	14.7	41.7
Operating income	**$ 2,954.7**	**$ 60.6**	**$ 1,467.8**	**$ (47.3)**	**4,435.8**
Less:					
Interest, net					(305.1)
Other income (expense)					117.1
Income taxes					(1,596.1)
Equity earnings of affiliate					(3.7)
Non-controlling interest					(9.5)
Net income attributable to SCC					**$ 2,638.5**
Capital investment	$ 422.7	$ 161.8	$ 355.0	$ 9.0	$ 948.5
Property and mine development, net	$ 4,512.6	$ 678.5	$ 3,659.3	$ 746.2	$ 9,596.6
Total assets	$ 8,835.9	$ 1,100.7	$ 4,870.8	$ 2,470.0	$ 17,277.4

	Year Ended December 31, 2021 (in millions)				
	Mexican Open-pit	Mexican IMMSA Unit	Peruvian Operations	Corporate, other and eliminations	Consolidated
Net sales outside of segments	$ 6,109.0	$ 454.3	$ 4,370.8	$ —	$ 10,934.1
Intersegment sales	—	145.9	—	(145.9)	—
Cost of sales (exclusive of depreciation, amortization and depletion)	1,953.5	440.9	1,662.0	(162.0)	3,894.4
Selling, general and administrative	62.8	10.0	40.1	12.3	125.2
Depreciation, amortization and depletion	392.6	54.8	321.0	37.6	806.0
Exploration	2.3	5.7	14.5	20.9	43.4
Operating income	**$ 3,697.8**	**$ 88.8**	**$ 2,333.2**	**$ (54.7)**	**6,065.1**
Less:					
Interest, net					(349.9)
Other income (expense)					(18.4)
Income taxes					(2,299.2)
Equity earnings of affiliate					13.6
Non-controlling interest					(14.1)
Net income attributable to SCC					**$ 3,397.1**
Capital investment	$ 463.6	$ 98.3	$ 320.9	$ 9.5	$ 892.3
Property and mine development, net	$ 4,463.2	$ 571.0	$ 3,707.3	$ 722.9	$ 9,464.4
Total assets	$ 8,559.8	$ 998.2	$ 4,932.7	$ 3,806.9	$ 18,297.6

The following table presents information regarding the opening and closing balances of receivables by reporting segment of the Company for the two years ended December 31, 2023 (in millions):

	Mexican Open-Pit	Mexican IMMSA Unit	Peruvian Operations	Corporate & Elimination	Consolidated
As of December 31, 2023:					
Trade receivables	$ 556.3	$ 49.1	$ 535.7	$ —	$ 1,141.1
Related parties, current	25.7	0.9	0.8	(0.1)	27.3
As of December 31, 2022:					
Trade receivables	$ 788.1	$ 60.0	$ 546.0	$ —	$ 1,394.1
Related parties, current	31.1	0.1	0.1	2.0	33.3

SALES VALUE PER SEGMENT:

The following table presents information regarding the sales value by reporting segment of the Company's significant products for the three years ended December 31, 2023 (in millions):

	Year Ended December 31, 2023				
(in millions)	Mexican Open-pit	Mexican IMMSA Unit	Peruvian Operations	Corporate, Other & Eliminations	Total Consolidated
Copper	$ 4,442.2	$ 89.1	$ 3,129.1	$ (69.3)	$ 7,591.1
Molybdenum	689.4	—	440.3	—	1,129.7
Zinc	—	300.9	—	0.5	301.4
Silver	233.7	158.3	100.2	(74.6)	417.6
Other	197.0	82.5	184.7	(8.2)	456.0
Total	$ 5,562.3	$ 630.8	$ 3,854.3	$ (151.6)	$ 9,895.8

	Year Ended December 31, 2022				
(in millions)	Mexican Open-pit	Mexican IMMSA Unit	Peruvian Operations	Corporate, Other & Eliminations	Total Consolidated
Copper	$ 4,579.2	$ 83.6	$ 3,096.0	$ (220.0)	$ 7,538.8
Molybdenum	705.3	—	487.4	—	1,192.7
Zinc	—	373.8	—	0.4	374.2
Silver	241.9	133.8	95.3	(68.4)	402.6
Other	246.3	75.3	229.8	(11.7)	539.7
Total	$ 5,772.6	$ 666.5	$ 3,908.5	$ (299.7)	$ 10,047.9

	Year Ended December 31, 2021				
(in millions)	Mexican Open-pit	Mexican IMMSA Unit	Peruvian Operations	Corporate, Other & Eliminations	Total Consolidated
Copper	$ 5,182.1	$ 94.9	$ 3,625.4	$ (74.1)	$ 8,828.3
Molybdenum	538.4	—	514.7	—	1,053.1
Zinc	—	289.0	—	0.5	289.5
Silver	252.8	152.7	133.0	(64.1)	474.4
Other	135.7	63.6	97.7	(8.2)	288.8
Total	$ 6,109.0	$ 600.2	$ 4,370.8	$ (145.9)	$ 10,934.1

NET SALES AND GEOGRAPHICAL INFORMATION:

The geographic breakdown of the Company's sales for the three years ended December 31, 2023 was as follows (in millions):

	Year Ended December 31, 2023				
	Mexican Open-Pit	Mexican IMMSA Unit	Peruvian Operations	Corporate & Elimination	Consolidated
The Americas:					
Mexico	$ 2,329.3	$ 475.3	$ —	$ (133.5)	$ 2,671.1
United States	1,086.6	18.3	515.4	—	1,620.3
Peru	—	18.4	394.6	(18.1)	394.9
Brazil	—	34.5	355.8	—	390.3
Chile	(8.4)	—	407.9	—	399.5
Other American countries	39.3	0.5	20.7	—	60.5
Europe:					
Switzerland	520.2	29.8	535.4	—	1,085.4
Italy	1.1	18.9	394.4	—	414.4
Spain	397.0	—	75.9	—	472.9
Other European countries	163.5	24.4	219.8	—	407.7
Asia:					
China	631.7	2	115.2	—	749.2
Singapore	155.5	8.1	200.7	—	364.3
Japan	160.3	—	508.0	—	668.3
Other Asian countries	86.2	0.3	110.5	—	197.0
Total	$ 5,562.3	$ 630.8	$ 3,854.3	$ (151.6)	$ 9,895.8

	Year Ended December 31, 2022				
	Mexican Open-Pit	Mexican IMMSA Unit	Peruvian Operations	Corporate & Elimination	Consolidated
The Americas:					
Mexico	$ 1,962.0	$ 464.7	$ —	$ (138.0)	$ 2,288.7
United States	1,486.2	54.0	370.2		1,910.4
Peru	162.2	—	614.5	(161.7)	615.0
Brazil	—	41.3	410.7		452.0
Chile	19.9	—	424.6		444.5
Other American countries	35.4	2.6	27.7		65.7
Europe:					
Switzerland	693.7	44.6	739.5		1,477.8
Italy	2.1	19.3	240.0		261.4
Spain	420.7	—	37.5		458.2
Other European countries	124.3	31.1	207.4		362.8
Asia:					
China	517.6	—	54.9		572.5
Singapore	103.9	8.4	176.1		288.4
Japan	88.0	—	528.2		616.2
Other Asian countries	156.6	0.5	77.2		234.3
Total	$ 5,772.6	$ 666.5	$ 3,908.5	$ (299.7)	$ 10,047.9

	Year Ended December 31, 2021				
	Mexican Open-Pit	Mexican IMMSA Unit	Peruvian Operations	Corporate & Elimination	Consolidated
The Americas:					
Mexico	$ 1,893.3	$ 387.6	$ 5.0	$ (145.9)	$ 2,140.0
United States	1,648.1	52.3	233.1	—	1,933.5
Peru	—	(0.3)	586.6	—	586.3
Brazil	—	30.7	406.4	—	437.1
Chile	3.3	—	381.2	—	384.5
Other American countries	31.3	0.7	10.7	—	42.7
Europe:					
Switzerland	1,097.2	55.1	544.7	—	1,697.0
Italy	0.7	8.8	298.3	—	307.8
Spain	410.2	—	91.8	—	502.0
Other European countries	275.8	45.5	410.9	—	732.2
Asia:					
China	189.7	—	25.0	—	214.7
Singapore	441.9	19.4	496.5	—	957.8
Japan	23.6	—	605.5	—	629.1
Other Asian countries	93.9	0.4	275.1	—	369.4
Total	$ 6,109.0	$ 600.2	$ 4,370.8	$ (145.9)	$ 10,934.1

PROVISIONAL SALES PRICE:

At December 31, 2023, the Company has recorded provisionally priced sales of copper at average forward prices per pound, and molybdenum at the year-end market price per pound. These sales are subject to final pricing based on the average monthly copper prices on the London Metal Exchange (“LME”) or New York Commodities Exchange (“COMEX”) and Dealer Oxide molybdenum prices in the future month of settlement.

Following are the provisionally priced copper and molybdenum sales outstanding at December 31, 2023:

	Sales volume (million lbs.)	Priced at (per pound)	Month of settlement
Copper	169.2	3.89	January through June 2024
Molybdenum	13.2	20.00	January through April 2024

Provisional sales price adjustments included in accounts receivable and net sales were as follows at December, 31 (in millions):

	At December 31,	
	2023	2022
Copper	$ 17.8	$ 49.9
Molybdenum	18.2	167.2
Total	$ 36.0	$ 217.1

Management believes that the final pricing of these sales will not have a material effect on the Company’s financial position or results of operations.

LONG-TERM SALES CONTRACTS:

The following are the significant outstanding long-term contracts:

In 2022, a three-year copper cathodes sales agreement was signed with Mitsui, with shipments beginning in 2023. Mitsui and the Company will negotiate market terms and conditions for annual contracts no later than November 30 of the year prior to shipment. The contract considers the following annual volumes of copper cathodes; 48,000 tonnes for each of the years from 2023 through 2025. Failure to reach an agreement on market terms would cancel the annual contract but not the long-term agreement. Under the terms of the agreement all shipments would be to Asia and no exclusivity rights for Mitsui or commissions are included. This contract may be renewed for additional years, upon the agreement of both parties.

Under the terms of a sales contract with Molymet Group (Molibdenos y Metales, S.A., Complejo Industrial Molynor S.A. and Molymet Belgium N.V), SPCC Peru Branch is required to supply approximately 70% of the molybdenum concentrates production from 2023 through 2025. The sale price of the molybdenum concentrate is based on the average of the High and Low “Daily Dealer Oxide” as published in “Platt’s Metals Daily”. The roasting charge deduction is agreed based on international market terms.

Under the terms of a sales contract with Molymex, S.A. de C.V., Operadora de Minas de Nacozari, S.A. de C.V. and Operadora de Minas e Instalaciones Mineras, S.A. de C. V. are required to supply at least the 80% of their molybdenum concentrates production from 2020 through 2023. The sale price of the molybdenum concentrate is based on the average of the High and Low “Daily Dealer Oxide” as published in “Platt’s Metals Daily.” The roasting charge deduction is negotiated based on international market terms.

In 2019, a five-year sulfuric acid sales agreement was signed between SPCC Peru Branch and Marcobre, with shipments scheduled to begin in 2020. Marcobre and the Company will negotiate market terms and conditions for annual contracts no later than the last day of October of the year prior to shipment. The contract considers the annual volumes that could place Marcobre as the most important customer of sulfuric acid. Failure to reach an agreement on market terms would trigger a mechanism that force both parties to accept the Annual Benchmark for the region as the agreed price. This contract may be renewed for additional years, upon the agreement of both parties.

NOTE 20—SUBSEQUENT EVENTS:

DIVIDENDS:

On January 25, 2024, the Board of Directors authorized a dividend of $0.80 per share to be paid on February 29, 2024, to shareholders of record at the close of business on February 13, 2024.

OTHER COMPANY INFORMATION:

ANNUAL MEETING

The annual stockholders meeting of Southern Copper Corporation will be held on Friday, May 24, 2024, at 9:00 am, Mexico City time. This year's meeting will be held via a live audio webcast.

TRANSFER AGENT, REGISTRAR AND STOCKHOLDERS' SERVICES

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DIVIDEND REINVESTMENT PROGRAM

SCC stockholders can have their dividends automatically reinvested in SCC common shares. SCC pays all administrative and brokerage fees. This plan is administered by Computershare. For more information, contact Computershare at (866) 230-0172.

STOCK EXCHANGE LISTING

The principal markets for SCC's common stock are the NYSE and the Lima Stock Exchange (BVL). SCC's common stock symbol is SCCO on both the NYSE and the Lima Stock Exchange.

OTHER SECURITIES

The Branch in Peru has issued, in accordance with Peruvian Law, "investment shares" (formerly named labor shares) that are quoted on the Lima Stock Exchange under symbols SPCCPI1 and SPCCPI2. Transfer Agent, registrar and stockholders services are provided by Credicorp Capital, Avenida EI Derby 055, Torre 4, Piso 10, Santiago de Surco, Cod postal 15039, Peru.

Telephone (51-1) 416-3333, Extensions 32478 and 32441.

OTHER CORPORATE INFORMATION

For other information on the Company or to obtain, free of charge, additional copies of the Annual Report on Form 10-K, contact the Investor Relations Department at:

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Email address: **southerncopper@southernperu.com.pe**

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANT ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

As of December 31, 2023, the Company conducted an evaluation under the supervision and with the participation of the Company's disclosure committee and the Company's management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness and the design and operation of the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e). Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that the Company's disclosure controls and procedures are effective as of December 31, 2023, to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is:

1. Recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and
2. Accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in the Company's internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) that occurred during the fourth quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting,

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness for future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Under the supervision and with the participation of the Company's management, including the Chief Executive Officer and Chief Financial Officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on the evaluation made under this framework, management concluded that as of December 31, 2023 such internal control over financial reporting is effective.

Our internal control over financial reporting as of December 31, 2023 has been audited by Galaz, Yamazaki, Ruiz Urquiza, S.C. member of Deloitte Touche Tohmatsu Limited, an independent registered public accounting firm, as stated in their report which is provided below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Southern Copper Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Southern Copper Corporation and subsidiaries (the "Company") as of December 31, 2023, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the criteria established in Internal Control—Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2023 of the Company and our report dated February 29, 2024, expressed an unqualified opinion on those financial statements and financial statement schedule.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Report on Internal Control over Financial Reporting" appearing in Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A Company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Galaz, Yamazaki, Ruiz Urquiza, S.C.
Member of Deloitte Touche Tohmatsu Limited

/s/ PAULINA RAMOS RAMIREZ
C.P.C. Paulina Ramos Ramirez
Mexico City, Mexico
February 29, 2024

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

Not applicable.

PART III

ITEM 10, 11, 12, 13 AND 14

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Set forth below are the executive officers of the Company, their ages as of February 29, 2024 and their positions.

Name	Age	Position
German Larrea Mota-Velasco	70	Chairman of the Board and Director
Oscar Gonzalez Rocha	85	President, Chief Executive Officer and Director
Raul Jacob Ruisanchez	65	Vice President, Finance, Treasurer and Chief Financial Officer
Julian Jorge Lazalde Psihas	55	Secretary
Andres Carlos Ferrero Ghislieri	55	General Counsel
Lina Vingerhoets Vilca	62	Comptroller
Edgard Corrales Aguilar	68	Vice President, Exploration
Raul Vaca Castro	64	General Auditor

German Larrea Mota-Velasco has served as our Chairman of the Board of Directors since December 1999, Chief Executive Officer from December 1999 to October 2004 and as a member of our Board of Directors since November 1999. He has been Chairman of the board of directors, President and Chief Executive Officer of Grupo Mexico, S.A.B. de C.V. ("Grupo Mexico") (holding) since 1994. Mr. Larrea has been Chairman of the board of directors and Chief Executive Officer of Grupo Ferroviario Mexicano S.A. de C.V (railroad company) since 1997. Mr. Larrea was previously Executive Vice Chairman of Grupo Mexico and has been a member of the board of directors since 1981. He is also Chairman of the board of directors and Chief Executive Officer of Empresarios Industriales de Mexico, S.A. de C.V. ("EIM") (holding) and Fondo Inmobiliario (real estate company), since 1992.

Mr. Larrea presides over every Board meeting and since 1999 has contributed to the Company via his education, leadership skills, industry knowledge, strategic vision, informed judgement and over 20 year of business experience, especially in the mining sector. As Chairman and Executive Officer of Grupo Mexico, Grupo Ferroviario Mexicano, S.A. de C.V. and of EIM, a holding company engaged in mining, construction, railways, real estate, drilling and other businesses. Mr. Larrea offers the Company a valuable mix of business experience in different industries.

Oscar Gonzalez Rocha has served as our President since December 1999 and our President and Chief Executive Officer since October 21, 2004. He has been our Director since November 1999. Mr. Gonzalez Rocha has been the President and Chief Executive Officer of Americas Mining Corporation since November 1, 2014 and the Chief Executive Officer and a director of Asarco LLC (integrated U.S. copper producer), an affiliate of the Company, since August 2010. Previously, he was our President and General Director and Chief Operating Officer from December 1999 to October 20, 2004. He has been a director of Grupo Mexico since 2002. He was General Director of Mexicana de Cobre, S.A. de C.V. from 1986 to 1999 and of Buenavista del Cobre S.A. de C.V. (formerly Mexicana de Cananea, S.A. de C.V.) from 1990 to 1999. He was an alternate director of Grupo Mexico from 1988 to April 2002. Mr. Gonzalez Rocha is a civil engineer with a degree from the Autonomous National University of Mexico ("UNAM") in Mexico City, Mexico. Mr. Gonzalez Rocha has been recognized as Copper man of the year 2015 and was inducted into the American Mining Hall of Fame in December 2016 in Tucson, Arizona and into the Mexican Mining Hall of Fame in October 2017 in Guadalajara, Mexico.

Raul Jacob Ruisanchez has served as our Vice President, Finance and Chief Financial Officer since April 18, 2013. He was appointed Treasurer of the Company on April 28, 2016. He was our Comptroller from October 27, 2011 until April 18, 2013. He has held various positions focused primarily in financial planning, treasury, corporate finance, investor relations and project evaluation with the Company since 1992. In September 2011, he was appointed Director of Controller and Finance of the Company's Peruvian Branch and Vice President and Chief Financial Officer of Southern Peru Limited, one of our subsidiaries. In 2021, Mr. Jacob was chosen by Institutional Investor as the top Chief Financial Officer in the Latin America mining industry. In 2010, he was ranked among the top three Investor Relations executives of the mining industry of Latin America by the same publication. Mr. Jacob was President of the Peruvian National Mining, Oil and Energy Association from January 2021 to January 2023 and is currently member of the Executive Committee and Board of this Association. Mr. Jacob is a member of the consulting board of the MBA program (Finance) of the Universidad del Pacifico in Lima, Peru. He was President of the Strategic Studies Center of IPAE, an entrepreneurial association from February 2007 to March of 2010. Between 2004 and 2006, he was the President of the Finance Affairs Committee of the American Chamber of Commerce of Peru. Mr. Jacob holds an economics degree from Universidad del Pacifico, a Master's Degree from the University of Texas (Austin), a Degree in International Business Management from the Stockholm School of Economics and a Senior Manager Degree by the Instituto de Empresa Business School (IE) in Madrid.

Julian Jorge Lazalde Psihas, our Secretary, has been a Director, Executive Vice President and General Counsel of Asarco LLC since December 2009. Since October 2015 he is also General Counsel of Americas Mining Corporation, both subsidiaries of Grupo Mexico, S.A.B. de C.V., the parent company of the Company. Mr. Lazalde was General Counsel of Asarco Inc., the predecessor of Asarco LLC, from September 2006 until December 2009. Mr. Lazalde holds a law degree from the Autonomous Institute of Mexico, known as ITAM, and has degrees from the Panamerican University in two special areas, tax law and commercial law.

Andres Carlos Ferrero Ghislieri, our General Counsel, has been a member of the Legal Department of our Peruvian Branch since December 1995. Prior to this, he served as a Technical Advisor to the World Bank's Energy and Mines Technical Assistance Loan Project (EMTAL) assigned to the National Society of Mining, Energy and Petroleum. He has also worked as a mining law consultant for the South African Government from May to October 2001. He was elected Superintendent of the Legal Affairs and Legal Manager of the Peruvian Branch in March 2008 and July 2016, respectively. He is a member of the Board of Compañía Minera Los Tolmos, S.A. and Secretary of the Board of Ocoña Hydro, S.A., which are subsidiaries of the Company. He is a Board member of Inversiones Tulipan, S. A., which is an affiliate of the Company. He is also a Board member of the Asociacion de Empresas Promotoras del Mercado de Capitales (Procapitales), a non-profit organization. He holds a law degree from the University of Lima, Peru and a Master of Law or LLM degree in Resources Law and Policy from Dundee University, United Kingdom.

Lina Vingerhoets Vilca, our Comptroller, has been the Assistant Comptroller of the Company since April 2015 and Controller of the Peruvian Branch of the Company since July 2015. Ms. Vingerhoets has worked for the Company's Peruvian Branch in various capacities since 1991. From 2013 to 2015, she was in charge of Internal Control. From 2006 to 2015, she was in charge of Accounting Quality and SEC reporting. In addition, she has held other positions in Financial Planning, Finance and Accounting with the Company's Peruvian Branch. Ms. Vingerhoets is a Peruvian certified public accountant and holds Accounting and MBA degrees from the Universidad del Pacifico, in Lima, Peru.

Edgard Corrales Aguilar has served as Vice President, Exploration since July 18, 2013. Mr. Corrales has been working with the Peruvian Branch of SCC since 1983 in various positions, including as senior geologist of the Toquepala mine, head of the geology department of the Cuajone mine and manager of the exploration department of the Peruvian Branch of SCC. Currently he is Exploration Director of the Peruvian Branch of SCC and general manager of SCC's Branch in Chile. Mr. Corrales has a degree in geology and engineering from the Universidad Nacional San Agustin, Arequipa, Peru and has followed specialized studies at the Catholic University of Caracas, Venezuela and the MacKay School of Mines at the University of Reno, Nevada. He has also completed extensive studies in management at various universities in Peru.

Raul Vaca Castro was elected as General Auditor, effective July 18, 2019. He has 35 years of experience with Grupo Mexico. Mr. Vaca Castro has been Director of Internal Audit of Minera México, a subsidiary of SCC since 2018. Previously, he was Director of Internal Audit of the infrastructure division of Grupo Mexico, as well as Deputy Director of Internal Control for the mining division of Grupo México. He was also comptroller of Minera Mexico Internacional and before this, he held several positions in different companies of Grupo Mexico. Mr. Vaca holds a Bachelor's degree in Accounting from the Universidad Nacional Autonoma de Mexico (UNAM). He holds an MBA from the Universidad del Valle de México, with a specialization in finance, having earned an honorable mention award, when receiving his diplomas in finance and taxes. Mr. Vaca is also an active member of the Colegio de Contadores Publicos de Mexico and the Institute of Internal Auditors of Mexico. He is also President of the Technical Commission of Internal Audit of the Colegio de Contadores Publicos de Mexico. He is a professor at the Facultad de Contaduria y Administracion of Universidad Nacional Autonoma de Mexico (UNAM).

Information in response to the additional disclosure requirements specified by Part III, Items 10, 11, 12, 13 and 14 will be included in a definitive proxy statement, which will be filed pursuant to Regulation 14A of the 1934 Securities

Exchange Act, as amended, prior to April 30, 2024, or will be provided by amendment to this Form 10-K, also to be filed no later than April 30, 2024.

The information contained in such definitive proxy statement is incorporated herein by reference, excluding the information under the caption "Compensation Committee Report," which shall not be deemed filed.

PART IV.

ITEM 15. EXHIBITS, FINANCIAL STATEMENTS, SCHEDULE.

The following documents are filed as part of this report:

1. Financial Statements

The following financial statements of Southern Copper Corporation and its subsidiaries are included at the indicated pages of the document as stated below:

2. Exhibits:

3.1	(a) Amended and Restated Certificate of Incorporation, filed on October 11, 2005. (b) Certificate of Amendment of Amended and Restated Certificate of Incorporation dated May 2, 2006. (c) Certificate of Amendment of Amended and Restated Certificate of Incorporation dated May 28, 2008.
3.2	By-Laws, as last amended on January 27, 2022.
4.1	(a) Indenture governing $600 million 7.500% Notes due 2035, by and among Southern Copper Corporation, The Bank of New York and The Bank of New York (Luxembourg) S.A. (b) Indenture governing $400 million 7.500% Notes due 2035, by and among Southern Copper Corporation, The Bank of New York, and The Bank of New York (Luxembourg) S.A.
4.2	Form of 6.375% Note (included in Exhibit 4.1).
4.3	Form of New 7.500% Note (included in Exhibit 4.2(a)).
4.4	Form of New 7.500% Note (included in Exhibit 4.2(b)).
4.5	Indenture, dated as of April 16, 2010, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which $1.1 billion of 6.750% Notes due 2040 were issued.
4.6	Second Supplemental Indenture, dated as of April 16, 2010, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 6.750% Notes due 2040 were issued.
4.7	Form of 6.750% Notes due 2040.
4.8	Fourth Supplemental Indenture, dated as of November 8, 2012, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 5.250% Notes due 2042 were issued.
4.9	Form of 5.250% Notes due 2042.
4.10	Fifth Supplemental Indenture dated as of April 23, 2015, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 3.875% Notes due 2025 were issued.
4.11	Sixth Supplemental Indenture, dated as of April 23, 2015, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 5.875% Notes due 2045 were issued.

4.12	Form of 3.875% Notes due 2025.
4.13	Form of 5.875% Notes due 2045.
4.14	Description of the Company's securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended.
10.1	Directors' Stock Award Plan of the Company, as amended through January 27, 2028.
10.2	Agreement and Plan of Merger, dated as of October 21, 2004, by and among Southern Copper Corporation, SCC Merger Sub, Inc., Americas Sales Company, Inc., Americas Mining Corporation and Minera Mexico S.A. de C.V.
10.3	Tax Agreement entered into by the Company and Americas Mining Corporation, effective as of February 20, 2017.
14.0	Code of Business Conduct and Ethics adopted by the Board of Directors on May 8, 2003 and amended on October 20, 2023.
21.1	Subsidiaries of the Company.
23.1	Consent of Registered Public Accounting Firm (Galaz, Yamazaki, Ruiz Urquiza, S.C., Member of Deloitte Touche Tohmatsu, Limited) (PCAOB ID 1153).
23.2	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the Cuajone Mine.
23.3	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the Toquepala Mine.
23.4	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the Tia Maria Project.
23.5	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Los Chancas Project.
23.6	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Michiquillay Project.
23.7	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for Buenavista del Cobre.
23.8	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the La Caridad Mine.
23.9	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Pilares Project.
23.10	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the El Pilar Project.
23.11	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the El Arco Project.
23.12	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Charcas Mine.
23.13	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Santa Barbara Mine.
23.14	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the San Martin Mine.
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C., Section 1350. This document is being furnished in accordance with SEC Release No. 33-8328.
32.2	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C., Section 1350. This document is being furnished in accordance with SEC Release No. 33-8328.
96.1	Technical Report Summary of Mineral Reserves and Mineral Resources for the Cuajone Mine.
96.2	Technical Report Summary of Mineral Reserves and Mineral Resources for the Toquepala Mine.
96.3	Technical Report Summary of Mineral Reserves and Mineral Resources for the Tia Maria Project.
96.4	Technical Report Summary of Mineral Resources for the Los Chancas Project.
96.5	Technical Report Summary of Mineral Resources for the Michiquillay Project.
96.6	Technical Report Summary of Mineral Reserves and Mineral Resources for Buenavista del Cobre.
96.7	Technical Report Summary of Mineral Reserves and Mineral Resources for the La Caridad Mine.
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96.9	Technical Report Summary of Mineral Reserves and Mineral Resources for the El Pilar Project.

96.10	Technical Report Summary of Mineral Reserves and Mineral Resources for the El Arco Project.
96.11	Technical Report Summary of Mineral Resources for the Charcas Mine.
96.12	Technical Report Summary of Mineral Resources for the Santa Barbara Mine.
96.13	Technical Report Summary of Mineral Resources for the San Martin Mine.
97	SCC Policy for the Recovery of Erroneous Compensation, effective as of November 30, 2023.
101.INS	XBRL Instance Document (submitted electronically with this report). The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document (submitted electronically with this report).
101.CAL	XBRL Taxonomy Calculation Linkbase Document (submitted electronically with this report).
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document (submitted electronically with this report).
101.LAB	XBRL Taxonomy Label Linkbase Document (submitted electronically with this report).
101.PRE	XBRL Taxonomy Presentation Linkbase Document (submitted electronically with this report).
104	Cover page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

The exhibit listed as 10.1 is the management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of Form 10-K.

Attached as Exhibit 101 to this report are the following documents formatted in Inline XBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Earnings for the years ended December 31, 2023, 2022 and 2021; (ii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022 and 2021; (iii) the Consolidated Balance Sheets at December 31, 2023 and 2022; (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022 and 2021; (v) the Consolidated Statements of changes in equity for the years ended December 31, 2023, 2022 and 2021, and (vi) the Notes to Consolidated Financial Statements tagged in detail. Users of this data are advised pursuant to Rule 406T of Regulation S-T that this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

3. Schedule II

Valuation and Qualifying Accounts and Reserves (in millions):

		Additions			
	Balance at beginning of period	Charged to costs and expenses	Additions	Deduction/ Application	Balance at end of period
Reserve deducted in balance sheet to which applicable:					
Accounts Receivable:					
2023	$ 8.8	0.1	—	(0.2)	$ 8.7
2022	$ 8.7	0.1	—	—	$ 8.8
2021	$ 8.8	—	—	(0.1)	$ 8.7
Notes issued under par:					
2023	$ 63.4	2.1	—	—	$ 61.3
2022	$ 65.6	2.2	—	—	$ 63.4
2021	$ 67.6	2.0	—	—	$ 65.6
Valuation allowance:					
2023	$ 2,053.7	248.0	—	—	$ 2,301.7
2022	$ 1,820.0	233.7	—	—	$ 2,053.7
2021	$ 1,343.2	476.8	—	—	$ 1,820.0

Supplemental information
Southern Copper Corporation
Exhibit Index

Sequential Exhibit Number	Document Description	Page Number
3.1	(a) Amended and Restated Certificate of Incorporation, filed on October 11, 2005. (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the third quarter of 2005 and incorporated herein by reference). (b) Certificate of Amendment of Amended and Restated Certificate of Incorporation dated May 2, 2006. (Filed as Exhibit 3.1 to Registration Statement on Form S-4, File No. 333-135170, filed on June 20, 2006 and incorporated herein by reference). (c) Certificate of Amendment of Amended and Restated Certificate of Incorporation dated May 28, 2008. (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the second quarter of 2008 and incorporated herein by reference).	
3.2	By-Laws, as last amended on January 27, 2022. (Filed as Exhibit 3.2 to the Company's Form 8-K filed on January 31, 2022 and incorporated herein by reference).	
4.1	(a) Indenture governing $600 million 7.500% Notes due 2035, by and among Southern Copper Corporation, The Bank of New York and The Bank of New York (Luxembourg) S.A. (Filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on August 1, 2005 and incorporated herein by reference). (b) Indenture governing $400 million 7.500% Notes due 2035, by and among Southern Copper Corporation, The Bank of New York, and The Bank of New York (Luxembourg) S.A. (Filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on August 1, 2005 and incorporated herein by reference).	
4.2	Form of 6.375% Note (included in exhibit 4.1).	
4.3	Form of New 7.500% Note (included in Exhibit 4.2(a)).	
4.4	Form of New 7.500% Note (included in Exhibit 4.2(b))	
4.5	Indenture, dated as of April 16, 2010, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which $1.1 billion of 6.750% Notes due 2040 were issued. (Filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 19, 2010 and incorporated herein by reference).	
4.6	Second Supplemental Indenture, dated as of April 16, 2010, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 6.750% Notes due 2040 were issued. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on April 19, 2010 and incorporated herein by reference).	
4.7	Form of 6.750% Notes due 2040. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on April 19, 2010 and incorporated herein by reference).	
4.8	Fourth Supplemental Indenture, dated as of November 8, 2012, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 5.250% Notes due 2042 were issued. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on November 9, 2012 and incorporated herein by reference).	
4.9	Form of 5.250% Notes due 2042. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on November 9, 2012 and incorporated herein by reference).	
4.10	Fifth Supplemental Indenture dated as of April 23, 2015, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 3.875% Notes due 2025 were issued. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on April 24, 2015 and incorporated herein by reference).	
4.11	Sixth Supplemental Indenture, dated as of April 23, 2015, between Southern Copper Corporation and Wells Fargo Bank, National Association, as trustee, pursuant to which the 5.875% Notes due 2045 were issued. (Filed as an Exhibit to the Company's Current Report on Form 8-K filed on April 24, 2015 and incorporated herein by reference).	

4.12	Form of 3.875% Notes due 2025. (Filed as Exhibit A to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 24, 2015 and incorporated herein by reference).
4.13	Form of 5.875% Notes due 2045. (Filed as Exhibit A to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on April 24, 2015 and incorporated herein by reference).
4.14	Description of the Company's securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (Filed herewith).
10.1	Directors' Stock Award Plan of the Company, as amended through January 27, 2028. (Filed as an exhibit to the Company's Report on Form S-8 filed on January 27, 2023 and incorporated herein by reference). The plan expired by its terms on January 28, 2023. A 5-year extension of the plan was approved by the Company's stockholders at the 2022 Annual Meeting of Stockholders.
10.2	Agreement and Plan of Merger, dated as of October 21, 2004, by and among Southern Copper Corporation, SCC Merger Sub, Inc., Americas Sales Company, Inc., Americas Mining Corporation and Minera Mexico S.A. de C.V. (Filed as an Exhibit to Current Report on Form 8-K filed on October 22, 2004 and incorporated herein by reference).
10.3	Tax Agreement entered into by the Company and Americas Mining Corporation, effective as of February 20, 2017. (Filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the first quarter of 2017 and incorporated herein by reference).
14.0	Code of Business Conduct and Ethics adopted by the Board of Directors on May 8, 2003 and amended on October 20,2023. (Filed as Exhibit 14.1 to the Company's Report on Form 8-K filed October 25,2023 and incorporated herein by reference).
21.1	Subsidiaries of the Company (Filed herewith).
23.1	Consent of Registered Public Accounting Firm (Galaz, Yamazaki, Ruiz Urquiza, S.C.—Member of Deloitte Touche Tohmatsu, Limited) (PCAOB ID 1153) (Filed herewith).
23.2	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the Cuajone Mine (Filed herewith).
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23.5	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Los Chancas Project (Filed herewith).
23.6	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Michiquillay Project (Filed herewith).
23.7	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for Buenavista del Cobre (Filed herewith).
23.8	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the La Caridad Mine (Filed herewith).
23.9	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Pilares Project (Filed herewith).
23.10	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the El Pilar Project (Filed herewith).
23.11	Consent of Qualified Persons for Technical Report Summary of Mineral Reserves and Mineral Resources for the El Arco Project (Filed herewith).
23.12	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Charcas Mine (Filed herewith).
23.13	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the Santa Barbara Mine (Filed herewith).
23.14	Consent of Qualified Persons for Technical Report Summary of Mineral Resources for the San Martin Mine (Filed herewith).
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Filed herewith).
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Filed herewith).
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C., section 1350. This document is being furnished in accordance with SEC Release No. 33-8238.

32.2	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C., section 1350. This document is being furnished in accordance with SEC Release No. 33-8238.
96.1	Technical Report Summary of Mineral Reserves and Mineral Resources for the Cuajone Mine (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on February 28, 2023 and incorporated herein by reference).
96.2	Technical Report Summary of Mineral Reserves and Mineral Resources for the Toquepala Mine (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on February 28, 2023 and incorporated herein by reference).
96.3	Technical Report Summary of Mineral Reserves and Mineral Resources for the Tia Maria Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.4	Technical Report Summary of Mineral Resources for the Los Chancas Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.5	Technical Report Summary of Mineral Resources for the Michiquillay Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.6	Technical Report Summary of Mineral Reserves and Mineral Resources for Buenavista del Cobre (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on February 28, 2023 and incorporated herein by reference).
96.7	Technical Report Summary of Mineral Reserves and Mineral Resources for the La Caridad Mine (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on February 28, 2023 and incorporated herein by reference).
96.8	Technical Report Summary of Mineral Resources for the Pilares Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.9	Technical Report Summary of Mineral Reserves and Mineral Resources for the El Pilar Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.10	Technical Report Summary of Mineral Reserves and Mineral Resources for the El Arco Project (Filed as an Exhibit to the Company’s Report on Form 10-K/A filed on March 7, 2022 and incorporated herein by reference).
96.11	Technical Report Summary of Mineral Resources for the Charcas Mine (Filed herewith).
96.12	Technical Report Summary of Mineral Resources for the Santa Barbara Mine (Filed herewith).
96.13	Technical Report Summary of Mineral Resources for the San Martin Mine (Filed herewith).
97	SCC Policy for the Recovery of Erroneous Compensation, effective as of November 30, 2023 (Filed herewith).
101.INS	XBRL Instance Document (submitted electronically with this report). The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document (submitted electronically with this report).
101.CAL	XBRL Taxonomy Calculation Linkbase Document (submitted electronically with this report).
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document (submitted electronically with this report).
101.LAB	XBRL Taxonomy Label Linkbase Document (submitted electronically with this report).
101.PRE	XBRL Taxonomy Presentation Linkbase Document (submitted electronically with this report).
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)

The exhibit listed as 10.1 is the management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of Form 10-K.

Attached as Exhibit 101 to this report are the following documents formatted in Inline XBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Earnings for the years ended December 31, 2023, 2022 and 2021; (ii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022 and

2021; (iii) the Consolidated Balance Sheets at December 31, 2023 and 2022; (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022 and 2021; (v) the Consolidated Statements of changes in equity for the years ended December 31, 2023, 2022 and 2021, and (vi) the Notes to Consolidated Financial Statements tagged in detail. Users of this data are advised pursuant to Rule 406T of Regulation S-T that this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

SOUTHERN COPPER CORPORATION
(Registrant)
By: /s/ OSCAR GONZALEZ ROCHA
Oscar Gonzalez Rocha
President and Chief Executive Officer

Date: February 29, 2024

Pursuant to requirements of the Securities Exchange Act of 1934, this Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ GERMAN LARREA MOTA-VELASCO German Larrea Mota-Velasco	Chairman of the Board, and Director
/s/ OSCAR GONZALEZ ROCHA Oscar Gonzalez Rocha	President, Chief Executive Officer and Director
/s/ RAUL JACOB RUISANCHEZ Raul Jacob Ruisanchez	Vice President, Finance, Treasurer and Chief Financial Officer (Principal Financial Officer)
/s/ LINA A. VINGERHOETS VILCA Lina A. Vingerhoets Vilca	Comptroller (Principal Accounting Officer)

DIRECTORS

s/ GERMAN LARREA MOTA-VELASCO German Larrea Mota-Velasco	/s/ OSCAR GONZALEZ ROCHA Oscar Gonzalez Rocha
/s/ LEONARDO CONTRERAS LERDO DE TEJADA Leonardo Contreras Lerdo de Tejada	/s/ VICENTE ARIZTEGUI ANDREVE Vicente Ariztegui Andreve
/s/ CARLOS RUIZ SACRISTAN Carlos Ruiz Sacristan	/s/ L. MIGUEL PALOMINO BONILLA L. Miguel Palomino Bonilla
/s/ GILBERTO PEREZALONSO CIFUENTES Gilberto Perezalonso Cifuentes	/s/ ENRIQUE CASTILLO SANCHEZ MEJORADA Enrique Castillo Sanchez Mejorada

Date: February 29, 2024

Exhibit 4.14

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

Southern Copper Corporation only has shares of Common Stock registered under Section 12 of the Securities Exchange Act of 1934, as amended.

Description of Common Stock

The description of our Common Stock is incorporated by reference from the description of Common Stock of the Company as set forth in Registration Statement No. 333-203237 on Form S-3 effective April 3, 2015. Said description is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation, as amended and our Amended Bylaws, each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.14 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the Delaware General Corporation Law.

Exhibit 21.1

SOUTHERN COPPER CORPORATION
Subsidiaries
(More than 50% ownership)

Name of Company		Percentage of voting Securities owned or other bases of control
PARENT:	Americas Mining Corporation (Delaware)	
Registrant:	Southern Copper Corporation (Delaware)	
	Americas Sales Company, Inc.(Delaware)	100.00
	Minera Mexico, S.A. de C.V. (Mexico)	99.96
	Buenavista del Cobre, S.A de C.V. (Mexico)	100.00
	Mexicana de Cobre, S.A. de C.V. (Mexico)	98.18
	Operadora de Minas e Instalaciones Mineras, S.A. de C.V.(Mexico)	100.00
	Metalurgica de Cobre, S.A. de C.V. (Mexico)	98.18

Not included in this listing are subsidiaries, which would not constitute a significant subsidiary.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Post-Effective Amendment No.3 to Registration Statement No. 333-150982 on Form S-8, of our reports dated February 29, 2024, relating to the financial statements of Southern Copper Corporation (the “Company”), and the effectiveness of the Company´s internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2023.

Galaz, Yamazaki, Ruiz Urquiza, S.C.
Member of Deloitte Touche Tohmatsu Limited

/s/ PAULINA RAMOS RAMIREZ
C.P.C. Paulina Ramos Ramirez
Mexico City, Mexico
February 29, 2024

Exhibit 23.2

Wood Group USA, Inc.
A third-party firm comprising mining experts
Wood Group USA, Inc.
17325 Park Row Houston
Texas 77084
USA

CONSENT OF WOOD GROUP USA, INC

Wood Group USA, Inc. (Wood) hereby states that it is a third-party firm comprising mining experts, including geologists and engineers, and is the firm responsible for authoring all chapters of the technical report summary, titled “Cuajone Operations, Peru, Technical Report Summary” current as at December 31, 2022”, as signed by Wood (the “Technical Report Summary”).

Furthermore, Wood consents to:

(a) the filing and use of the Technical Report Summary by Southern Copper Corporation (”the “Company”) as an exhibit to and reference in the Company’s annual report on Form 10-K for the year ended December 31, 2023 (together with any amendments or supplements and/or exhibits thereto, the “10-K”);

(b) the use of and reference to Wood’s name, including Wood’s status as a third-party firm comprising mining experts, including geologists and engineers (as described in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission (“Subpart 1300”)), in connection with the 10-K and any such Technical Report Summary;

(c) the use of information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by Wood, that Wood supervised the preparation of and/or that was reviewed and approved by Wood, that is included or incorporated by reference in the 10-K; and

(d) the incorporation by reference in the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statement on Form S-8 (Registration No. 333-150982) of the above items as included in the 10-K.

Dated at Saskatoon, Saskatchewan this 20 of February, 2024.

“signed”

____
William Bagnell
Technical Director, Underground Mining and Manager, Consulting

Exhibit 23.3

Wood Group USA, Inc.
A third-party firm comprising mining experts
Wood Group USA, Inc.
17325 Park Row Houston
Texas 77084
USA

CONSENT OF WOOD GROUP USA, INC

Wood Group USA, Inc. (Wood) hereby states that it is a third-party firm comprising mining experts, including geologists and engineers, and is the firm responsible for authoring all chapters of the technical report summary, titled "Toquepala Operations, Peru, Technical Report Summary" current as at December 31, 2022", as signed by Wood (the "Technical Report Summary").

Furthermore, Wood consents to:

(a) the filing and use of the Technical Report Summary by Southern Copper Corporation ("the "Company") as an exhibit to and reference in the Company's annual report on Form 10-K for the year ended December 31, 2023 (together with any amendments or supplements and/or exhibits thereto, the "10-K");

(b) the use of and reference to Wood's name, including Wood's status as a third-party firm comprising mining experts, including geologists and engineers (as described in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission ("Subpart 1300")), in connection with the 10-K and any such Technical Report Summary;

(c) the use of information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by Wood, that Wood supervised the preparation of and/or that was reviewed and approved by Wood, that is included or incorporated by reference in the 10-K; and

(d) the incorporation by reference in the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statement on Form S-8 (Registration No. 333-150982) of the above items as included in the 10-K.

Dated at Saskatoon, Saskatchewan this 20 of February, 2024.

"signed"
____
William Bagnell
Technical Director, Underground Mining and Manager, Consulting

Exhibit 23.4

Wood.

February 21, 2024

CONSENT OF WOOD GROUP USA, INC.

Re: Form 10-K of Southern Copper Corporation (“the Company”)

Wood Group USA, Inc. (“Wood”) in connection with the Company’s Annual Report on Form 10-K for the year ended December 31, 2023 (the “Form 10-K”) consents to:

a) The incorporation by reference by the Company of the technical report titled “Tia Maria Project, Peru, Technical Report Summary (the “Technical Report Summary”), current as of December 31, 2021 and dated February 28, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;

b) the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereof (Registration No. 333-150982) (collectively, the “Registration Statements”);

c) the use of and references to our name including our status as an expert or third-party firm comprising mining experts as defined by Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission in connection with the Form 10-K, the Registration Statements and the Technical Report Summary, and

d) the use of any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and /or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

Wood is responsible for authoring, and this consent pertains to, the Technical Report Summary. Wood certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Signed on behalf of Wood Group USA, Inc.

/S/ William Bagnell
By: William Bagnell
Title: Technical Director, Underground Mining

Exhibit 23.5

Wood.

February 21, 2024

CONSENT OF WOOD GROUP USA, INC.

Re: Form 10-K of Southern Copper Corporation ("the Company")

Wood Group USA, Inc. ("Wood") in connection with the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (the "Form 10-K") consents to:

a) The incorporation by reference by the Company of the technical report titled "Los Chancas Project, Peru, Technical Report Summary (the "Technical Report Summary"), current as of December 31, 2021 and dated February 28, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;

b) the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereof (Registration No. 333-150982) (collectively, the "Registration Statements");

c) the use of and references to our name including our status as an expert or third-party firm comprising mining experts as defined by Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission in connection with the Form 10-K, the Registration Statements and the Technical Report Summary, and

d) the use of any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and /or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

Wood is responsible for authoring, and this consent pertains to, the Technical Report Summary. Wood certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Signed on behalf of Wood Group USA, Inc.

/S/ William Bagnell
By: William Bagnell
Title: Technical Director, Underground Mining

Exhibit 23.6

Wood.

February 21, 2024

CONSENT OF WOOD GROUP USA, INC.

Re: Form 10-K of Southern Copper Corporation ("the Company")

Wood Group USA, Inc. ("Wood") in connection with the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (the "Form 10-K") consents to:

a) The incorporation by reference by the Company of the technical report titled "Michiquillay Project, Peru, Technical Report Summary (the "Technical Report Summary"), current as of December 31, 2021 and dated February 28, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;

b) the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereof (Registration No. 333-150982) (collectively, the "Registration Statements");

c) the use of and references to our name including our status as an expert or third-party firm comprising mining experts as defined by Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission in connection with the Form 10-K, the Registration Statements and the Technical Report Summary, and

d) the use of any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and /or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

Wood is responsible for authoring, and this consent pertains to, the Technical Report Summary. Wood certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Signed on behalf of Wood Group USA, Inc.

/S/ William Bagnell
By: William Bagnell
Title: Technical Director, Underground Mining

Exhibit 23.7

Ronald Turner MAusIMM (CP Geo.)
Golder Associates S.A.
Magdalena 181, Piso 3, Las Condes, Santiago, Chile

CONSENT OF QUALIFIED PERSON

I, Ronald Turner, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Santiago, Chile, this 23 day of February, 2024

/s/ Ronald Turner MAusIMM

Ronald Turner MAusIMM No. 302538, (CP Geo.)

Danny Tolmer, P.Eng. (British Columbia)
Snowden Optiro
Suite 310 – 221 W Esplanade
North Vancouver, BC, V7M 3J3

CONSENT OF QUALIFIED PERSON

I, Danny Tolmer, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Vancouver, BC, this 23 of February, 2024

/s/ Danny Tolmer

Danny Tolmer, P.Eng. (British Columbia, No. 33590 EGBC Certificate)

Dawn Garcia, CPG
Stantec
3133 W Frye Rd Suite 300, Chandler, AZ 85226

CONSENT OF QUALIFIED PERSON

I, Dawn Garcia, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/s/ Dawn Garcia
____

Dawn Garcia, CPG Certified Professional Geologist (American Institute of Professional Geologists, CPG-08313) (P.G., Arizona, License No. 26034)

Jesus Romero, P.E. (Arizona)
WSP USA Inc.
177 N Church Avenue, Suite 1105, Tucson, AZ 85701

CONSENT OF QUALIFIED PERSON

I, Jesus Romero, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper’ with an effective date of December 31, 2022, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Az, this 23 of February, 2024

/s/ Jesus Romero

Jesus Romero, P.E. (Registered Professional Engineer - Arizona, U.S. [Registration No. 42771])

Michael Pegnam, P.E., (Arizona)
WSP USA Inc.
177 N. Church Avenue, Suite 1105, Tucson, AZ 85701

CONSENT OF QUALIFIED PERSON

I, Michael Pegnam, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2022 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/s/ Michael Pegnam

Michael Pegnam, Registered Professional Engineer - Arizona, U.S. (Registration No. 33800)

Eugenio Iasillo, P.E. (Arizona)
Process Engineering LLC
1676 W Aristides Street, Tucson, Arizona 85704

CONSENT OF QUALIFIED PERSON

I, Eugenio Iasillo, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Buenavista Copper’ with an effective date of December 31, 2022, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/s/ Eugenio Iasillo
____

Eugenio Iasillo, Registered Professional Engineer - Arizona, U.S. (Arizona Certificate/Registration No. 28209)

Exhibit 23.8

Ronald Turner MAusIMM (CP Geo.)
Golder Associates S.A.
Magdalena 181, Piso 3, Las Condes, Santiago, Chile

CONSENT OF QUALIFIED PERSON

I, Ronald Turner, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 TRS Technical Report Summary Southern Copper Corporation: La Caridad' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Santiago, Chile, this 23 day of February, 2024.

/S/ Ronald Turner MAusIMM

Ronald Turner MAusIMM No. 302538, (CP Geo.)

Danny Tolmer, P.Eng. (British Columbia)
Snowden Optiro
Suite 310 – 221 W Esplanade
North Vancouver, BC, V7M 3J3

CONSENT OF QUALIFIED PERSON

I, Danny Tolmer, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: La Caridad' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Vancouver, BC, this 23 of February, 2024

/S/ Danny Tolmer

Danny Tolmer, P.Eng. (British Columbia, No. 33590 EGBC Certificate)

Dawn Garcia, CPG
Stantec
3133 W Frye Rd Suite 300, Chandler, AZ 85226

CONSENT OF QUALIFIED PERSON

I, Dawn Garcia, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: La Caridad’ with an effective date of December 31, 2022, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Dawn Garcia

Dawn Garcia, CPG
Certified Professional Geologist (American Institute of Professional Geologists, CPG-08313)
(P.G., Arizona, License No. 26034)

Jorge Castillo, P.E. (Colorado)
WSP USA Inc.
7245 Alaska Drive, Lakewood, Colorado 80226

CONSENT OF QUALIFIED PERSON

I, Jorge Castillo, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: La Caridad’ with an effective date of December 31, 2022, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2022 (the “10-K”);

c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Lakewood, Colorado, this 23 of February, 2024

/S/ Jorge Castillo
____

Jorge Castillo, Registered Professional Engineer - Colorado, U.S. (Colorado Registration No. 0054466).

Michael Pegnam, P.E., (Arizona)
WSP USA Inc.
177 N Church Avenue, Suite 1105, Tucson, AZ 85701

CONSENT OF QUALIFIED PERSON

I, Michael Pegnam, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'SEC S-K 1300 Technical Report Summary Southern Copper Corporation: La Caridad' with an effective date of December 31, 2022, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Michael Pegnam

Michael Pegnam, Registered Professional Engineer - Arizona, U.S. (Registration No. 33800)

Eugenio Iasillo, P.E. (Arizona)
Process Engineering LLC
1676 W Aristides Street, Tucson, Arizona 85704

CONSENT OF QUALIFIED PERSON

I, Eugenio Iasillo, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: La Caridad’ with an effective date of December 31, 2022, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Eugenio Iasillo

Eugenio Iasillo, Registered Professional Engineer - Arizona, U.S. (Arizona Certificate/Registration No. 28209)

Exhibit 23.9

Dawn Garcia, CPG
Stantec
3133 W Frye Rd Suite 300, Chandler, AZ 85226

CONSENT OF QUALIFIED PERSON

I, Dawn Garcia, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Pilares’ with an effective date of December 31, 2021, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Dawn Garcia

____

Dawn Garcia, CPG
Certified Professional Geologist (American Institute of Professional Geologists, CPG-08313)
(P.G., Arizona, License No. 26034)

Michael Pegnam, P.E., (Arizona)
WSP USA Inc.
177 N Church Avenue, Suite 1105, Tucson, AZ 85701

CONSENT OF QUALIFIED PERSON

I, Michael Pegnam, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled ‘SEC S-K 1300 Technical Report Summary Southern Copper Corporation: Pilares’ with an effective date of December 31, 2021, as signed and certified by me (the “Technical Report Summary”).

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation (”the “Company”);

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company’s annual report on Form 10-K for the year ended December 31, 2023 (the “10-K”);

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the “Registration Statements”); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Michael Pegnam

Michael Pegnam, Registered Professional Engineer - Arizona, U.S. (Registration No. 33800)

Ronald Turner MAusIMM (CP Geo.)
Golder Associates S.A.
Magdalena 181, Piso 3, Las Condes, Santiago, Chile

CONSENT OF QUALIFIED PERSON

I, Ronald Turner, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'S-K 1300 TRS Technical Report Summary Southern Copper Corporation: Pilares' with an effective date of December 31, 2021, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Santiago, Chile, this 23 day of February, 2024

/S/ Ronald Turner

Ronald Turner MAusIMM No. 302538, (CP Geo.)

Danny Tolmer, P.Eng. (British Columbia)
Snowden Optiro
Suite 310 – 221 W Esplanade
North Vancouver, BC, V7M 3J3

CONSENT OF QUALIFIED PERSON

I, Danny Tolmer, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'El Pilar Project S-K 1300 Technical Report Summary – Feasibility Study' with an effective date of December 31, 2021, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Vancouver, BC, this 23 of February, 2024

/S/ Danny Tolmer

Danny Tolmer, P.Eng. (British Columbia, No. 33590 EGBC Certificate)

Michael Pegnam, P.E., (Arizona)
WSP USA Inc.
177 N Church Avenue, Suite 1105, Tucson, AZ 85701

CONSENT OF QUALIFIED PERSON

I, Michael Pegnam, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'titled 'El Pilar Project S-K 1300 Technical Report Summary – Feasibility Study' with an effective date of December 31, 2021, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Tucson, Arizona, this 23 of February, 2024

/S/ Michael Pegnam

____

Michael Pegnam, Registered Professional Engineer - Arizona, U.S. (Registration No. 33800)

Ronald Turner MAusIMM (CP Geo.)
Golder Associates S.A.
Magdalena 181, Piso 3, Las Condes, Santiago, Chile

CONSENT OF QUALIFIED PERSON

I, Ronald Turner, state that I am responsible for preparing or supervising the preparation of part(s) of the technical report summary, titled 'El Pilar Project S-K 1300 Technical Report Summary – Feasibility Study' with an effective date of December 31, 2021, as signed and certified by me (the "Technical Report Summary").

Furthermore, I state that:

(a) I consent to the public filing of the Technical Report Summary by Southern Copper Corporation ("the "Company");

(b) The Technical Report Summary was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission and supports the Company's annual report on Form 10-K for the year ended December 31, 2023 (the "10-K");

(c) I consent to the use of my name, or any quotation from or summarization in the 10-K of the parts of the Technical Report Summary for which I am responsible, to the filing of the Technical Report Summary as an exhibit to the 10-K, and to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982) (collectively, the "Registration Statements"); and

(d) I confirm that I have read the portions of the 10-K relating to the parts of the Technical Report Summary for which I am responsible, and that such portions of the 10-K fairly and accurately reflect such information.

Dated at Santiago, Chile, this 23 day of February, 2024

/S/ Ronald Turner MAusIMM

Ronald Turner MAusIMM No. 302538, (CP Geo.)

Exhibit 23.11

Wood.

February 21, 2024

CONSENT OF WOOD GROUP USA, INC.

Re: Form 10-K of Southern Copper Corporation ("the Company")

Wood Group USA, Inc. ("Wood") in connection with the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (the "Form 10-K") consents to:

a) The incorporation by reference by the Company of the technical report titled "El Arco Project, Mexico, Technical Report Summary (the "Technical Report Summary"), current as of December 31, 2021 and dated February 28, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;

b) the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereof (Registration No. 333 150982) (collectively, the "Registration Statements");

c) the use of and references to our name including our status as an expert or third-party firm comprising mining experts as defined by Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission in connection with the Form 10-K , the Registration Statements and the Technical Report Summary, and

d) the use of any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and /or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

Wood is responsible for authoring, and this consent pertains to, the Technical Report Summary. Wood certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Signed on behalf of Wood Group USA, Inc.

/S/ William Bagnell
By: William Bagnell
Title: Technical Director, Underground Mining

Exhibit 23.12

SRK Consulting (U.S.), Inc.
999 17th Street, Suite 400
Denver, CO 80202
United States

+1 303 985 1333 office
+1 303 985 9947 fax

denver@srk.com
www.srk.com

February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA

Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject

Consent Letter – Charcas Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendments thereto (collectively the, “Form 10-K”) to be filed by Southern Copper Corporation (the “Company”) with the U.S. Securities and Exchange Commission (“SEC”), SRK Consulting (U.S.), Inc. (“SRK”), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled “SEC Technical Report Summary Initial Assessment on Mineral Resources Charcas Mine San Luis Potosí, México” with an effective date of December 31, 2023, and a report date of February 5, 2024 (the “Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;

(2) the use of and references to SRK’s name as a “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;

(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and

(4) to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th February 2024.

/S/ Ben Parsons
Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

Exhibit 23.13

SRK Consulting (U.S.), Inc.
999 17th Street, Suite 400
Denver, CO 80202
United States

+1 303 985 1333 office
+1 303 985 9947 fax

denver@srk.com
www.srk.com

February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA
Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject

Consent Letter – Santa Bárbara Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023 and any amendments thereto (collectively the, “Form 10-K”) to be filed by Southern Copper Corporation (the “Company”) with the U.S. Securities and Exchange Commission (“SEC”), SRK Consulting (U.S.), Inc. (“SRK”), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled “SEC Technical Report Summary Initial Assessment on Mineral Resources Santa Bárbara Chihuahua, México” with an effective date of December 31, 2023, and a report date of February 5, 2024 (the “Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;
(2) the use of and references to SRK’s name as a “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;
(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and
(4) to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th of February 2024.

/S/ Ben Parsons
Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

Exhibit 23.14

SRK Consulting (U.S.), Inc.
999 17th Street, Suite 400
Denver, CO 80202
United States

+1 303 985 1333 office
+1 303 985 9947 fax

denver@srk.com
www.srk.com

February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA

Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject

Consent Letter – San Martín Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023 and any amendments thereto (collectively the, “Form 10-K”) to be filed by Southern Copper Corporation (the “Company”) with the U.S. Securities and Exchange Commission (“SEC”), SRK Consulting (U.S.), Inc. (“SRK”), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled “SEC Technical Report Summary Initial Assessment on Mineral Resources San Martín Zacatecas, México” with an effective date of December 31, 2023, and a report date of February 5, 2024 (the “Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;

(2) the use of and references to SRK’s name as a “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;

(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and

(4) to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th of February 2024.

/S/ Ben Parsons____________________________
Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

Exhibit 31.1

CERTIFICATION PURSUANT TO
Section 302 of the Sarbanes-Oxley Act of 2002

I, Oscar Gonzalez Rocha certify that:

1. I have reviewed this report on Form 10-K of Southern Copper Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15 (e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 29, 2024

/s/ OSCAR GONZALEZ ROCHA

Oscar Gonzalez Rocha
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO
Section 302 of the Sarbanes-Oxley Act of 2002

I, Raul Jacob, certify that:

1. I have reviewed this report on Form 10-K of Southern Copper Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15 (e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 29, 2024

/s/ RAUL JACOB

Raul Jacob
Vice President, Finance, Treasurer and
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Southern Copper Corporation (the “Company”) on Form 10-K for the period ending December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Oscar Gonzalez Rocha, President and Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ OSCAR GONZALEZ ROCHA
Oscar Gonzalez Rocha
President and Chief Executive Officer

February 29, 2024

A signed original of this written statement required by section 906 has been provided to Southern Copper Corporation and will be retained by Southern Copper Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Southern Copper Corporation (the "Company") on Form 10-K for the period ending December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Raul Jacob, Vice President, Finance, Treasurer and Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ RAUL JACOB
Raul Jacob
Vice President, Finance, Treasurer and
Chief Financial Officer

February 29, 2024

A signed original of this written statement required by section 906 has been provided to Southern Copper Corporation and will be retained by Southern Copper Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

SEC Technical Report Summary
Initial Assessment on Mineral Resources
Charcas Mine
San Luis Potosí, México

Effective Date: December 31, 2023
Report Date: February 5, 2024

Report Prepared for

Southern Copper Corporation

7310 North 16th Street, Suite 135
Phoenix, Arizona 85020

Report Prepared by

srk consulting

SRK Consulting (U.S.), Inc.
999 Seventeenth Street, Suite 400
Denver, CO 80202

SRK Project Number: USPR001375

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List of Abbreviations

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

Abbreviation	Unit or Term
%	percent
<	less than
>	greater than
°C	degrees Centigrade
2D	two-dimensional
3D	three-dimensional
AAS	atomic absorption spectrometry
Ag	silver
Al	aluminum
Ar	argon
As	arsenic
Au	gold
Ba	barium
Be	beryllium
Bi	bismuth
Ca	calcium
Cd	cadmium
Charcas	Charcas Polymetallic Mine
CIC	Charcas intrusive complex
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimeter
cm^3	cubic centimeter
Co	cobalt
CoG	cut-off grade
Company	Industrial Minera México, S.A. de C.V
Cr	chromium
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
CSRM	certified standard reference materials
Cu	copper
CuFeS	chalcopyrite
Fe	iron
FOG	fall-of-ground
FoS	factor of safety
g	gram
G&A	general and administrative
g/t	grams per tonne
GWh	gigawatt-hour
ha	hectare
HCl	hydrochloric acid
Hg	mercury
HNO_3	nitric acid
I	Indicated
ICP	inductively coupled plasma
IMMSA	Industrial Minera México, S.A. de C.V
IP	induced polarization
K	potassium
kg	kilogram
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
kt	thousand tonnes
kW	kilowatt
L	liter

Abbreviation	Unit or Term
La	lanthanum
lb	pound
Li	lithium
LoM	life-of-mine
M	Measured
m	meter
m^2/s	square meters per second
m^3	cubic meter
Ma	million years ago
masl	meters above sea level
Mg	magnesium
mm	millimeter
Mn	manganese
Mo	molybdenum
mV/V	millivolts per volt
MVA	Mega Volt-Amp
Na	sodium
Na_2O_2	sodium peroxide
Ni	nickel
NSR	Net Smelter Return
OES	optical emission spectrometry
oz	troy ounce
P	phosphorus
Pb	lead
PbS	galena
ppm	parts per million
QA/QC	quality assurance/quality control
QP	Qualified Person
REPDA	Public Register of Water Rights
RQD	rock quality designation
S	sulfur
Sb	antimony
Sc	scandium
SCC	Southern Copper Corporation
SD	standard deviation
SEC	U.S. Securities and Exchange Commission
SGS	SGS Laboratory
SME	Society for Mining Metallurgy and Exploration
Sn	tin
Sr	strontium
SRK	SRK Consulting (U.S.), Inc.
t	tonnes
t/d	tonnes per day
t/m^3	tonnes per cubic meter
Ti	titanium
UTM	Universal Transverse Mercator
V	vanadium
VMS	volcanogenic massive sulfide
W	tungsten
WGS84	World Geodetic System
Y	yttrium
Zn	zinc
ZnS	sphalerite
Zr	zirconium

1 Executive Summary

This report was prepared as an initial assessment (mineral resource) technical report summary in accordance with the Securities and Exchange Commission (SEC) S-K regulations (Title 17, Part 229, Items 601 and 1300 until 1305) for Southern Copper Corporation (SCC) on their Industrial Minera México, S.A. de C.V (IMMSA or Company), a wholly owned subsidiary of Southern Copper Corporation, by SRK Consulting (U.S.), Inc. (SRK) on the Charcas Polymetallic Mine (Charcas), located in San Luis Potosí, México.

1.1 Property Description (Including Mineral Rights) and Ownership

IMMSA currently holds 13 mining titles over the Charcas project covering a total area of 88,643.2597 hectares (ha), with the titles held 100 percent (%) by the Company. The 13 mining concessions are valid for 50 years and extendable to 50 more years. The oldest concession was originally awarded in 1974 and has a current expiration date of 2024; however, the concession may be extended 50 more years.

IMMSA owns surface lands covering an area of 1,744.4 ha with rights to conduct any work or exploration required to advance or continue of activities within the Charcas project.

1.2 Geology and Mineralization

The Charcas mining district is in the east-central part of the central mesa of México, which is part of the larger metallogenic province of Sierra Madre in México.

The mineral deposits found within the Charcas mining district are tertiary polymetallic skarn (silver (Ag), lead (Pb), zinc (Zn), and copper (Cu)) deposits hosted in carbonate rocks of the Jurassic-Cretaceous periods and in shales and sandstones of the Late Triassic. In the carbonate rocks, veins and mantos form the predominant mineralization, while less mineralized fractures tend to occur within the shales and sandstones. The varied style of mineralization largely corresponds to the lithological variety of units that serve as host rocks.

The Charcas intrusive complex (CIC) was emplaced in Triassic to upper Cretaceous sedimentary rocks. Some dikes from the CIC have developed metamorphic halos with related polymetallic mineralization.

There are two recognized stages of mineralization. In the first stage, the mineralization is enriched in silver, lead, and zinc and characterized with calcite and small quantities of quartz and chalcopyrite (CuFeS) present. In the second stage, the mineralization is copper and silver rich with lesser amounts of chalcopyrite. The mineralization also includes lead ore with associated silver, plus pyrite and only minor amounts of sphalerite (ZnS). The mineralization occurs as replacement sulfides in carbonate rocks and as filling fracture veins. The typical sulfides found at the Charcas include chalcopyrite, sphalerite, galena (PbS), and silver minerals.

1.3 Status of Exploration, Development, and Operations

IMMSA has been exploiting the deposit since 1925 and currently operates three underground mines (San Bartolo, Rey-Reina, and La Aurora) and a flotation plant that produces zinc, lead, and copper concentrates with silver content.

Charcas is exploited underground by room and pillar with hydraulic cut and fill. The crushed material is transported to the surface for processing in the flotation plant.

Drilling at Charcas is completed by the mine geology department to support routine mining grade control; drilling follows internal protocols. In the Qualified Person's (QP) opinion, drilling does not follow generally accepted industry best practice, as there is not an established a complete quality assurance/quality control (QA/QC) protocol. In 2023, Charcas started the implementation inclusion of some controls and the use of NQ drilling core size, but additional measurements should be implemented. Therefore, there is some risk in using this data during the estimation process that could lead to some degree of inaccuracy, which may limit the assignment of higher levels of confidence to the estimates.

Exploration at Charcas is ongoing with drills targeting economic extensions of the main deposit and new satellite orebodies. The Charcas exploration department's drilling activities are conducted following industry best practices, including QA/QC protocols.

1.4 Mineral Resource Estimates

Historically, Charcas has collected samples from diamond core drilling (surface and underground) and channel samples from underground workings. This work was conducted by the mine geology department but is not supported by QA/QC protocols. The QP notes that the drillholes completed by the mine geology department also lack downhole surveys, which in the QP's opinion is not in-line with industry best practices and could lead to some inaccuracy in the interpretation of the veins'/mantos' locations when historical drilling holes longer than 100 meters (m). In 2023, Charcas's mine department implemented the use of the Gyro equipment to take drillhole deviations every 10 m (approximately), which is a standard practice.

Despite any possible local inaccuracies, it is the QP's opinion that the variability of the mineralization characterized by the mantos and vein deposits at Charcas appears to be appropriately interpreted based on the available information. The QP reviewed the reconciliation of the planned versus actual grades and tonnages reported at Charcas and, based on the long mining history, considered the drilling and channel rock sampling grades reported to be representative of the mined material.

Most of the data obtained for use in the current estimate is from historical paper copies, such as geological mapping within the mine workings and vertical section and plan view interpretations of the geology and mineralization. In 2023, Charcas completed the digitalization of the available information and started the construction of the three-dimensional (3D) geological model for construction of the resource block model and to support typical statistical analyses used in resource estimation.

The current resource estimation used a combination of manual methods to define the areas/volumes and grades, supported by AutoCAD and Excel software. These estimates are updated periodically using historical and recent information and the updated underground surveys of the mined zones.

The mineralized area is determined from maps, sections, and assay results. The volumes are calculated by the projecting these areas based on the true width of the mineralization. The grade of each mineralized area is based on average grades that are weighted by the area of influence of each sample or group of samples, which are determined from plan and/or vertical views of the geological interpretations and sampling.

A single density value of 3 tonnes per cubic meter (t/m^3) is used to obtain tonnages. The Charcas operation has used this density value for an extended period of time, and the density value is reportedly based on historical tests, which have not been documented and were not available for QP review. The QP considers the lack of testwork and documentation to represent a potential risk to estimating the correct tonnage and has therefore considered this during the classification process. The QP notes that this is also the same tonnage applied by the operation. The risk is limited to some extent by the support for the reconciliation, which demonstrates a reasonable correlation between the planned and measured tonnages at the plant.

The classification of resources is based on the following criteria.

1.4.1 Measured

No Measured resources are stated, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of downhole surveys, SRK determined there are no Measured mineral resources at Charcas.

1.4.2 Indicated

Indicated mineral resources are defined by material that is interpreted to be continuous in size, shape, and grade and must be located within 30 m of either underground development or surface/ underground drilling results. Indicated mineral resources may be projected 30 m above or below levels or 30 m beyond the stope face; however, the projection distance if limited to 15 m below the last developed level. No Indicated mineral resources are permitted above the first level in the mine.

1.4.3 Inferred

Inferred mineral resources can be established in areas with sufficient geological confidence and if the following requirements are met:

1. The material not classified as Indicated located between two levels separated by a maximum of 120 m and if no diamond drilling is present.
2. The material is within 60 m of multiple surface/underground drillholes or located within 15 m of a single drillhole.

1.4.4 Methodology

The estimate was categorized in a manner consistent with industry standards. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for economic extraction of the resource. A cut-off grade (CoG) has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is reported exclusive of reserves.

It is SRK's opinion that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

In 2023, IMMSA finalized the digitalization of the historical core and rock sampling and geological horizontal and vertical sections, imported the data to Leapfrog, and initiated the construction of the 3D geological model of all the deposit of Charcas. Charcas is constructing an internal resource block model. The block model provides greater flexibility for the operation and enable more dynamic mine planning following industry-standard practices.

Charcas's mineral resources are in compliance with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Using the mining blocks (panels) defined by the geologist, the QP has reviewed each panel relative to the defined CoGs. Depletions have been accounted for within each panel using the latest survey information (January to November) for the majority of the panels, and only a few panels that were exploited in the last month of 2023 were adjusted according to the planned exploitation. It is SRK's opinion that the differences with the real exploited material are not material.

In the QP's opinion, the assumptions, parameters, and methodology used for the Charcas underground mineral resource estimates, while not optimized to provide flexibility in the planning processes, are appropriate for the style of mineralization and mining methods.

The QP has recommended to IMMSA that a commercial geologic database be created to provide secure storage of drilling data. The database will provide better data control and a potential audit trail for any changes made in the system over time.

In addition, there is potential for some of the uncertainties or risks, noted above, to be mitigated or reduced through additional study. Section 23 of this report summarizes recommendations for these studies. It is the QP's opinion that measures that should be taken to mitigate the uncertainty include, but are not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- Maintain the database, periodically update the 3D geological model (Leapfrog Geo software), and implement the storage of data into a commercial secure database.
- Integrate all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study
- Design and implement complete QA/QC protocols for drilling and rock sampling.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains
- Introduction of more routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.0 t/m^3 value
- Rigorous approach to classification that appropriately considers the noted detractors in confidence and utilizes criteria designed to address them

Mineral resources have been reported based on economic and mining assumptions to support the reasonable potential for economic extraction of the resource. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. Table 1-1 summarizes current mineral resources, exclusive of reserves.

Table 1-1: Charcas Summary Mineral Resources(1) at End of Fiscal Year Ended December 31, 2023, SRK Consulting (U.S.), Inc.

IMMSA Underground - Charcas							Cut-Off(2)		NSR(3) $67.33	
Category	Tonnage Quantity (thousand tonnes (kt))	Grade					Metal			
		Ag (grams per tonne (g/t))	Zn (%)	Pb (%)	Cu (%)	Net Smelter Return (NSR)(3) (US$)	Ag (thousand ounces (koz))	Zn (kt)	Pb (kt)	Cu (kt)
Measured (M)										
Indicated (I)	6,410	84	3.06	0.39	0.52	143	17,297	195.9	24.9	33.5
M+I	6,410	84	3.06	0.39	0.52	143	17,297	195.9	24.9	33.5
Inferred	15,162	98	2.78	0.39	0.55	139	48,005	421.0	58.7	82.8

Source: SRK, 2023

(1)Mineral resources are reported exclusive of mineral reserves on a 100% basis. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is the QP's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

(2)Mineral resources are reported at metal equivalent CoGs based on metal price assumptions,* variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$67.33/tonne (t).

*Metal price assumptions considered for the calculation of metal equivalent grades are gold (US$1,725.00/ounce (oz)), silver (US$23.0/oz), lead (US$1.09/pound (lb)), zinc (US$1.32/lb), and copper (US$3.80/lb).

**CoG calculations and NSR values assume variable metallurgical recoveries as a function of grade and relative metal distribution. For the purpose of this mineral resource declaration, average metallurgical recoveries are silver (78%), lead (47%), zinc (90%), and copper (69%), assuming recovery of payable metal in concentrate.

(3)CoG calculations assume variable NSR factors as a function of smelting and transportation costs. The NSR values (inclusive of recovery) are calculated using the following calculation: NSR = Ag (g/t) * 0.496 + Pb (%) * 10.661 + Cu (%) * 56.338 + Zn (%) * 22.166.

Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

1.5 Conclusions and Recommendations

1.5.1 Property Description and Ownership

Mineral rights are held by IMMSA through ownership or lease of the land parcels as disclosed in Table 3-1. All mineral resources stated are contained within these boundaries, internal to an optimized pit that is also limited by these boundaries.

1.5.2 Geology and Mineralization

The geology and mineralization controls are very well known, supported by the many years of the mining operation. Geology information supporting mineral resources is available in paper documents and partially in digital format. The new digitalized database is in Excel spreadsheets and in Leapfrog, which include the 3D geological model and resource block model in Leapfrog Geo software.

1.5.3 Status of Exploration, Development, and Operations

IMMSA continues the exploration of the extension of the main areas of the operation, including drilling in the areas of Tiro General, San Bartolo, Las Eulalias, Santa Rita, and Este Leones.

The exploration department has been drilling n Rey-Reina (Leones Este) through contractors (Tecmin and Bylsa).

1.5.4 Mineral Resource Estimates

The estimate was categorized in a manner consistent with industry standards, using methodologies consistent with older mining operations. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for economic extraction of the resource. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is exclusive of reserves.

In SRK's opinion, the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

In the QP's opinion, measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- SRK recommends review of the procedures of drilling and sampling and design and implementation of a complete QA/QC protocol for the drilling and rock sampling activities performed by Charcas's mine geology department.
- IMMSA implemented the use of NQ drilling core size and, in the last months of 2023, started the insertion of a few controls (core duplicates, blanks, and standards). The program should be appropriately implemented.
- Regarding the QA/QC protocol of the exploration department, SRK recommends continuing with the second laboratory controls (Tercerías) periodically.
- Continue the digitization of all the new geological information and implement the storage of data into a commercial secure database.
- Keep the geological model constructed in Leapfrog updated, integrating all relevant geological data to achieve the most accurate model possible at the current level of study.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains
- Introduction of more routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3 t/m^3 value
- Rigorous approach to classification that appropriately considers the noted detractors in confidence and utilizes criteria designed to address them

2 Introduction

2.1 Registrant for Whom the Technical Report Summary was Prepared

This technical report summary was prepared in accordance with the SEC S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for IMMSA, a subsidiary of SCC, by SRK on Charcas, located in San Luis Potosí, México.

2.2 Terms of Reference and Purpose of the Report

The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in SRK's services, based on:

- Information available at the time of preparation
- Assumptions, conditions, and qualifications set forth in this report

This report is intended for use by IMMSA subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits IMMSA to file this report as a technical report summary with American securities regulatory authorities pursuant to the SEC S-K regulations, more specifically Title 17, Subpart 229.600, item 601(b)(96) - Technical Report Summary and Title 17, Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations. Except for the purposes legislated under U.S. federal securities law, or with other securities regulators as specifically consented to by SRK, any other uses of this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with IMMSA.

The purpose of this technical report summary is to report mineral resources for the Charcas project.

The effective date of this report is December 31, 2023.

References to industry best practices contained herein are generally in reference to those documented practices as defined by organizations, such as the Society for Mining Metallurgy and Exploration (SME), the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), or international reporting standards as developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

2.3 Report Version Update

This technical report summary is an update of a previously filed technical report summary and is the most-recent report. This report presents an update from the previously filed technical report summary entitled, "SEC Technical Report Summary Initial Assessment on Mineral Resources Charcas Mine San Luis Potosí, México, effective date December 31, 2022, and reported February 21, 2023." The current report accounts for 2023 mining depletion completed and updated mineral resources based on 2023 exploration activities.

2.4 Sources of Information

This report is based in part on internal Company reports, previous studies, maps, published government reports, and public information as cited throughout this report and listed in the References Section (Section 24).

Reliance upon information provided by the registrant is listed in Section 25 when applicable.

SRK's report is based upon the following information:

- Site visits to the project
- Discussions and communication with the key personnel of the Charcas operation
- Data collected by the Company from historical mining operation
- Review of the methodologies of data collection and protocols, including sampling, QA/QC, assaying, etc.
- Horizontal maps, including geological interpretations, sampling, and sampling location, in paper format and part in AutoCAD files
- Original drillhole logging sheets
- Paper documents supporting the reserve estimations by blocks, including interpretation sections, spreadsheets, and calculations (part of this information was provided in digital format (AutoCAD, Excel, Leapfrog Geo software, and Word))

2.5 Details of Inspection

Table 2-1 summarizes the details of the personal inspections on the property by each QP or, if applicable, the reason why a personal inspection has not been completed.

Table 2-1: Site Visits to Charcas

Expertise	Date(s) of Visit	Details of Inspection
Geology, Exploration, and Mineral Resources	June 16 to 19, 2021	Review drilling and sampling procedures, visit to underground workings, and review of procedures of estimation of resources
Geology, Exploration, and Mineral Resources	October 5 to 10, 2021	Review of procedures of resources estimation and supporting data, review of QA/QC procedures for sampling, and validation sampling
Geology, Exploration, and Mineral Resources	December 1 to 3, 2021	Review of procedures of estimation and check of resource blocks and supporting data
Geology, Exploration, and Mineral Resources	November 22 to 24, 2022	Review of exploration procedures and the updated resource blocks and supporting data and visit to underground workings
Geology, Exploration, and Mineral Resources	November 1 to 3, 2023	Review of exploration procedures and the updated resource blocks and supporting data and visit to preparation and chemical analysis laboratory

Source: SRK, 2023

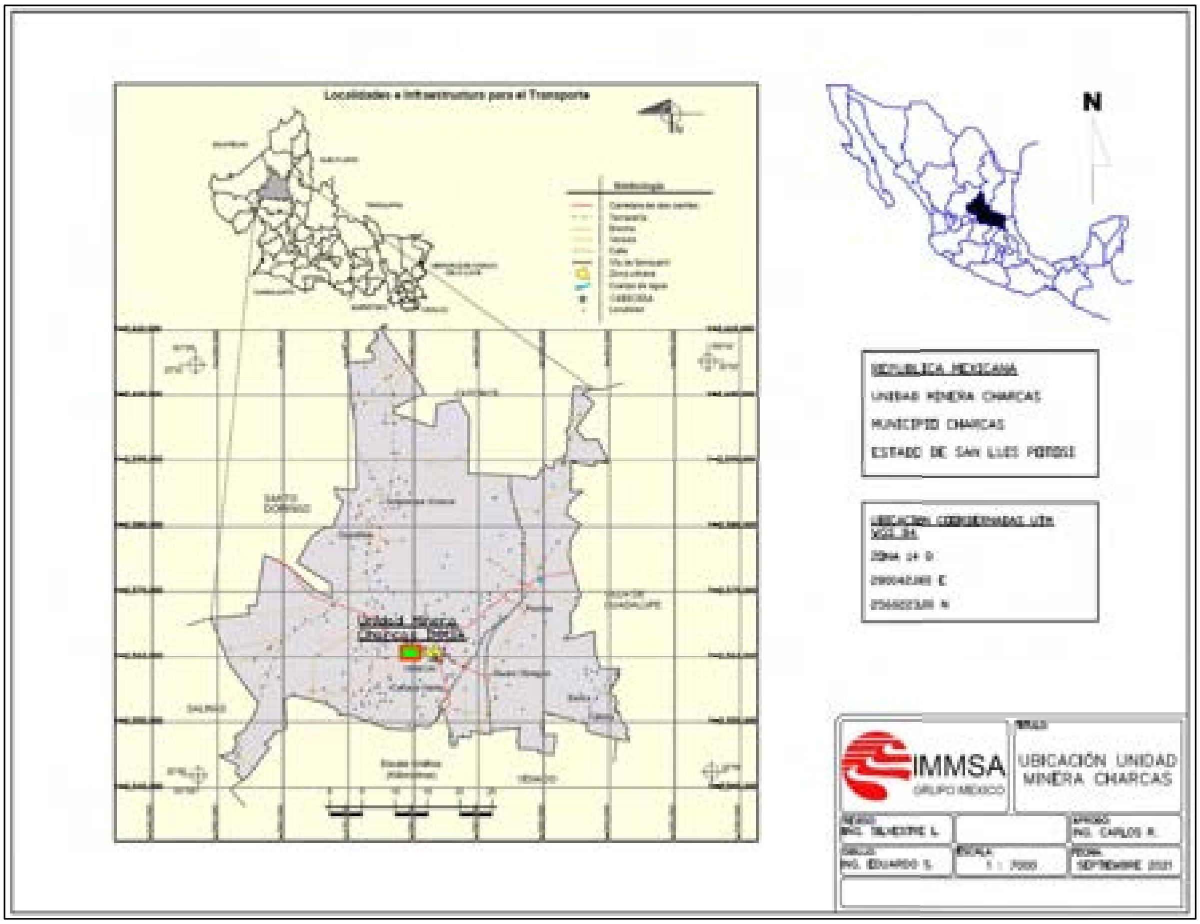
2.6 Qualified Person

This report was prepared by SRK Consulting (U.S.), Inc., a third-party firm comprising mining experts in accordance with § 229.1302(b)(1). IMMSA has determined that SRK meets the qualifications specified under the definition of QP in § 229.1300. References to the Qualified Person or QP in this report are references to SRK Consulting (U.S.), Inc. and not to any individual employed at SRK.

3 Property Description

3.1 Property Location

The Charcas project is located in central México, approximately 110 kilometers (km) north of the city of San Luis Potosí in the central portion of the region of the same name (Figure 3-1). The mine uses the Universal Transverse Mercator (UTM) World Geodetic System (WGS84) Zone 14Q coordinate system and is located at 2 560 223 N and 280 042 E at an altitude of 2,150 meters above sea level (masl). Access to the mine is connected to the state capital by a paved road of 130 km in length.



Source: IMMSA, 2021

Figure 3-1: Charcas Location Map

3.2 Mineral Title, Claim, Mineral Right, Lease, or Option Disclosure

IMMSA currently holds 13 mining titles over the Charcas project, covering a total area of 88,643.2597 ha, with the titles held 100% by the Company.

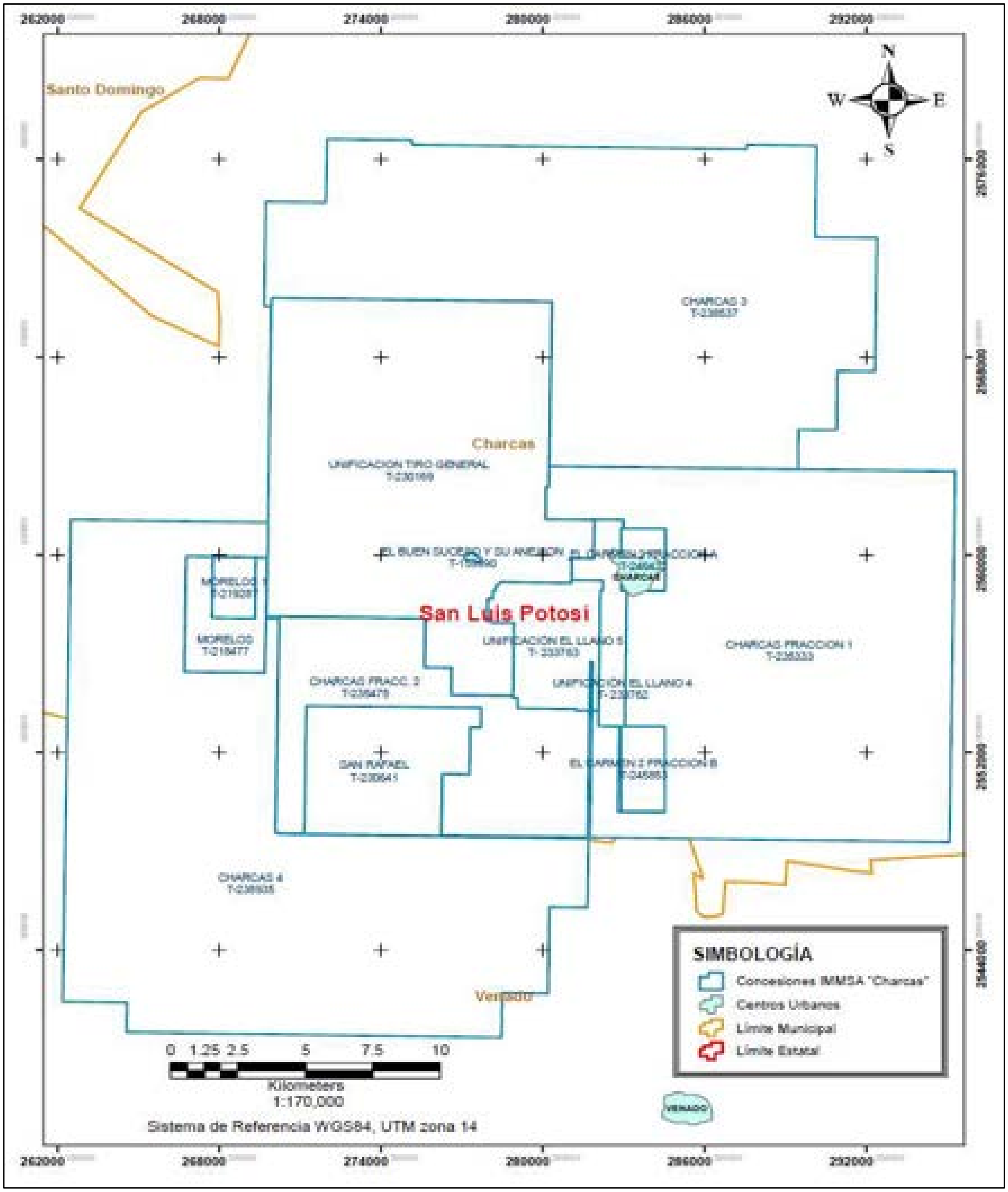
The 13 mining concessions are valid for 50 years and extendable to 50 more years. The oldest concession was originally awarded in 1974 and has a current expiration date for 2024; however, the concession may be extended 50 more years. IMMSA will extend the terms of all the current mining concessions and will work in all the required legal requirements when necessary.

IMMSA owns surface lands covering an area of 1,744.4 ha with rights to conduct any work or exploration required to advance or continue of activities within the Charcas project (Table 3-1, Figure 3-2, and Figure 3-3). SRK was provided legal documentation by IMMSA and has relied on that information for the purposes of this section. SRK has relied on this information and disclaims responsibility for its accuracy or any errors or omissions in that information.

Table 3-1: Charcas Mining Title Tenure Table

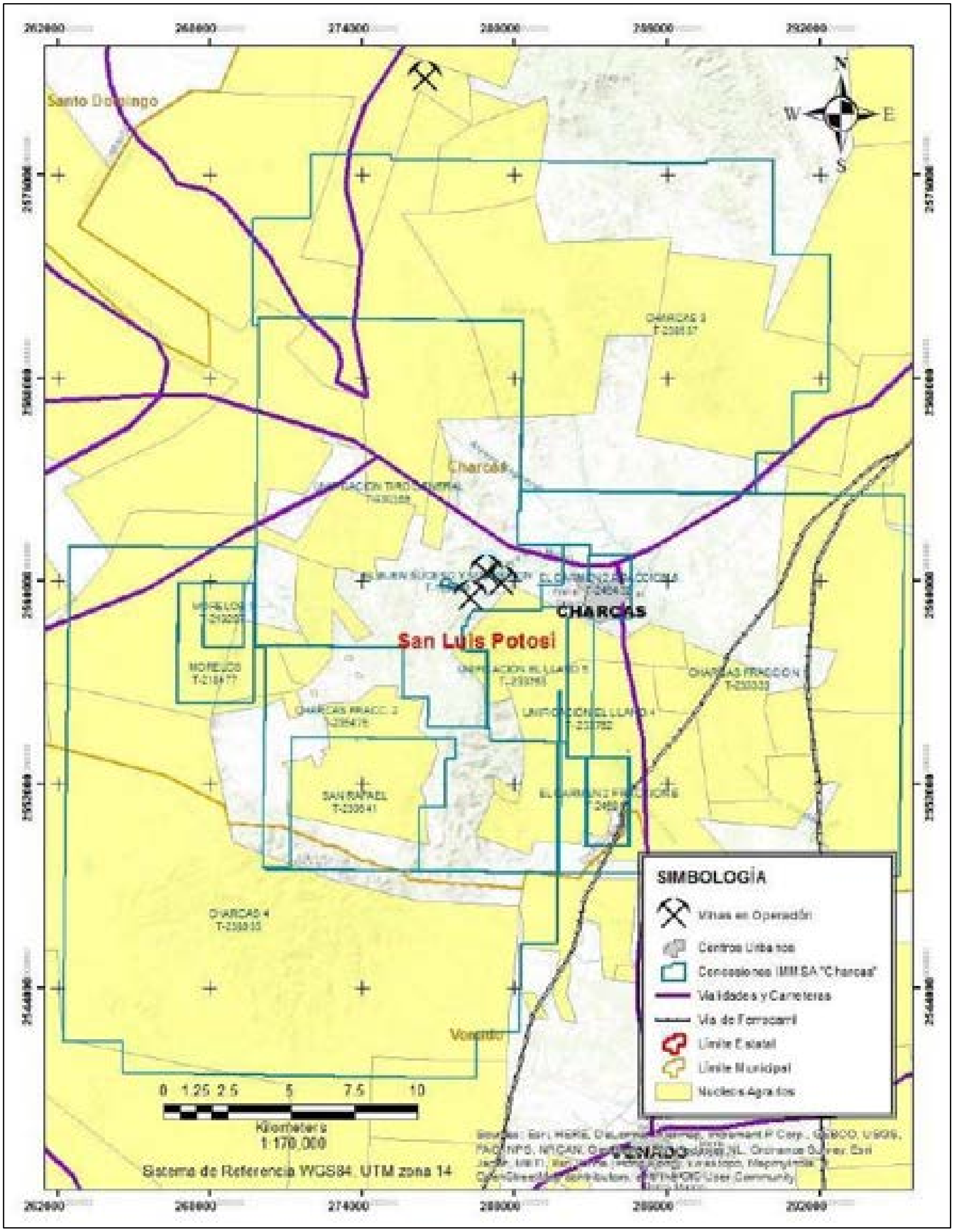
Number	Title Number	Concession Name	Holder	Awarded	Valid Until	Surface (ha)
1	159990	EL BUEN SUCESO Y SU ANEXION	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	18.04.1974	17.04.2024	14.7866
2	218477	MORELOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	05.11.2002	23.03.2052	1,010.0000
3	219287	MORELOS 1	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25.02.2003	24.02.2053	400.0000
4	230169	UNIFICACIÓN TIRO GENERAL	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	27.07.2007	26.07.2057	14,326.9952
5	230641	SAN RAFAEL	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	28.09.2007	27.09.2057	2,912.0000
6	233762	UNIFICACION EL LLANO 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	08.04.2009	30.05.2055	910.1601
7	233763	UNIFICACION EL LLANO 5	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	08.04.2009	01.12.2054	1,764.4635
8	235333	CHARCAS FRACCION 1	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	12.11.2009	11.11.2059	18,457.3516
9	235475	CHARCAS FRACCION 2	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	04.12.2009	03.12.2059	5,261.3806
10	238537	CHARCAS 3	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	23.09.2011	22.09.2061	20,024.8608
11	238935	CHARCAS 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	11.11.2011	10.11.2061	22,592.7206
12	245853	EL CARMEN 2 FRACCION B	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	07.12.2017	07.12.2067	562.3717
13	246432	EL CARMEN 2 FRACC. A	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	21.06.2018	21.06.2068	406.1690

Source: IMMSA, 2022



Source: IMMSA, 2021

Figure 3-2: Map Showing Concession Titles



Source: IMMSA, 2021

Figure 3-3: Map Showing Charcas's Concessions, Local Infrastructure, and Agricultural Areas

3.3 Mineral Rights Description and How They Were Obtained

The Charcas mining unit is made up of 13 mining concessions, which were requested with an antiquity ranging from 1901 to 2010, covering a total area of 88,643.2597 ha.

The procedure for each of the mining concessions begins with the presentation to the Secretaría de Economía, Direccción General de Minas of México, of the Application for Concession or Mining Assignment, format SE-FO-10-001, with all the sections duly completed and accompanied by the required documentation, including payment of the application study and procedure, photographs of the physical evidences of the boundary markers following the standards of the mining law, and information supporting the existence of the person or entity responsible of the application.

The following are the obligations of the registrant to retain the properties at Charcas:

- Execute and verify the works and works foreseen by the Mexican Mining Law in the terms and conditions established by it and its regulations.
- Pay the mining rights established by the law on the matter.
- Comply with all the general provisions and the official Mexican standards applicable to the mining-metallurgical industry in terms of safety in mines and ecological balance and environmental protection.
- Allow the personnel commissioned by the Mexican mining entity (Secretaría) to carry out inspection visits.
- The execution of works and works will be proven by means of investments in the area covered by the mining concession or by obtaining economically exploitable minerals. The regulations of the law will set the minimum amounts of the investment to be made and the value of the mineral products to be obtained.
- The holders of mining concessions or those who carry out works and works by contract must designate an engineer legally authorized to practice as responsible for compliance with the safety regulations in the mines, as long as the works and works involve more than nine workers in the case of coal mines and more than 49 workers in other cases.
- The mining law stipulates the investments in works and works that are mandatory for the registrant of a mining concession.
- The investments in the works and works foreseen by the law that are carried out in mining concessions or the value of the mineral products obtained must be equivalent at least to the amount that results from applying the quotas to the total number of hectares covered by the mining concession or the grouping of these.

The reports that are delivered to the Mexican mining entity (Secretaría) to verify the execution of the mining works and works must contain:

1. Name of the holder of the mining concession or of the person who carries out the mining works and works by contract
2. Name of the lot or of the one that heads the grouping and title number
3. Period to review
4. Itemized amount of the investment made or amount of the billing value or settlement of the production obtained or an indication of the cause that motivated the temporary suspension of the works or works
5. Surplus to be applied from previous verifications and their updating

6. Amount to be applied in subsequent checks
7. Location plan and description of the works carried out in the period

The mining entity (Secretaría) shall consider the works and works of exploration or exploitation to have not been executed and legally verified when, in the exercise of its powers of verification, it finds:

1. That the verification report contains false data or does not conform to what was done on the ground
2. That the non-adjacent mining lots object of the grouping do not constitute a mining or mining-metallurgical unit, from the technical and administrative point of view

In the above cases, the Secretaría will initiate the cancellation procedure of the concession or of those mining lots incorporated into the grouping, in the terms of Article 45 of the Mexican Mining Law, final paragraph of the Law.

3.4 Encumbrances

SRK is not aware of any legal encumbrances on IMMSA-owned or leased surface or mineral rights but has relied on IMMSA's legal documentation regarding this aspect of the project.

Several obligations must be met to maintain a mining concession in good standing, including the following:

- Carrying out the exploitation of minerals expressly subject to the applicability of the mining law
- Performance and filing of evidence of assessment work
- Payment of mining duties (taxes)

The regulations establish minimum amounts that must be invested in the concessions. Minimum expenditures may be satisfied through sales of minerals from the mine for an equivalent amount. A report must be filed each year that details the work undertaken during the previous calendar year.

Mining duties must be paid to the Secretaria de Economía in advance in January and July of each year and are determined on an annual basis under the Mexican Federal Rights Law.

Duties are based on the surface area of the concession and the number of years since the mining concession was issued. Mining duties totaled MXN$35,784,302 in 2023.

Permits to conduct mining work at Charcas have been obtained. Existing permits will require updates or extensions based on the life-of-mine (LoM) plan outlined in this report, and additional permits will be necessary should the method of tailings storage change.

3.5 Other Significant Factors and Risks

The mine is subject to risk factors common to most mining operations in México, and IMMSA has an internal process in place to study and mitigate those risks that can reasonably be mitigated. No known factors or unusual risks affect access, title, or the ability to conduct mining. Specific exploration activities are authorized into 2023.

3.6 Royalties or Similar Interest

There is no payment for royalties or similar interests. 100% of the concessions are owned by IMMSA.

4 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

4.1 Topography, Elevation, and Vegetation

The property lies within the Mexican Mesa Central or Altiplano. This region is flanked to the west by the Sierra Madre Occidental and to the east by the Sierra Madre Oriental mountain ranges. The Altiplano in this region is dominated by broad alluvium-filled valleys between mountain ranges with an average elevation of approximately 1,700 masl. The mine is located at an altitude of 2,150 masl. Local mountain ranges reach 3,000 masl. Elevations on the property itself range from 2,050 to 2,450 masl, and the terrain is moderate to rugged.

Vegetation is sparse and consists mainly of grasses, low thorny shrubs, and cacti with scattered oak forests at higher elevations. Figure 4-1 shows the characteristics of the area surrounding the tailings facility at Charcas.

Source: SRK, 2021

Figure 4-1: Photography of the Charcas Tailings Facility and Surrounding Area

4.2 Means of Access

Access to the Charcas project is well supported via public links. The state of San Luis Potosí has an area of 62,304.74 square kilometers (km^2), has a network of railways (over 1,279 km), and has good road infrastructure covering 12,524 km in total, of which 6,890 km are paved, 5,538 km lined, and 96 km are dirt roads. A paved road connects Charcas to the city of Matehuala via a federal highway and begins at the northeast of the Charcas townsite. Charcas connects with Highway 63, which leads directly to the capital of San Luis Potosí 130 km away. The paved road also connects with Highway 17, which in turn connects with Highway 54 that leads to the city of Zacatecas 218 km to the west.

4.3 Climate and Length of Operating Season

The climate in central México is warm and arid. Temperatures vary from 0 to greater than (>) 40 degrees Centigrade (°C), with an average temperature of 17°C. According to the Köppen climate classification, the climate of Charcas corresponds to the BSh category (warm semi-arid). The average annual precipitation is approximately 300 millimeters (mm), with rain typically occurring between June to October. Exploration, development, and mining activities can be completed year-round.

4.4 Infrastructure Availability and Sources

The Charcas project is a currently producing mining operation that includes three underground mines (San Bartolo, Rey-Reina, and La Aurora) and one flotation plant that produces zinc, lead, and copper concentrates with significant amounts of silver. The asset is considered mature and is reported to be one of México's largest zinc producers.

4.4.1 Water

The operation has an underground water concession for the extraction of 1,113,850 cubic meters (m^3) per year. Additionally, Charcas has other minor concessions from different surficial sources. The water consumption comes from three main sources, and Table 4-1 shows the consumption numbers from January to October 2023:

- Recovery of the process water from the tailings dam and workings; 3,477,066 m^3 were recovered.
- Fresh water from concession wells, which represented 433,063 m^3

Table 4-1: Water Consumption, January to October 2023

Month	Fresh Water (m^3)	Recovered Water (m^3)
January	19,601	334,271
February	17,973	302,806
March	21,969	312,893
April	20,054	348,327
May	62,266	397,352
June	69,589	343,672
July	60,445	356,650
August	57,009	363,493
September	49,918	348,726
October	54,239	368,876
Total	**433,063**	**3,477,066**

The fresh water supply is obtained from six deep wells: three in Charcas (Clérigo-Laborcilla-Campo Santo Stations) 17 km away and three in Venado. Initially, the water is stored in pools adjacent to the wells, pumped to a pumping pool (Clérigo-Laborcilla), and taken to the freshwater tanks and pools within the mining operation.

4.4.2 Electricity

The unit receives a power supply of 115,000 volts in two 7.5-Mega Volt-Amp (MVA) transformers, distributed to electrical substations located in the different areas of mining operation. The consumption for the period of January to October 2023 was 47 gigawatt-hours (GWh).

Electricity is supplied by Eólica el Retiro S A P I DE CV, Energía San Luis de la Paz, SA de CV, and the Federal Electricity Commission (payment for transmission).

Two generators are used as backup:

- One Caterpillar-brand generator, with an acoustic cabin of 1,500 kilowatts (kW), a diesel engine, and a 2,000-liter (L) fuel tank, provides energy to the mine's pumping stations.
- One Caterpillar-brand generator, with an open cabin of 500 kW, a diesel engine, and a 1,200-L fuel tank, provides electricity to the employee neighborhood that is attached to the IMMSA industrial zone.

4.4.3 Fuel

Average annual diesel consumption is 2,500,000 L/year. Fuel is stored in a series of tanks located on the surface. The diesel is sent through a sequence of pipes to the various deposits inside the mine, and from these it is fed to the equipment through dispatch guns.

The current diesel supplier is Combustibles Diésel del Centro, S.A. DE C.V., with the diesel coming from a local distribution point in the City of San Luis Potosí.

The diesel is received in tanks with a capacity of 43,000 L, with a supply frequency of one to two tanks per week. Diesel is supplied through scheduled supply orders.

2,300 L of diesel and 35,000 L of gasoline were consumed between January and October of 2023. The gasoline is supplied by a gas station located in the city of Charcas located 5 km from the mining unit.

4.4.4 Personnel

The site provides good access to qualified personnel with a history of mining within the region and from the neighboring region. The Charcas mine site currently employs 991 staff and unionized employees.

4.4.5 Supplies

Local communities in the surrounding area are well suited with basic accommodations, fuel, industrial materials, contractor services, and bulk suppliers. Supplies to the mine can be transported with ease via the rail or road network system. The unit's supplies are received from suppliers sourced from different states of the country, with ground transportation the main supply methodology (trucks, vans, or trailers).

At the mine, 310 tires were required for replacement on the mining fleet, while in the plant, 44,000 kilograms (kg) of sodium cyanide and 319,300 kg of copper sulfate were consumed between January and October 2023.

5 History

The following section provides a brief summary of the history of the project, reconstructed from historical publications and internal corporate records. Records of activity on the Charcas property precede the 1960s; however, records from this period are incomplete.

5.1 Previous Operations

Mining activity at the Charcas project dates back over hundreds of years. The first exploitation in the district were carried out in 1583 in the Leones and Santa Isabel veins, and since that time the mines have been exploited by several companies. In 1911, Metalúrgica Nacional and American Smelting and Refining Company acquired exploitation rights of Minera del Tiro General, and in 1924, 100% ownership passed to Asarco, S.A, which built a plant that came into operation in 1925. Mining has continued throughout the Charcas project's history to the present, and production has gradually increased over time. In 1978, the name changed to Industrial Minera México S.A de C.V. The Charcas mine is characterized by low operating costs and good-quality ores and is situated near the zinc refinery. Table 5-1 shows the summary of the information of production and characteristics of the concentrates produced at Charcas between 2002 and 2022. Table 5-2 summarizes the production for the first 10 months of 2023 and the projection for November and December.

Table 5-1: Recent Production Table Summary of Charcas (2002 to 2022)

Concept	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Tonnes milled (x 1,000)	**1,343**	**1,213**	**1,317**	**1,328**	**1,344**	**1,258**	**1,169**	**1,162**	**1,165**	**1,124**	**1,164**	**1,180**	**752**	**1,040**	**1,229**	**1,250**	**1,290**	**1,293**	**1,146**	1,232	1,191
Grades (mill feed)																					
Gold (Au) (g/t)															0.11	0.12	0.14	0.15	0.06	0.09	0.10
Ag (g/t)	58	53	54	53	45	53	55	52	54	51	52	50	43	49	52	50	53	46	48	51	51
Pb (%)	0.38	0.38	0.33	0.29	0.20	0.29	0.53	0.47	0.40	0.37	0.26	0.16	0.13	0.15	0.15	0.18	0.15	0.12	0.21	0.17	0.17
Cu (%)	0.24	0.23	0.20	0.20	0.22	0.20	0.23	0.22	0.23	0.24	0.27	0.32	0.30	0.35	0.40	0.36	0.36	0.37	0.37	0.37	0.40
Zn (%)	5.44	5.85	5.76	5.68	5.37	5.68	5.70	5.50	5.10	4.83	4.42	4.00	3.21	2.81	2.57	2.61	2.41	2.20	2.46	2.32	2.41
Tonnes of Pb concentrate	**6,156**	**7,359**	**7,143**	**5,987**	**4,387**	**5,987**	**9,695**	**7,947**	**6,817**	**5,389**	**3,744**	**1,770**	**821**	**1,501**	**1,532**	**1,805**	**1,418**	**1,041**	**2,023**	1,720	1,745
Assays																					
Au (g/t)															2.63	2.82	4.39	5.81	3.34	6.11	5.32
Ag (g/t)	4,674	4,086	4,108	4,720	4,660	4,720	3,253	3,782	4,714	4,466	5,291	5,992	7,408	9,282	9,294	8,347	10,246	11,557	7,444	8,046	9,165
Pb (%)	50.66	41.78	38.44	36.50	27.39	36.50	46.74	52.81	48.15	50.10	40.50	34.61	48.66	55.42	56.28	59.96	57.43	48.81	62.73	60.24	59.39
Cu (%)	8.56	8.48	8.08	8.83	9.22	8.83	5.34	6.96	8.31	7.68	9.73	10.99	5.84	4.59	5.03	4.70	4.47	6.90	4.23	5.79	5.75
Zn (%)	5.58	11.22	13.03	12.91	16.91	12.91	10.16	6.85	7.33	7.64	9.99	7.08	4.38	3.37	3.19	2.74	2.98	6.90	2.45	2.46	2.10
Tonnes of Cu concentrate	**4,428**	**2,586**	**2,451**	**2,913**	**4,358**	**2,913**	**3,569**	**3,177**	**3,097**	**3,651**	**4,744**	**9,578**	**7,340**	**12,338**	**14,648**	**12,680**	**12,725**	**15,102**	**12,883**	**14,068**	**14,001**
Assays																					
Au (g/t)															1.11	1.14	2.14	2.89	2.95	3.58	2.94
Ag (g/t)	2,973	2,388	2,289	2,067	2,199	2,067	1,620	1,519	1,715	1,683	1,890	1,760	1,436	1,458	1,731	1,849	2,063	1,901	1,945	2,007	2,126
Pb (%)	13.84	13.61	10.28	10.54	9.27	10.54	9.04	8.90	8.10	8.96	10.97	6.49	2.54	2.97	3.05	4.02	3.12	2.40	4.83	4.86	5.42
Cu (%)	21.60	26.56	25.49	27.71	26.27	27.71	28.82	29.54	30.26	29.70	27.54	22.47	20.80	21.16	24.44	24.78	25.38	25.00	24.01	23.73	23.26
Zn (%)	9.35	4.73	8.77	5.32	6.89	5.32	3.26	3.03	2.68	3.37	4.20	9.20	13.41	14.52	10.86	11.25	10.91	9.18	10.69	11.82	10.04
Tonnes of Zn concentrate	**117,686**	**116,570**	**123,848**	**123,585**	**117,716**	**123,585**	**109,702**	**108,872**	**101,805**	**93,646**	**93,165**	**83,855**	**42,685**	**49,462**	**53,371**	**54,474**	**53,893**	**50,627**	**49,117**	**49,613**	**43,025**
Assays																					
Au (g/t)															0.30	0.31	0.32	0.35	0.31	0.44	0.31
Ag (g/t)	126	122	148	129	116	129	117	124	127	146	158	152	147	128	142	148	172	141	151	176	230
Pb (%)	0.50	0.50	0.62	0.43	0.37	0.43	0.73	0.66	0.62	0.75	0.64	0.44	0.35	0.30	0.31	0.40	0.37	0.25	0.51	0.57	0.63
Cu (%)	0.78	0.79	0.78	0.67	0.68	0.67	0.67	0.76	0.71	0.74	0.82	1.06	1.11	1.09	1.18	1.22	1.19	1.05	1.12	1.34	1.75
Zn (%)	57.14	57.42	57.34	57.18	57.05	57.18	57.04	56.98	56.78	56.25	53.89	54.49	54.19	54.35	54.05	55.29	55.13	54.46	53.32	53.35	51.40

Source: IMMSA, 2022

Table 5-2: Production Table Summary of Charcas (2023)

Production	January	February	March	April	May	June	July	August	September	October	November	December	Total
Total (t)	**95,506**	**86,516**	**89,398**	**99,522**	**113,470**	**119,554**	**116,452**	**128,395**	**99,636**	**114,437**	**107,100**	**105,000**	**1,274,986**
Rate (tonnes/day (t/d))	**3,673**	**3,682**	**4,207**	**4,190**	**4,364**	**4,428**	**4,522**	**4,586**	**4,428**	**4,278**	**4,200**	**4,200**	**4,236**
Au	0.07	0.12	0.07	0.09	0.07	0.06	0.08	0.08	0.07	0.06	0.07	0.07	**0.08**
Ag	59	50	51	59	55	68	60	49	65	68	53	53	**58**
Pb	0.21	0.14	0.27	0.24	0.18	0.21	0.16	0.15	0.29	0.25	0.16	0.16	**0.20**
Cu	0.40	0.46	0.33	0.43	0.34	0.37	0.37	0.37	0.34	0.35	0.34	0.34	**0.37**
Zn	2.52	2.05	2.41	2.19	2.13	2.17	2.23	2.07	2.17	2.19	2.02	2.02	**2.17**
Recovery (%)													
Au	83.17	66.64	121.16	73.92	88.42	63.73	86.44	82.35	58.48	38.17	72.00	72.00	**75.02**
Ag	82.45	84.07	75.85	71.47	72.25	74.26	85.09	68.93	63.73	79.22	75.00	75.00	**75.45**
Pb	54.91	49.38	35.75	44.74	34.90	34.72	40.80	27.61	28.49	43.20	40.00	40.00	**39.09**
Cu	68.31	75.44	61.54	60.74	60.02	51.85	63.88	57.89	50.07	48.11	60.00	60.00	**59.37**
Zn	88.58	85.04	89.54	80.21	86.04	88.18	79.99	83.70	89.32	89.94	85.00	85.00	**85.80**
Metal content													
Au (kg)	5.70	6.92	7.58	6.62	7.02	4.57	8.05	8.46	4.08	2.62	5	5	**71.91**
Ag (kg)	4,619	3,637	3,458	4,197	4,509	6,037	5,945	4,372	4,102	6,156	4,259	4,176	**55,467**
Pb (t)	112	60	86	107	71	87	76	53	82	124	67	66	**996**
Cu (t)	261	300	182	260	232	229	275	275	170	193	218	214	**2,788**
Zn (t)	2,132	1,508	1,929	1,748	2,080	2,288	2,077	2,225	1,931	2,254	1,838	1,802	**23,793**
Zn equivalent (thousand pounds)	10,189	8,412	8,448	9,096	9,778	11,130	11,107	10,365	8,592	10,834	8,885	8,711	**115,346**

Source: IMMSA, 2022

5.2 Exploration and Development of Previous Owners or Operators

Since 1924, Asarco S.A. has controlled the Charcas property and operations. Information regarding exploration and development activities completed by previous owners is not available. Previous owners included Metalúrgica Nacional y American Smelting and Refining Company and Minera del Tiro General. Exploration and sampling used to contribute to the current mineral resources are limited to work by the current company and are detailed in Section 7 of this report.

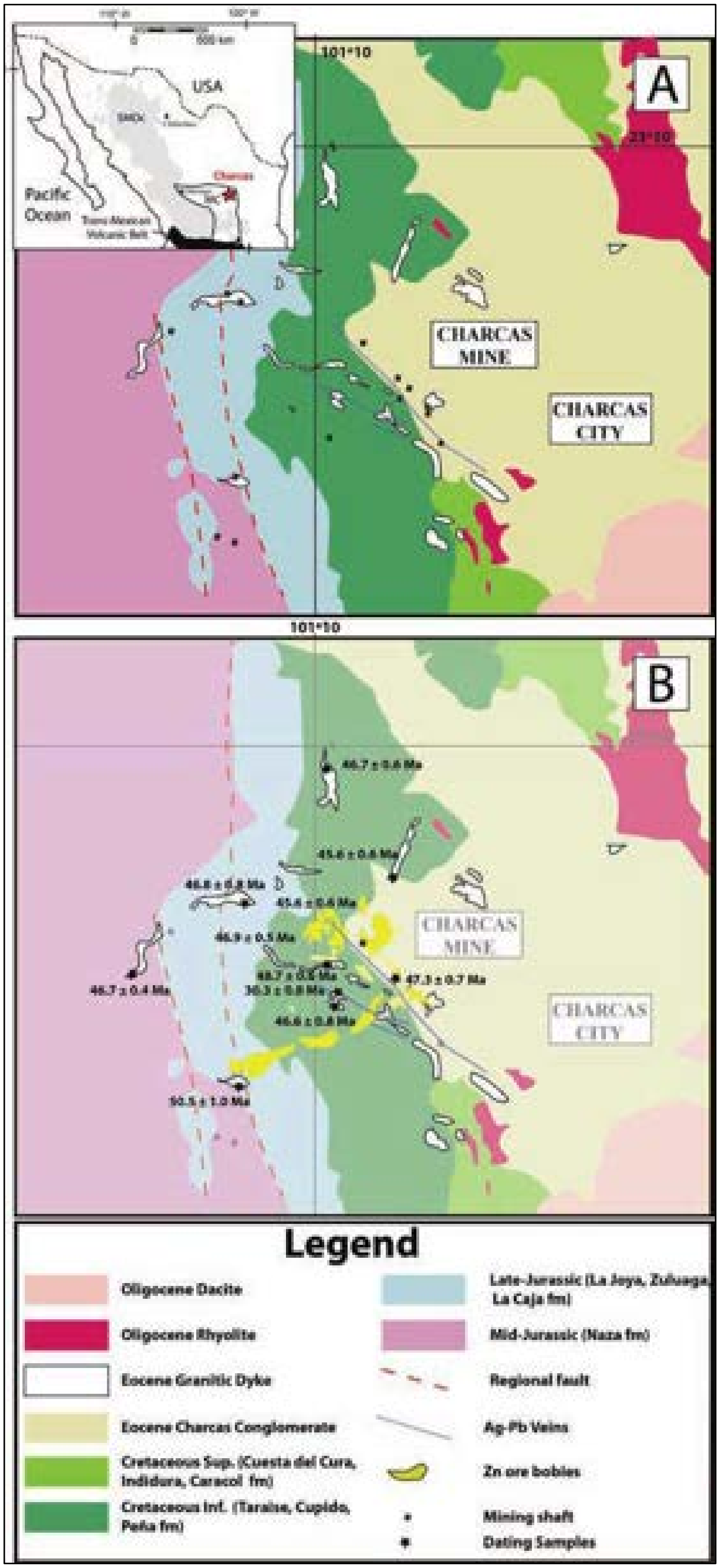
6 Geological Setting, Mineralization, and Deposit

6.1 Regional, Local, and Property Geology

6.1.1 Regional Geology

The Charcas mining district is in the east central part of the Central Mesa in central México. The Charcas Zn-Pb-Ag deposit is an historical district discovered and exploited for silver by Spaniards in 1572. The exploitation is still active, and reportedly over 30 million tons of ore has been extracted.

The local geology could be divided in two domains (east and west) separated by a north-northwest to south-southeast regional fault (Maxima Fault, Figure 6-1).



Source: Levresse et al., 2015

Figure 6-1: Regional Geology Map

Triassic rocks (Late Triassic in age) form the western block. They consist of black shales, sandstone, and conglomerate of the Zacatecas-La Ballena formations and conglomerate and andesitic to rhyolitic volcanic rocks of the Nazas Formation (Centeno-García and Silva-Romo, 1997; Barbosa et al., 2008; Zavala-Monsivais et al., 2012). These rocks were uplifted and eroded during the Middle Jurassic.

The eastern block consists of Mesozoic-aged sedimentary rocks covered by Cenozoic volcanism. The Upper Jurassic La Joya formation unconformably overlays the Triassic Lower-Jurassic formations.

The La Joya Formation is composed by reddish shale, andesitic tuff, and arenaceous conglomerate that contains clasts of the underlying La Nazas Formation. The La Joya Formation is unconformably overlain by the Zuloaga Formation of Upper Jurassic age, which in the Charcas area is comprised of about 600 m of thick bedded limestone, the upper portion of which contains black chert lenses.

The La Caja Formation of Upper Jurassic age conformably overlies the La Joya Formation and varies upwards from fine-crystalline limestone to grey, argillaceous limestone with black calcareous concretions; to argillaceous limestone, and uppermost, to blue-grey limestone with black chert bands (Butler, 1972).

Six formations of Cretaceous age make up the uppermost portion of the stratigraphic sequence: the Taraises and Cupido Formations, comprised of argillaceous limestone with iron nodules; the La Peña Formation, comprised of calcareous shale and argillaceous limestone with black chert bands; the Cuesta del Cura Formation, of Albian to Cenomanian age that is made up of limestone with argillaceous intercalations and black chert bands; the Indidura Formation, of Turonian age comprised of thin strata of argillaceous limestone, shales, and mudstone; and the Caracol Formation, of Coniacian to Maastrichtian age made up of thin strata of sandstone and shale.

The entire Mesozoic column was deformed during the Laramide Orogeny (which started 70 to 80 million years ago (Ma) during the late Cretaceous). The compression formed tight to open folds with well-developed axial cleavage and a north-to-northwest trend (Nieto-Samaniego et al., 2005). This deformational fabric is superimposed upon Triassic northwest-folding and Jurassic east-trending faults that were subsequently reactivated during the Laramide Orogeny (Tristan-Gonzalez and Torres-Hernandez, 1994). All the deformed Mesozoic column is crosscut by granodioritic intrusions that locally develop a discrete metasomatic aureole. Cenozoic units cover the deformed sedimentary column. They are mostly conglomerates and volcanic rocks of andesitic to rhyolitic composition. The last Cenozoic magmatic felsic event is characterized by the presence of fluorine-rich rhyolites with normative topaz (Orozco-Esquivel et al., 2002; Tristan et al., 2009). Locally, very small alkaline basalt flows of Miocene to Quaternary age also appear.

6.1.2 Local Geology

The Charcas district presents a complex magmatic history. The swarm dikes consist predominantly of monzogranite, granodiorite, and granite. They represent four distinctive magmatic pulses dated at 157, 50, from 48 to 45, and 30 Ma.

Structural Geology

The main structure observed in the area is an anticline with an approximate north-south orientation called San Rafael. There are also several local anticline and synclinal structures both in Triassic rocks and on the flanks of this folding.

Fault and fracture systems active during the Laramide Orogeny are mineralized by the CIC intrusions. The intrusives appear to have created extensional fissures that are mineralized, as well.

Three systems of mineralized structures are defined:

- A northwest-trending set that includes the Leones and Santa Isabel, Santa Rosa, La Viejita, Santa Inés, Veta Nueva, San Rafael, and Progreso veins. This northwest set is a subordinate group of coincident east-west-trending veins that includes the Las Margaritas, El Potosí, and San Rafael veins.
- Faults and veins that are oriented sensibly to the northeast, such as the San Salvador and San Sebastián veins
- Faults and concentric mineralized fractures that are on the margins of the El Temeroso stock. The main mineralized replacement bodies are located in this system.

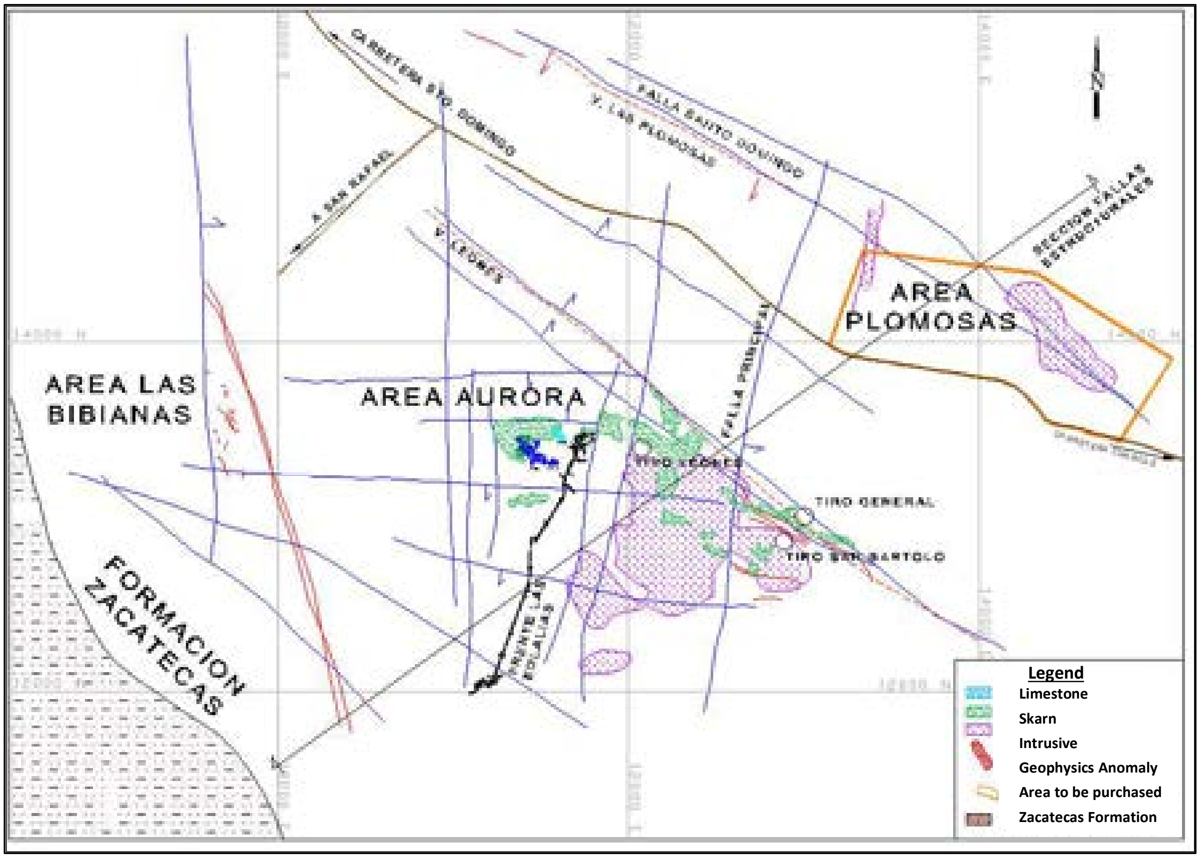
Sedimentary Rocks

Post-mineralization, a period of uplift was followed by a relatively short period of extension and a prolonged erosion that resulted in a deposit of conglomeratic and terrigenous material that filled the depressions. These continental sediments are interspersed and/or cut by intrusive igneous rocks of age 46.6 Ma and andesites of an age of 44 Ma.

Intrusive Rocks

The most significant intrusive rock in the local area (in terms of importance and size) are the rocks associated with the Temeroso stock. This intrusive is part of the CIC varying from quartz monzodiorite to monzogranite. The CIC mineralogical assemblage shows variable quantities of plagioclase + alkaline feldspar + quartz ± amphibole + biotite ± orthopyroxene + clinopyroxene + iron-titanium oxides. The CIC was emplaced in Triassic to upper Cretaceous sedimentary (Dobarganes et al., 2012b). The Temeroso stock has been age-dated by potassium (K)-argon (Ar) dating methods and aged at 46.6 Ma (determined the crystallization of biotite). It is possible that crystallization extended until the end of the Eocene (36 Ma).

Figure 6-2 presents Charcas's local geology map. The best outcrops of the CIC are exposed to the west of the San Bartolo Mine and at Rampa El Rey, which can be found extending towards the southwest of the San Sebastián Mine.



Source: IMMSA, 2021

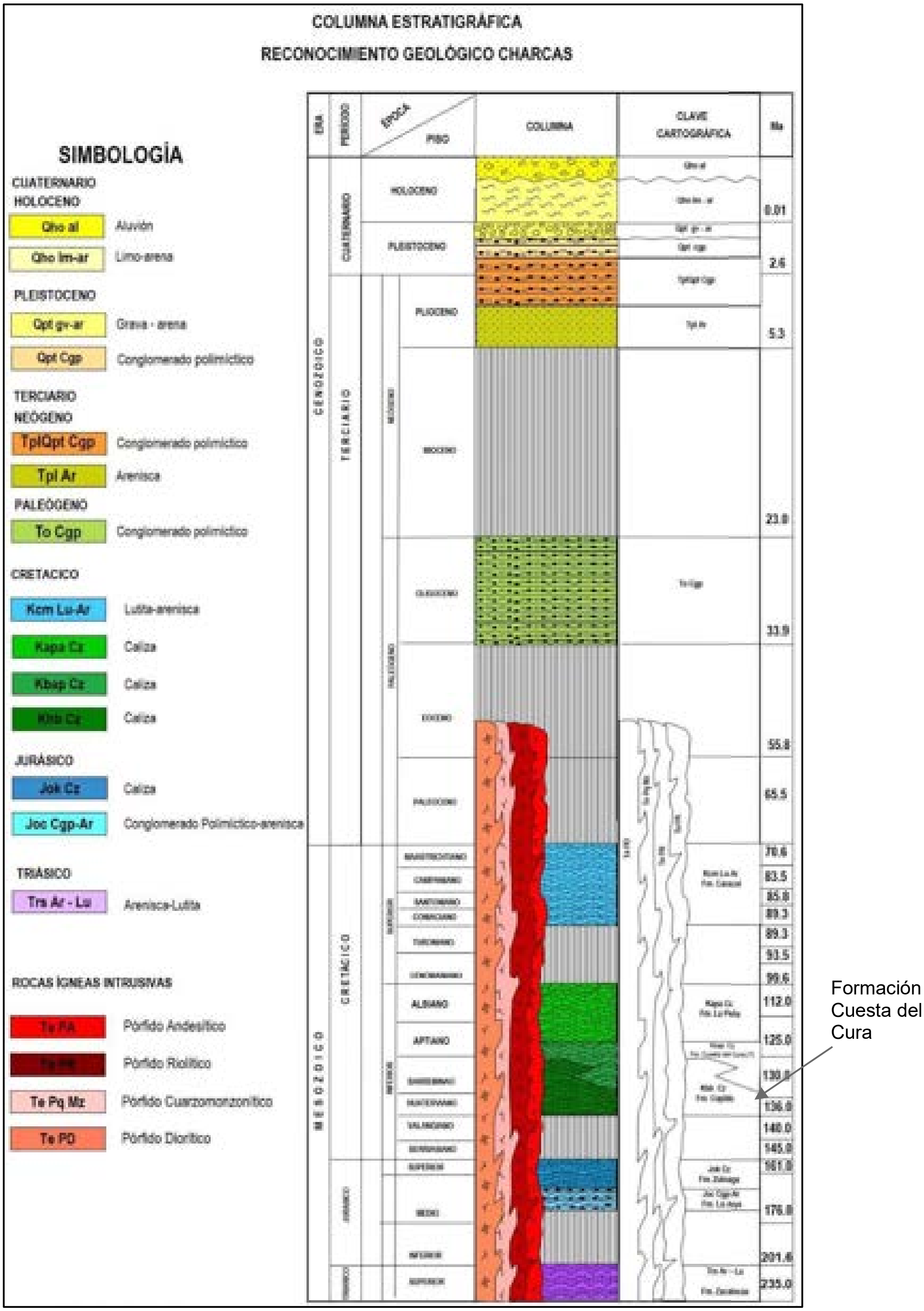
Figure 6-2: Charcas's Local Geology Map

Rhyolitic and granitic dikes closely related to the Temeroso stock are distributed in the regional fracturing system and display trends running north-south and east-west. The age of the dikes predates mineralization as they form the host rock for the fracture filling mineralization of the deposits.

Extrusive Rocks

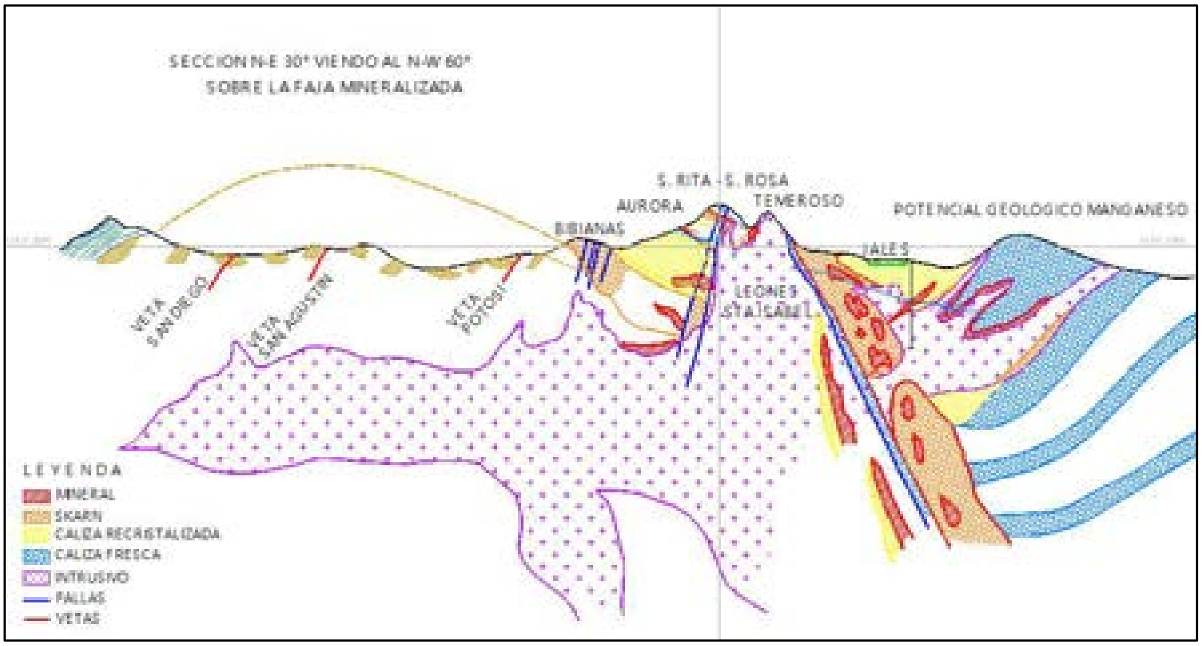
Volcanic rocks constitute isolated outcrops, forming plateaus with steep edges. Some of them are located to the east and south of the population of Charcas where they reach a thickness of between 150 and 200 m. They are made up of tuffs, lithic tuffs, rhyolitic tuffs, and a rhyolitic ignimbrite.

Figure 6-3 presents the stratigraphic column for the Charcas district. Figure 6-4 shows a schematic vertical section across the mineralization trend of Charcas.



Source: Vásquez et al., 2021

Figure 6-3: Stratigraphic Column of the Charcas District



Source: IMMSA, 2021

Figure 6-4: Schematic Vertical Cross-Section N30°E Looking to N60°W across the Mineralization Trend of Charcas

6.1.3 Property Geology

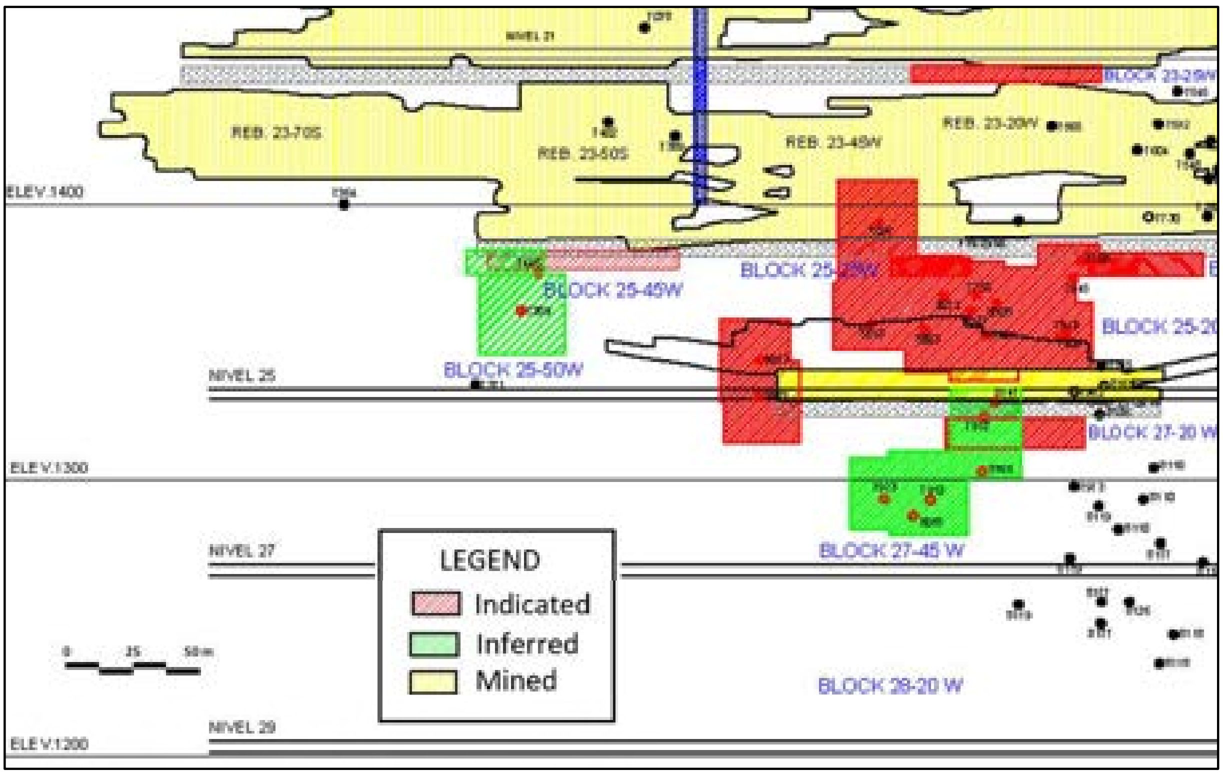
Two main types of mineralization are found at Charcas. IMMSA describes the mineralization as either veins or replacement bodies (in the form of skarn/mantos). The mineralization of Charcas is associated to fracture systems that strike at N65°W to N80°E and dip up to 70°NE and up to 60°SW. Near the Tiro General Mine, there is fissure-fill mineralization, which forms parallel to the contact between the intrusive and the limestones. The Leones Vein is hosted in limestone, and the Santa Isabel vein is hosted in the intrusive and is characterized by reduced widths. The formation of the mineralized fissures is associated to normal faulting.

The Principal Fault (which runs parallel to the Temeroso intrusive stock boundary) cuts all the mentioned veins. Many replacement orebodies are reported to be occurring along the fault. The El Rey and La Reyna replacement orebodies are generated by the Leones-Santa Isabel trend to the west of the Principal Fault. Parallel to the Temeroso intrusive contact is the Bufa Fault that controls other replacement mineralization.

Replacement mineralization occurs as massive sulfides, mineralized breccias, and as “banded white tiger ore” (Levresse et al., 2015). The mineralization of the veins and the associated replacements are similar, including the following hypogene and supergene minerals: arsenopyrite, pyrite, sphalerite, tetrahedrite, galena, bornite, covellite, digestive, chalcocite, native silver, and hematite goethite. This mineralogy is typical of Pb-Zn-Cu-Ag deposits in carbonate rocks. The Leones vein type is considered to be the first stage of mineralization and the second related to the Santa Isabel type, which have copper and silver enrichment associated. Copper contents increase with depth, and lead and silver values decrease towards the east, whereas zinc and copper increase. Lead decreases at depths below 250 m.

The replacement mineralized bodies have irregular forms and sometimes are tabular, indicating that some bedding planes are more favorable for replacement mineralization. The extension and distribution of the replacement mineralization following the structural trends, and the contact with the intrusive is considered variable. The horizontal extension of the replacements and veins reach up to 1,000 m in the area of San Bartolo, 550 m in Leones, and 600 m in Aurora. The mineralization is open at depth, and the tested vertical extension in San Bartolo and Leones is approximately 900 and 450 m in the Aurora area.

The Charcas deposit, as currently known, extends 2.6 km west-northwest to east-southeast and 2.8 km north-northeast to south-southwest. Figure 6-5 shows the long sections of Cuerpo San Bartolo containing the mined zones and some resource blocks (2022), which provide an idea of the extension and irregularity of the mineralization in these two areas.



Source: IMMSA, 2022

Figure 6-5: Long Section of Cuerpo San Bartolo

6.2 Mineral Deposit

6.2.1 Skarn Deposit

The mineral deposits found within the Charcas mining district are Tertiary polymetallic skarn (Ag, Pb, Zn, and Cu) deposits hosted in carbonate rocks of the Jurassic-Cretaceous period and in shales and sandstones of the Late Triassic. In the carbonate rocks, veins and mantos (replacement mineralization) form the predominant mineralization, while less-mineralized fractures tend to occur within the shales and sandstones. The varied style of mineralization largely corresponds to the lithological variety of units that serve as host rocks.

The CIC was emplaced in Triassic to upper Cretaceous sedimentary rocks. Some dikes from the CIC have developed metamorphism halos with related polymetallic mineralization. The inner and outer alteration patterns and the mineralogical sequence found are compatible with the description of distal skarn type (Dobarganes et al., 2012a).

The magmatic origin of the fluids and the evolutionary history of the Charcas zinc skarn deposits of the inner calcite zone is highlight by high temperature/high salinity fluids and carbon dioxide. In the outer zone, the mixing of the degassed rich magmatic brines with meteoric water may be responsible for boiling, dilution, and cooling of the resulting solution, processes that could cause the deposition of the mineralization (Dobarganes et al., 2012a).

6.2.2 Fracture Filling Mineralization (Veins)

Fracture filled mineralization is a characteristic of hypothermal processes. These deposits are representative bodies as veins, with the most important veins at the mine being those of Leones and Santa Isabel veins. This group of veins occupy a fault zone in the contact between the limestones and the intrusive rock. It is evident that the original deposits were subject to the processes of oxidation and supergene enrichment in the most superficial part, which consisted of the solution and deposit of silver ores due to the percolation of surface waters.

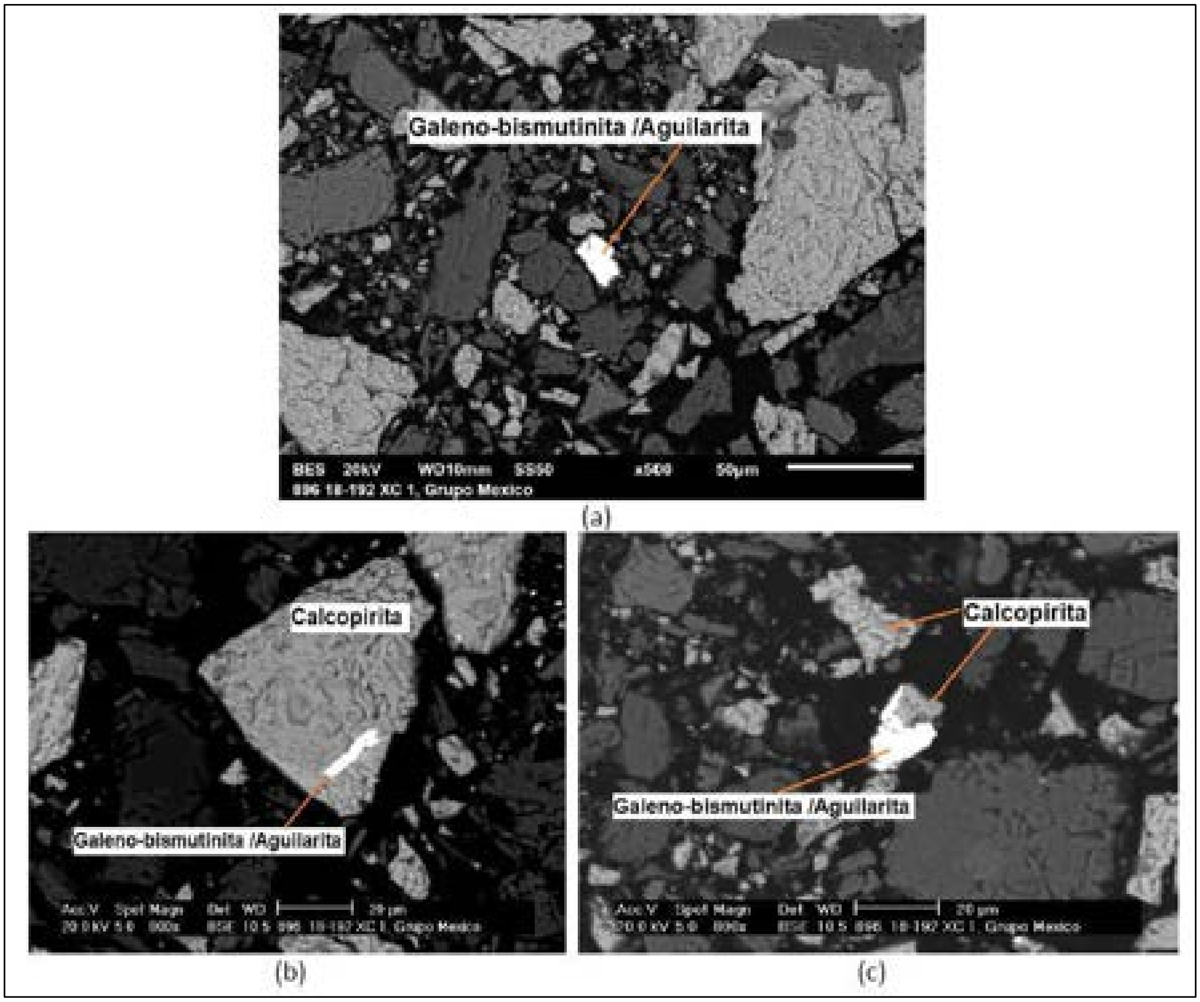
6.2.3 Paragenesis of Charcas

IMMSA has developed the following paragenesis for the mine:

- The first stage comprises minerals rich in silver, lead, and zinc with abundant calcite and small amounts of quartz and chalcopyrite.
- The second stage is where there is a relationship of copper and silver, in which the most characteristic minerals are chalcopyrite, argentiferous galena, pyrite, and scarce sphalerite.

The mineralogy of economic mineralization is comprised predominantly of chalcopyrite, sphalerite, galena, and silver minerals as diaphorite (Pb, Ag, Sb, and S).

Figure 6-6 shows an image of electron microscope scan showing examples of minerals associated to the mineralization of lead, copper, and silver. Figure 6-7 shows the sphalerite/galena mineralization in a band found in a Charcas underground working.



Source: IMMSA, 2021
Notes: (a): Libre, 10 micras; (b) y (c): Asociada a la calcopirita

Figure 6-6: Galena-Bismuthinite/Aguilarite

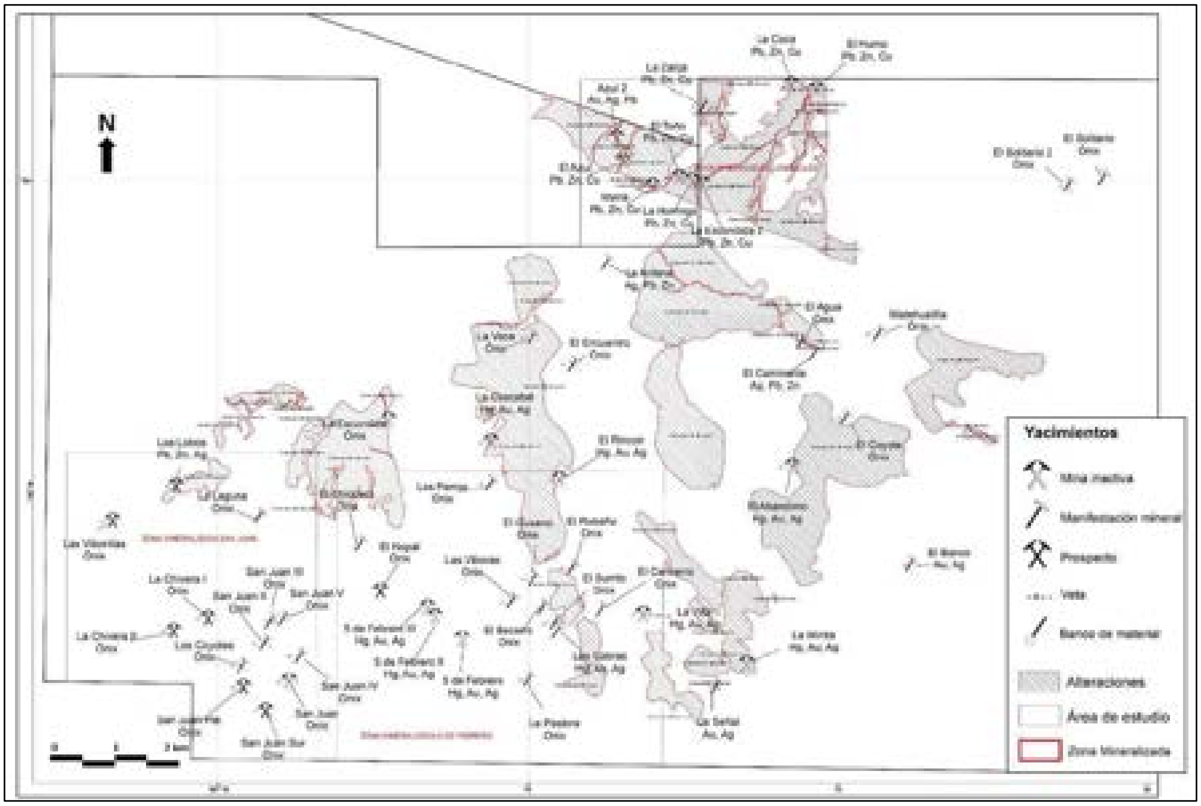
Source: SRK, 2021

Figure 6-7: Photography of Sphalerite/Galena Mineralization in Charcas

7 Exploration

Since early last century, exploration activities have advanced alongside mining activities, focusing on extending the known mineralization as mining advanced.

In 2021, IMMSA finalized the geological reconnaissance of 30,000 ha in the mining titles of the company in Charcas to acquire the geological and mineral potential in the IMMSA mining titles and to define new targets. The study included geological mapping and geochemical sampling, including the location and description of abandoned mines and prospects (Figure 7-1).

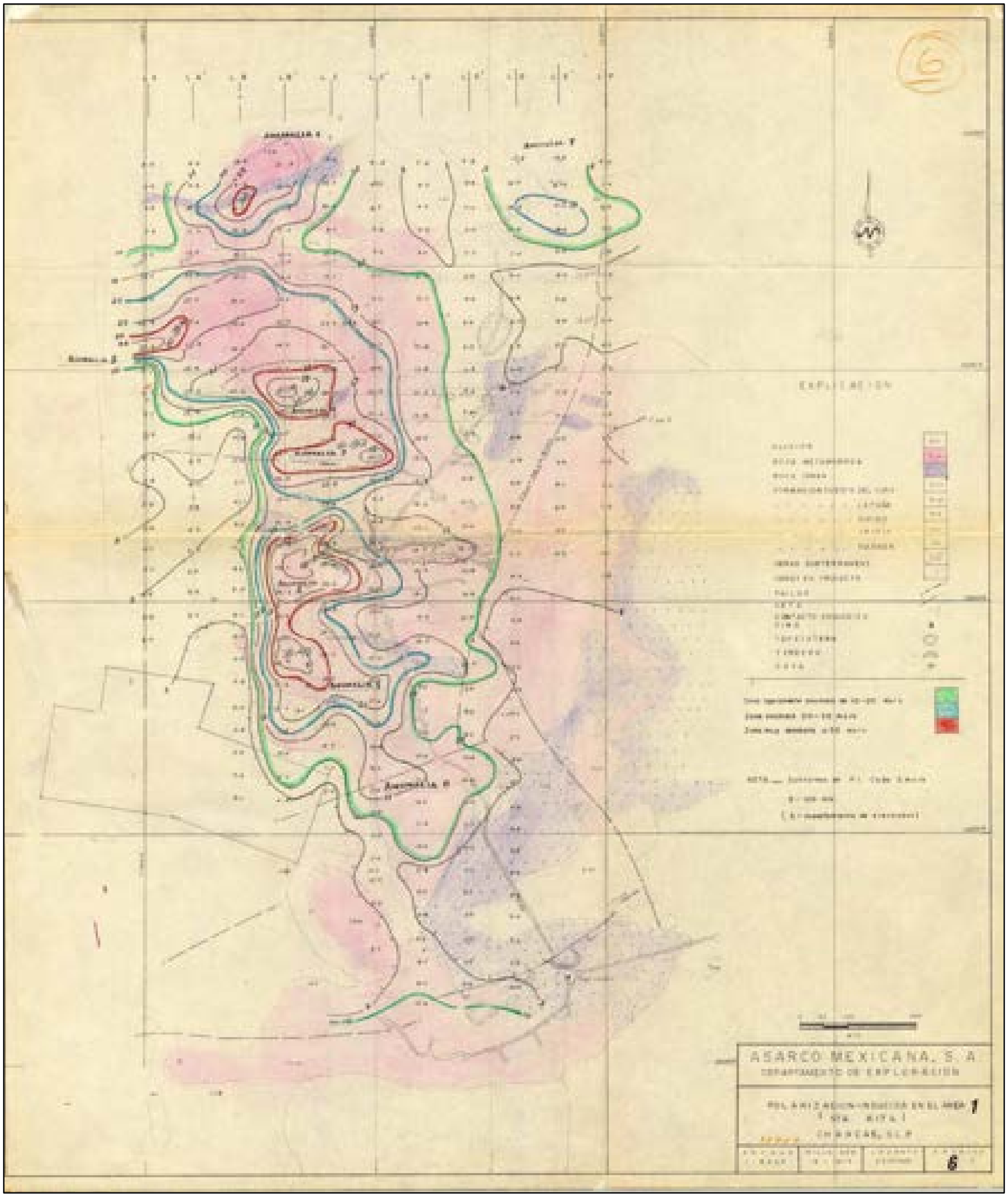


Source: Vásquez et al., 2021

Figure 7-1: Map Showing Location of Mineral Occurrences and Mineral Deposits Identified during the Geological Reconnaissance of Charcas

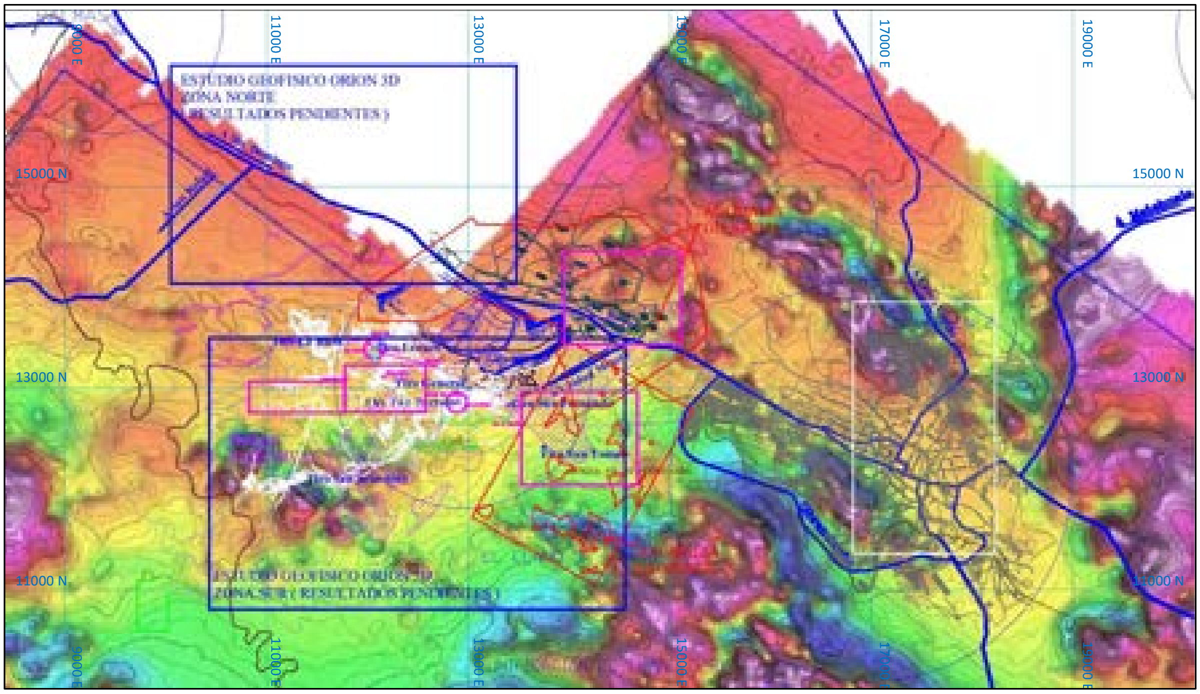
7.1 Exploration Work (Other Than Drilling)

In 1973, Asarco completed an induced polarization (IP) survey (Figure 7-2) and magnetometer study (Figure 7-3) over the Charcas area. The study found eight zones of interest (indicating potential concentrations of metallic sulfides), including a number of localized anomalies related to contact zones between the metamorphic and igneous rocks within the property along a north-south trend. Figure 7-2 presents the results of the IP study in the Santa Rita area, showing a zone in red (chargeability >30 millivolts per volt (mV/V)) with an approximate north-south trend. Figure 7-3 shows the map of Charcas's magnetic anomalies. Based on the results of the geophysical studies (IP and magnetics), it was decided that follow-up drilling was warranted to test the economic potential of selected anomalies.



Asarco, 1973

Figure 7-2: Map of Results of IP Study in the Area of Santa Rita



Source: IMMSA, 2016

Figure 7-3: Map Showing Magnetic Anomalies in the Charcas Deposit

7.1.1 Geological Reconnaissance (30,000 ha)

The study recognized a total of 56 potential mineral deposits which include mineral occurrences, prospectus, and inactive mines. Not all of the deposits were previously reported; some of them related to tabular bodies and irregular hydrothermal mineralization type, with mineralization of onyx and presence of mercury, and other structures include more-tabular hydrothermal mineralization of Pb-Zn-Cu-Au and Ag, interpreted to be related to volcanogenic massive sulfide (VMS)-type deposits. The exploration identified the location of a potential mineralized (Figure 7-1) zone located approximately 7 km to the south of the Charcas operation. A total of 388 chip samples were collected for chemical analysis from stockwork type zones, mineralized structures, and alteration zones (Vásquez et al., 2021).

Three main mineralized zones were recognized: San Juan, February 5, and El Azul.

In the San Juan mineralized zone, the most important deposits are the inactive San Juan Mine with its onyx 300-m long, 60-m wide thickness, and 40-m depth tabular structure, with Au and Zn tracers, and the Los Lobos Prospect, with important tracers of Pb, Zn, Au, Ag, and antimony (Sb), mainly.

In the February 5 mineralized zone, the most important deposits are the inactive Mine 5 de Febrero, with tracers of Au and Zn, and El Nopal, with tracers of As, Au, Pb, and Zn.

In the El Azul mineralized zone, most of the deposits present favorable mineralization for Pb-Zn-Cu and Au. However, the main deposits are El Azul, Azul 2, Toño, and La Hormiga. Further exploration is needed to provide more-detailed studies of the identified areas to evaluate the geological and mineral potential be completed.

7.1.2 Procedures and Parameters Relating to the Surveys and Investigations

Access to underground workings due to the long mining history provides opportunities to the Company to gather good geological information via mapping and sampling of the workings. To ensure the information can be accurately placed to develop mine-scale models, there is a requirement to geo-reference (survey) the location of mapping and sampling points. The underground workings are surveyed with Total Station and historically using theodolite instruments.

The information obtained from sampling, geology, structural, and mineralization is registered on maps. The historical maps were completed in paper format and are stored in the mine geology office. It is the QP's opinion that the processes in place are well established and follow generally accepted best practices for survey methods underground. The QP highlights that all the information related to exploration has been digitalized and is kept in Excel files and in Seequent Leapfrog Geo software but not in a commercial database system, which is considered best practice. The QP highlights that there is still a limited risk that not all information is used when generating maps and cross-sections or that the process of updating the interpretations can result in a time-consuming process for the geological staff. The current mineral resources are focused on the known mining areas, and therefore this risk is considered low. However, higher risk is associated with exploration activities when not all inputs are used to increase the chances of success.

The new 3D geological model and resource block model will help to optimize the exploration and mine planning processes.

The interpretation and integration of data in 3D will provide improved productivity. It is the QP's opinion that the mine has demonstrated sufficient quality in the survey process to accurately reflect the geology, which is supported by the long mining history of the deposit.

7.1.3 Sampling Methods and Sample Quality

Mine Channel/Rock Chip Sampling

The rock samples from the underground workings are collected from the roof of drifts using long steel bars and/or hammer and chisel (Figure 7-4). Sample limits are defined by the geologists according to changes in mineralization and lithology and are collected approximately perpendicular to the mineralization controls (stratigraphy).

Source: IMMSA, 2022

Figure 7-4: Rock Sampling using Hammer and Chisel (Left) and Long Bars (Right)

The geologists complete the geological description of the channel. The samples are described including the following information:

- Lithology
- Alteration (type, intensity, and mineralogy)
- Mineralization (styles, intensity, and mineralogy)
- Structures (description, aptitude, and mineralogy)

The rock chips are collected simulating a channel by the geology technicians. Sample lengths vary from 1 to 2 m. The geologists try to use 5-m systematic distance between the sampling channels.

Each rock sample is collected in a piece of fabric disposed in the floor, and then the big pieces of rock are homogenized to a size of approximately 2.5 to 4.0 centimeters (cm) using a hammer (Figure 7-5). The sample is mixed inside the fabric, split by hand, and then a sample of 2 to 5 kg is packed in plastic bags that are labelled and then closed with ties.

Source: IMMSA, 2022

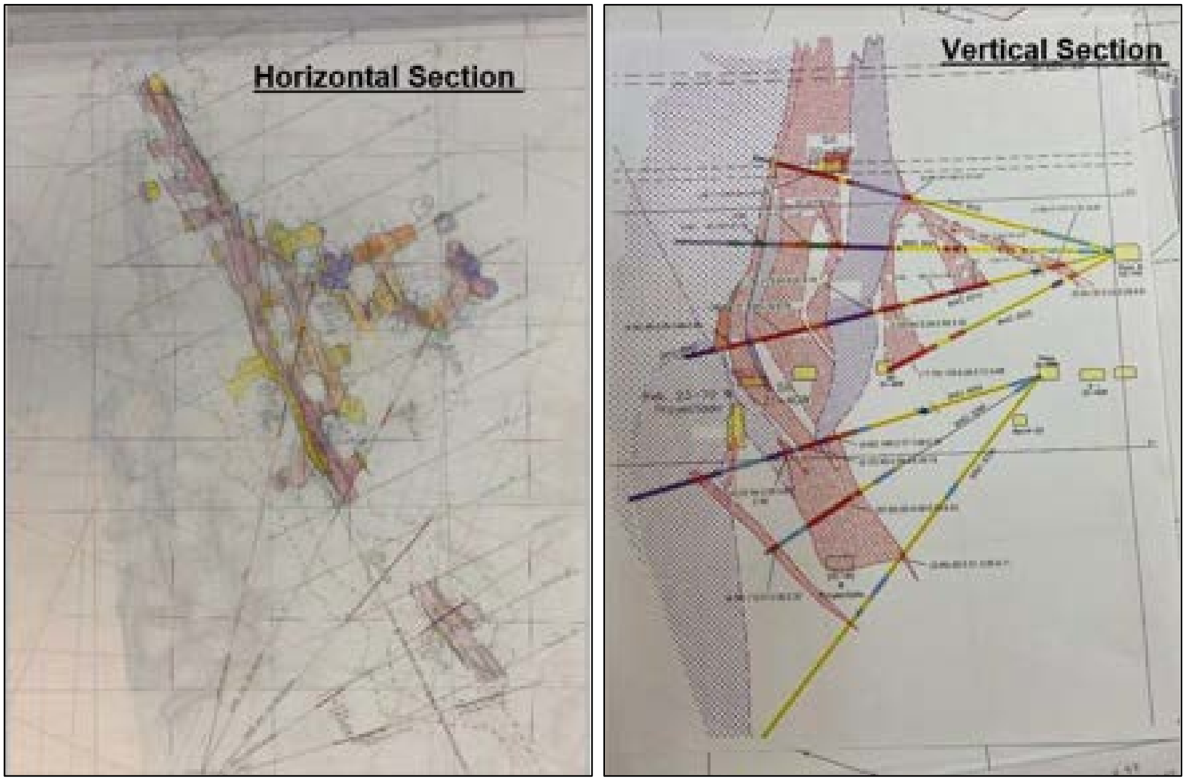
Figure 7-5: Homogenization Process of Sample Particle Size

In 2022, IMMSA implemented an additional method of rock sampling in panels that consists of collecting rock chips from the drift fronts that the geologists mark according to the mineralization/ geology characteristics (Figure 7-6). Individual samples (1 to 2 kg) are collected from each defined area with a hammer and chisel. IMMSA is not collecting field duplicates of these samples to evaluate the quality of this sampling methodology. According to IMMSA, this methodology has shown advantages for the short-term planning of the operation at Charcas.

Source: IMMSA, 2022

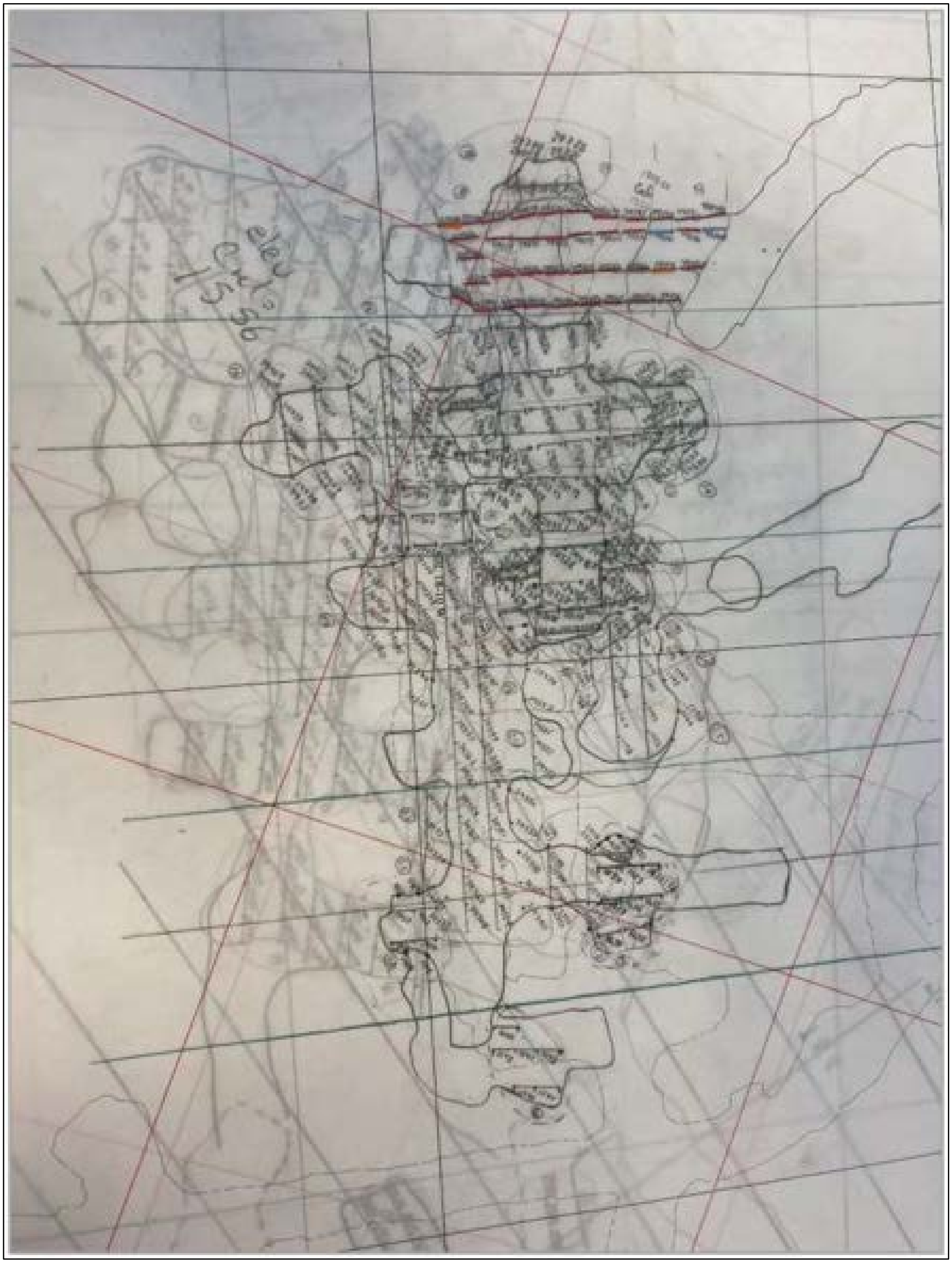
Figure 7-6: Panels Marked for Chip Rock Sampling

The sample channels are located using compass and tape from existing points located along the underground workings. The mine topography maps provided by the mine topography department are used to draw the geology interpretation (Figure 7-7), structure, and the horizontal projection of rock sampling lines (Figure 7-8). The complexity distribution of the mineralization is a distinctive feature of this deposit, and the integration of the interpretation sections and maps will be a challenge when constructing a 3D geological model, despite the good quality and quantity of geological interpretation information.



Source: IMMSA, 2021

Figure 7-7: Example of Underground Geological Plan and Vertical Sections (Paper and Digital AutoCAD)



Source: IMMSA, 2021

Figure 7-8: Example of Channel Sampling Location Maps (Paper)

The QP considers that the procedures of rock sampling are not in-line with industry best practices, and potential sampling errors can be introduced due to changes in rock hardness and noncontinuous channel sampling when using long bars to collect the rock chip samples. The lack of an adequate rock sampling protocol results in poor-quality rock sampling and potential uncertainty associated to the results.

The samples are collected by the geology technicians and delivered to a company geologist who reviews the samples and delivers the samples to the on-site laboratory to provide a chain of custody. Internal quality controls are not included in the sample stream by Charcas's geologists.

All the chip channel samples collected by the operation are sent to the internal on-site laboratory, where assaying is completed as described in Section 8.

The assay results received by the geology staff are registered in Excel spreadsheets. For the historical sampling, the assays results were received in paper tables, and the geologists wrote by hand the results information directly into the maps and the resources/reserves supporting documents. The sample information in Excel contains information of the sample length and silver, copper, lead, and zinc grades. Lithology, alteration, and mineralization description are not included in the Excel spreadsheets, which are part of the data capture process required to generate a 3D geological model. During the process of defining the current mineral resource, the QP visited the mine numerous times and reviewed the paper sheets to validate the results and positioning of the assays are appropriate for use in the estimation process.

In 2023, Charcas collected 17,415 rock samples as part of the exploration and grade control activities.

7.1.4 Information About the Area Covered

The main part of the Charcas project, where the exploitation and exploration have been focused covers an approximate area of approximately 2,000 ha. Previous geological reconnaissance campaigns have covered areas of up to 30,000 ha. In the Charcas operation, all the underground workings and stopes are sampled. The distance between the sampling lines is approximately 5 m. Once a stope is advanced, a new set of samples is collected from the roof of the stope, maintaining the sampling spacing, which is then used for the mineral resource updates.

7.1.5 Significant Results and Interpretation

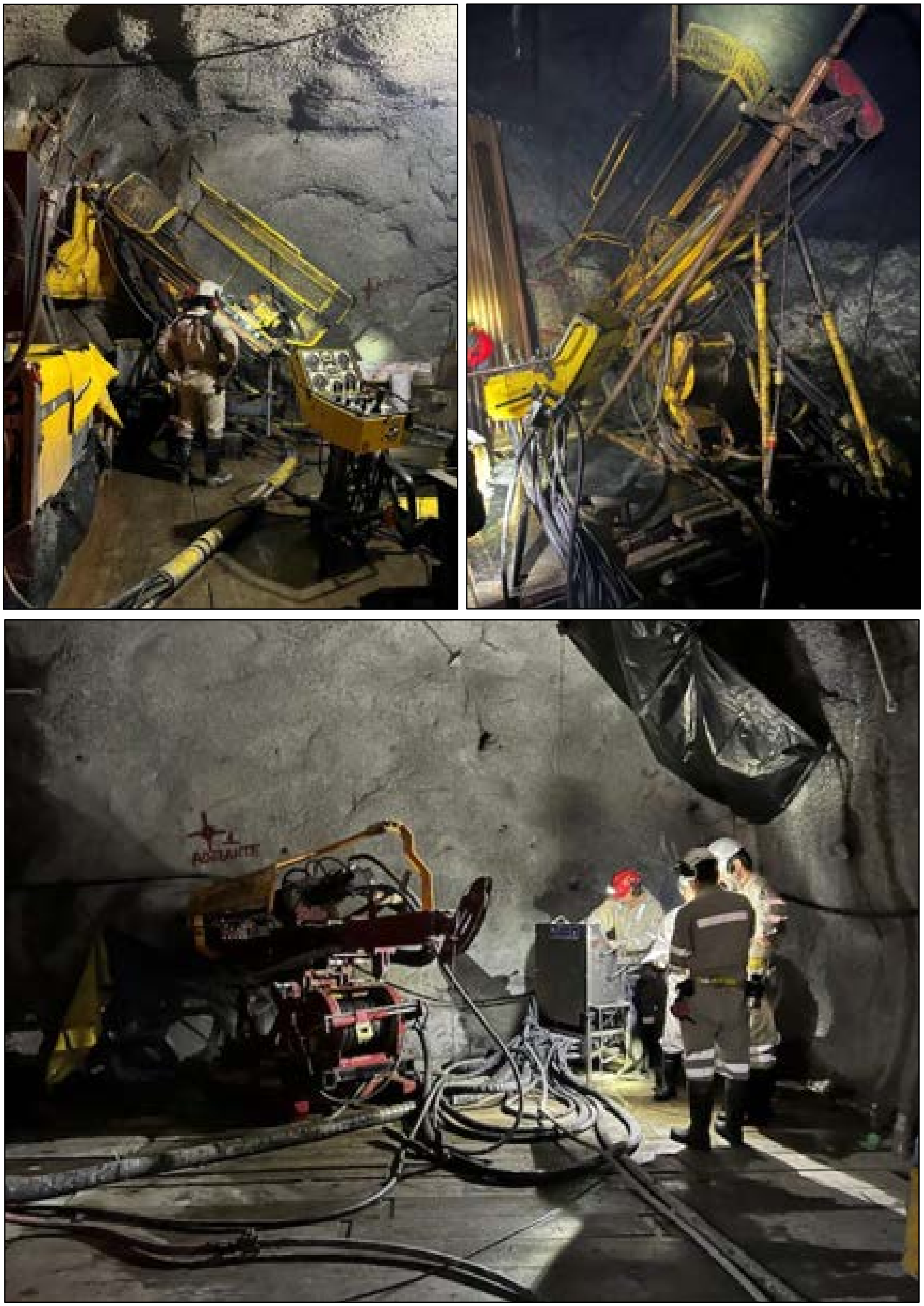
Although the sampling methods and sample quality are not in-line with best practices, the results are representative of the geological units and mineralization controls. The results from channel sampling are accepted for the definition of the geological interpretations and mineral resources at Charcas.

The geological reconnaissance completed in 2021 identified 56 potential mineral deposits that include mineral occurrences, prospectus, and inactive mines in the mineral titles of IMMSA in Charcas, located approximately 7 km to the south of the mining complex of Charcas. This study provides important information, and additional detailed investigations are required to evaluate the geological and mineral potential of the identified areas. In 2023, Charcas did not complete new geological reconnaissance.

7.2 Exploration Drilling

The drilling in Charcas has been documented since the early 1900s with variable levels of quality. Drilling information is available after 1976. Most of the drilling completed by the operation is in NQ and

BQ core, and the mine geology department has recently implemented the use of NQ as the smaller core size (for exploration purposes). IMMSA recently implemented the use of the Gyro equipment to measure drillhole deviation surveys approximately every 10 m. The majority of the drillholes are over 100 m in length, and depending on the zone of the Charcas project, there are a considerable number of drillholes of more than 200 m long. A lack of downhole surveys for the historical drilling can result in location errors of the drillhole intercepts and potential mining panels (stopes) defined with the drilling, representing a moderate risk level. It is the QP's opinion that this risk is limited as the drillholes defining the Indicated portion of the deposit are relatively close to the current underground workings and therefore will have limited deviation. Impact on Inferred resource for longer holes will likely have slightly higher risk. The QP has considered this risk during the classification process the reflect the levels of confidence. Figure 7-9 and Figure 7-10 show two underground drill rigs used by Charcas and the core boxes at a drill station.



Source: SRK, 2022 to 2023

Figure 7-9: Drill Rigs Used by the Mine Geology Team in Underground Chambers

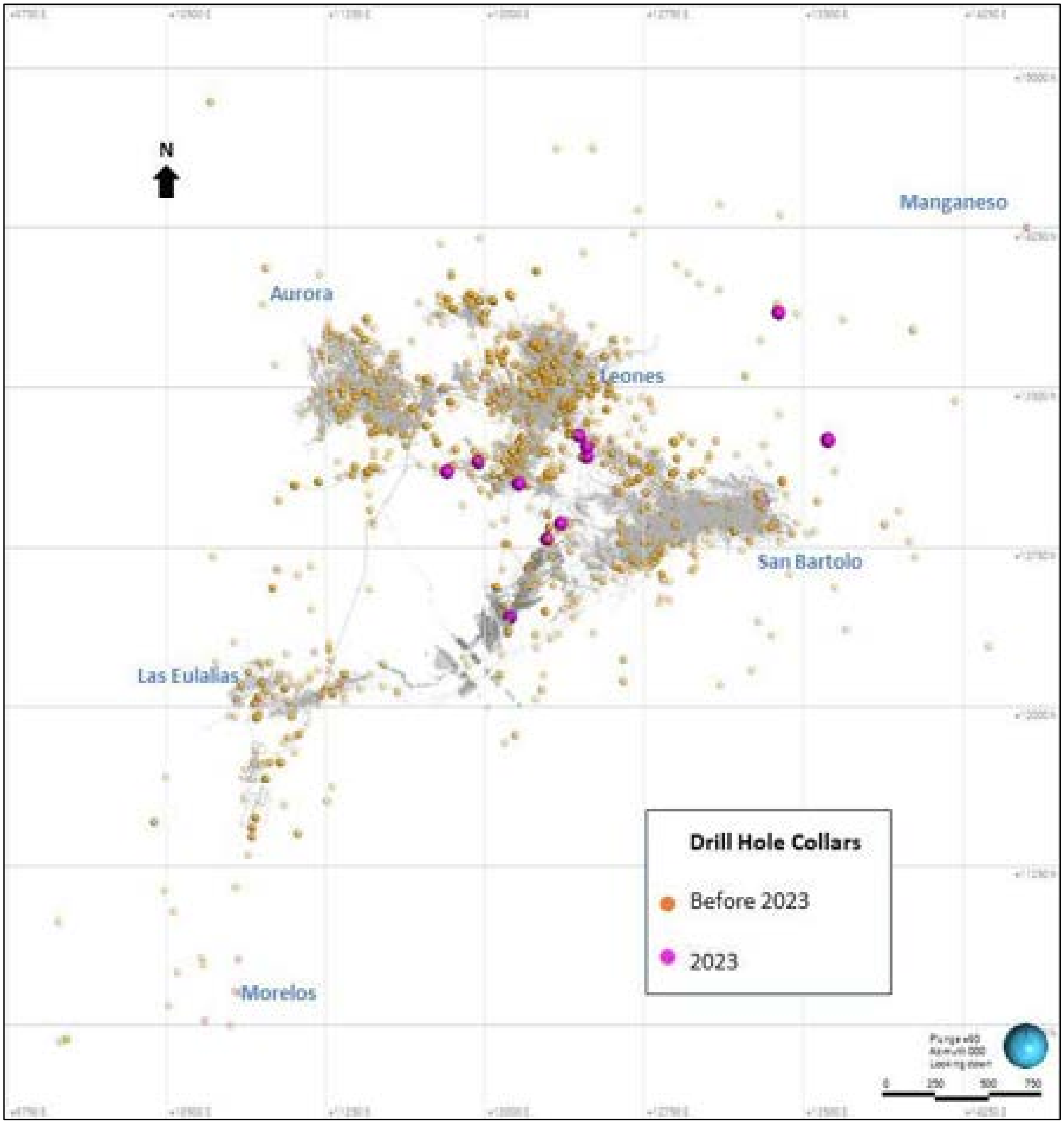
Source: SRK, 2022 to 2023

Figure 7-10: Drill Core Boxes Collected by the Mine Geology Drilling Department

All exploration and development have been completed by IMMSA under its current legal name or by the previous name, Asarco. The following is a summary for the past five years.

- Mine exploration in 2015 included 32,144 m of surface drilling and 20,536 m from underground stations.
- Mine exploration in 2016 included 20,000 m of surface drilling and 20,754 m from underground stations.
- Mine exploration in 2017 included 5,999 m of surface drilling and 23,098 m from underground stations.
- Mine exploration in 2018 included 11,757 m of diamond drilling and 20,285 m from underground stations.
- Mine exploration in 2019 included 20,105 m of diamond drilling and 9,012 m from underground stations.
- Mine exploration in 2020 included 10,609 m of drilling from underground stations.
- In 2021, the exploration department completed 39 drillholes from surface, totaling 14,673 m of diamond drilling focused in las Eulalias. 21,200 m were completed by the operation from underground in Las Eulalias.
- In 2022, Charcas's mine geology department completed 60 drillholes, totaling 9,015 m and 2,467 core samples, using eight drill rigs (six recently adapted for NQ core size). The areas drilled included Las Eulalias, Rey y Reina, San Bartolo, Santa Rosa, and La Bufa.
- In 2022, Charcas's exploration department focused on the Las Eulalias, Rey-Reina-Este, Leones, and El Manganeso zones and completed 20 drillholes totaling 7,430 m.
- In 2023, Charcas's mine geology department completed 46 drillholes between January and November, totaling 13,187 m and 1,215 core samples.
- In 2023, Charcas's exploration department completed 22 drillholes, totaling 13,424 m using contractors (Tecmin and Bylsa).

Figure 7-11 presents the location of the digitized collars, including the 2023 collars (Tecmin and Mine Geology).



Source: SRK, 2023

Figure 7-11: Location of Drillhole Collars at Charcas

7.2.1 Drilling Type and Extent

Charcas has drilled at least 6,000 drillholes since the last century, but the actual number is not clear due to lack of a historical drilling register stored in a central database. The drilling database has been digitized in 2023 and the data are stored Excel spreadsheets and imported into Charcas's database to generate the new 3D geological model. At the time of reporting, the geological model is ongoing; therefore, the current estimates have relied on hard copies to validate the process and values in the estimates. To provide some context on the drilling coverage, the QP has shown the latest collar plots of the validated a captured data in Figure 7-11, including the 2023 drilling program. The QP highlights to the reader that this is not the complete database but demonstrates that from the captured data there is a reasonable level of coverage over the mine area. The implicit geological model is due to be completed in 2024 to be used to generate future mineral resource estimates.

Underground diamond drilling completed by the mine geology department includes drilling in sections spaced 25 to 30 m apart perpendicular to the main mineralization trend, with each section consisting of a fan of various holes.

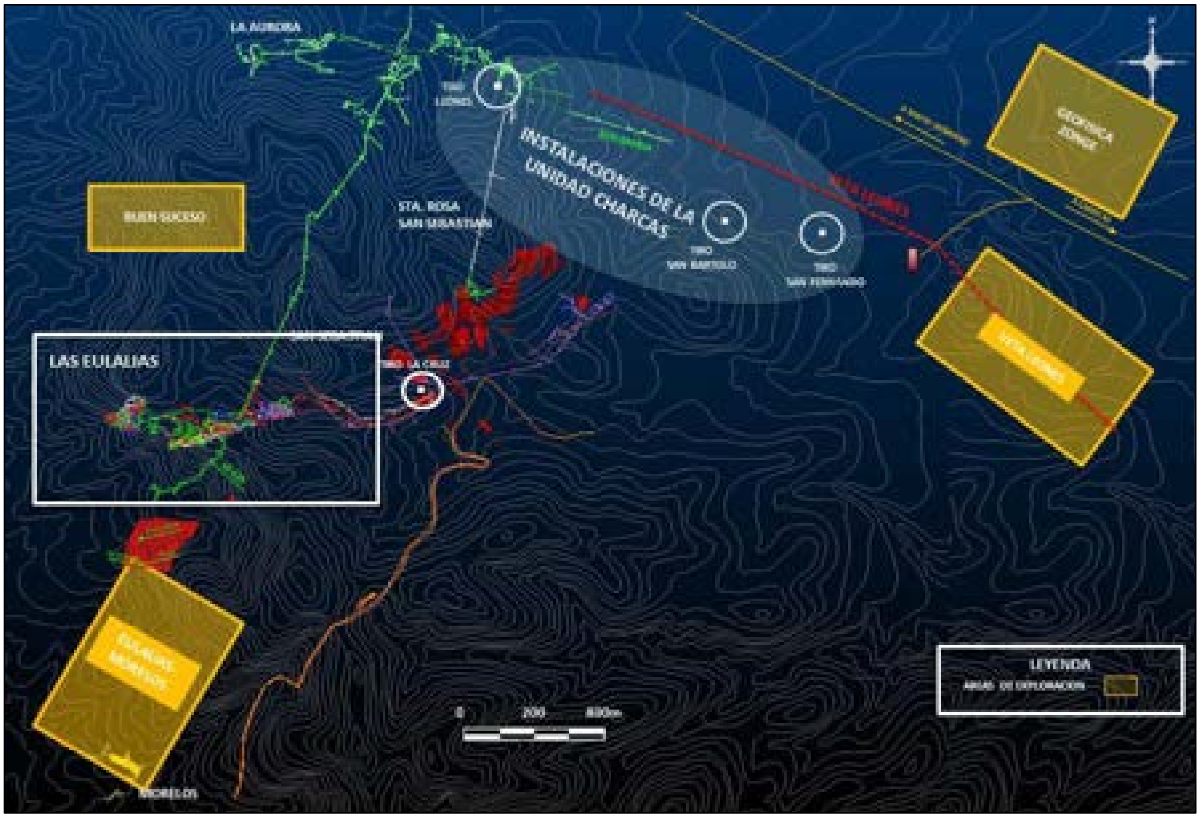
On completion of each drillhole, the collar location is surveyed, and the downhole surveys are completed (recent drilling). The following information is recorded on paper drill log sheets:

- Hole number, with collar location, length, dip, and azimuth
- Start and completion dates of drilling
- Collar location (X, Y, and Z coordinates), azimuth, and dip
- Core lengths and recoveries
- Geological and mineralogical descriptions
- Assay results

The location of the collars has historically been registered in several different formats, including Excel tables, and paper logging sheets. The drill traces and projections have been reviewed by the QP using traces found in individual paper maps, sections, and in AutoCAD files. The QP has undertaken further manual checks to validate the database.

The historic mine geology drillholes are used in conjunction with the contractors' (Tecmin and Bylsa) drillholes in the mineral resource estimation.

Since 2019, Tecmin has completed a series of drilling campaigns as part of the current exploration activities, focused in areas surrounding the main project. There are several resource blocks defined in those areas. In 2023, the exploration department completed 22 drillholes, totaling 13,424 m using the contractors (Tecmin and Bylsa) (Figure 7-12) as part of the program to evaluate the mineralization structures and resources/reserves evaluation. One drillhole was completed in the area of El Manganeso located 2.5 km to the east-northeast of the Charcas operation area.



Source: IMMSA, 2021

Figure 7-12: Location of Las Eulalias Zone

7.2.2 Drilling, Sampling, or Recovery Factors

Mine Geology Drilling Programs

The mine geologists complete the core logging in paper formats according to defined (IMMSA) protocols, the QP notes there is historical information that includes different logging coding or lack geological detail. The definition of a data capture protocol that unifies criteria for all the previous and recent drilling and rock sampling will be needed. Assessment of the data gaps were completed in 2023 for the data capture to the digital database (Excel spreadsheets). The description of core includes the lithological, structural, alteration, and mineralization characteristics. The sample limits are defined according to changes in geology and mineralization. Only the areas of visible mineralization and its halo of 4 to 5 m around the mineralized zones (hangingwall and footwall) are sampled.

A core splitter or an electrical saw have been used to cut the core, and half of the core is collected in plastic bags and sent to the internal laboratory for chemical analysis (silver, copper, lead, and zinc). The remaining core of the sampled zones is stored at the operation complex. Small core pieces (10 to 20 cm) from the drillhole intervals that have been described as non-mineralized rock are stored.

The logging formats include the zinc, lead, copper, and silver grades, which are completed after the reception of the results. Part of this information is in digital format, and Charcas's personnel and a contractor are digitizing and creating the database, including collar, survey, assays, and lithology tables.

Before 2023, all the drilling was completed by the mine geology department without an established internal QA/QC protocol. In 2023, IMMSA started the design and insertion of some controls.

The QP conducted site visit inspections to review the hard copies of the logging and completed sufficient levels of checks to consider the data sources to be reasonable to form the basis for use in the mineral resource estimate.

Exploration Drilling

In addition to the drilling completed by the operation, the contractors (Tecmin and, recently, Bylsa) have completed the drilling for the IMMSA exploration department for the last 6 years, totaling more than 25,000 m. This drilling includes downhole surveying every 50 and 20 m, and recently, the contractors collect deviation measurements every 5 to 10 m using the Gyro equipment. IMMSA's exploration department has implemented a QA/QC protocol that includes the use of blanks, duplicates, and certified reference materials checks. It is the QP's opinion that the QA/QC protocols implemented by the exploration department are in-line with the generally accepted industry best practices.

Once the diamond drilling is completed by the contractors and the core has been recovered, the core is transported to a separate IMMSA facility where the holes are logged. Logging is completed by IMMSA geologist. Figure 7-13 presents the core shed and logging area of Charcas's exploration department.

Source: SRK, 2022

Figure 7-13: Core Shed and Logging Area of Charcas's Exploration Department

Once at the logging facility, the core boxes are placed in order on logging tables with the run blocks (from – to) clearly visible, and the core is then washed. Standard checks are completed to ensure all core is accounted for, including cross checks of the length and from – to information provided. The core is then logged (with the following features recorded: structures, mineralization, alteration, rock type, contacts, and clasts), and sample intervals are marked.

Geotechnical information, such as recovery and rock quality designation (RQD), are also recorded, as these data are needed to assess rock quality and determine mining widths, pillars, and mine support programs.

The drillhole information, including core logging and sampling, is registered in paper format and is captured digitally for all new holes using the GVMapper™ software. Logging includes both descriptive information and a graphical log, with assay information updated once received (Figure 7-14). The hard copies of the drilling logs are physically stored in Charcas, and the digital information is compiled and organized according to a data capturing protocol that defines the data codification and formatting. Based on the site inspections completed since 2021, the QP considers that the logging information and database are reasonable to form the basis for use in the mineral resource estimate.

Source: IMMSA, 2021

Figure 7-14: Diamond Drilling Core Logging Sheets as Used at Charcas

Specific gravity measurements are taken every 50 m according to changes of lithology, and mineralization characteristics are being taken by the exploration team using the Archimedes principle.

The specific measurement results have not been used for the current resource estimation because these measurements are collected in areas surrounding the main part of the deposit. It is the QP's opinion that the use of a single density value for the Charcas project represents a moderate risk to the estimation of the total tonnage, and local fluctuations are likely expected. The risk is only considered moderate, as the current assigned density of 3 t/m^3 is based on the mining production which has been established over a long period of time.

7.2.3 Drilling Results and Interpretation

The historical drilling information, which supports most of Charcas's mineral resources, have been completed without the inclusion of QA/QC controls. There is no complete database, which would facilitate quantifying the number of drillholes and evaluate core recovery and downhole surveying of drillholes. According to databases of some locations, part of the drilling completed by the Charcas operation included downhole survey measurements using the Reflex multi-shot equipment at variable intervals of 30, 50, and 100 m. The Gyro equipment has been used since 2016. Historical drilling (before 2000) was completed without downhole surveys. The lack of a QA/QC protocol and the existence of drillholes without downhole surveys do not follow industry best practices and may result in errors in the location of the mineralization intersections and quality of the samples and results.

The lack of downhole surveys in the historical drilling represents a moderate risk associated to location of mineralized intercepts in areas unsupported by underground workings. Recent drilling completed by the exploration team and the partial underground drilling completed by operations have downhole surveys.

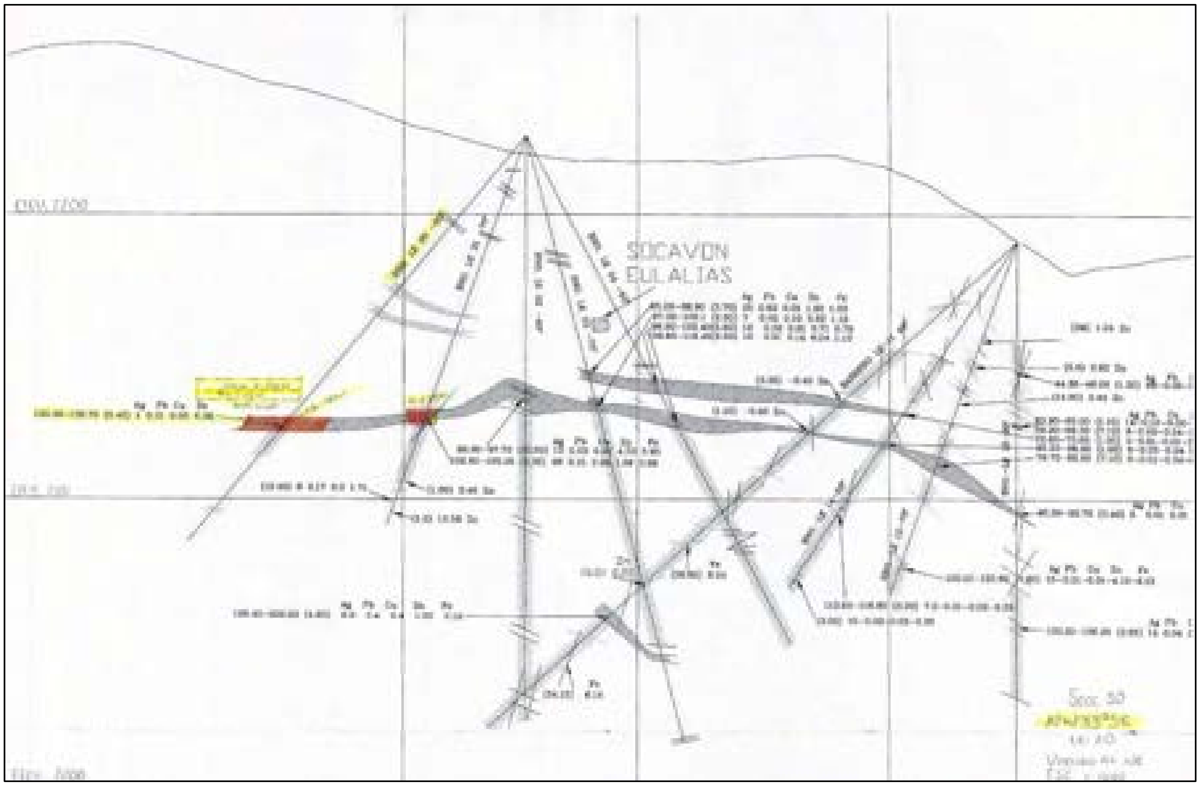
Core recovery is not an issue according to the information provided by Charcas, and recent drilling has shown core recoveries above 90%. Old drilling technology used for part of the historical drilling could have been an issue during the previous century.

The drilling campaigns have been carried out by the operation using TT46 (historical drilling), NQ to BQ size core, which are considered reasonable. In 2023, IMMSA implemented the use of NQ in all the mine geology department drilling and using BQ if necessary. HQ and NQ drilling diameters are more specifically related to exploration drillholes completed by the contractors in recent years.

The mine geology department drillholes have been drilled from underground drilling chambers with Charcas's rigs. Drillholes have been drilled in a fan pattern with variable azimuth and dip angles dependent on the zone of the Charcas project. The routine drilling of the operation is typically completed using fan drilling from the existing drives to aid in the mapping and delineation of mineralization.

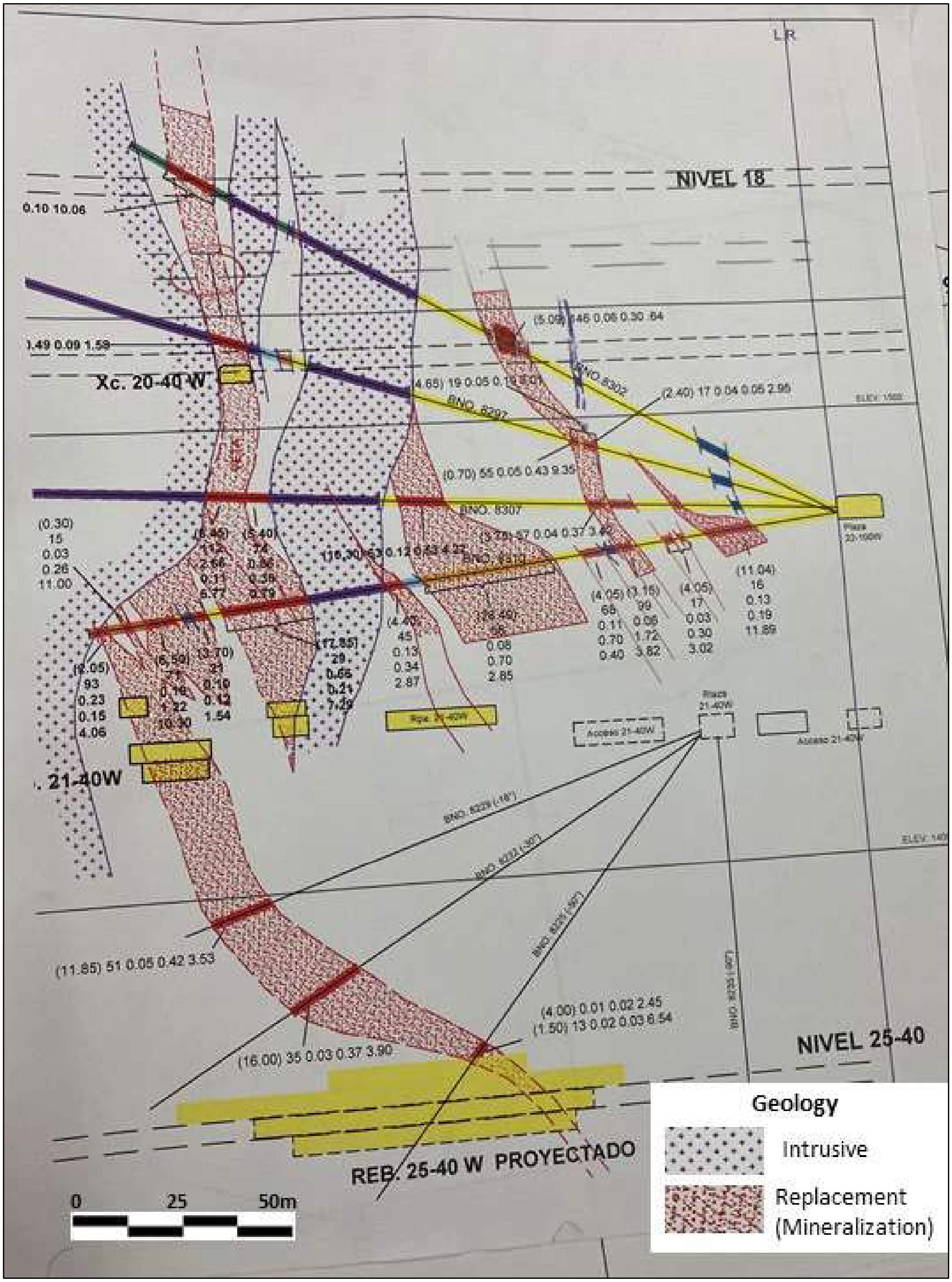
The information obtained from the description of the core is transcribed in the hole books (a file that is carried out in physical format), after which this same information is reflected in its corresponding cross-sections of drilling in physical and digital format in AutoCAD. The information obtained is interpreted in the sections and in plan.

Drillholes are orientated as perpendicular as possible to the mineralization controls (stratigraphy and veins). The geology of Charcas is complex, and the distribution of the intrusive and the associated replacement mineralization type makes it difficult to perpendicularly intercept the mineralization and geology. In the QP's opinion, the variable drilling inclination is acceptable considering the geology, and Charcas attempts to minimize the number of instances. Figure 7-15 and Figure 7-16 show the intersection angles relative to the interpreted geology in a vertical section, including the completed and programmed drilling.



Source: IMMSA, 2021

Figure 7-15: Example of a Mineralization Interpretation in a Vertical Section, Including the Core Sample Results



Source: IMMSA, 2021

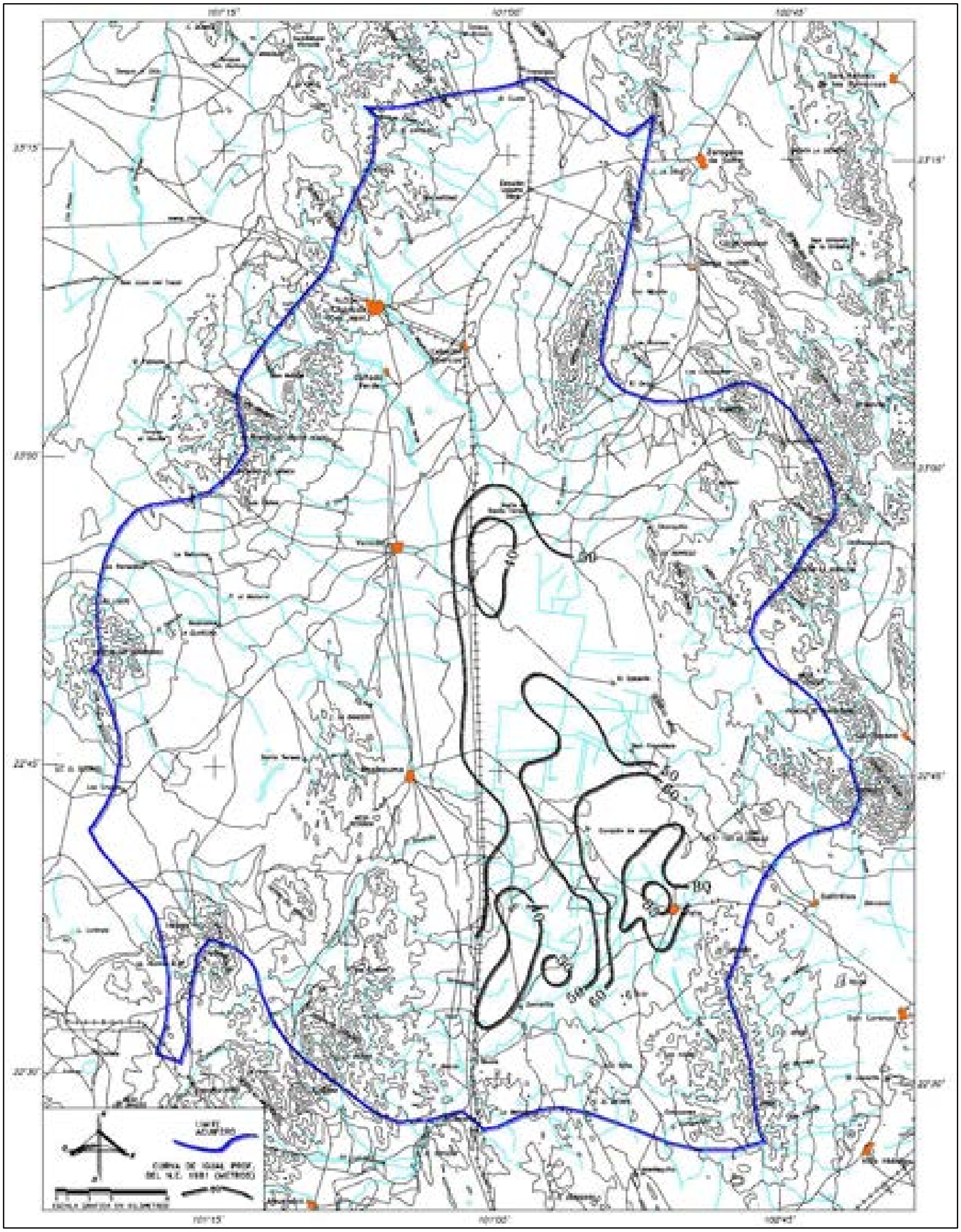
Figure 7-16: Example of a Geology Interpretation in a Vertical Section, Including Completed and Programmed Fan Drilling

The information of drilling in conjunction with channel sampling and geological interpretations from underground workings mapping is consolidated in plan and vertical sections. The variability of the mineralization that characterizes the skarn and veins deposit of Charcas is appropriately interpreted using the different sources of information. SRK relied upon reconciliation of the planned versus executed grades and tonnages system of Charcas to determine the performance of the drilling, which is considered reasonable considering the long history of mining at Charcas.

7.3 Hydrogeology

The following information was extracted from the report prepared for IMMSA entitled, "Actualización de la Disponibilidad Media Annual de Agua en el Acuífero Villa de Arista (2408), Estado de San Luis Potosí," prepared by Conagua (Comision Nacioal del Agua), Ciudad de México, 2020.

In the hydrogeological zone of the Villa de Arista valley, located to the east of the Charcas town and operations of the Charcas mine, the known aquifer system is hosted in the alluvial material and lake sediments that fill the pit. Both the lateral borders and the rocky floor are considered waterproof, since they are derived from formations of a calcareous-clayey nature. The thickness of this aquifer varies from 100 m in its northwestern portion to 250 m or more in the Villa de Arista area. Through pumping tests, it has been shown that the behavior of this aquifer is free to semi-confined. The recharge takes place mainly in the western edge of the valley along a strip that extends from Venado towards the south to Potrero el Mezquital through the alluvial fans of the Sierra de Guanamé; the extension of this recharging zone is approximately 40 km. Figure 7-17 shows the area of the Villa de Arista Valley and the iso-values of the depth of the static level for 1981.



Source: CONAGUA, 2020

Figure 7-17: Map showing Hydrogeological Iso-Values of the Depth of the Static Level for 1981

Other recharging areas are the edges of the Alto de Melada mountain range and the edge of the Coronado mountain range. Currently, there is an additional component of recharge that is induced by seepage from irrigation returns. The discharge takes place by extraction through pumping, which is mainly concentrated in the surroundings of the town of Villa de Arista, as can be seen in the static level elevation configuration plan. Evapotranspiration is another discharge phenomenon that is important in the Venado and Moctezuma areas, where the static level is at shallow depths. It is considered that at present there are no underground exits through the area of El Tajo or Guardaraya due to the formation of the piezometric cone to the north of Villa de Arista.

53 pumping tests were carried out by a contractor Cía. Hidrotec in 1971. It was observed that the transmissivities vary from 0.36 x 10-3 to 5 x 10-3 square meters per second (m^2/s), with the majority of values between 2.5 and 4 x 10-3 m^2/s; however, most of the wells are considered not fully penetrating, so the transmissivity values for the aquifer are probably higher.

For industrial use, the aquifer is exploited through six drilled works (1% of the total). These wells include three deep wells located north of Troncón that supply the plant of the Charcas mining unit; the remaining three are used for packing of agricultural products.

The extraction of groundwater is determined by adding the annual volumes of water assigned and approved by the commission through the titles conditions which are registered in the Public Register of Water Rights (REPDA). The extraction of groundwater is the equivalent to the sum of the estimated water volumes based on the technical studies submitted to support the mining application. The permits in some cases may detail the volumes of water or areas where extraction is forbidden from part of the same aquifer. For this aquifer, the volume of groundwater extraction is 102,445,448 m^3 per year, which is reported by REPDA of the General Sub-Directorate of Water Administration, as of the cut-off date of February 20, 2020.

The availability of groundwater constitutes the average annual volume of groundwater available in an aquifer, which the users (IMMSA) will have the right to exploit, use, or take advantage of, in addition to the extraction already approved under the terms of the permit, and the natural discharge compromised, without endangering to ecosystems.

IMMSA reported that the results of most studies indicate that there is no volume available to grant new concessions; on the contrary, there is a deficit of -54,245,448 m^3 per year has been extracted at the expense of the non-renewable storage of the aquifer. Further review to support the declaration of reserves under S-K 1300 should be completed to understand the potential impact of this deficit on the operation.

7.4 Geotechnical Data, Testing, and Analysis

During 2023, SRK conducted three geotechnical site visits to Charcas to support the underground geotechnical assessment for reserves certification and to provide operational support. The following sections contain a summary of relevant information and recommendations for geotechnical mine stability that are largely based on SRK's site visits.

7.4.1 Geotechnical Data

The ground conditions observed during SRK's 2023 underground visit at Charcas were generally observed to be competent. More challenging ground conditions were observed in altered ground near mineralization contacts and in higher stress levels in the lower part of the mine.

A 3D brittle-fault model needs to be established for each mine within Charcas. These models need to be developed and interpreted using structural data from mapping, lineation models, and drillhole data. SRK understands that Charcas's geology department routinely undertakes geological-structural mapping of current developments, which is usually presented in two-dimensional (2D) drawings. The development of a major structural model needs to integrate this mapping information. Structural integration with the lithology is highly recommended, correlating mineralization trends with interpreted structural trends and other supporting orientation data. Also, a level of confidence needs to be assigned to the structural geology model for use in geotechnical design work and ground support assessment.

There is no integration of the lithology models or mapped structures by IMMSA's geology department into the previous design studies completed to date, including design stability analyses and ground support design.

Rock mass data are sparse at Charcas, with mapping being the main source of information. Previous studies have not assessed rock mass variability. A diamond core photographic review of exploration drilling should be undertaken in the short term to define a basic geotechnical model, supplemented with additional geotechnical drillholes and mapping to support further domaining work. Review of exploration logs showed that there were no RQD logging data to review to support basic characterization review across the deposit. Geotechnical drilling and logging are needed to improve spatial coverage and understanding of the rock mass variability.

Structural domains have not been defined for Charcas.

Laboratory test results are very limited; empirical estimations from indirect uncalibrated strength measurements (e.g., point load test and Schmidt hammer) were used in previous studies. The response of intact rock under loading conditions needs to be assessed through a comprehensive laboratory testing campaign to provide insight into the overall rock mass behavior. The following tests need to be undertaken:

- Uniaxial compressive strength
- Elastic modulus measurement
- Triaxial compressive strength
- Brazilian tensile
- Direct shear of discontinuities

A 3D geotechnical model is not available at Charcas. This model is required to assess variations in geotechnical parameters within the rock mass and constitutes the basis for designing excavations and rock reinforcement.

Stress measurements have not been undertaken at Charcas to date.

7.4.2 Ground Support Practices

Mine support consists of a 1- x 1-m pattern of 8-foot-long split-sets or cement grouted $^5/_8$-inch-diameter rebar. Shotcrete is used when surficial support is required. The bolting pattern was observed to be applied with good control; however, in some areas, it was noted that the level of ground support could be optimized.

There are no ground support performance data collected to date. Aspects of interaction between rock bolts, bonding agent, and the rock mass or friction capacity of anchors in different ground conditions can be investigated with pull tests.

7.4.3 Geotechnical Monitoring Program

Previous studies (IMMSA, 2017; IMMSA, 2020; Knight Piésold Consulting, 2015; and Nava and Avila, 2015) have reported several seismic events at Charcas, with a large event registered in 2015 in the San Bartolo Mine. SRK understands that a seismic monitoring system is available at the mine complex, consisting of nine uniaxial and two triaxial geophones on three levels of the San Bartolo Mine. The mine has had at least one instance of a mine-scale seismic event, with a high-magnitude event causing extensive damage on October 15, 2015. A moment magnitude 4.0 was recorded by the national seismic system, although the reliability of this magnitude is unknown.

A robust monitoring system is required to assess fall-of-ground (FOG) risks. Once FOG controls have been implemented, monitoring systems are required to assess the performance of these controls and to ensure that if changes in conditions occur, they are detected in time and corrective action is taken. Since ground support highly depends on the quality of its installation, IMMSA should define QA/QC procedures and standards for the installation of ground support that are critical to prevent FOG.

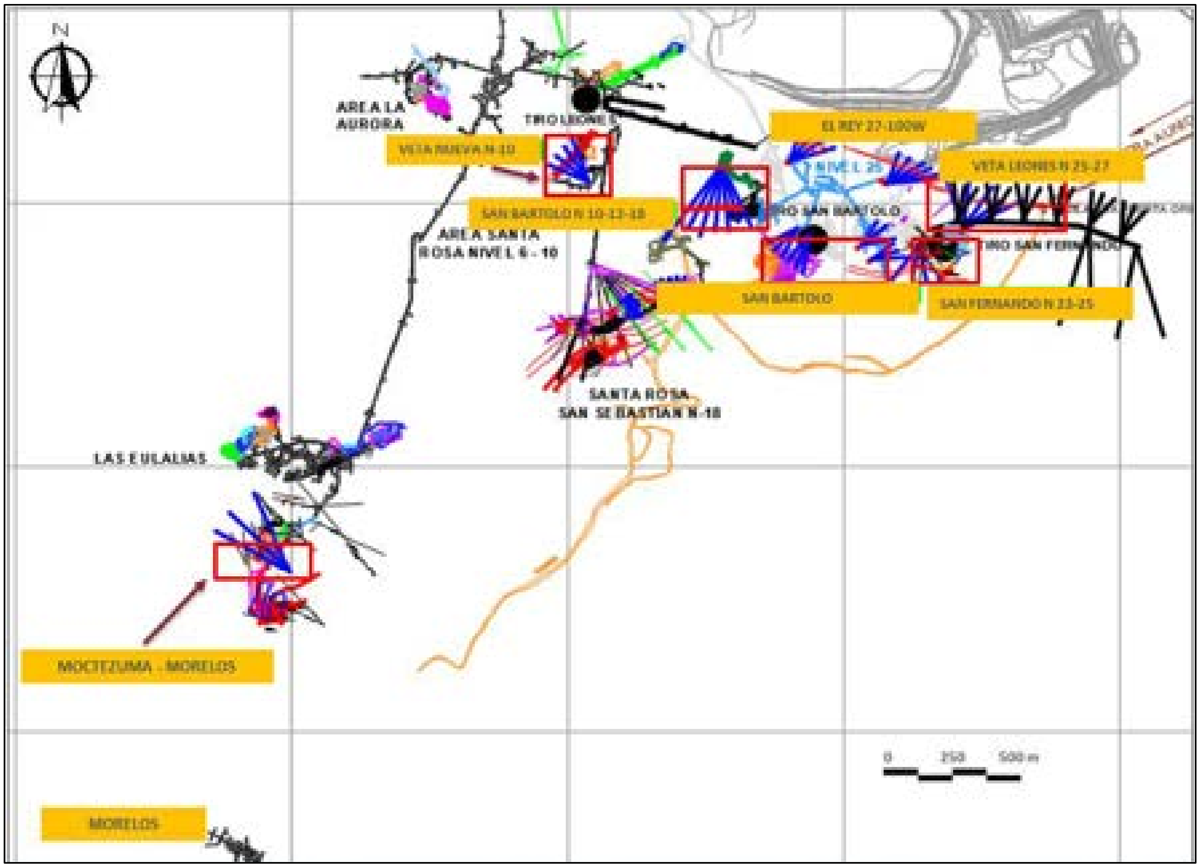
7.4.4 Mining Method and Operational Considerations

The mine produces 4,200 t/d using four mining methods, including overhand cut-and-fill, post pillar cut-and-fill, underhand benching, and overhand longhole open stoping. Room and pillar is also sparingly used.

The reliability of the geotechnical data inputs into the previous stability studies needs to be assessed. The design acceptance needs to be redefined given the low confidence in the geotechnical model aspects. For example, IMMSA has used a minimum factor of safety (FoS) of 1.2 for pillar design, which can be considered low in comparison with industry standard recommendations, such as Lunder and Pakalnis (1997) that suggests a minimum FoS of 1.6.

7.5 Exploration Target

Charcas is planning to continue the exploration drilling in 2024 to define the continuity and extension of the mineralization in the areas of Las Eulalias – Morelos zone, El Manganeso, Rey-Reina, San Bartolo, La Bufa, and Santa Rosa zones (Figure 7-18).



Source: IMMSA, 2021

Figure 7-18: Location of Zones to Explore with Drilling from Underground and Surface

8 Sample Preparation, Analysis, and Security

8.1 Sample Preparation Methods and Quality Control Measures

Trained staff were involved at all stages of the sampling, sample packaging, and sample transportation process. After geological logging and sample selection, the core was split in half longitudinally using an electric core cutter. Core pieces were placed in the cutter machine and cut following the cut line marked by the geologist. The core splitter was used historically. Half of the core was assayed, and the other half was stored in the core box to be available for future assaying or relogging of core.

The sample was placed in plastic bags with its corresponding sample tag and sent to the laboratory using defined laboratory submission sheets to track the number of samples and batch numbers. Figure 8-1 presents an example of the submission sheet used by the Charcas exploration team.

SGS Servicios Minerales – Geoquímica

Formato de recepción de muestras

Para uso del laboratorio
Orden de trabajo núm.:
Fecha de recepción: .SEPT.2021

Ubicación del Lab. SGS: Durango, Dgo En atención a:

Detalles de envío	
Enviado por:	Ing. Edgard Iván Rodriguez Hernandez
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	(486) 85 2 14 03
Email:	edgar.rodriguez@mm.gmexico.com
Transporte/núm. guía:	
País de origen de la muestra:	MEXICO
Instrucciones para reporte	
Reportar a:	Edgard Iván Rodriguez Hernandez
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	(486) 85 2 14 03
Dirección:	Primero de Mayo N°137
Ciudad: Charcas	Provincia/Estado: S.L.P.
País: MEXICO	Código Postal: 78590
Email 1: edgar.rodriguez@mm.gmexico.com	PDF ☑ XLS ☑ CSV ☑
Email 2: arcadio.marin@mm.gmexico.com	PDF ☑ XLS ☑ CSV ☑
Email 3: romeya_38@hotmail.com	PDF ☑ XLS ☑ CSV ☑
Email 4:	PDF ☐ XLS ☐ CSV ☐

Detalles de facturación	Igual que datos del reporte ☐
O. de compra núm.:	Cotización SGS: MX09L92200272
Nombre: INDUSTRIAL MINERA MEXICO	RFC: IMM8505281U0
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Teléfono:	
Dirección:	CAMPOS ELISEOS 400 OFNA. 1103, LOMAS DE CHAPULTEPEC
Ciudad: DEL. MIGUEL HIDALGO	Provincia/Estado: CD. DE MEXICO
País: MEXICO	Código Postal: 11000
Email 1:	
Email 2:	
Destino de la muestra	
Rechazos	Pulpas
☑ Regresar después 30 días	☑ Regresar después 30 días
☐ Disponer después 30 días	☐ Disponer después 30 días
☐ Pagar después de 30 días	☐ Pagar después de 30 días
Regresar con atención a:	
Dirección de regreso:	
Paquetería:	
Núm. de cuenta:	

Identificación de la muestra e instrucciones de análisis.

Nombre del proy.:		CHARCAS		☑ Servicio estándar	☐ Servicio urgente
Tipo de muestra:	☑ Núcleo	☐ Rocas	☐ Sedimentos	☐ Pulpa	☐ Suelo
	☐ Concentrados	☐ Metales	☐ Otro:		
Tipo análisis:	☑ Grado exploración	☐ Grado mineral	☐ Grado control	☐ Grado venta	☐ Tercería

Instrucciones especiales:

☐ Asbestos ☐ Radiactivo

De:	A:	Núm.	Preparación	Análisis	Elementos de interés
324357	324434 (LE-280)	78	ARCHIVO ADJUNTO	GE_FAA313	ORO
			ARCHIVO ADJUNTO	GE_ICP14B	34 ELEMENTOS

Número total de muestras enviadas: 78

Autorización del cliente (Firma): Fecha: .SEPT.2021

Source: IMMSA, 2021

Figure 8-1: Laboratory Submission Sheet Example

8.2 Sample Preparation, Assaying, and Analytical Procedures

8.2.1 Density Analysis

Charcas's mine geology department does not retain any density data or supporting documentation describing how density data was collected. The plant and the mine have been using a standard density value of 3.0 t/m^3 for decades.

The exploration department has been collecting density measurements; however, these data are collected outside of the mining area and are therefore not considered representative of mineralization. The exploration department has the following process for density analysis:

1. Sample location and cut:
   - Draw hole trajectory.
   - Write down nomenclature in the core:
     - Hole ID
     - Depth
   - The sample size will be at the discretion of the personnel who select the sample and depending on the capacity of the scale used. The sample data collected should be noted down in the core box. Sample fragment sizes vary between 5 and 10 cm.
2. Wash the sample with water to remove residues.
3. Dry the sample in an electric oven or in sunlight if an oven is not available.
4. Level the balance until the bubble is centered using the help of the position adjustments of each leg of the balance, then calibrate the balance before starting to measure the samples and make sure that it reads zero (in case of a precision digital scale).
5. Weigh the dry sample (P).
6. Waterproof seal the sample with an appropriate material (consider the density of this material in sample density calculations). Seal at least three times. Wait a period of time for optimal drying of the samples.
7. Weigh the sample in purified water (preferably) and take the data (P_Agua).
8. Wash the sample and reincorporate it into the core from where it was collected.
9. Determine the specific gravity with the data obtained and fill in the hole density format.

Photographs and brief descriptions were taken, and the corrections to obtain the density data were applied. Then, the density data were recorded in the database.

The QP considers this procedure to follow industry standards and recommends that the process be expanded to include all material (host rocks and mineralization) and be completed at regular intervals within the core. Continuation of programs to increase the size of the density database to confirm the current density values used should be considered a priority for 2024 by the Company.

In 2023, the mine geology department started the collection of density measurements from the core (Figure 8-2), including mineralized intersections. Once a sufficient database has been collected (not considered in the current estimate), this will help to increase confidence in the density database to be used in future resource estimates and enable assessment of potential density variations.

Source: IMMSA, 2023

Figure 8-2: Core Samples for Density Testing

8.2.2 Sample Preparation, Internal Laboratory

The internal laboratory prepares the core and the channel samples and assays all the samples collected by the mine geology. The laboratory is internal in the nature that it is owned and run by the operation and therefore is not considered independent.

The internal laboratory is owned by the mine and run by IMMSA employees. The laboratory has been certified by Bureau Veritas to NMX-CC-9001-IMNC-2015/ ISO 9001: 2015. The certification was completed initially in 2015 and renewed in 2018 and 2019. The date of the certification reviewed by the QP expired on August 7, 2021. It is the QP’s opinion that while out of date, this represents a minimal risk as the procedures used in the latter half of 2021 will follow the same procedures. SRK recommends that IMMSA obtain an updated certification for 2024.

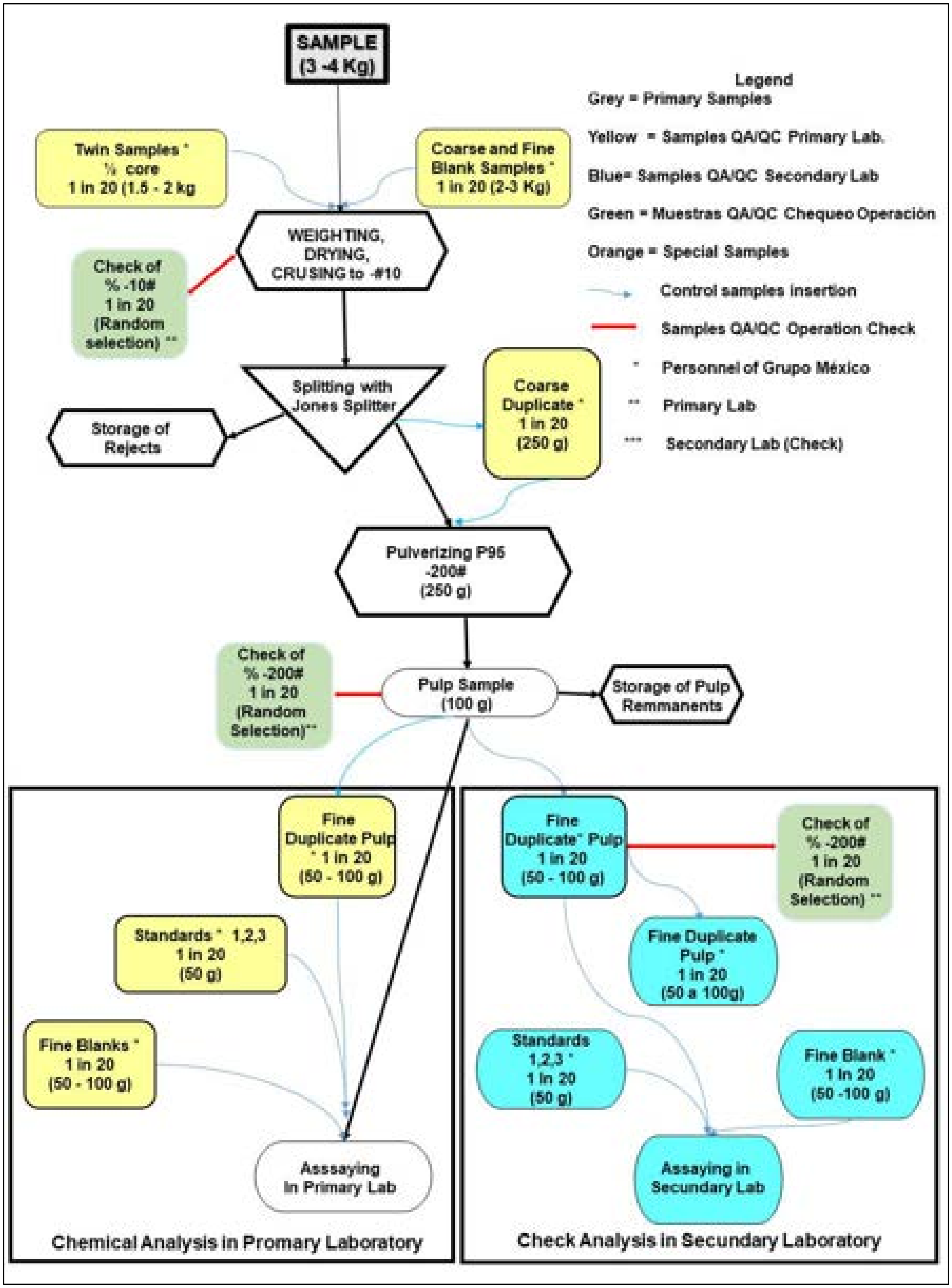
The laboratory follows internal QA/QC protocols which include continuous maintenance and calibration of equipment, monitoring of sample contamination, and use of certified standard reference materials, which in SRK's opinion are considered in-line with industry standards.

Sample preparation in the internal laboratory includes:

- Sample weighing
- Sample drying
- Crushing, 75% passing 10 mesh (checks: one every 20 samples)
- Subsampling (Jones Separator) to obtain a sample of 250 grams (g)
- Pulverizing, 85% passing 200 mesh (check: one every 20 samples)
- Subsampling to obtain pulp samples of 100 g
- Storage of pulps and rejects

During the 2023 site visit, the QP observed that the issues observed in previous site visits were addressed by IMMSA, who implemented some control measurements including continuous supervision of the sample preparation process, which resulted in an important improvement. The QP considers that the preparation process is adequate and suggest some additional measurements to reduce contamination, including the construction of cubicles with compressed air and dust extractors to perform the sample crushing. Additionally, the QP recommends documenting all the QA/QC controls followed during preparation.

Figure 8-3 shows the flow chart of the preparation process and QA/QC controls used during the process in the internal laboratory. The internal laboratory uses fine duplicates, certified reference materials, and blanks during the preparation process and sends pulps to a secondary laboratory as part of the quality control procedure.



Source: IMMSA, 2021

Figure 8-3: Flow Chart of Sample Preparation (Internal Laboratory)

8.2.3 Chemical Analysis, Internal Laboratory

The following chemical analyses are used at Charcas's internal laboratory, using 100-g pulp samples:

- **Inductively coupled plasma (ICP):** multielement (Ag, Au, Pb, Zn, Cu, iron (Fe), cadmium (Cd), arsenic (As), bismuth (Bi), and Sb) plasma analytic method (ICP AVIO 500); ICP-optical emission spectrometry (OES); ICP atomic emission spectrophotometer:
    - Detection limits:
        - Au: 0.01 to 10 g/t
        - Ag: 1 to 3,000 g/t
        - Zn: 0.001% to 16%
        - Cu: 0.001% to 24%
        - Pb: 0.001% to 20%
- **Fire assay (gravimetric method):** Determination of Au and Ag by fire assay and gravimetric termination (detection limits: Au: 1 to 50 g/t; Ag: 10 to 30,000 g/t)
- **Volumetric determination of zinc:** For high zinc concentrations (detection limits: 4% to 60%)
- **Volumetric determination of copper:** For high copper concentrations (detection limits: 15% to 40%)
- **Volumetric determination of lead:** For high lead concentrations (detection limits: 15% to 85%)

Charcas's internal laboratory (Unidad Charcas – Laboratorio de Ensaye: Mina Tiro General S/N, Col. Mina Tiro General, Charcas, San Luis Potosí) has a certification with the Bureau Veritas management system according to Norm NXM-CC-9001-IMNC-2015-ISO9001:2015. The certification includes the chemical-metallurgical analysis of mineral products and subproducts of galena, chalcopyrite, sphalerite, and pyrite. The last cycle of certification started on February 1, 2019, and was valid until August 7, 2021. IMMSA will work in 2023 to obtain the certification, which should be a priority.

8.2.4 Sample Preparation, SGS Laboratory

The core samples collected by Charcas's exploration department are sent to the SGS Laboratory (SGS) in Durango. SGS is independent of IMMSA and holds accreditation under ISO/IEC 17025:2017 under the Standards Council of Canada, which indicates the laboratory is accredited under the general requirements for the competence of testing and calibration laboratories.

The sample preparation procedures at SGS comprised of drying the sample, crushing the entire sample in two stages to -6 and -2 mm by jaw crusher (more than 95% passing), riffle splitting the sample to 250 to 500 g, and pulverizing the split to more than 95% passing -140 mesh in 800-cubic-centimeter (cm^3) chrome steel bowls in a Labtech LM2 pulverizing ring mill.

8.2.5 Chemical Analysis, SGS Laboratory

The following chemical analysis packages are used at SGS by the Charcas exploration department:

- **GE_ICP14B:** multielement (34 elements) analysis by aqua regia digestions and ICP-OES: Ag, aluminum (Al), As, barium (Ba), beryllium (Be), Bi, calcium (Ca), Cd, chromium (Cr), cobalt (Co), Cu, Fe, mercury (Hg), K, lanthanum (La), lithium (Li), magnesium (Mg), manganese (Mn), molybdenum (Mo), sodium (Na), nickel (Ni), phosphorus (P), Pb, sulfur (S), Sb, scandium (Sc), tin (Sn), strontium (Sr), titanium (Ti), vanadium (V), tungsten (W), yttrium (Y), Zn, zirconium (Zr), nitric acid (HNO_3), and hydrochloric acid (HCl)

- **GE_FAA515 Au:** Au analysis by 50-g fire assay with atomic absorption spectrometry (AAS) finish (Au: 30 g, 50 g; HNO_3; HCl) (Detection limits 5 to 10,000 parts per billion Au)
- **GO_FAG515 Ag:** used for the determination of over-limits of Ag by fire and gravimetric termination using a 50-g sample (detection limits 10 to 100,000 parts per million (ppm) Ag)
- **GO_ICP90Q:** analysis of ore grade samples (Pb, Cu, Zn, Fe, and As) by sodium peroxide fusion and ICP-OES (As, Fe, Cu, Ni, Pb, Sb, Zn, and sodium peroxide (Na_2O_2)) (detection limits: 0.01% to 30% for each element)
- **GC_CON12V Zn:** used for the determination of zinc using a volumetric and gravimetric concentration for samples with zinc >32% (detection limits: 5% to 65% Zn). Process involves preparation and determination of zinc in ores, concentrates, and metallurgical products by separation, precipitation and titration of acid solubles, fusion with ICP-OES-AAS of acid insolubles.

8.3 Quality Control Procedures/Quality Assurance

8.3.1 Security Measures, Chain of Custody

The mine geology and exploration departments have control and supervision over the process of sample collection from drilling and channel sampling, maintaining the custody chain for the samples until the delivery of the samples to the laboratory.

At the drill rig, the contractor's and Charcas's drillers are responsible for removing the core from the core barrel (using manual methods) and placing the core in prepared core boxes. The core is initially cleaned in the boxes, and once the box is full of core, it is closed and transported by the authorized personnel to the logging facility where Charcas's (mine geology and exploration) geologists or technicians take possession. On receipt at the core shed, geologists follow the logging and sampling procedures. The samples are transported to the laboratories (internal and SGS) by authorized personnel.

In the QP's opinion, there are sufficient protocols in place to ensure the quality and integrity of the samples from exploration to the laboratory. Storage of data using a central repository system is recommended to ensure data security is maintained.

8.3.2 Mine Geology Department

The mine geology department has not implemented QA/QC protocols for its drilling and rock sampling activities, which represents a potential source of uncertainty in the estimates. Given the lack of QA/QC information, the QP has relied on reconciliation data to assess the level of confidence in the database. Section 9.1 of this report discusses this process in more detail.

Half of the core that remains after sampling is stored in the Charcas operation. The core is discarded after several years, and not all the historical drilling core is conserved in the operation, which has limited the ability to undertake a detailed re-assay program. The internal laboratory conserves the pulps for 1 month after assaying and then discards the samples.

In 2023, IMMSA moved the core boxes to old underground chambers that are under continuous vigilance; the conditions are not the best for core conservation, but this is a good option to keep the core secure. The QP recommends continuous vigilance of the core and monitoring the quality of the boxes and core (Figure 8-4).

Source: SRK, 2023

Figure 8-4: Core Storage at Charcas (Mine Geology Department)

8.3.3 Exploration Department

The exploration department in charge of exploration of the surrounding areas of Charcas and satellite deposits has a QA/QC protocol, which includes the following controls:

- Core duplicates to control systematic errors of sampling
- Coarse and fine blank controls to detect possible contamination during crushing and pulverization. This material should be barren of the elements of economic interest. In this case, silica sand was used for pulp blanks, and volcanic gravel material ($^1/_4$ inch) silica was used for the coarse blanks.
- Coarse and fine duplicate controls to evaluate precision of the procedure (subsampling)
- Certified standard reference materials (CSRM) (low, medium, and high grade) to measure accuracy

Control samples were inserted under the following criteria:

- Before and after each mineralized zone or with high mineralization in either Zn, Pb, Cu, or Ag, control samples of the fine and coarse blanks type are inserted.
- Inside or outside mineralized zones and in areas with or without economic values, CSRM controls were inserted with high, medium, and low values based mainly on expected Zn grades.
- Fine and coarse duplicate samples were used in mineralized areas and in zones with or without economic values at the discretion of the geologist.
- Twin samples (core duplicates) were used in mineralized zones and in zones with or without economic values at the discretion of the geologist.

The results of the different controls are in tables and evaluated using scatter plots for the duplicates and charts produced by IMMSA to show the performance of the blanks and standards. Table 8-1 presents the quantity of primary samples and controls used in 2023. The insertion rate of control samples is 12%, which is considered reasonable. IMMSA did not send check samples to an umpire laboratory in 2023 (they previously used the IMMSA internal laboratory (Estación Santiago)). The QP recommends resuming submission of check controls.

Table 8-1: Control Samples, Exploration Department Drilling 2023

Type of Sample/Control	Number of Samples	Percentage of Total (%)
Fine blank	82	2.5
Coarse blank	81	2.4
Blank Oreas 22D	57	1.7
CDN-ME 1404	15	0.5
CDN-ME 1409	10	0.3
CDN-ME 1812	11	0.3
CDN-ME 1410	19	0.6
CDN-ME 1414	11	0.3
CDN-ME 1606	7	0.2
Fine duplicate	34	1.0
Coarse duplicate	39	1.2
Core duplicate	33	1.0
Primary sample	2,926	88.0
Total	**3,325**	**100%**

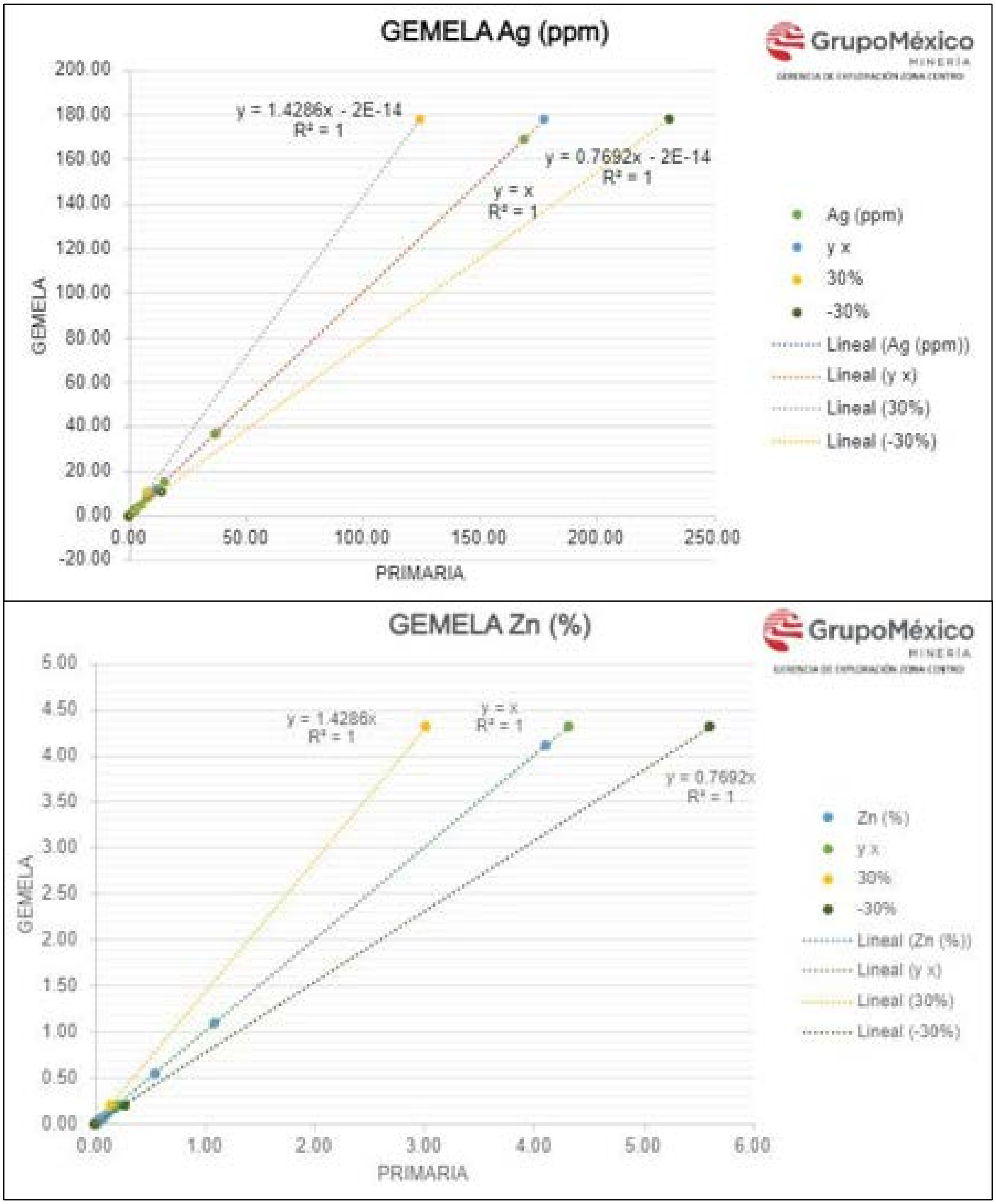
Source: IMMSA, 2023

Charcas has established limits of acceptability for the different controls including:

- **Duplicates:** Duplicates use an acceptability level of ±5% relative error range from the 45-degree line (scatter plot) for core, coarse, and fine duplicates. Checks outside of these acceptability ranges are considered failures, and if in a certain period (e.g., failures are more than ±10%, ±20%, and ±30% relative error for the fine, coarse, and core duplicates, respectively), Charcas contacts the laboratory to review their preparation procedures. Figure 8-5, Figure 8-6, and Figure 8-7 show the scatter plots of the results of the core, fine, and coarse duplicates sent by IMMSA in 2023. In general, the results are reasonable.
- **Blanks:** There is contamination when the assay results are above three times the detection limit for a specific element evaluated. When contamination occurs, Charcas informs the laboratory to check the internal protocols and, if necessary, repeat the assaying of a specific batch if the contamination is considered repetitive and continuous. Figure 8-8 and Figure 8-9

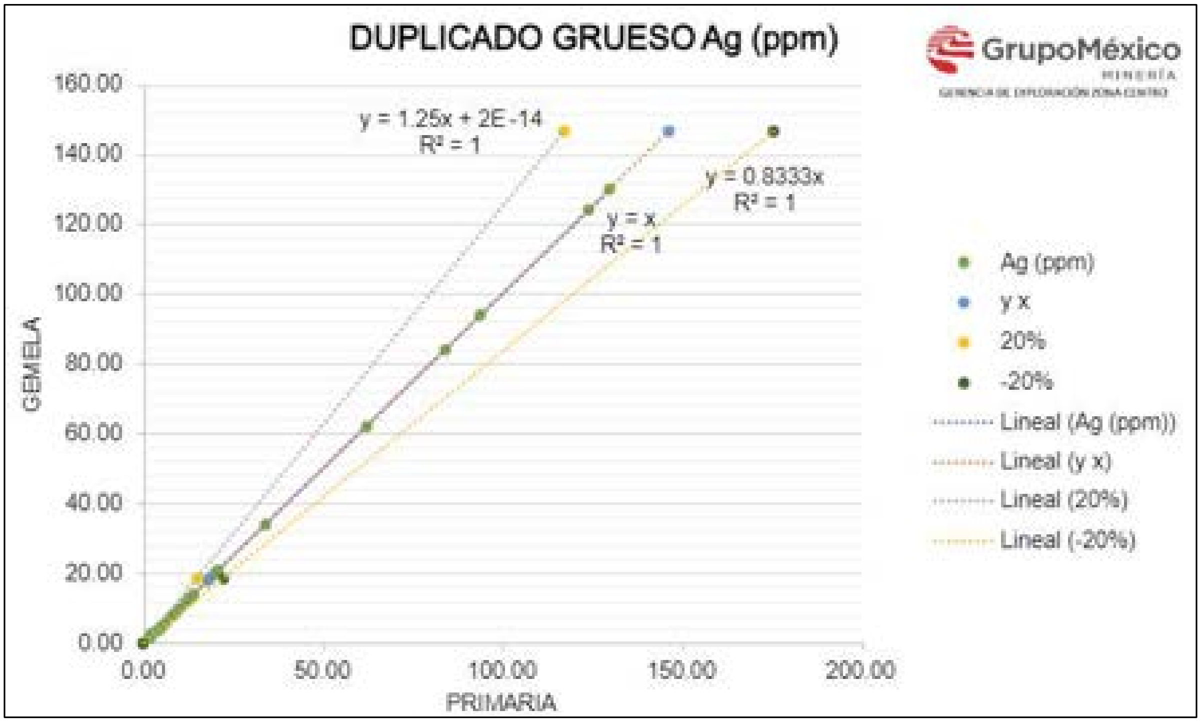
show the graphs of evaluation of results of the fine and coarse blanks. There is evidence of contamination for some elements, which Charcas should review with the laboratory.

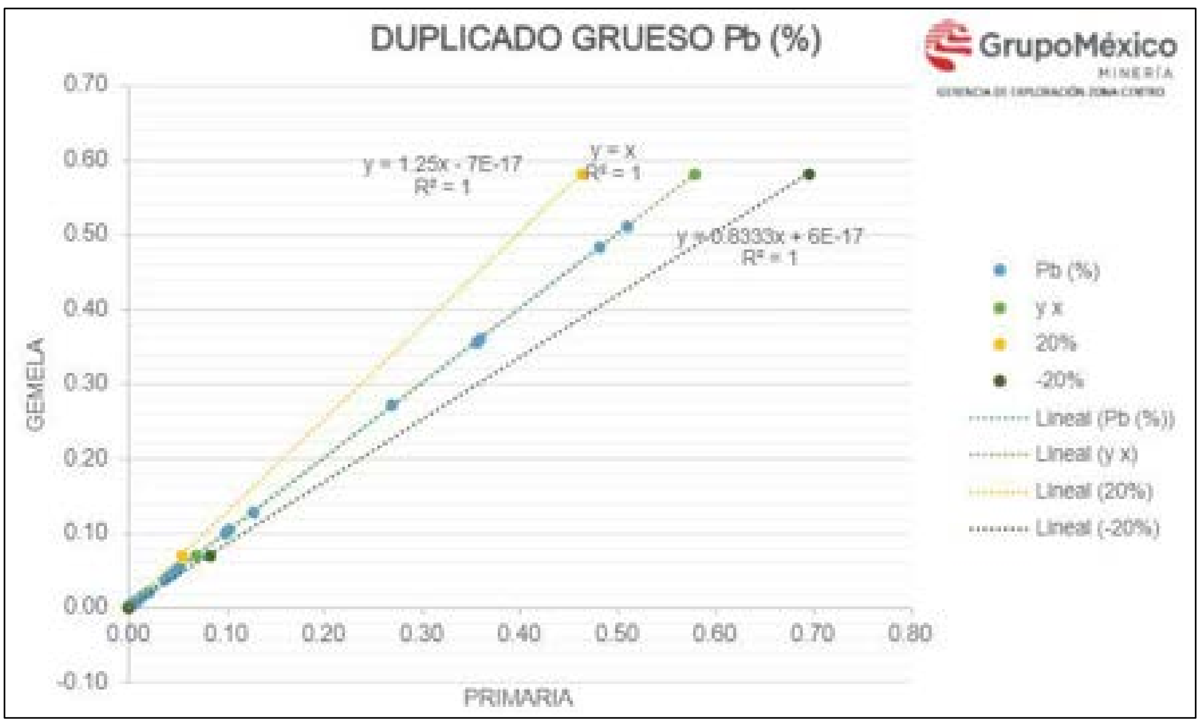
- **CRSM:** The CRSM are bought from commercial laboratories, which are selected (grades and mineralization type) consistent with Charcas's mineralization and rock types. The performance of these checks is evaluated using graphs where the 2 and 3 standard deviations (SD) reference lines are drawn in conjunction with the assay results obtained. A failure is considered when a specific CRSM assay result is outside of the 3 SD reference line or when two contiguous CRSMs are outside of the 2 SD reference line. In these cases, Charcas requests the reanalysis of some samples (two to five) above and below the failure in a specific batch of samples included in the laboratory assay certificate. Figure 8-10 presents the graphs showing the results of the CRSM control (CDN-ME-1812), which indicate that all the elements are inside the acceptability range (mean ±3 SD).
- **Check assays:** In 2022, IMMSA sent 791 check samples to the IMMSA internal laboratory (Estación Santiago). In general, there is good correlation between both laboratories (Figure 8-11). SRK recommends resuming the check control submission and implementing a methodology of evaluation of the check assays results.



Source: IMMSA, 2023

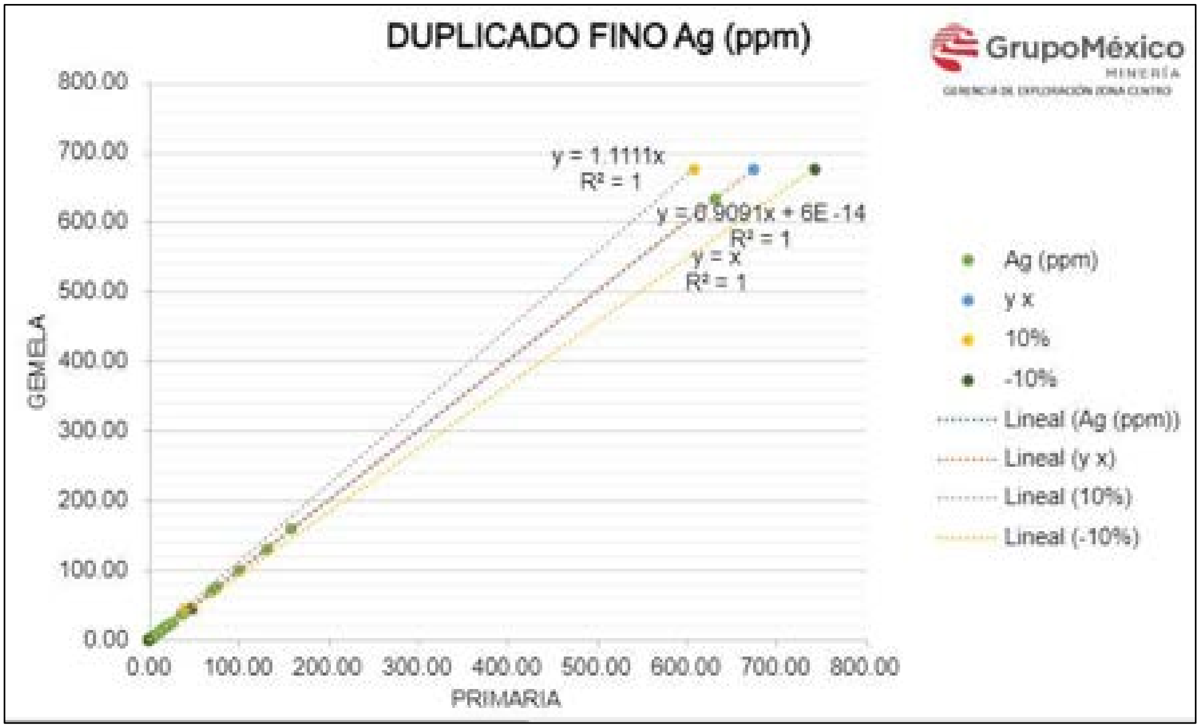
Figure 8-5: Graphs showing the Results of the Core Duplicate Controls (Ag and Zn)

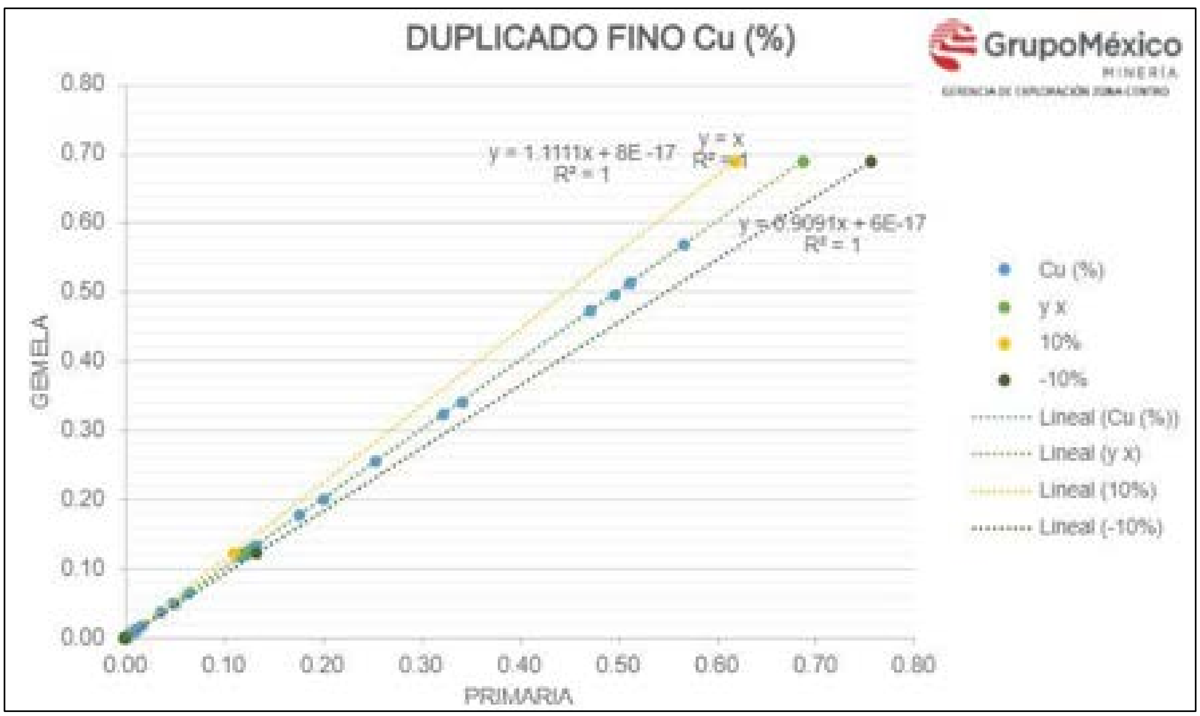




Source: IMMSA, 2023

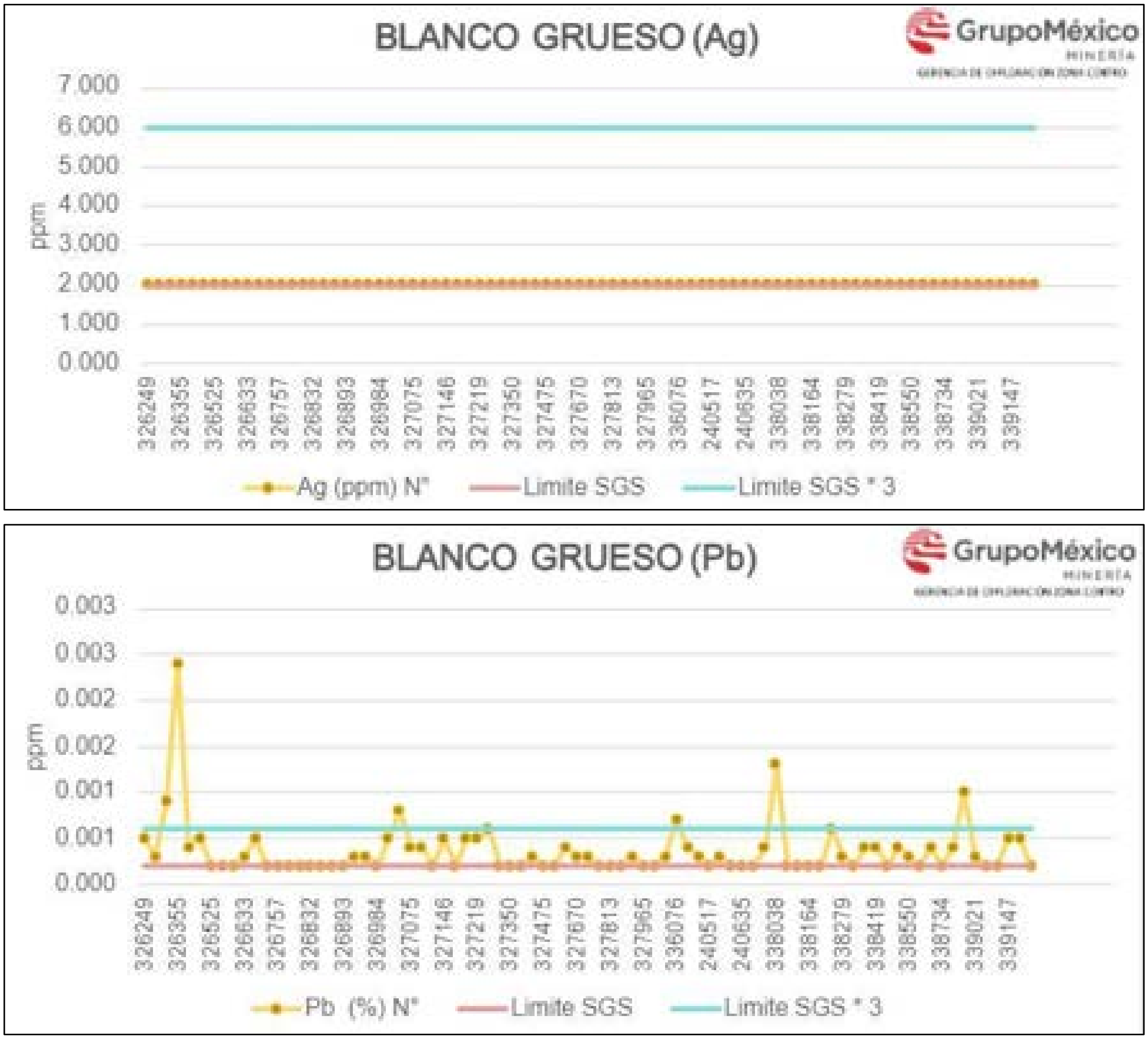
Figure 8-6: Graphs showing the Results in Scatterplots for Coarse Duplicate Controls (Ag and Pb)





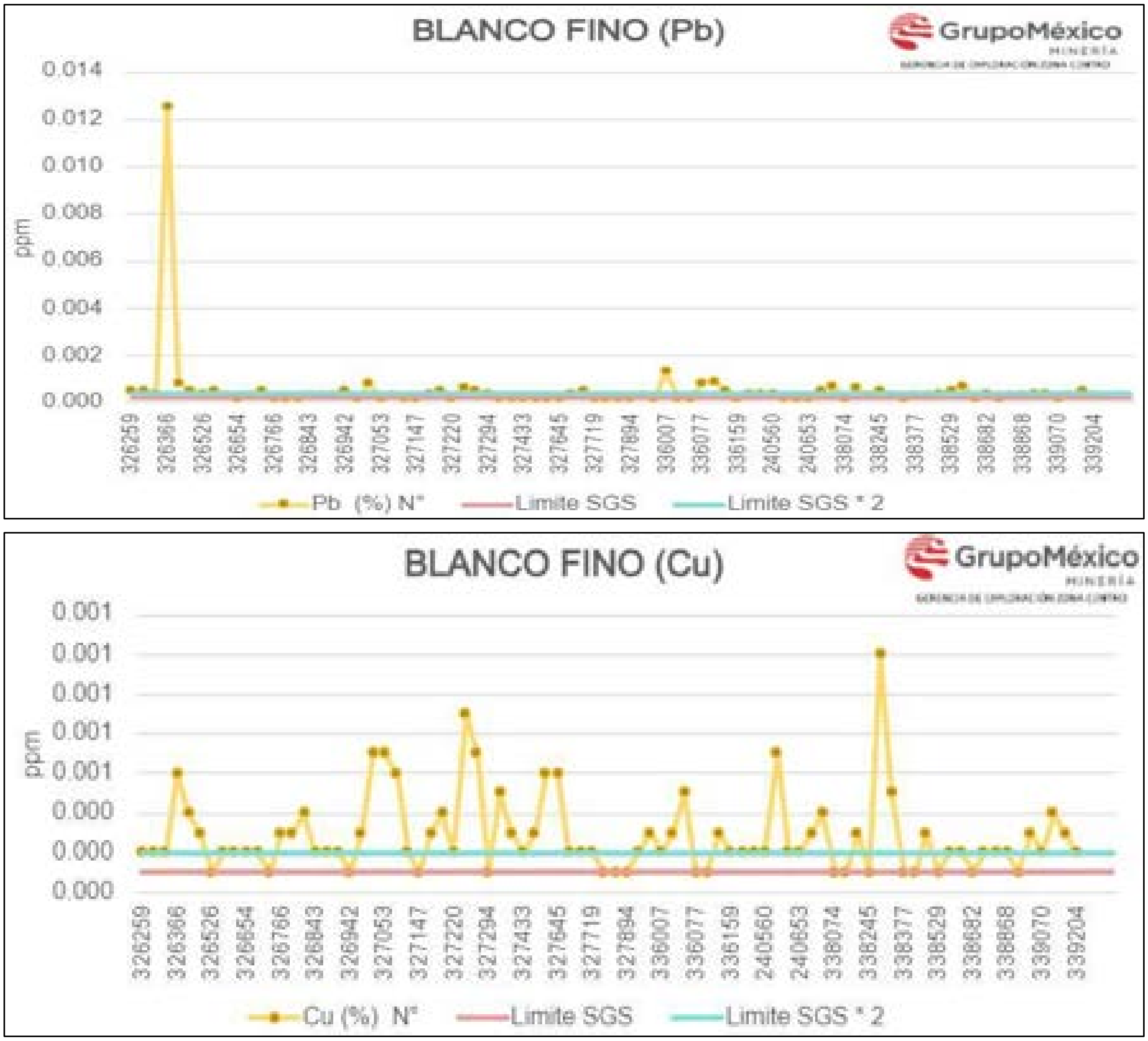
Source: IMMSA, 2023

Figure 8-7: Graphs showing the Results in Scatterplots for Fine Duplicate Controls (Ag and Cu)



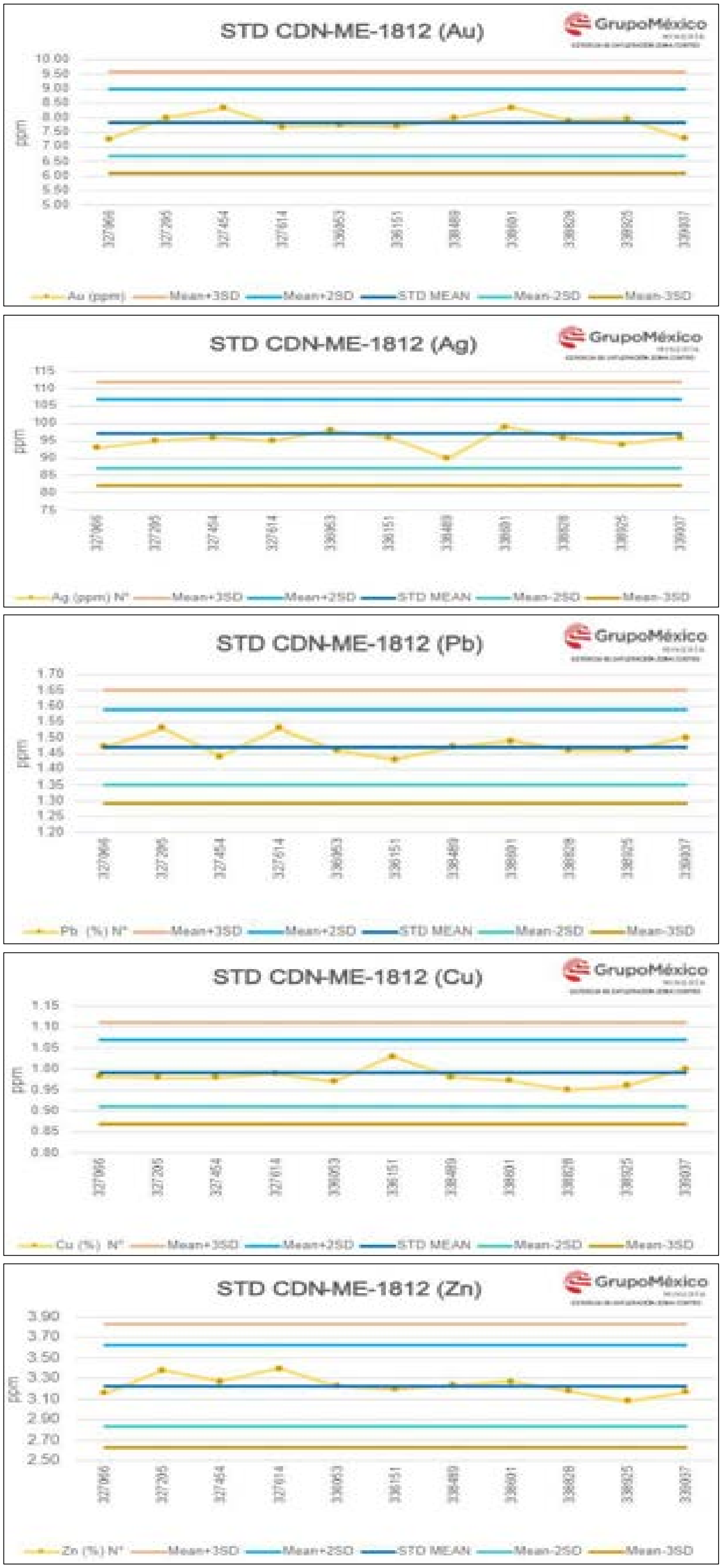
Source: IMMSA, 2023

Figure 8-8: Graphs showing the Results of the Coarse Blank Controls (Ag and Pb)



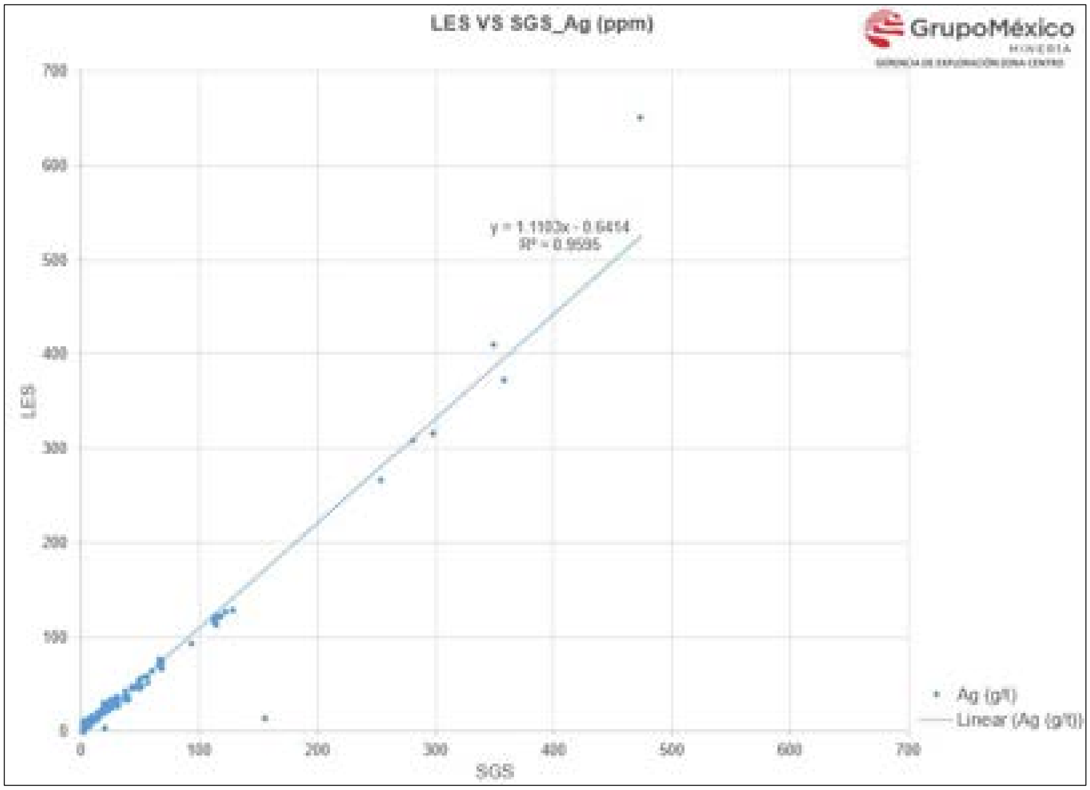
Source: IMMSA, 2023

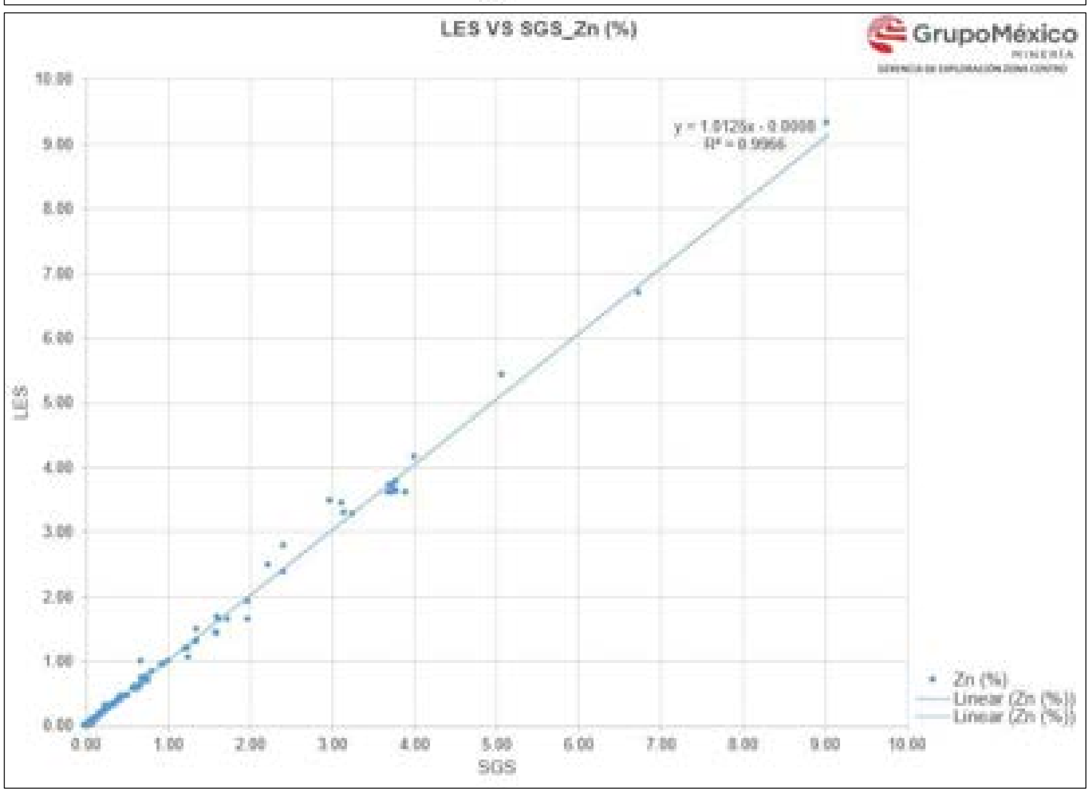
Figure 8-9: Graphs showing the Results of the Fine Blank Controls (Pb and Zn)



Source: IMMSA, 2023

Figure 8-10: Graphs showing the Results of CDN-ME-1812 (Ag, Pb, Cu, and Zn)





Source: IMMSA, 2022

Figure 8-11: Scatterplots showing the Results of the Check Assays, SGS versus IMMSA Internal Laboratory (Ag and Zn)

8.4 Opinion on Adequacy

Charcas's mine geology and exploration departments' security of the drilling and channel sampling is considered in line with the industry best practices.

The mine geology department did not have quality controls for the historical and recent core and rock sampling, which the QP considers to be not in-line with industry best practices and represents a source of uncertainty for the data collected by the mine geology department; this should be considered if it is the only data used during estimation when assigning confidence. For 2024, Charcas's mine department plans to design and start the implementation of a QA/QC protocol for core and underground rock sampling.

The exploration department has procedures for drilling and core sampling, which SRK considers to be broadly in-line with industry best practices. The results are reasonable in all the control types. SRK recommends resuming the practice of periodically shipping check assays to a second laboratory, ideally to a commercial laboratory, and implementing a methodology to evaluate the results of this comparison (i.e., not only via the use of scatterplots).

The sample preparation laboratory has improved the protocols of operation, which was confirmed during the 2023 site visit. Additional measurements should be implemented to reduce possible contamination during sample preparation.

Charcas's internal laboratory's and SGS's chemical analysis procedures and protocols are in-line with industry standards, but SRK recommends confirming certification of the internal laboratory be completed on a routine basis.

8.5 Non-Conventional Industry Practice

It is the QP's opinion that the historical procedures of sampling and QA/QC of Charcas's mine geology department are not in-line with best practices and represent a potential source of uncertainty in the estimate. Given the large database and lack of historical raw material (core) to complete detailed checks, it is the QP's opinion that this must be addressed via the classification of the deposit.

To get to a level of confidence in the sampling information, SRK has relied on information presented from the mining operation to determine potential risk. The current mineral resource of the Charcas project relies on the quantity of data (drilling and rock channel sampling) collected during the history of the operation. The long history of mining operations, which started during the first part of the last century, provides support to the historical data based on the recognized performance of the Charcas operation for decades. Section 9 of this report summarizes the work completed by the QP.

9 Data Verification

9.1 Data Verification Procedures

The QPs have undertaken several data verification processes during the course of 2021 to 2023. The verification process included the following activities:

- SRK QPs visited the Charcas project five times between June 2021 and November 2023. The purpose of the site visits was to:
    - Complete an underground site inspection and recognize the geology, mineralization controls, and rock sampling procedures in 2021 and 2022.
    - Review geological plans and sections to validate information used by IMMSA to generate updated grade estimates in 2023.
    - Review the exploration procedures, including the sampling methods and sampling quality, drilling procedures, core sampling, and management of data.
    - Undertake review of the raw sampling data (physical documents and Excel files) used to generate the grade estimates.
    - Review historical data supporting the resource calculations.
    - Inspect the sample preparation and chemical analysis laboratory.
    - Review the 2023 updated resource blocks and the new data supporting the estimates.
    - Collect core samples and chemical analysis of available stored core in 2021. The validation sampling included 81 samples collected from 18 drillholes.

9.1.1 Results of the Validation Samples (2021)

Charcas does not maintain the core and discards the core after several years. The internal laboratory does not maintain a pulp record and has discarded the pulps and rejects of all the historical samples, which has limited the ability to conduct validation. Only a limited number of historical drill cores remain available at the mine. The selection of the drillholes was limited to the core available and does not provide spatial coverage of the entire operation supporting the current mineral resources. It is the QP's opinion that this process provides validation on the protocols being used.

SRK's QP completed a review of the available core and notes that IMMSA should review the current practices to improve the core storage facility. Issues noted by SRK are not limited to but include a lack of organization of box storage and poor stacking of core boxes.

Upon completing the review, SRK's QP selected samples from drillholes covering different zones of the deposit. To ensure the quality of the check analysis, SRK also utilized coarse and fine blanks, coarse duplicates, and a CSRM inserted in the samples sent to SGS for QA/QC purposes. The results of the QA/QC controls passed the acceptability criteria in all cases.

Table 9-1 presents the results of the samples of the original data (registered in the logging sheets) and the results from SGS.

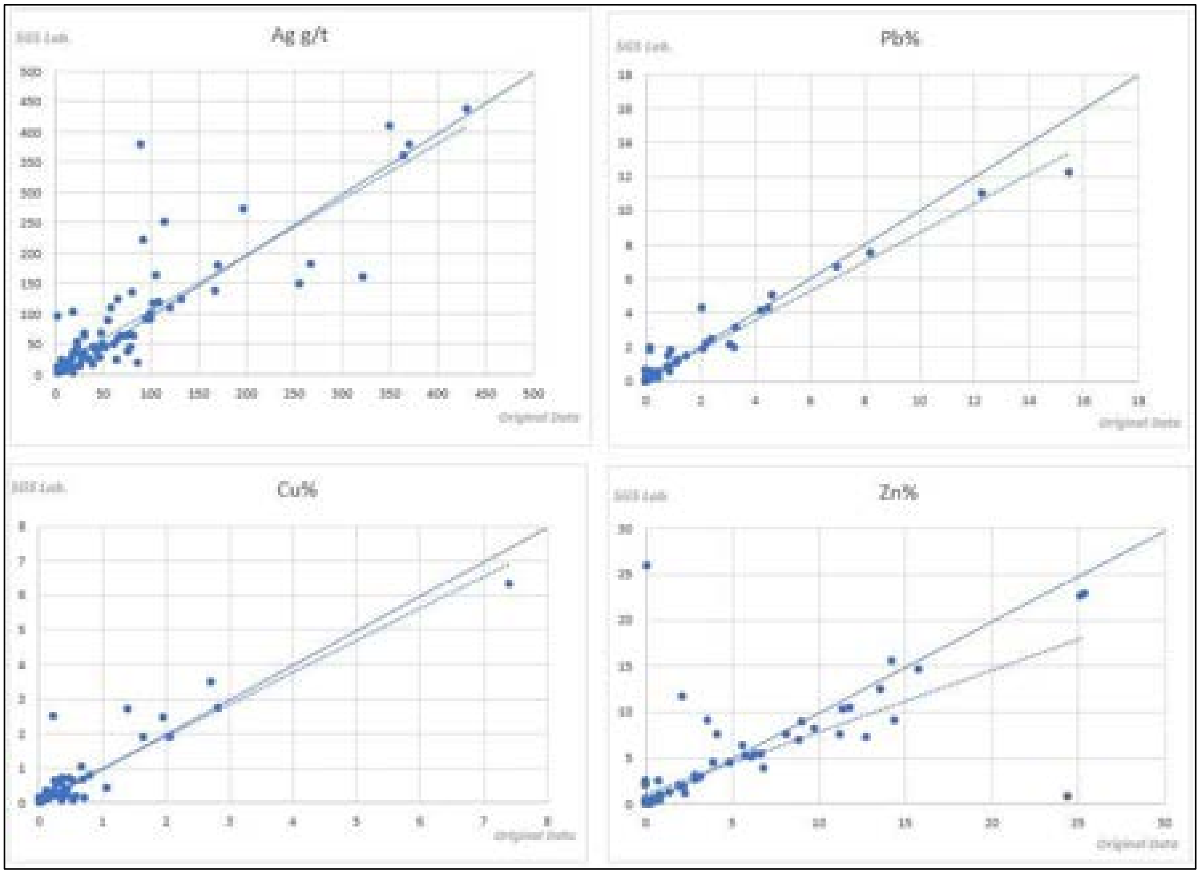
Table 9-1: Table of Validation Samples, SGS and Charcas's Original Data

Drillhole	Interval			SGS Results				Charcas's Original Data			
	From (m)	To (m)	Length (m)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)
7765	49.90	51.85	1.95	24.00	0.01	0.11	3.55	34.00	0.03	0.32	9.05
	51.85	53.30	1.45	79.00	0.02	0.59	12.80	45.00	0.64	0.18	7.22
	53.30	54.90	1.60	43.00	0.01	0.37	14.40	40.00	0.04	0.26	9.06
	71.85	73.65	1.80	28.00	0.02	0.17	5.62	23.00	0.03	0.12	6.29
	73.65	75.20	1.55	23.00	0.03	0.19	2.13	53.00	0.30	0.31	11.60
7850	70.85	72.45	1.60	76.00	0.02	0.72	6.80	37.00	0.00	0.11	3.80
	105.20	107.25	2.05	99.00	3.06	0.39	13.60	91.00	2.11	0.23	12.50
	107.25	109.80	2.55	31.00	0.46	0.12	8.99	68.00	0.56	0.16	8.93
7957	246.20	248.30	2.10	56.00	0.00	1.95	0.01	88.00	0.01	2.45	2.55
	248.30	249.70	1.40	15.00	0.00	0.55	0.01	20.00	0.00	0.63	0.16
	349.10	351.10	2.00	105.81	0.01	1.41	0.01	162.00	0.00	2.70	0.07
8017	242.65	244.65	2.00	45.00	0.04	0.25	0.26	28.00	0.03	0.62	0.25
	244.65	246.70	2.05	267.11	0.22	1.07	0.38	182.00	0.18	0.41	0.18
	246.70	248.75	2.05	102.49	0.08	0.37	0.30	115.00	0.10	0.06	0.04
8049	71.73	73.75	2.02	66.00	0.03	0.28	0.20	124.00	0.06	0.51	0.06
	73.75	75.00	1.25	26.00	0.01	0.37	0.02	14.00	0.01	0.14	0.01
	75.00	77.50	2.50	80.00	0.02	0.68	0.04	134.00	0.04	1.03	0.23
	77.50	79.50	2.00	46.00	0.02	0.45	0.02	43.00	0.02	0.22	0.49
8074	74.06	75.60	1.55	64.00	0.02	0.26	0.03	24.00	0.04	0.23	0.24
	78.60	80.00	1.40	52.00	0.02	0.38	0.82	43.00	0.02	0.56	0.36
	75.60	78.60	3.00	48.00	0.02	0.34	0.73	67.00	0.03	0.26	2.42
8244	37.20	37.90	0.70	89.00	0.17	0.45	2.86	380.00	1.97	0.37	3.08
	37.90	38.50	0.60	197.34	0.80	0.40	3.90	272.00	1.45	0.20	4.42
	38.50	40.20	1.70	23.00	0.12	0.01	0.21	43.00	0.23	0.12	0.17
	40.20	40.40	0.20	2.00	0.01	0.00	0.08	94.00	0.56	0.14	25.90
	40.40	41.00	0.60	86.00	0.46	0.55	24.40	19.00	0.12	0.06	0.83
8330	103.50	105.50	2.00	167.12	0.03	2.83	0.02	136.00	0.02	2.74	0.00
	105.50	107.50	2.00	321.47	0.03	7.40	0.05	160.00	0.06	6.31	0.12
8334	115.00	115.35	0.35	113.94	2.03	0.12	14.20	250.00	4.31	0.17	15.50
	115.35	116.20	0.85	40.00	0.33	0.06	2.25	45.00	0.20	0.03	1.08
	116.20	116.35	0.15	37.00	0.05	0.29	8.87	23.00	0.05	0.23	6.88
	116.35	118.05	1.70	6.00	0.01	0.01	0.09	4.00	0.00	0.00	0.14
	118.05	120.50	2.45	29.00	0.04	0.23	6.66	31.00	0.04	0.31	5.45
8335	122.00	124.50	2.50	18.00	0.01	0.23	0.01	34.00	0.00	2.49	1.95
	124.50	126.80	2.30	7.00	0.00	0.06	0.02	23.00	0.01	0.01	0.00
	126.80	127.30	0.50	92.00	0.02	2.71	0.01	220.00	0.01	3.48	0.02
8553	141.00	143.00	2.00	19.00	0.00	0.47	0.04	102.00	0.07	0.70	0.28
	143.00	145.00	2.00	30.00	0.01	0.36	0.23	35.00	0.01	0.72	0.10
	145.00	147.00	2.00	59.00	0.01	1.65	0.03	108.00	0.02	1.87	0.08
8369	157.50	159.50	2.00	30.00	0.95	0.03	4.17	63.00	1.75	0.09	7.56
	159.50	161.50	2.00	21.00	0.30	0.11	2.97	36.00	0.36	0.30	2.81
	161.50	163.00	1.50	17.00	0.07	0.08	9.77	26.00	0.16	0.14	8.15

Drillhole	Interval			SGS Results				Charcas's Original Data			
	From (m)	To (m)	Length (m)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)
LE-139	119.55	120.70	1.15	99.80	4.63	0.22	11.40	100.00	4.99	0.21	10.33
	120.70	121.80	1.10	11.00	0.48	0.01	0.89	8.00	0.50	0.01	0.88
	121.80	122.60	0.80	119.53	4.22	0.25	6.06	109.00	4.09	0.24	5.07
	122.60	124.30	1.70	430.65	12.30	0.81	25.10	438.00	10.97	0.79	22.56
	124.30	125.65	1.35	370.35	8.24	0.70	15.80	379.00	7.54	0.67	14.60
	125.65	127.95	2.30	18.00	0.41	0.03	0.50	3.00	0.46	0.03	0.48
	127.95	130.40	2.45	6.00	0.16	0.11	0.49	6.00	0.20	0.11	0.46
	130.40	131.40	1.00	4.00	0.09	0.08	0.06	4.00	0.12	0.08	0.04
	131.40	133.40	2.00	46.00	2.12	0.14	6.34	27.00	1.88	0.13	5.43
	133.40	133.90	0.50	11.00	0.45	0.05	0.64	6.00	0.48	0.05	0.63
	133.90	135.85	1.95	364.23	15.50	0.25	11.20	360.00	12.22	0.24	7.60
	135.85	136.90	1.05	40.00	1.18	0.12	0.67	15.00	1.21	0.13	0.68
	136.90	139.80	2.90	8.00	0.18	0.04	0.16	5.00	0.59	0.03	0.12
	139.80	141.70	1.90	82.00	1.48	0.02	0.24	62.00	1.44	0.01	0.21
	141.70	142.40	0.70	62.00	0.89	0.05	0.14	48.00	0.91	0.03	0.10
	142.40	145.40	3.00	7.00	0.16	0.01	0.17	7.00	1.81	0.01	0.15
LE-150	137.20	139.35	2.15	66.00	2.19	0.07	1.96	58.00	2.17	0.04	1.96
	139.35	140.65	1.30	4.00	0.17	0.02	0.45	6.00	0.19	0.01	0.51
	140.65	142.70	2.05	50.00	2.40	0.16	5.75	49.00	2.49	0.18	5.27
	142.70	143.60	0.90	11.00	0.38	0.03	0.27	9.00	0.41	0.03	0.28
	143.60	144.75	1.15	11.00	0.45	0.01	0.45	13.00	0.47	0.01	0.41
	144.75	146.50	1.75	95.90	0.36	0.19	0.36	91.00	0.38	0.19	0.37
	146.50	148.00	1.50	2.00	0.15	0.01	0.15	12.00	0.17	0.02	0.15
	148.00	149.85	1.85	132.59	4.47	0.19	4.91	122.00	4.27	0.20	4.42
	149.85	150.80	0.95	10.00	0.75	0.05	2.18	14.00	0.82	0.06	1.81
LE-172	278.40	280.60	2.20	68.00	1.11	0.18	8.12	63.00	1.02	0.13	7.46
	280.60	282.30	1.70	7.00	0.06	0.02	1.40	6.00	0.06	0.02	1.33
	282.30	283.00	0.70	2.00	0.01	0.00	0.01	3.00	0.02	0.00	0.01
	282.30	284.80	2.50	74.00	3.30	0.14	11.80	63.00	3.09	0.09	10.49
LE-177	186.85	187.90	1.05	4.00	0.39	0.01	0.78	6.00	0.35	0.01	0.88
	187.90	189.45	1.55	108.62	6.99	0.40	25.40	118.00	6.70	0.39	22.91
	189.45	190.30	0.85	6.00	0.31	0.01	0.61	8.00	0.34	0.01	0.67
	189.45	191.75	2.30	15.00	1.15	0.01	1.97	17.00	1.10	0.01	1.86
SR-161	478.20	479.85	1.65	255.39	0.11	2.06	1.34	149.00	0.16	1.89	1.28
	479.85	481.55	1.70	349.45	0.17	0.13	0.71	408.00	0.20	0.15	0.84
	481.55	484.30	2.75	170.15	0.09	0.25	0.38	179.00	0.10	0.26	0.43
SS-28	276.60	277.00	0.40	20.00	0.87	0.01	2.87	11.00	0.55	0.01	2.62
	277.00	278.55	1.55	4.00	0.15	0.01	0.29	2.00	0.09	0.00	0.36
	278.55	280.45	1.90	79.00	3.26	0.15	3.13	64.00	1.97	0.15	2.87
Mean of samples				74.15	1.13	0.44	3.79	81.32	1.14	0.48	3.69

Source: SRK, 2021

Figure 9-1 shows the results scatter plots of the SGS results and the original data found in the logging sheets. High variability is observed in the scatter plots that compare the original data and the SGS results. It is difficult to exactly replicate the original values due to the state of the boxes that have been stored for some years in inappropriate conditions. Analysis of the mean grades for the 81 samples shows the highest variability exists within the silver values, which reported a mean grade of 81 and 74 g/t in the original versus SGS, respectively, which represents a difference of approximately +8.8%. In comparison, the difference between the lead, zinc, and copper values are +0.9%, -2.7%, and +6.7%. Although the element grades are not exactly matching, the correlation is generally reasonable.

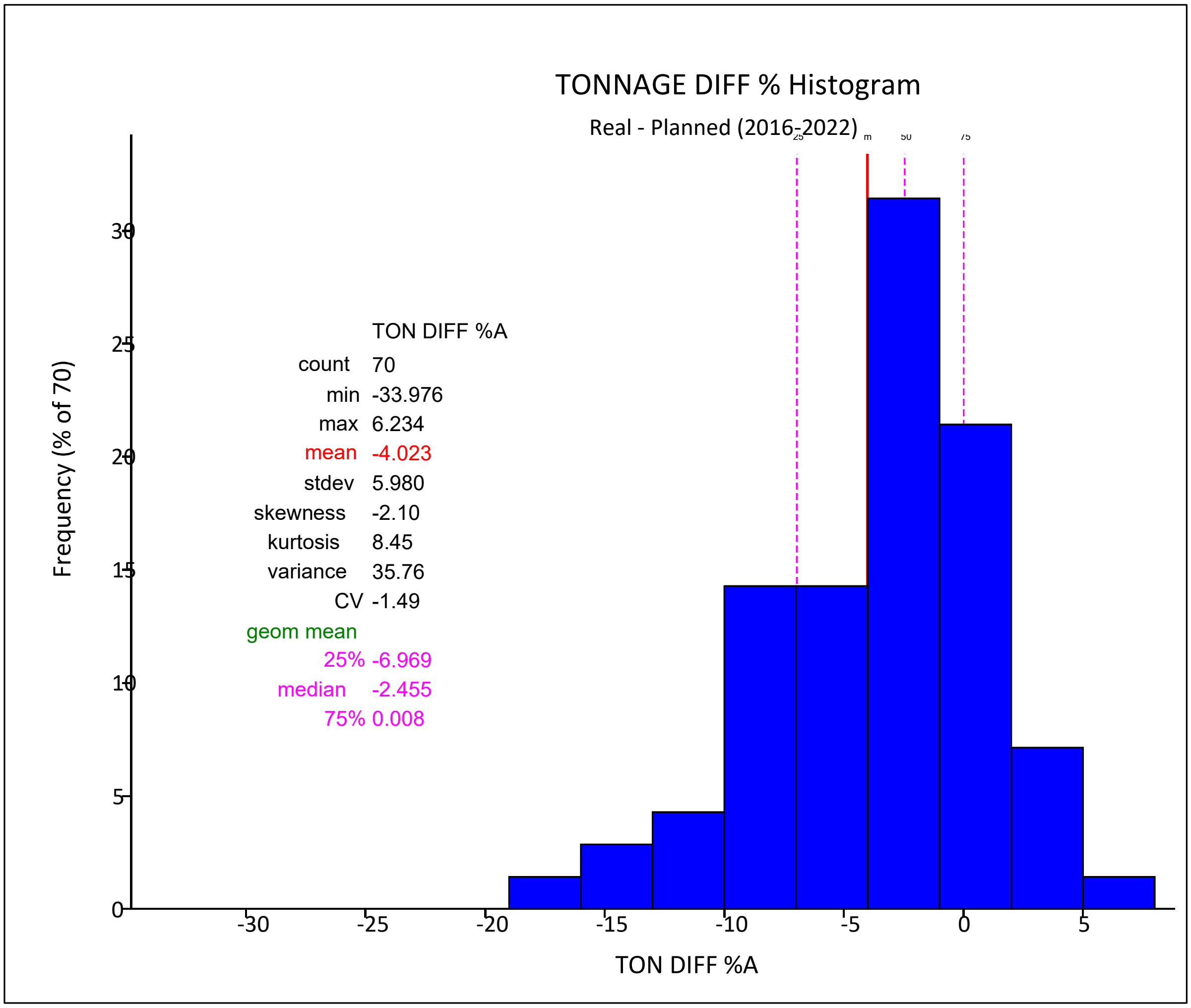


Source: SRK, 2021

Figure 9-1: Scatter Plots of Analysis Results, SGS versus Original Data in the Logging Sheets

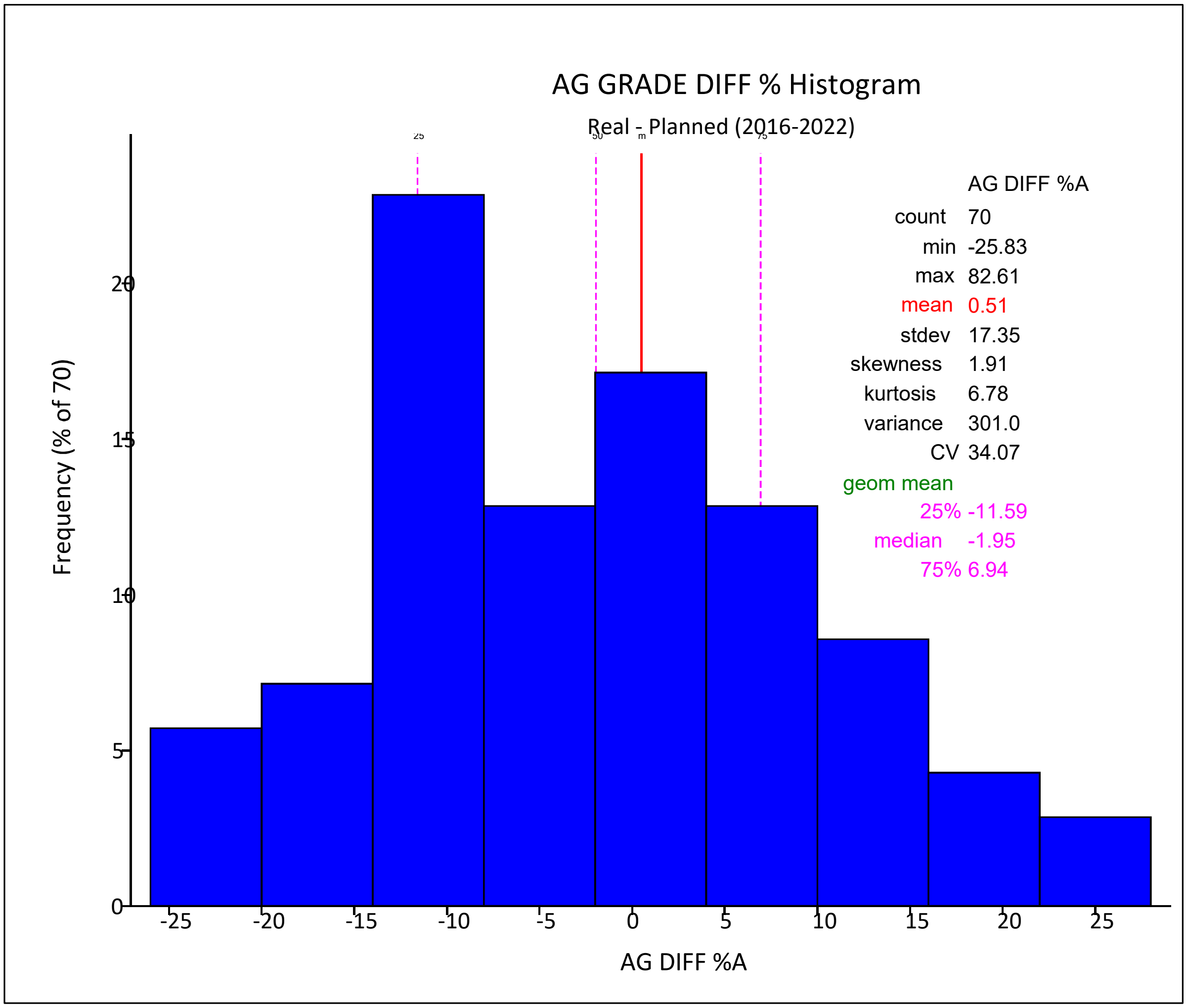
9.1.2 Review of Reconciliation Information Planned versus Real Grades

The QP has relied upon reconciliation of Charcas's planned versus real grades and tonnages system to determine the performance of the channel sampling, which is considered reasonable considering the long history of mining at Charcas. Figure 9-2 through Figure 9-6 present the monthly differences (%) between planned versus real tonnages and silver, copper, lead, and zinc grades between 2016 and 2022. The total averages are at reasonable levels, varying from 0.5% to 12.2%. Higher differences observed in a monthly basis and lead grade differences shows that there are aspects to review in the process of sampling and mineral resource/reserve estimations. The general results show slightly higher planned tons compared to the real. The real average grades of copper and zinc are 4.5% and 7.2% lower than the planned ones, respectively. The real grades of lead are 13% higher than the planned values, and the monthly differences range from -45% to 163%, which displays greater variability compared to the other elements. Planned and real silver average grades show little difference (less than (<) 1%), but the monthly variability is very variable from -26% to 83% (October 2022). The differences in the lead and silver data should be reviewed further, including the sampling protocols, which may over- or under-sample the lead mineralization. No factors have been applied to the grades recorded to account for these differentials, but the QP notes that the relative grades and contributions from the lead mineralization to the overall project value is relatively low (<5%); therefore, these differences have limited impact.



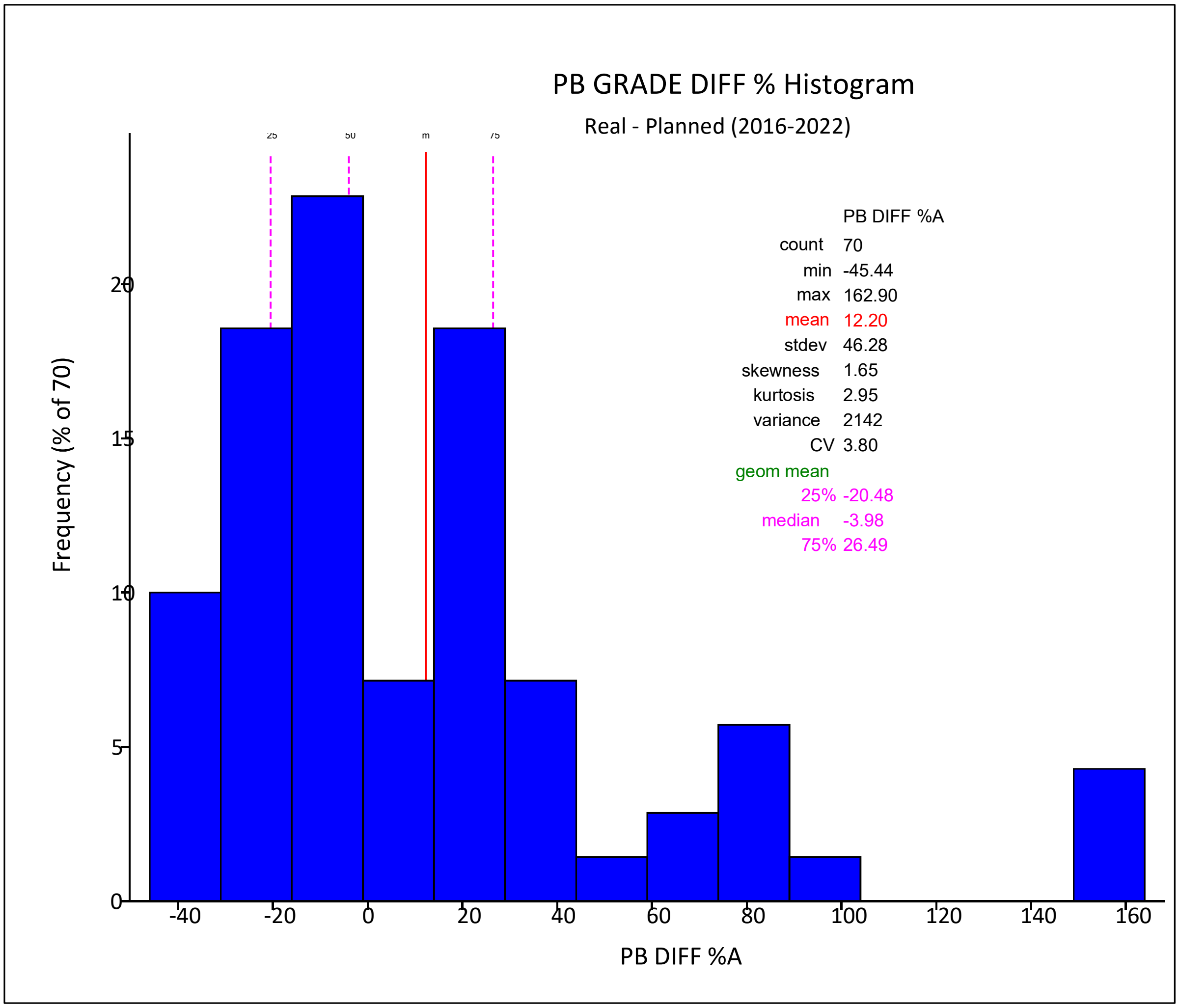
Source: IMMSA, 2022

Figure 9-2: Histogram of Planned versus Real Tonnage Difference (%) by Month, 2016 to 2022



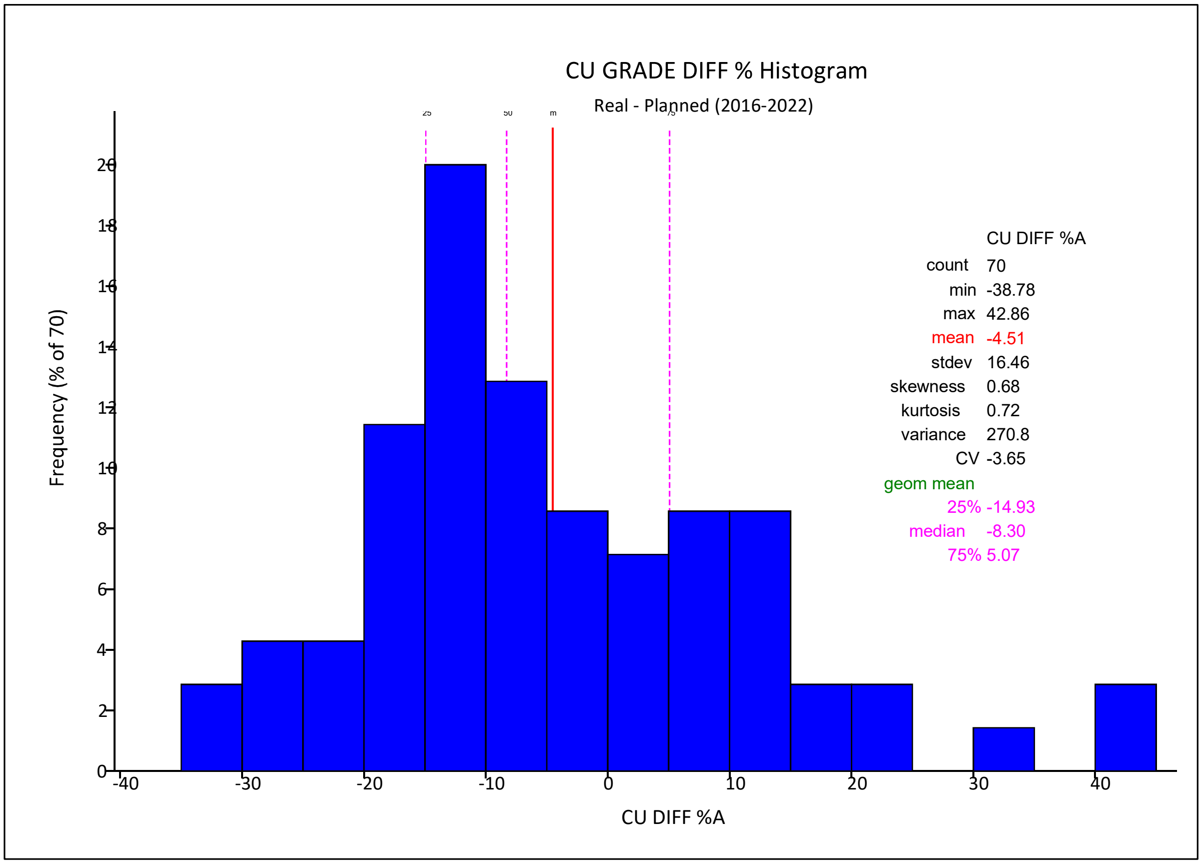
Source: IMMSA, 2022

Figure 9-3: Histogram of Planned versus Real Ag Grade Difference (%) by Month, 2016 to 2022



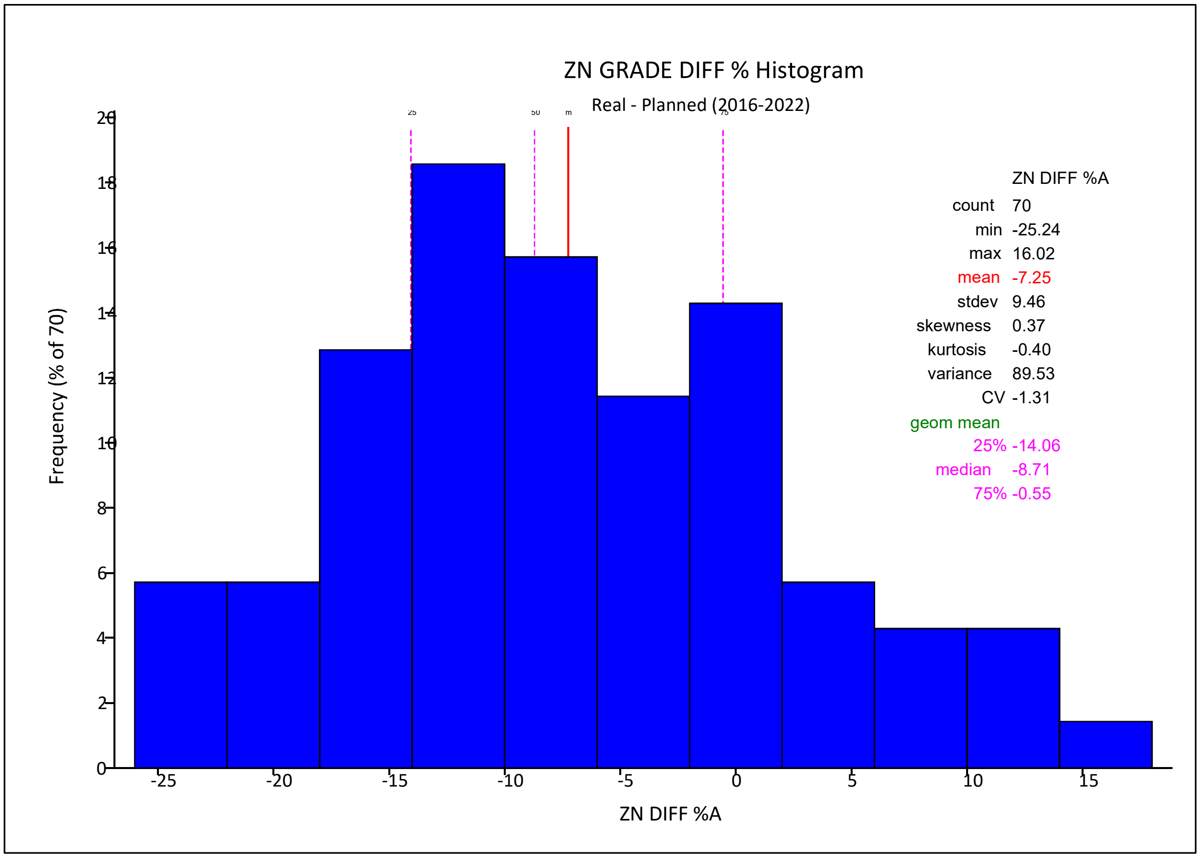
Source: IMMSA, 2022

Figure 9-4: Histogram of Planned versus Real Pb Grade Difference (%) by Month, 2016 to 2022



Source: IMMSA, 2022

Figure 9-5: Histogram of Planned versus Real Cu Grade Difference (%) by Month, 2016 to 2022



Source: IMMSA, 2022

Figure 9-6: Histogram of Planned versus Real Zn Grade Difference (%) by Month, 2016 to 2022

Table 9-2 shows the production planned versus real tonnages and grades for Charcas, 2023. The differences are reasonable except for lead and copper, which require IMMSA's review.

Table 9-2: Planned versus Real Production, Tonnage and Grades, 2023

Parameter	Real 2023													Plan	Difference Real
	January	February	March	April	May	June	July	August	September	October	November	December	Total	2023	versus Plan (%)
Charcas total (t)	95,506	86,516	89,398	99,522	113,470	119,554	116,452	128,395	99,636	114,437	107,100	105,000	1,274,986	1,264,200	1
Rate (t/d)	3,673	3,682	4,207	4,190	4,364	4,428	4,522	4,586	4,428	4,278	4,200	4,200	4,236	4,200	1
Au (g/t)	0.07	0.12	0.07	0.09	0.07	0.06	0.08	0.08	0.07	0.06	0.07	0.07	0.08	0.07	4
Ag g/t)	59	50	51	59	55	68	60	49	65	68	53	53	58	53	9
Pb (%)	0.21	0.14	0.27	0.24	0.18	0.21	0.16	0.15	0.29	0.25	0.16	0.16	0.20	0.17	17
Cu (%)	0.40	0.46	0.33	0.43	0.34	0.37	0.37	0.37	0.34	0.35	0.34	0.34	0.37	0.45	-18
Zn (%)	2.52	2.05	2.41	2.19	2.13	2.17	2.23	2.07	2.17	2.19	2.02	2.02	2.17	2.18	0

Source: IMMSA, 2023

9.2 Limitations

Charcas stores the core of recent drilling completed by the mine geology team, and after some years, the core is discarded. The samples were selected from the available drillholes from different areas of the Charcas project. The internal laboratory does not store the rejects or pulps from the core and channel samples collected by the mine geology team.

The historical data could not be independently verified due to the non-existence of the core and lack of the original assay certificates. SRK considers there to be limited risk in the use of the historical data, as this information has been supporting the exploitation of Charcas for decades.

9.3 Opinion on Data Adequacy

Based on the validation work completed, SRK is of the opinion that data supporting the resources is adequate to support the mineral resource estimate. The lack of QA/QC data remains a concern, but in the QP's opinion, the historical mining and production for more than 50 years provides additional verification of the historical data supporting the resources. Given the uncertainty related to the limited QA/QC, in the QP's opinion, assigning the highest level of confidence (Measured) to the estimated stopes has been limited by the QP in the current estimates. It is the QP's opinion that until procedures are improved to ensure no bias exists (positive or negative) for the level of accuracy considered within this category and confirmation of the updated certification of the internal laboratory is completed, the use of Measured resources should not be obtained. The QP has recommended revised procedures which should include a robust QA/QC program for both mine and external laboratories and third-party checks on a routine basis.

10 Mineral Processing and Metallurgical Testing

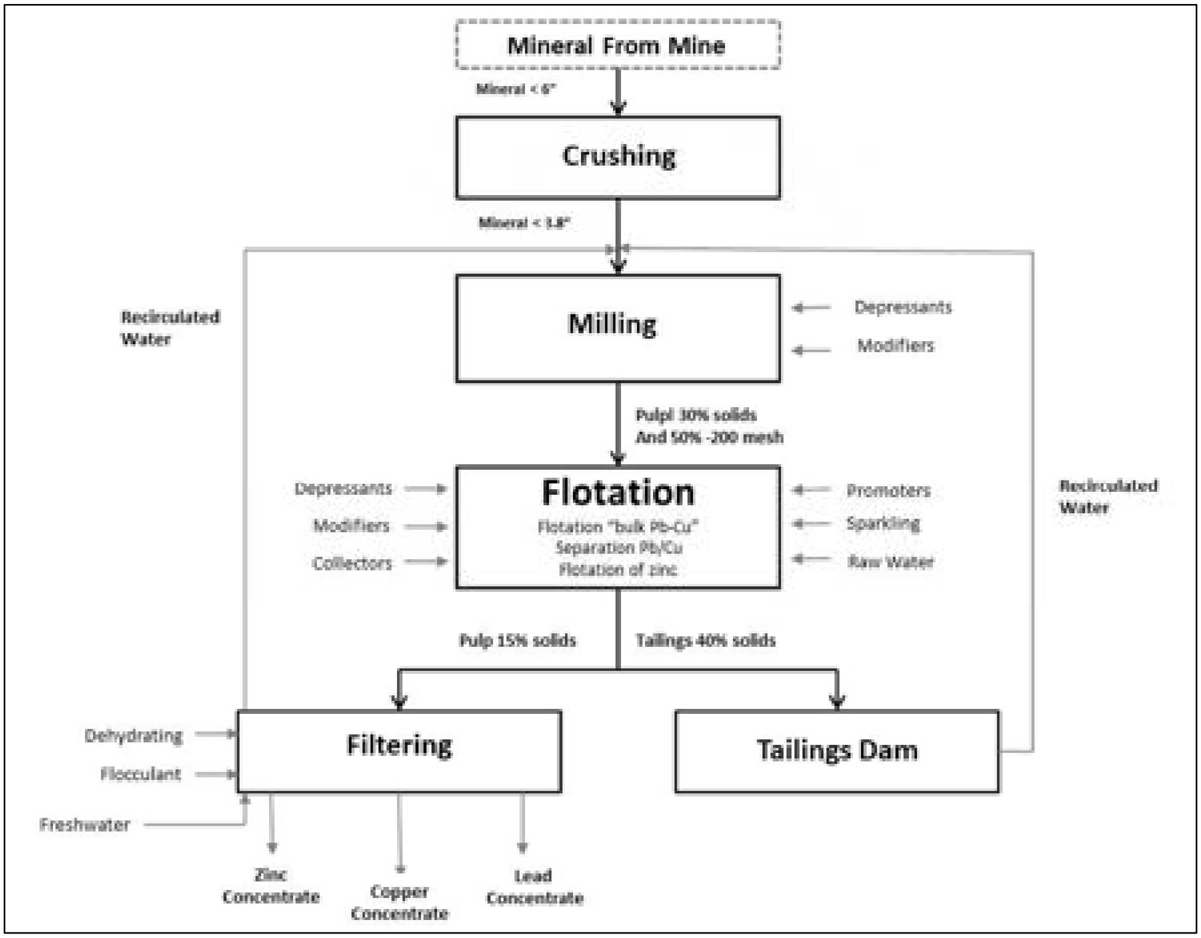
10.1 Testing and Procedures

Charcas is an operating mine and has been in operation under the current Company since 1978. The Charcas mine is characterized by low operating costs and good-quality ores and is situated near the zinc refinery. Mineral processing is completed via conventional flotation processes with three concentrates being produced (in order of scale):

- Zinc concentrate
- Copper concentrate
- Lead concentrate

The mine is not currently conducting any specific metallurgical testwork specifically to support the current disclosure. The QP has therefore relied on the production data from the three concentrates to determine the recoveries to support the declaration of the mineral resources.

The mineral benefit plant was built with the purpose of concentrating the metallic minerals of interest (zinc, copper, and lead) and has a nominal capacity to process 4,100 tons/day. Figure 10-1 presents the flow chart of Charcas's process plant.



Source: IMMSA, 2021

Figure 10-1: Flow Chart of Charcas's Process Plant

10.2 Sample Representativeness

The QP has assumed that the current material is representative of the future mining areas, with no known changes in the mineralization styles expected over the short term. Should the mine conduct further exploration on potential exploration targets, additional metallurgical testwork will be required. At a minimum, this should include a sensitivity study for potential recoveries using the current operating setup to estimate potential recoveries.

10.3 Laboratories

Currently all sampling for the Charcas mill (plant sampling) are conducted on-site at the mine laboratory. The mine laboratory is directly owned by IMMSA. The laboratory has been certified by Bureau Veritas to NMX-CC-9001-IMNC-2015/ISO 9001: 2015. The certification was completed initially in 2015 and renewed in 2018 and 2019. Updated certification of the laboratory is recommended to reduce any potential risk, and IMMSA will work in 2023 to obtain the updated certification.

10.4 Relevant Results

Table 10-1 summarizes the metallurgical performance from the operation. The results indicate that an increase in the recoveries occurred between 2019 and 2023 within the lead concentrate. It is also noted that the recoveries within the zinc concentrate for 2019 were higher than the current levels, which accounts for the largest bulk (tonnage) of the produced concentrate streams at the operation.

Table 10-1: Metallurgical Performance 2019 to June 2023

Component	Year	Tonnage (t)	Assay Grade						Recovery (%)					
			Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Fe (%)	Au	Ag	Pb	Cu	Zn	Fe
Head grade	2019	1,293,137	0.1	46	0.1	0.4	2.2	4.6	100.0	100.0	100.0	100.0	100.0	100.0
	2020	1,145,897	0.1	48	0.2	0.4	2.5	4.1	100.0	100.0	100.0	100.0	100.0	100.0
	2021	1,232,076	0.1	51	0.2	0.4	2.3	4.3	100.0	100.0	100.0	100.0	100.0	100.0
	2022	1,190,694	0.1	60	0.2	0.4	2.1	4.5	100.0	100.0	100.0	100.0	100.0	100.0
	2023*	603,966	0.1	58	0.1	0.4	2.2	4.4	100.0	100.0	100.0	100.0	100.0	100.0
Lead concentrate (Pb%)	2019	1,041	5.8	11,557	48.8	6.9	2.9	6.8	3.2	20.1	33.1	1.5	0.1	0.1
	2020	2,023	4.2	7,444	62.7	4.2	2.5	4.1	6.7	27.2	52.7	2.0	0.2	0.2
	2021	1,720	6.1	8,046	60.2	5.8	2.5	5.2	9.3	22.1	48.8	2.2	0.1	0.2
	2022	1,745	5.3	9,165	59.4	5.8	2.1	5.2	10.5	22.2	47.0	2.1	0.1	0.2
	2023*	881	6.2	8,097	59.8	6.2	2.2	7.1	11.5	20.5	42.1	2.4	0.1	0.2
Copper concentrate (Cu%)	2019	15,102	2.9	1,901	2.4	25.0	9.2	23.7	23.0	48.0	23.7	79.1	4.9	6.0
	2020	12,883	3.0	1,945	4.8	24.0	10.7	22.9	30.9	45.2	25.8	73.2	4.9	6.2
	2021	14,068	3.6	2,007	4.9	23.7	11.8	20.4	44.6	45.0	32.2	73.1	5.8	5.5
	2022	14,001	2.9	2,126	5.4	23.3	10.0	22.4	46.8	41.4	34.4	67.7	5.6	5.8
	2023*	6,666	3.7	2,210	6.3	21.8	10.4	21.1	51.8	42.4	33.3	62.7	5.1	5.3
Zinc concentrate (Zn%)	2019	50,627	0.3	141	0.3	1.0	54.5	6.3	9.3	11.9	8.4	11.1	98.4	5.3
	2020	49,117	0.4	151	0.5	1.1	53.3	6.7	14.3	13.4	10.5	13.1	92.8	6.9
	2021	49,613	0.4	176	0.6	1.3	53.4	6.4	19.1	13.9	13.3	14.5	92.5	6.0
	2022	43,025	0.3	230	0.6	1.8	51.4	7.5	15.2	13.8	12.3	15.7	88.5	6.0
	2023*	22,269	0.4	204	0.68	1.86	52.35	6.8	18.1	13.1	12.0	17.8	86.2	5.7
Tails	2019	1,226,367	0.1	10	0.0	0.0	-0.1	4.3	64.6	20.0	34.8	8.3	-3.4	88.6
	2020	1,081,874	0.1	7	0.0	0.0	0.1	3.8	48.1	14.2	11.0	11.7	2.2	86.6
	2021	1,166,675	0.0	10	0.0	0.0	0.0	4.0	27.0	19.0	5.6	10.1	1.6	88.3
	2022	1,131,923	0.02	14	0.0	0.1	0.1	4.2	27.5	22.6	6.3	14.5	5.8	88.0
	2023*	574,149	0.02	15	0.03	0.07	0.20	4.1	18.5	24.1	12.6	17.1	8.5	89.0

*January to June 2023
Source: IMMSA, 2023

The QP has compared the current recovery performance with 3-year trailing averages (2021 to June 2023) for the recoveries for use in the assessment of the CoG. Based on the review and the slightly higher recoveries presented in the 2023 data (to June 2023), SRK has elected to use the results from the trailing average as a basis for the current assessment.

The QP has therefore elected to use the average recoveries from the production information for the assessment of the CoG, as described in Section 11.4 of this report.

The recoveries show an improvement in the average recovery used for all elements (zinc, silver, copper, and lead) compared between 2022 and 2023. Overall, there was a reduction in the recovery for gold, but this is not quoted in the mineral resources and is not considered to be material. Using the information provided in Table 10-1 and by calculating the total recovery for the key elements, Table 10-2 shows the cumulative recoveries that have been used for the purpose of the CoG analysis.

Table 10-2: Cumulative Recovery used for CoG Analysis

Element	2022 Recovery (%)	2023 Recovery (%)
Au	58.9	56.9
Ag	74.4	78.4
Pb	44.0	46.6
Cu	67.7	68.8
Zn	88.5	89.7

Source: SRK, 2023

10.5 Adequacy of Data and Non-Conventional Industry Practice

In SRK’s opinion, the results to date are sufficient for the definition of a mineral resource with the potential for economic extraction of the three concentrate products produced. SRK is not aware of non-conventional industry practice utilized.

11 Mineral Resource Estimates

The mineral resource estimate presented herein represents the current resource evaluation prepared for the Charcas project in accordance with the disclosure standards for mineral resources under §§229.1300 through 229.1305 (subpart 229.1300 of Regulation S-K).

11.1 Key Assumptions, Parameters, and Methods Used

This section describes the key assumptions, parameters, and methods used to estimate the mineral resources. The technical report summary includes mineral resource estimates, effective December 31, 2023.

11.1.1 Mineral Titles and Surface Rights

The MRE stated herein is done so on 100% terms of the resources contained within mineral title and surface leases which are currently held by IMMSA as of the effective date of this report. All conceptual optimizations to constrain statement of mineral resources have been limited to within these boundaries, as well. Current and future status of the access, agreements, or ownership of these titles and rights is described in Section 3 of this report.

11.1.2 Database

IMMSA finalized the digitizing of the historical database and started the construction of the 3D geological model in Leapfrog Geo, which is projected to be completed in 2024. The lack of a 3D model and block model estimation required the manual validation by the QP to validate the current mineral resources. In the QP’s opinion, the distribution of this drilling and sampling used to inform the mining blocks is representative of the known deposit to date. The QP considers the procedures used by IMMSA to be reasonable and in-line with industry standards. The digitized database is stored in Excel files and uploaded into Leapfrog Geo software for the geological modeling and resource estimation planned for 2024 and used for validation and review of geological continuity in 2023. The QP recommends implementing a commercial database to manage and store the project data.

All drilling and sampling completed by the Company are logged for a variety of geological parameters, including rock types, mineralogy, and structure. Historical drilling featured cross-sections, and maps have been used locally for modeling purposes for the mineralization contacts. SRK considers movement to a digital database containing the mine geology department and exploration information resulted in improvements in the ability to develop a robust geological model supporting the MRE, which in turn can be used for more-detailed mine planning.

11.1.3 Geological Model

There is extensive knowledge of the geological, structural, and mineralization controls of the Charcas deposit, which has been established over the mine life to date. The historical information is stored on maps which include the underground workings, lithology, structure, and mineralization.

Currently, the geological interpretations are in a combination of paper format and in AutoCAD vertical and plan sections that were imported into Leapfrog Geo for helping in the implicit geological modeling, which is planned to be finalized in 2024. The mine geologists map the underground workings and define the channels and the sample limits. Location of sampling points are noted on the geological maps and transferred into AutoCAD format. The mapping includes description of the rock type and the mineralization characteristics, which is then transcribed into the topographic maps and used in conjunction with the assay results.

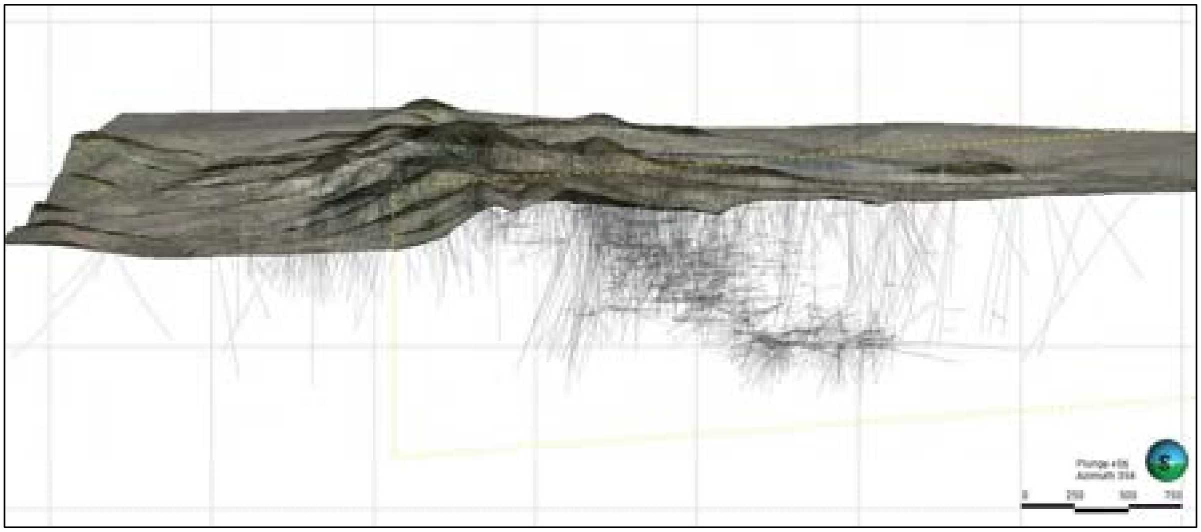
Once the maps are generated, IMMSA geologists delineate the mineralized zones and the geological interpretation in the plan and vertical views, as shown in Figure 7-3. This information is then used to define the areas of economic interest, which are used to calculate the mineralized potential. The volumetric measurement of the area of any given mining block is first determined by measuring the perimeters of the defined blocks (previously surveyed) on plan or section, which is then recorded. The volume is then calculated for the mineral resource estimation by using a vertical projection of the areas based on estimated heights using sectional interpretations (Figure 7-14). The final volumes are then determined by accounting for the existence of the mined zones.

Geological interpretations of some new mineralization zones of the deposit have been constructed in Leapfrog Geo software (as part of a test process) by Charcas's exploration department. Integrating the mine maps, horizontal and section interpretations, and the existing geological models into a single model will present some challenges due to the quantity data and the complexity of the deposit.

To generate the consolidated 3D geological model, the following activities are in process:

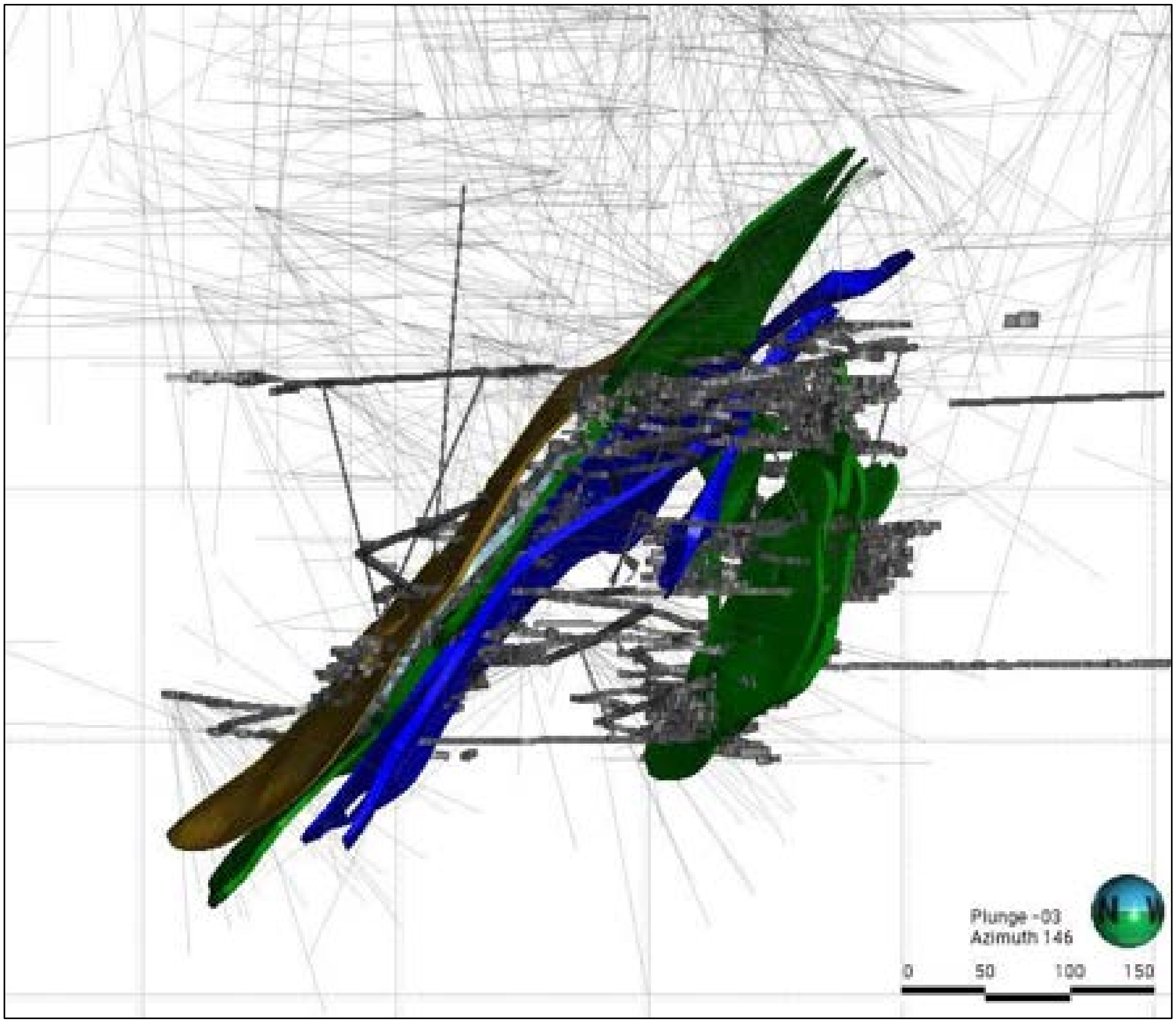
- Compile the 3D database of the underground chip channel samples. The exclusion of samples in already-mined zones should be defined by the QP in charge of the geological modeling. The 3D modeling software Leapfrog Geo is being used for this activity.
- Convert all the information to a unique coordinate system when necessary.
- Consolidate the rock and drill core sampling database (collar, survey, assay, lithology, alteration, vein codes, etc.) currently in Excel.
- Use digitized sections and maps with lithology information to help in the geological interpretation and implicit geological modeling.
- Construct depletion solids based on the topographic information collected by the mine planning department.

Figure 11-1 presents the 3D view of the drillhole data digitized and imported into Leapfrog Geo software, including 4,386 drillholes. Figure 11-2 shows the Rey-San Bartolo area preliminary geological model, drillholes, and mine infrastructure.



Source: IMMSA, 2023

Figure 11-1: 3D View of the Drillhole Data, Leapfrog Geo Software



Source: IMMSA, 2023

Figure 11-2: 3D View of the Rey-San Bartolo Preliminary Geological Model

11.2 Mineral Resources Estimates

In 2023, Charcas produced the mineral resource estimates under S-K 1300. The mineral resource statement presented herein represents the updated mineral resource evaluation prepared for Charcas.

The mineral resource estimation for Charcas was completed using all the available data based on handmade documentation and calculations, including, in part, information in AutoCAD and Excel formats. The mineral resources presented herein are consistent with the methods used to define the 2022 estimates using 2D interpretations.

Due to the characteristics of Charcas's available information, the generation of a 3D geological model, geostatistical analysis, block model construction, and geostatistical estimation using specialized software are not included as part of this report. This work is currently ongoing and is expected to be completed in Q1 2024.

The updated mineral resource estimation is based on the stope calculations completed by Charcas as part of the operation's mine planning process and includes the following aspects:

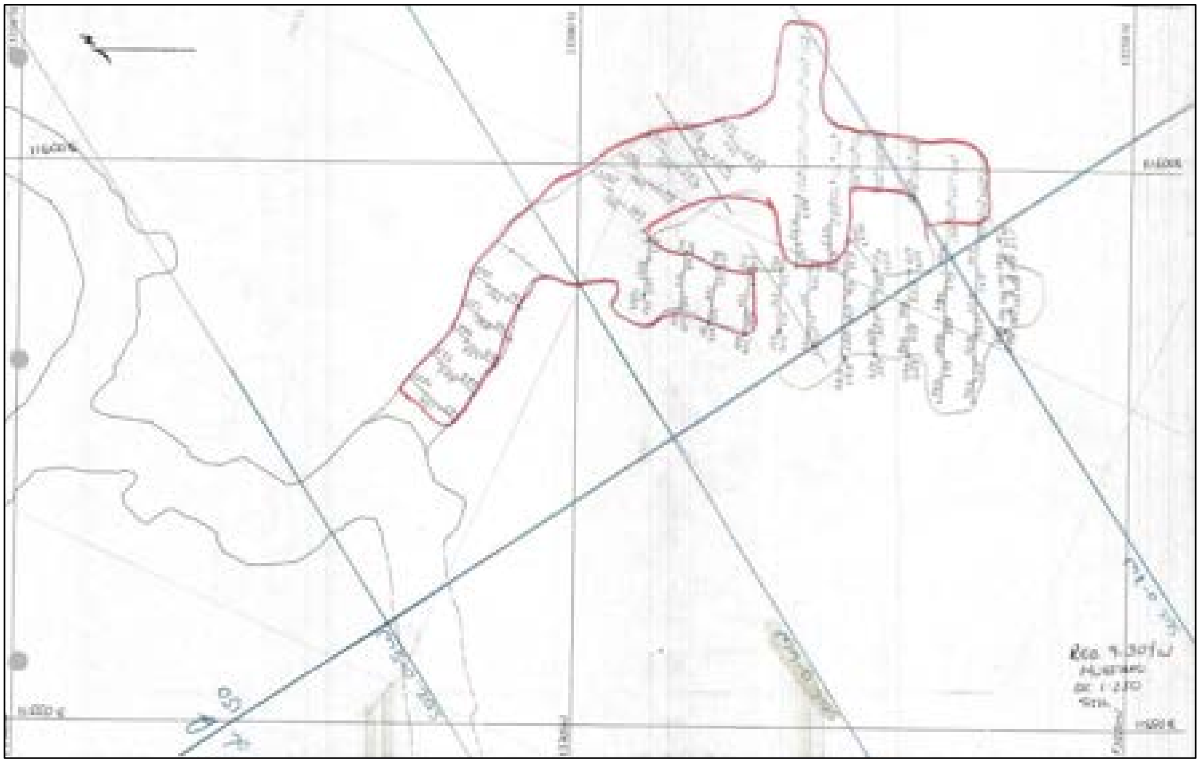
- Data compilation and verification, channel, and core sampling
- Calculation of areas of blocks in vertical or horizontal sections
- Volume calculations from areas and influence distances
- Calculation of grade-weighted averages
- Tonnage calculations
- Classification

11.2.1 Data Compilation and Verification

The geological information and the sampling of the underground workings have been historically collected in paper, with some information transferred to maps and digital formats, including the geological interpretations, lithology, mineralization type, and alteration, among other characteristics.

The information that is registered in maps and digital formats is combined with the assay results obtained from the internal laboratory and transferred to the maps and formats by hand.

Part of the historical and the more recent information (geology, mineralization, structural, sampling, etc.) collected in maps have been transferred to a digital format using AutoCAD software, using the mine topography information provided by the surveyors (Figure 11-3). This information is then used to generate maps and sections, which in turn are used to complete the geological interpretations. Using the latest interpretation, IMMSA geologists produce sections and plan views from where the mineralized zone areas are delimited using lithology, mineralization, and the sample results. The QP has reviewed this process and, following some initial feedback from the IMMSA geologist, has deemed the final interpretations used in the current estimate as appropriate. Figure 11-3 shows the delineated mineralized area of a replacement body, which is irregular.



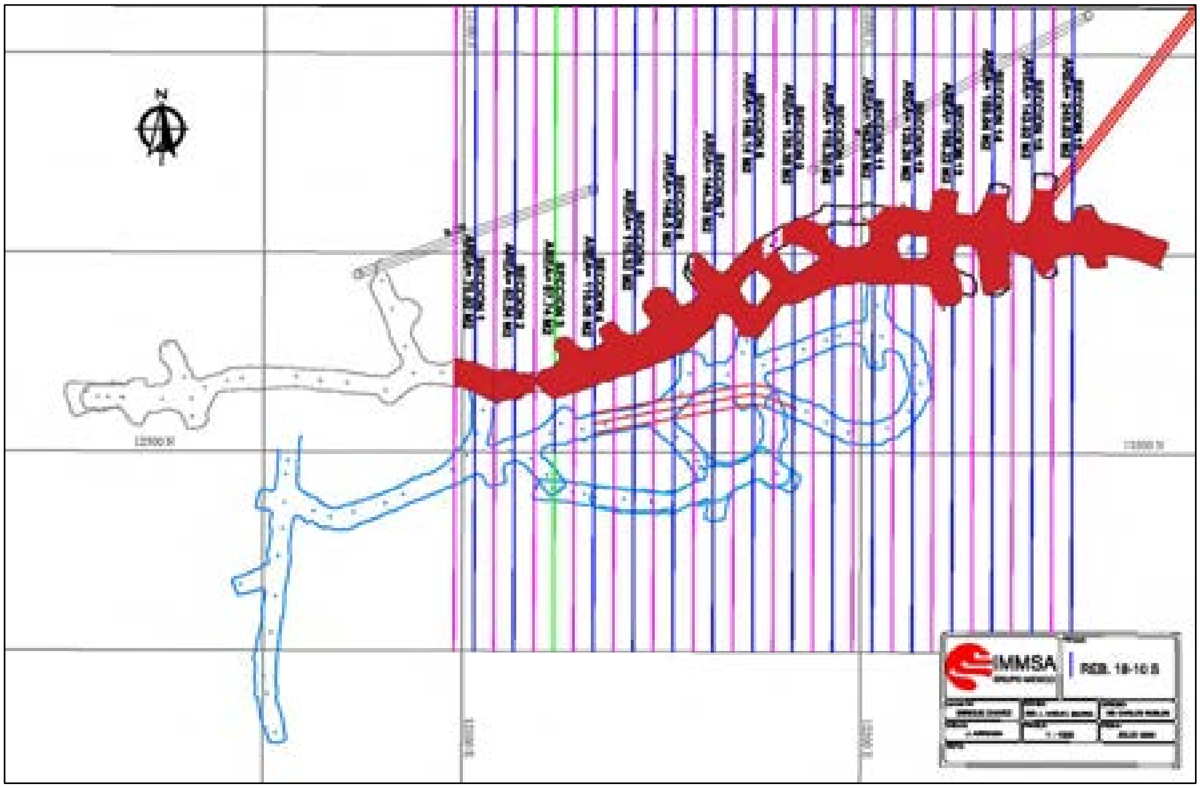
Source: IMMSA, 2022

Figure 11-3: Example of Plan View of Underground Workings and Channel Sample Lines (La Aurora Area)

The following is the process to define the block shapes:

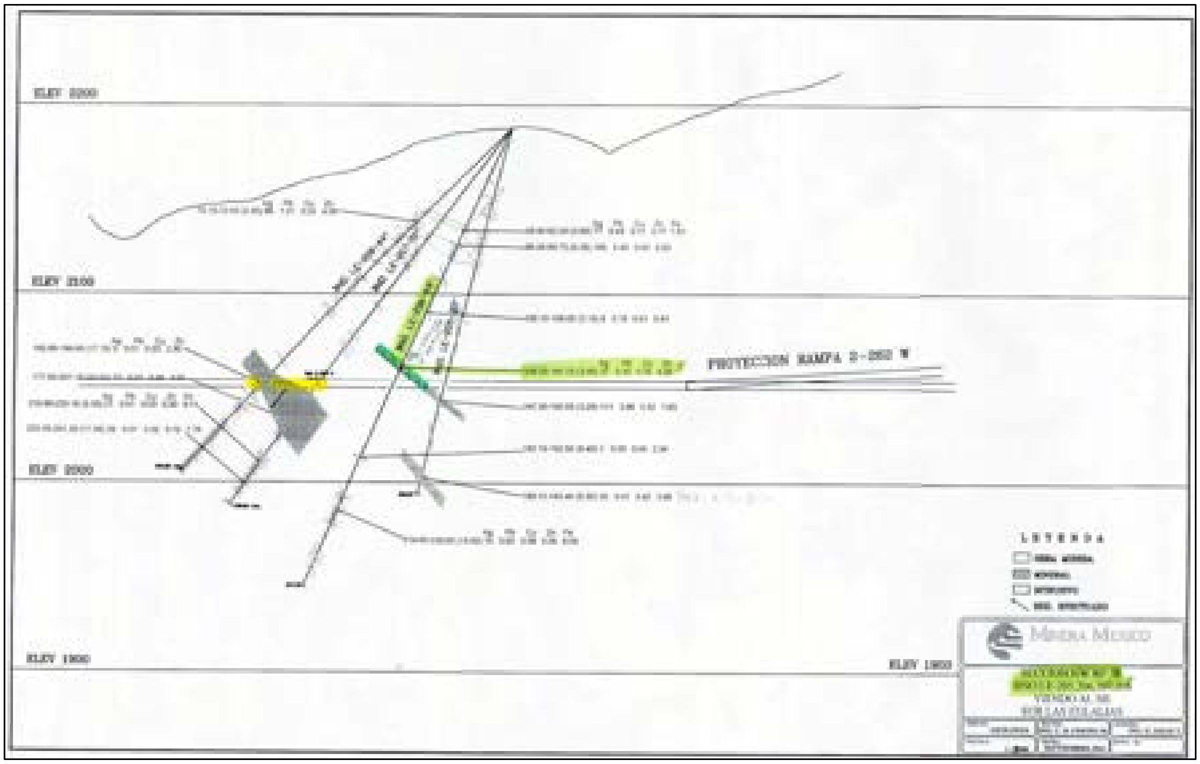
- Based on the geological underground mapping and channel sampling, the geologists define the extension of the mineralization in plan views and outline the mineralized areas in paper maps or in AutoCAD. Figure 11-3 and Figure 11-4 show the mineralization associated to replacement is irregular. When veins are interpreted, these are drawn as semi-tabular shapes in vertical sections perpendicular to the general direction of the vein, as shown in Figure 11-5.
- Vertical sections are used to interpret the vertical extension of the mineralization, and in the case of veins, their tabular shapes are delineated using the drilling intercepts. The interpretations are performed using vertical sections separated 10 to 20 m.
- The blocks can have information from channel samples and/or drilling, and in some cases, from both sources.
- The areas of the interpreted mineralized shapes in plan views are measured using AutoCAD. Historically, Charcas used manual methodologies to obtain these areas.
- Each resource block is defined by section according to the continuity of the mineralization and the location in the deposit and uses the data of channels and drilling inside the block to determine the grades.
- Once the geologists have defined the block areas from plan or vertical sections, the volume of the block is defined by extending the areas in the direction of the mineralization. The maximum distance of extension is established by the manual of resources/reserves of IMMSA and, if necessary, limited by existing underground workings or mined areas.

Figure 11-4 shows an example of the areas defined in plan view and the vertical section lines that limit the areas. Figure 11-5 shows an example of a vertical section.



Source: IMMSA, 2022

Figure 11-4: Example of Plan View Including the Calculated Areas of Mineralized Zones (Red Color), Reb 18-10S



Source: SRK, 2021

Figure 11-5: Example of Vertical Section Including the Drilling, Interpretation, and Calculated Areas

In the QP's opinion, this is a time-consuming process that is labor intensive and requires constant review and updating of the maps to ensure accurate volumes. The process is static with potential mining areas defined as blocked. This process, while remaining valid, is considered outdated in terms of modern mining processes that rely on interactive models using a digital model, which can be adjusted as new information becomes available. The QP comments that Charcas is in the process of moving to more-modern methodologies but that the models will rely on the transfer of the geological information to a digital database, as previously discussed. Given the size of the Charcas project and the historical database, this is a considerable undertaking, and, in the QP's opinion, the finalization of the geological model and resource estimation is considered the key focus area for 2024.

11.2.2 Calculation of Weighted Averages Grades and Volume Calculation

The way sampling information is considered depends on the shapes of the mineralized bodies and the type of other information available. In replacement mineralization bodies, the samples are collected from fronts and roofs perpendicular to the mineralization controls (stratigraphy) in sampling lines separated 5 m. In tabular bodies, there are usually fronts that follow the body longitudinally, as well as underground workings within the body, which must have been sampled throughout its length, with sample lines separated 5 m.

When using more than one drillhole or a combination of drillholes and channel sampling, the weighted averages are calculated based on the areas of polygons constructed to define the area of influence of each sample or set of samples. When there are sections with more than one drillhole, the area is based on halfway to the next drillhole (Figure 11-5). The average grades of a set of channel samples are weighted by the length of each sample and then by the influence area, if necessary.

11.2.3 Capping

Before the final calculation of weighted average grades, the geologists review the assays and apply capping, if required, using the following values:

- Ag = 200 g/t
- Pb = 2%
- Cu = 2%
- Zn = 10%

In specific cases in areas characterized by high-grade metallic content, geologists have applied specific grade capping in-line with the grades observed in the zone.

Charcas does not have a statistical analysis or any specific documentation to support the values used for capping and has historically used different approaches. The current methodology and values are a result of the experience and knowledge of the operation, which is an aspect that SRK considers reasonable and appropriate. The use of the capped values is supported to some degree by the reconciliation processes discussed in Section 9.1 of this report.

Review of the capping levels will be advised once the digitized database is established to understand the relative percentiles used in capping and if the capping should be completed across the deposit or per structure.

Averages of widths and grades are obtained for the sample, and each sample is assigned its area of influence. The areas are added to obtain the total area, and the weighted averages of width and grades are obtained. Volumes and tonnages are then calculated using the areas that are projected perpendicular to the sections based on the established projection distances and the resource classification criteria.

11.2.4 Density

The density used by Charcas is 3.0 t/m^3. This number was provided by the mine. The plant and the mine have been using this density value for decades, which provides confidence. The determination method was not clear, and documentation related to this was not provided to SRK. It is the QP's opinion that the use of a standard density without underlying technical information is not considered industry best practice. A level of risk exists when using unsupported values in the estimation process, and as the density value is directly applied to the calculated volumes to determine the tonnage, the risk has a direct link to the total tonnage declared in the current mineral resource.

The density being used is consistent with the average density (which has been used by the mine through its operation), which provides a reasonable level of confidence that the value is not materially wrong; however, SRK recommends further testwork be completed to both confirm the current density values and to assess any potential variability. Different rock types and the characteristics of the mineralization have variable densities, which is an aspect to investigate to obtain a more-robust density calculation. Charcas's exploration department has completed specific gravity measurements using the methodology based on the Archimedes principle on core, but the quantity of measurements is limited and collected from some specific areas that are not representative of all the deposit and the different rock types and/or mineralization.

The tonnages used in the final estimate are calculated multiplying the obtained volumes by the density (3.0 t/ m^3).

11.2.5 Documentation

Plans and calculations for the resource estimates are made in a sufficiently detailed manner, with information stored for each mining block at the mine. The calculation for each block is carried out in the standard sheets (Figure 11-6). In the spreadsheets, the final data of the ore in situ should appear as a total in situ followed by the tonnage and grades of the ore. The calculations for each block must be accompanied by drawings and sections as necessary. All spreadsheets, drawings, and other documents are stored in paper folders and maintained in a safe place.

HOJA PARA EL CALCULO DE RESERVAS

INDUSTRIAL MINERA MEXICO, S.A. DE C.V.

UNIDADCHARCAS

MINA: Tiro General
VETA/CUERPO: El Rey
BLOQUE: 24-100W
CLASIFICACION: Probado

FECHA: Dic. 2022
CALCULADO POR: D.U.Z.F
REVISADO POR: M.E.L.

TONS.AÑO ANT.:

Resumen

CALCULOS AUXILIARES

LOCALIZACION DE MUESTRAS	TONELAJE (TMS)	LEYES (in-situ) Au (ppm)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)				VALOR (2022)	OBSERVACIONES
Secc 09	4410.54		115	0.05	0.67	4.20					
" 10	8567.49		95	0.05	0.63	9.97					
" 11	4554.66		65	0.03	0.87	7.44					
" 12	5330.25		66	0.09	1.57	4.22					
" 13	4200.84		26	0.01	0.16	1.36					
" 14	6164.45		47	0.05	0.41	2.23					
" 15	9025.12		50	0.04	0.32	5.02					
" 16	11,892.85		61	0.57	0.19	5.11					
" 17	17,490.21		47	0.33	0.17	5.30					
" 18	6,962.85		32	0.01	0.19	4.16					
" 19	7,035.3		45	0.04	0.21	5.58					
" 20	11,743.45		81	0.06	0.22	3.08					
" 21	9688.00		41	0.05	0.23	6.54					
Secc 22	12091.05		39	0.06	0.12	4.55					

DATOS FINALES

DESCRIPCION	TONELAJE (TMS)	LEYES (in-situ) Au (ppm)	Ag (ppm)	Pb (%)	Cu (%)	Zn (%)				VALOR (2022)	OBSERVACIONES
TOTAL IN-SITU	119,077.06		56	0.14	0.34	5.05					
DILUCION (%)											
GRAN TOTAL											

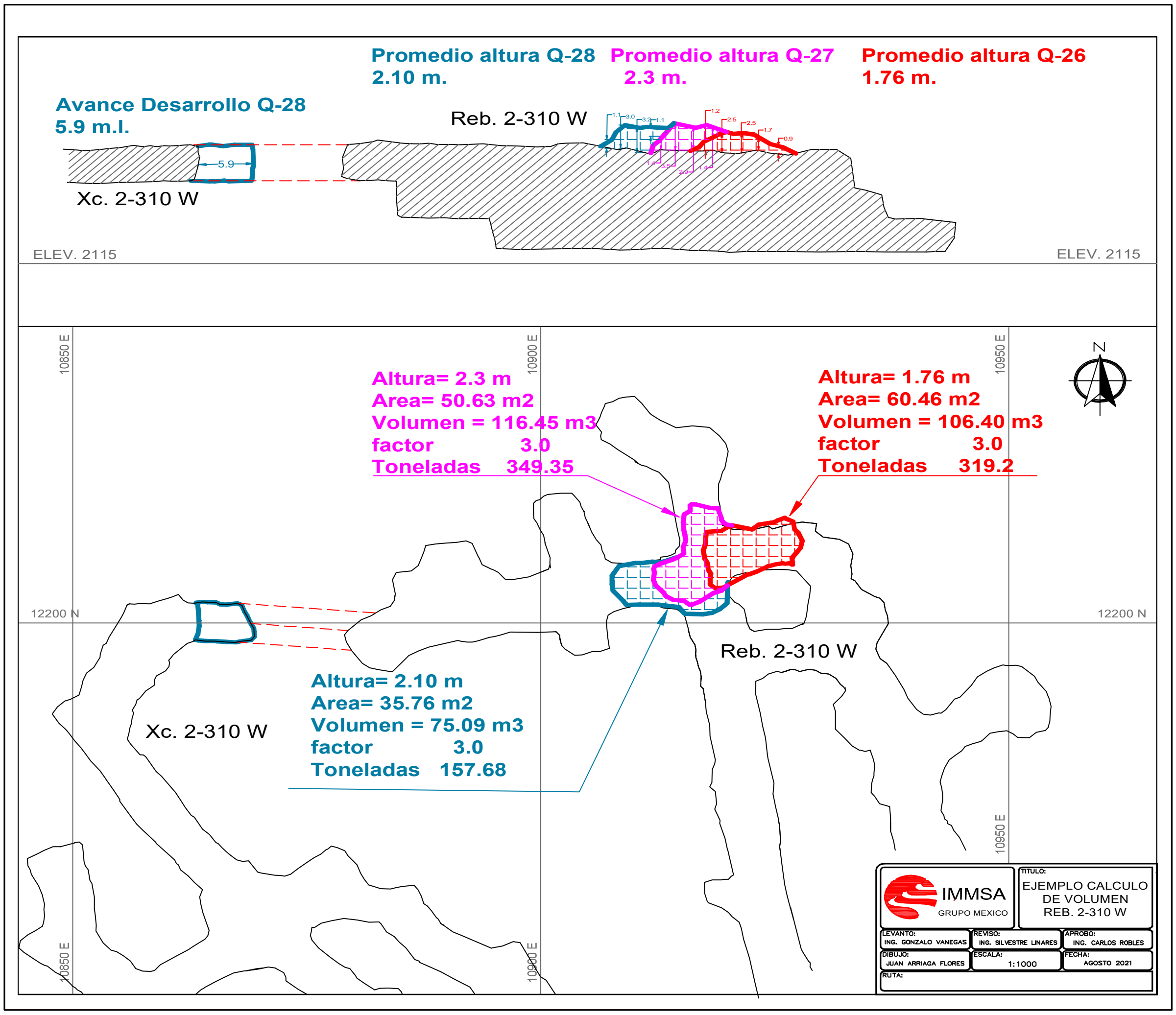
Source: SRK, 2022

Figure 11-6: Example of Table used for Calculation of Resources/Reserves in Charcas, Block 24-100W

11.2.6 Depletion

The shape of the blocks and their extension is defined by using the updated underground surveying information produced by the IMMSA survey department. The mined areas and underground workings are mapped in the plan, vertical, and long sections that the geologists use to outline the resource blocks. This methodology makes it possible to discount the mined areas since the resource blocks do not include the underground workings and exploited stopes which act as limits during the blocks outlining. The historical surveying of underground workings and exploited zones is an aspect that introduces some level of inaccuracy when establishing the volumes exploited and the extension of some blocks.

At the operation, the engineering department is responsible for keeping the topography of the mining works (digitally and physically in plans) updated. The current system involves capture of survey points directly into a digital copy of the underground workings, which is validated in the field by the survey. The survey data points are used to update the AutoCAD definition of the depleted areas (Figure 11-7), which is completed in both plan and in section by recording the top and base of the mine opening. The updated depletion shapes are then reviewed and plotted at a 1:250 scale, which is used for weekly planning.



Source: IMMSA, 2021

Figure 11-7: Example of Current Mine Depletion Format showing Production Advance

Depletions have been accounted for within each panel using the latest survey information (January to November) for most of the panels, and only a few panels that were exploited in the last month of 2023 were adjusted according to the planned exploitation. It is SRK's opinion that the differences with the real exploited material are not material.

11.3 Resource Classification and Criteria

SRK has classified the mineral resources in accordance with §229.1302(d)(1)(iii)(A) (Item 1302 (d)(1)(iii)(A) of Regulation S-K) and in a manner consistent with industry guidelines and definitions as defined by CRIRSCO. The mineral resources are classified as Indicated and Inferred according to the following definitions and criteria.

11.3.1 Measured Resources

No Measured resources are stated, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. In the QP's opinion, other limitations are a lack of density measurements and insufficient QA/QC protocols in the mine sampling protocols.

11.3.2 Indicated

Indicated mineral resources are defined by material that is interpreted to be continuous in size, shape and grade and must be located within 30 m of either underground development or surface/ underground drilling results. Indicated mineral resources may be projected 30 m above or below levels or 30 m beyond the stope face; however, the projection distance if limited to 15 m below the last developed level. No Indicated mineral resources are permitted above the first level in the mine.

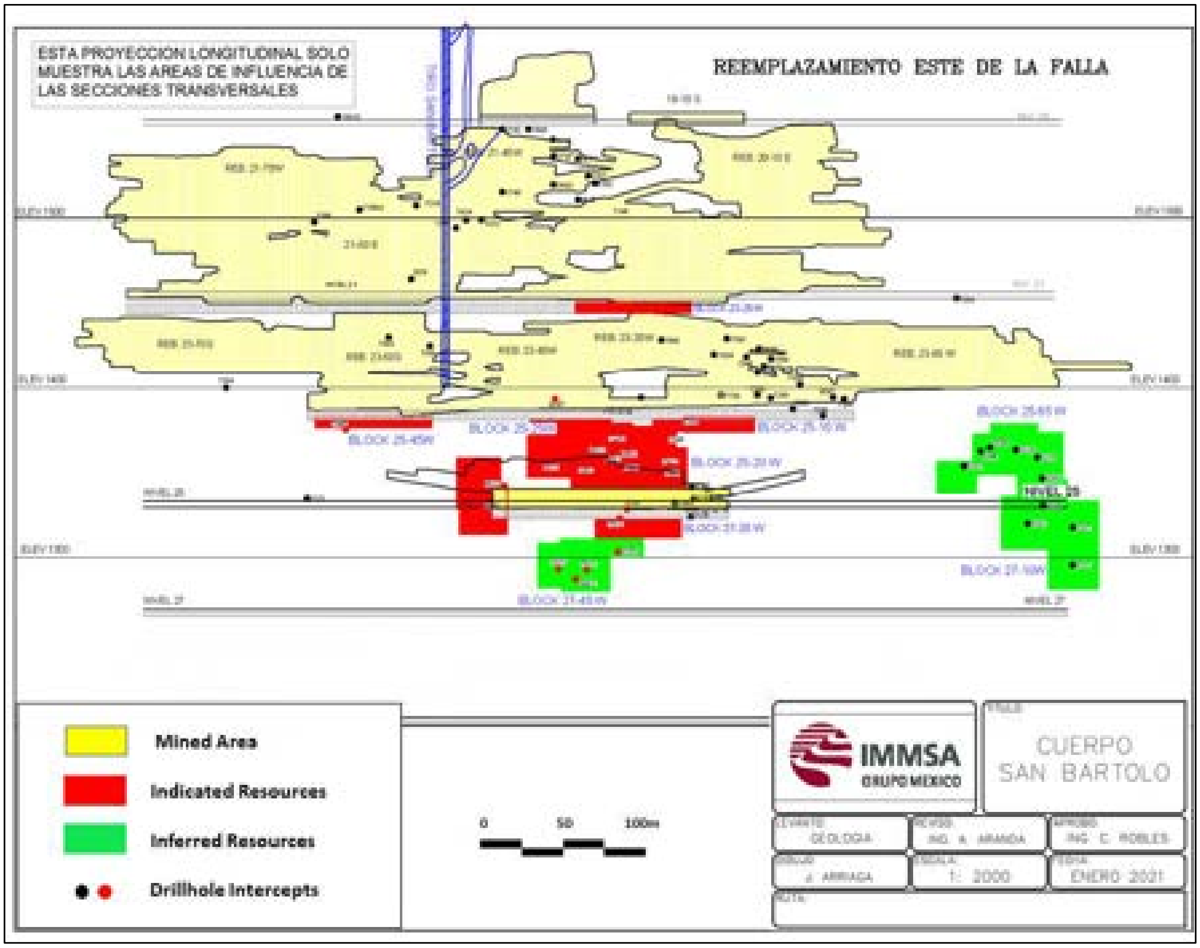
11.3.3 Inferred

Inferred mineral resources can be established in areas with sufficient geological confidence and if the following requirements are met:

1. The material not classified as Indicated located between two levels separated by a maximum of 120 m and if no diamond drilling is present
2. The material is within 60 m of multiple surface/underground drillholes or located within 15 m of a single drillhole.

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of downhole surveys, SRK determined there are no Measured mineral resources at Charcas.

Figure 11-8 shows an example of the resource blocks in Cuerpo San Bartolo (Long Section).



Source: IMMSA, 2021

Figure 11-8: Long Section of Cuerpo San Bartolo Including the Mineral Resource Blocks

11.4 Uncertainty

SRK has identified a number of factors which contribute to uncertainty in the estimates, which it has included in its classification of mineral resources. Detractors in confidence which may solely or collectively influence the result of the classification process include:

- There is no QA/QC protocol implemented for drilling and sampling (core and channel sampling) completed by the mine geology department for the historical and recent information, and those activities are not in-line with industry standards. Limited QA/QC has been completed on the most recent exploration. Charcas's mine department will design and implement a core and channel sampling QA/QC protocol in 2024.
- Charcas's mine geology department started the collection of density tests on core in 2023, but the information is still insufficient to support its use, and further testwork is recommended. Charcas does not retain any historical density data or supporting documentation describing how density data were defined by the plant and the mine, which have been using a standard density value of 3.0 t/m^3 for decades.

- The resource has been estimated by defining static mining blocks based on section and plan interpretations by using a weighted-average approach to defining the average grades for silver, zinc, copper, and lead.

The uncertainties are considered directly in the classification system applied by SRK and are summarized below.

11.4.1 Indicated Resources

It is the QP's opinion that the Indicated resources are estimated based on adequate geological evidence and sampling. The distances of influence from underground sampling and distances between drilling are the controlling aspects on the uncertainty. Charcas uses a maximum of 30 m from channel sampling and 30 m between drillholes. The criteria and uncertainty correspond to the Medium Degree of Uncertainty column in Table 11-1.

11.4.2 Inferred Resources

The Inferred category is limited to the resources that are in areas where the quantity and grade are estimated based on limited sampling and moderate to limited geological evidence. This category is considered to have the highest levels of uncertainty, which correspond to the High Degree of Uncertainty column in Table 11-1. These areas of the Charcas project represent the areas with lowest drilling density and influence distances to channel sampling of up to 60 m. SRK considers these areas of the mineral resource will need additional drilling and underground workings prior to mining.

Table 11-1: Sources and Degree of Uncertainty

Source	Degree of Uncertainty		
	Low	Medium	High
Drilling	Recent drilling completed by the exploration team is in-line with industry standards. This drilling is focused in new areas discovered as extensions of the main deposit.	Protocols of historical drilling data supporting mineral resources do not meet industry standards, including a lack of downhole surveys, which will have further risk for longer holes as they are deeper from the drillhole collar. Areas with wide-spaced drilling or long distance down the hole should be considered only to an Inferred level.	
Sampling		Protocols of rock sampling are not in-line with industry standards. Density of rock and core sampling supporting the mineral resources is adequate.	
Geological knowledge	There is an extensive knowledge of the geology and mineralization of the Charcas deposit. This aspect and the experience of the management team provides confidence to the geological assumptions during the geological interpretations. Local uncertainty in the orientation and thickness of veins/ replacement bodies could result in changes in tonnage.		
QA/QC	Sample preparation, chemical analysis, and the QA/QC procedures implemented by the exploration team in recent years meet current industry standards. These works are focused in new areas in exploration.	Lower precision of historical data has been recognized. Drilling and channel sampling completed by the mine geology department supporting the mineral resources have not been supported by adequate QA/QC protocols.	
Data verification	The extensive historical production information and knowledge of geology and mineralization provide support to the historical data collected since the last century.	The lack of core from historical drilling supporting the mineral resources limited the verification activities.	
Database	Original geology, structural and mineralization maps, drill core logging formats (including the assay results), interpretation plan, and vertical sections supporting the mineral resources are stored in the operation in paper format, with a small portion in digital format.	Most of the data supporting mineral resources are stored on paper. Local errors related to handwritten supporting data are expected. These are expected to have local impacts on individual stopes and limited impact on the global estimates of tonnage and grade.	
Bulk density		A unique value is used for all the rock types and does not consider the mineralization changes; this introduces local inaccuracies. Plant and mine have been using this value for decades, which provides confidence to the density value used but does not consider the changes in lithology and mineralization.	
Variography		Data of the Charcas project are now in digital format, but the geological model has not been completed; the model is required for an adequate continuity analysis. Continuity assumptions of mineralization have been based on the extensive geological knowledge of the deposit.	
Grade estimation		Grades and volume calculations are based on historical data, which provides some level of inaccuracy. Part of the calculations were completed using handmade drawings, which introduces inaccuracies.	
Prices, NSR values	Prices and costs are based on Charcas mining and production information with 15% as a premium applied to prices for mineral resources. *		
Drill and sample spacing		Distances to underground workings and channel sampling are <30 m. There is a minimum of two drillholes within a drill spacing of 30 m.	There is a minimum of one hole at a distance of <15 m.
Depletion		The resource blocks are defined considering the updated topography of the mine. The adequacy and precision of the historical surveying information of the underground workings and exploited areas introduces some level of inaccuracy to the limits of the resource blocks.	
Criteria of classification	Distances of influence of samples are supported on the good knowledge of geology and mineralization. These distances are considered conservative, which mitigates in some extent the risk associated to over-estimation of the continuity of mineralization.		

Source: SRK, 2023

*Changes in metal prices will likely result in significant changes in the values derived from the NSR equation. Currently, no classified stopes fall below the operating costs of US$67.33/t.

Considering the uncertainty noted above and the means designed to either address uncertainty in the modeling and estimation process, SRK is of the opinion that the stated mineral resources are appropriate and consistent with industry best practice.

In addition, there is potential for some of these uncertainties or risks to be mitigated or reduced through additional study. Section 23 of this report summarizes recommendations for these studies. It is the QP's opinion that the measures to be taken to mitigate the uncertainty include but are not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- Storage of all geological information into a commercial secure database
- Completion of the detailed geological modeling using the new digital database, which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains
- Introduction of more-routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3 t/m^3 value
- Rigorous approach to classification which appropriately considers the noted detractors in confidence and utilizes criteria designed to address them

11.5 Cut-Off Grades Estimates

Definitions for mineral resource categories used in this technical report summary are those defined by the SEC in S-K 1300. Mineral resources are classified into Indicated and Inferred categories. Mineral resources are reported in total, as currently no mineral reserves are reported in accordance with S-K 1300 requirements.

Geologists used diamond drilling information, channel sampling, and development information to identify mineralized areas. The mineralized areas are then divided into smaller blocks based on the vein. Information on each block, such as classification, dimensions, thickness, and sampled grades, are entered into an Excel spreadsheet to compile the final mineral resources.

The mineral resources for Charcas are reported in situ and are considered to be amenable to underground mining methodologies as have been established at the mine to date. Mining is completed using a mechanized cut-and-fill mining method with rockfill. Ramps and levels are developed to provide access to mineralization. Attack ramps are then driven to access each cut. The ramps and level development are performed using jumbos. Processing is completed at the current operating plant using a floatation flowsheet into three separate concentrates (Zn Concentrate, Cu Concentrate, and Pb Concentrate).

Given that process recoveries and costs in the resource model are grade- and/or domain-dependent, the resources are reported with respect to a block NSR value which is calculated on a stope block (panel) basis. The cut-off value used for the resource estimate is based on an NSR value, in units of US$/t, which can be directly compared to operating unit costs. The NSR formula is:

$$NSR = \frac{\text{Gross Revenue – Off-Site Charges}}{\text{Tonnes Processed}}$$

The calculation of the NSR is effectively a calculation of unit values for the individual metals, which results in a value for a block based on the contained metal.

IMMSA reviewed supply and demand projections for zinc, lead, and copper, as well as consensus long-term (10-year) metal price forecasts. IMMSA supplied the QP with internal selected metal prices for mine planning for the Santa Bárbara project. The QP reviewed these prices against independent forecasts from banks and other lenders, and in the QP's opinion the proposed prices are considered appropriate. The QP adjusted IMMSA's selected metal prices to the selected mineral resource estimation prices using a factor of 15% higher, which is in-line with typical industry practice.

NSR cut-off values for the mineral resources were established using a zinc price of US$1.32/lb Zn, a lead price of US$1.09/lb Pb, a silver price of US$23.0/oz Ag, and a copper price of US$3.80/lb Cu (Table 11-2). These values represent minor increases from the 2022 price assumptions. While minor amounts of gold exist at the Charcas project (0.1 g/t head grade), gold has not been used as a revenue driver within the NSR calculation.

Table 11-2: Price Assumptions

Factors	Value	Unit
Metal prices		
Ag	23.00	USD/oz
Pb	1.09	USD/lb
Cu	3.80	USD/lb
Zn	1.32	USD/lb
Exchange Rate (MXN:USD)	18.2109	

Source: SRK, 2023

It is the QP's opinion that the metal prices used for mineral resources are reasonable based on independent checks using consensus, long-term forecasts from banks, financial institutions, and other sources.

The metallurgical recovery factors assumed for Charcas are based on historic performance of the processing plants and are shown in Table 11-3. The basis for these factors is discussed in Section 10.4 of this report. The QP has elected to use the average January 2021 to June 2023 recoveries for the basis for the year end mineral resources.

Table 11-3: Metallurgical Recovery Assumptions

Element	Value	Unit
Ag	78.4	%
Pb	46.6	%
Cu	68.8	%
Zn	89.7	%

Source: SRK, 2023

In addition to the price and metallurgical recovery, IMMSA has applied additional NSR factors in the metal equivalency calculation to account for other aspects of the mineralization. These additional factors include but are not limited to:

- Smelter recoveries
- Smelter penalties (arsenic and bismuth)
- Fleet/transport costs

The NSR factors can be expressed as a further percentage and are averaged out over the annual production. Table 11-4 shows the additional percentages applied to the recoverable metal (in situ metal times recovery).

Table 11-4: NSR Adjustment Factors

Element	2022 Factor	2023 Factor	Unit
Ag	84.8	85.5	%
Pb	95.0	95.0	%
Cu	95.0	97.8	%
Zn	84.5	84.7	%

Source: SRK, 2023

In summary, using the above prices, recovery, and NSR adjustments for the smelter terms, the QP has applied the following equation to define the stope values on a stope-by-stope basis. The following criteria should be considered inclusive of the average metallurgical recovery.

NSR Value = Ag (g/t)*0.496+Pb (%)*10.661+Cu (%)*56.338+Zn (%)*22.166

The operating unit cost used to determine the reasonable prospects for economic extraction has been determined by reviewing the costs over the past 3 years. Based on current market conditions, the QP has elected to use the 2023 costs as the basis for the assessment, which in their opinion is a reasonable basis for the declaration of mineral resources (Table 11-5). The economic value of each stope is then calculated in an Excel spreadsheet using the NSR equation above, and the QP has assigned a flag for all stopes based on an assessment of their economic value where the NSR values is above/below a CoG of the operating unit cost of US$67.33/t.

Table 11-5: Operating Unit Cost

Factor	Value	Unit
Mine	25.49	USD/t
Mill	9.27	USD/t
Indirect (mine and mill)	16.82	USD/t
Subtotal	**51.59**	**USD/t**
Smelting, refining, and transportation	14.61	USD/t
Administrative	1.13	USD/t
Total operating	**67.33**	**USD/t**

Source: IMMSA, 2023

11.6 Summary Mineral Resources

Charcas's mineral resources are in compliance with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Using the mining blocks (panels) defined by the geologist, the QP has reviewed each panel relative to the defined CoGs. Depletions have been accounted for within each panel using the latest survey information for most of the panels, and only a few panels that were exploited in the last month of 2023 were adjusted according to the planned exploitation. It is SRK's opinion that the differences with the real exploited material are not material.

In the QP's opinion, the assumptions, parameters, and methodology used for the Charcas underground mineral resource estimates, while not optimized to provide flexibility in the planning processes, are appropriate for the style of mineralization and mining methods.

Table 11-6 summarizes Charcas's mineral resources for the underground operation as of December 31, 2023. Mineral resources have been reported in total, as currently no mineral reserves are declared for the Charcas project in compliance with the new S-K 1300 standards.

Table 11-6: Charcas Summary Mineral Resources at End of Fiscal Year Ended December 31, 2023, SRK Consulting (U.S.), Inc.(1)

IMMSA Underground - Charcas							Cut-Off(2)		NSR(3) $67.33	
Category	Tonnage Quantity (kt)	Grade					Metal			
		Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR(3) (US$)	Ag (koz)	Zn (kt)	Pb (kt)	Cu (kt)
Measured										
Indicated	6,410	84	3.06	0.39	0.52	143	17,297	195.9	24.9	33.5
M+I	6,410	84	3.06	0.39	0.52	143	17,297	195.9	24.9	33.5
Inferred	15,162	98	2.78	0.39	0.55	139	48,005	421.0	58.7	82.8

Source: SRK, 2023

(1)Mineral resources are reported exclusive of mineral reserves on a 100% basis. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is the QP's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

(2)Mineral resources are reported at metal equivalent CoGs based on metal price assumptions, * variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$67.33/tonne (t).

*Metal price assumptions considered for the calculation of metal equivalent grades are gold (US$1,725.00/ounce (oz)), silver (US$23.0/oz), lead (US$1.09/pound (lb)), zinc (US$1.32/lb), and copper (US$3.80/lb).

**CoG calculations and NSR values assume variable metallurgical recoveries as a function of grade and relative metal distribution. For the purpose of this mineral resource declaration, average metallurgical recoveries are silver (78%), lead (47%), zinc (90%), and copper (69%), assuming recovery of payable metal in concentrate.

(3)CoG calculations assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Ag (g/t)*0.496+Pb (%)*10.661+Cu (%)*56.338+Zn (%)*22.166.

Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

11.7 Comparison to Previous Estimates

As part of the annual year-end reporting requirements, SRK completed a comparison of the mineral resources between December 31, 2022, and December 31, 2023, for the Project. Table 11-7 shows the results of the comparison.

Table 11-7: Comparison to Previous Estimates

IMMSA Underground, Santa Barbara						2022 NSR: US$64.91; 2023 NSR: US$67.33				
Category	Tonnage Quantity (kt)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR (US$)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Indicated 2022	6,057	88	3.13	0.39	0.54	141.23	17,165	189,706	23,538	32,620
Indicated 2023	6,410	84	3.06	0.39	0.52	137	17,297	195,856	24,936	33,480
Difference (%)	**6%**	**-5%**	**-2%**	**0%**	**-3%**	**-3%**	**1%**	**3%**	**6%**	**3%**
Inferred 2022	15,446	97	2.70	0.39	0.54	136	48,207	416,557	60,129	83,958
Inferred 2023	15,162	98	2.78	0.39	0.55	139	48,005	420,952	58,722	82,788
Difference (%)	**-2%**	**1%**	**3%**	**-1%**	**0%**	**2%**	**0%**	**1%**	**-2%**	**-1%**

Source: SRK, 2023

SRK reviewed the changes and does not consider there to be any material change in the estimates between the two time periods. Where differences exist, they can be attributed to the following factors:

- Mining depletion during 2023 (based on 11-month actuals and including planned depletion for last 1 month)
- Additional exploration and mine sampling to increase confidence in the mineral resources prior to mining

- Minor change in the CoG on a NSR basis of +$2.4/t or (+3.7%)

11.8 Opinion on Influence for Economic Extraction

It is SRK's opinion that the geology and mineralization controls of the Charcas deposit are very well understood based on the extensive knowledge of the deposit from decades of exploitation.

The mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards. Based on the analysis described in this report, SRK's understanding of resources, and that production has occurred at the mine since the Charcas project's status of operating since 1925, in the QP's opinion, there is reasonable potential for economic extraction of the resource.

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

12 Mineral Reserve Estimates

Section 12 Mineral Reserve Estimates is not applicable for the current level of study and has not been included in this report. IMMSA plans to produce mineral reserves estimates using a revised block model once the model has been generated.

13 Mining Methods

Section 13 Mining Methods is not applicable for the current level of study and has not been included in this report. Charcas's mineral resources are considered to be amenable to underground mining methodologies as has been established at the mine to date. Mining is completed using a mechanized cut-and-fill mining method with rockfill. Ramps and levels are developed to provide access to the ore. Attack ramps are then driven to access each cut. The ramps and level development are performed using jumbos.

14 Processing and Recovery Methods

Section 14 Processing and Recovery Methods is not applicable for the current level of study and has not been included in this report.

Mineral processing is completed via conventional flotation processes with three concentrates being produced (in order of scale):

- Zinc Concentrate
- Copper Concentrate
- Lead Concentrate

The mine is not currently conducting any specific metallurgical testwork to support the current disclosure. The QP has therefore relied on the production data from the three concentrates to determine the recoveries to support the declaration of the mineral resources.

The mineral benefit plant was built with the purpose of concentrating the metallic minerals of interest (zinc, copper, and lead) and has a nominal capacity to process 4,100 tons/day. Figure 10-1 presents the flow chart of Charcas's process plant.

15 Infrastructure

The Charcas project does have some existing infrastructure that supports the current operation. However, the QP has not inspected the infrastructure to sufficient levels to support the declaration of mineral reserves at this stage.

16 Market Studies

Section 16 Market Studies is not applicable for the current level of study and has not been included in this report. SRK has used costs, pricing, and criteria as supplied by the operation, which were reviewed and considered to be reasonable to support the current level of studies. To support the declaration of mineral resources, at a minimum a pre-market study of the various concentrates will need to be completed.

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

Section 17 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups is not applicable for the current level of study and has not been included in this report.

18 Capital and Operating Costs

Section 18 Capital and Operating Costs is not applicable for the current level of study and has not been included in this report.

19 Economic Analysis

Section 19 Economic Analysis is not applicable for the current level of study and has not been included in this report.

20 Adjacent Properties

While the Charcas deposit sits within a larger metalliferous province, the QP is not aware of any significant deposits or properties adjacent to the Charcas operation.

21 Other Relevant Data and Information

The Charcas mine is currently in production and has previously disclosed mineral reserves under Guide 7. During the initial review of the underlying technical studies, it was determined that not all studies are at a sufficient level of detail to comply with the new S-K 1300 levels. The Company is currently in the process of updating the required technical work which will be based on a revised 3D block model of the mineral resources in 2024, which would be used as the basis to define mineral reserves.

22 Interpretation and Conclusions

SRK is of the opinion that the data and analysis presented herein are of sufficient quality and completeness to support the estimation of mineral resources. The skarn and vein deposits at Charcas have been mined historically and are currently in production, processing three concentrates (zinc, copper, and lead) via underground mining operations.

The drilling and analytical work is supported by surveys and limited quality control measures to support confidence in the accuracy and precision of the data. The mine geology department has not implemented quality controls for the samples collected from drilling and rock sampling from underground workings, which SRK considers not to be in-line with industry best practices and represents a source of uncertainty for the data collected by the mine geology department.

The exploration department has procedures for drilling and core sampling which the QP considers in-line with industry best practices.

The QP notes the following key conclusions:

- The geology and mineralization controls are very well known, supported by the many years of the mining operation. Geological information supporting mineral resources is available in paper documents and partially in digital format.
- There is no QA/QC protocol implemented for drilling and sampling (core and channel sampling) completed by the mine geology department for the historical and recent information, and those activities are not in-line with industry standards.
- The drilling and core sampling activities performed by Charcas's exploration department are in-line with industry standards.
- Charcas's mine geology department does not retain any density data or supporting documentation describing how density data was collected. The plant and the mine have been using a standard density value of 3.0 t/m^3 for decades. Insufficient documentation to support this density has been presented, and further testwork is recommended.
- The resource has been estimated by defining static mining blocks based on section and plan interpretations by using a weighted-average approach to defining the average grades for silver, zinc, copper, and lead.
- The estimate was categorized in a manner consistent with industry standards. Mineral resources have been categorized based on relative confidence in the modeling, estimation, or reporting of the tonnage and grades from the model. There are no Measured mineral resources, primarily due to a lack of density measurements and insufficient QA/QC protocols in the mine geology department sampling protocols. The Indicated mineral resources disclosed herein have significant evidence in the QP's opinion to support the interpolation of both the geological and grade continuity in these areas.
- Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for eventual economic extraction of the resource. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. As currently no mineral reserves are reported in accordance with the S-K 1300 definition, the mineral resource has been reported as mineral resource only, depleted for mining, which in effect is the same as an exclusive mineral resource.

- In SRK's opinion, the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

23 Recommendations

It is the QP's opinion that measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m.
- SRK recommends reviewing the procedures of drilling, sampling, and design and implementing a complete QA/QC protocol for the drilling and rock sampling activities performed by Charcas's mine geology department.
- Regarding the exploration department's QA/QC protocol, SRK recommends continuing the periodic check assays (second laboratory controls).
- Review the protocols in the sample preparation laboratory and implement the necessary measurements to guarantee an appropriate sub-sampling procedure and avoid contamination.
- Storage of data into a commercial secure database.
- Finalize the detailed geological modeling methods using the new digital database, which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.
- Introduction of more-routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3 t/m^3 value.
- Rigorous approach to classification which appropriately considers the noted detractors in confidence and utilizes criteria designed to address them.

23.1 Mineral Resource and Mineral Reserve Estimates

- SRK recommends finalizing the construction of the 3D geological model for block modeling and mineral resource estimation using standard industry procedures.
- SRK recommends designing and implementing a complete QA/QC protocol for the drilling and rock sampling activities performed by Charcas's mine geology department.

23.2 Recommended Work Programs

The recommended work program includes the following activities:

- Drill in to define horizontal and vertical extension of mineralization and exploration in identified targets.
- Finalize the construction of a 3D geological model and prepare updated mineral resource and reserve estimates.

23.3 Recommended Work Program Costs

Table 23-1 provides an approximate budget of the work program for 2024.

Table 23-1: Recommended Work Program Costs

Discipline	Program Description	Cost (US$ million)
Geology and exploration	Ongoing exploration and grade-control drilling	2.0
Updated mineral resource estimates	Generation of geological model and mineral resource estimates	0.2
Mining methods/mineral reserve estimates	Development of mine plan and optimization of mining methodology	0.4
Total		**2.6**

Source: SRK/IMMSA, 2023

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25 Reliance on Information Provided by the Registrant

The Consultant's opinion contained herein is based on information provided to the Consultants by IMMSA throughout the course of the investigations. Table 25-1 of this section of the technical report summary will:

- Identify the categories of information provided by the registrant
- Identify the particular portions of the technical report summary that were prepared in reliance on information provided by the registrant pursuant to Subpart 1302 (f)(1), and the extent of that reliance
- Disclose why the QP considers it reasonable to rely upon the registrant for any of the information specified in Subpart 1302 (f)(1)

Table 25-1: Reliance on Information Provided by the Registrant

Category	Report Item/ Portion	Portion of Technical Report Summary	Disclose Why the QP Considers it Reasonable to Rely Upon the Registrant
Legal Opinion	Sub-sections 3.3, 3.4, 3.5, 3.6, and 3.7	Section 3	IMMSA has provided a document summarizing the legal access and rights associated with leased surface and mineral rights. This documentation was reviewed by IMMSA's legal representatives. The QP is not qualified to offer a legal perspective on IMMSA's surface and title rights but has summarized this document and had IMMSA personnel review and confirm statements contained therein.

Signature Page

This report titled “SEC Technical Report Summary, Initial Assessment on Mineral Resources, Charcas Mine, San Luis Potosí, México” with an effective date of December 31, 2023, was prepared and signed by:

SRK Consulting (U.S.) Inc.

(Signed) **SRK Consulting (U.S.) Inc.**

Dated at Denver, Colorado
February 5, 2024

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February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA

Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject Consent Letter – Charcas Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendments thereto (collectively the, "Form 10-K") to be filed by Southern Copper Corporation (the "Company") with the U.S. Securities and Exchange Commission ("SEC"), SRK Consulting (U.S.), Inc. ("SRK"), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled "SEC Technical Report Summary Initial Assessment on Mineral Resources Charcas Mine San Luis Potosí, México" with an effective date of December 31, 2023, and a report date of February 5, 2024 (the "Technical Report Summary"), that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;
(2) the use of and references to SRK's name as a "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;
(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and
(4) to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th February 2024.

/S/ Ben Parsons

Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

SEC Technical Report Summary
Initial Assessment on Mineral Resources
Santa Bárbara
Chihuahua, México

Effective Date: December 31, 2023
Report Date: February 5, 2024

Report Prepared for

Southern Copper Corporation

7310 North 16th Street, Suite 135
Phoenix, Arizona 85020

Report Prepared by

srk consulting

SRK Consulting (U.S.), Inc.
999 Seventeenth Street, Suite 400
Denver, CO 80202

SRK Project Number: USPR0001375

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List of Abbreviations

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

Abbreviation	Unit or Term
%	percent
°	degree
°C	degrees Centigrade
3D	three-dimensional
AAS	atomic absorption spectrometry
Ag	silver
Al	aluminum
As	arsenic
Au	gold
Ba	barium
Be	beryllium
Bi	bismuth
Ca	calcium
Cd	cadmium
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimeter
cm^3	cubic centimeter
Co	cobalt
CoG	cut-off grade
Company	Industrial Minera México, S.A. de C.V
Cr	chromium
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
Cs	scaled span
CSRM	certified standard reference material
Cu	copper
Fe	iron
FoS	factor of safety
g	gram
G&A	general and administrative
g/t	grams per tonne
GWh	gigawatt-hour
ha	hectare
HCl	hydrochloric acid
Hg	mercury
hm^3	cubic hectometer
HNO_3	nitric acid
I	Indicated
ICP	inductively coupled plasma
IMMSA	Industrial Minera México, S.A. de C.V
K	potassium
kg	kilogram
kg/cm^2	kilograms per square centimeter
km	kilometer
km^2	square kilometer
koz	thousand ounces
kt	thousand tonnes
kW	kilowatt
kWh	kilowatt-hour
L	liter
La	lanthanum
lb	pound
Li	lithium
LoM	life-of-mine

Abbreviation	Unit or Term
m	meter
M	Measured
m.y.	million years
m^3	cubic meter
masl	meters above sea level
Mg	magnesium
mm	millimeter
Mn	manganese
Mo	molybdenum
MWh	megawatt-hour
Na	sodium
Na_2O_2	sodium peroxide
Ni	nickel
NSR	Net Smelter Return
P	phosphorus
Pb	lead
QA/QC	quality assurance/quality control
QP	Qualified Person
REPDA	Public Registry of Water Rights
RMR	rock mass rating
RQD	rock quality designation
S	sulfur
Santa Bárbara	Santa Bárbara Polymetallic Mine
Sb	antimony
Sc	critical span
Sc	scandium
SCC	Southern Copper Corporation
SD	standard deviation
SEC	U.S. Securities and Exchange Commission
SG	specific gravity
SGS	SGS Laboratory
Sn	tin
Sr	strontium
SRK	SRK Consulting (U.S.), Inc.
t	tonne (metric ton) (2,204.6 pounds)
t/d	tonnes per day
t/m^3	tonnes per cubic meter
Tecmin	Tecmin Drilling and Exploration Services
Ti	titanium
UTM	Universal Transverse Mercator
V	vanadium
W	tungsten
WGS84	World Geodetic System
Y	yttrium
Zn	zinc
Zr	zirconium

1 Executive Summary

This technical report summary was prepared in accordance with the U.S. Securities and Exchange Commission (SEC) S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for Industrial Minera México, S.A. de C.V (IMMSA or Company), a subsidiary of Southern Copper Corporation (SCC), by SRK Consulting (U.S.), Inc. (SRK) on the Santa Bárbara Polymetallic Mine (Santa Bárbara).

1.1 Property Description (Including Mineral Rights) and Ownership

The Santa Bárbara mining complex is located approximately 26 kilometers (km) southwest of the city of Hidalgo del Parral in southern Chihuahua, México. The area can be reached via paved road from Hidalgo del Parral, a city on a federal highway. Santa Bárbara was discovered in 1536, and mining activities in the 20th century began in 1913. Santa Bárbara includes three main underground mines (San Diego, Segovedad, and Tecolotes), as well as a flotation plant, and produces lead (Pb), copper (Cu), and zinc (Zn) concentrates, with significant amounts of silver (Ag). IMMSA currently holds 33 mining titles over the Santa Bárbara project, covering a total area of 27,772.5082 hectares (ha), with the titles held 100% by the Company.

1.2 Geology and Mineralization

The pre-mineral rock types found at Santa Bárbara consist of a thick calcareous shale formation and andesite flows. The post-mineral rock types consist of dikes and sills of rhyolite and diabase, a thin conglomerate formation, basalt flows, and unconsolidated stream sediments. Pre-mineral faulting took place in two stages, forming four fault systems. All faults within each system have similar strike and dip. Movement along these faults, vertical in the first-stage faults and horizontal in the second-stage faults, formed openings and breccia zones (Scott, 1958).

Hydrothermal solutions, emanating from depth, were introduced into the faults. The walls and breccia fragments within the faults were silicified, and the high-temperature silicates, garnet, pyroxene, and epidote were formed. Accompanying and following the formation of the silicates, the sulfides, such as sphalerite, galena, chalcopyrite, pyrite, and arsenopyrite, with associated gold (Au) and a silver mineral, were introduced with quartz, calcite, and fluorite. Most of these minerals replaced silicates and altered shale. The parts of the faults where wide pre-mineral openings were located filled with quartz and a higher ratio of sulfides than in the narrow portions of the faults. Quartz, calcite, fluorite, and barite were among the last minerals deposited. The veins are assigned to the hypothermal class of hydrothermal deposits (Scott, 1958).

1.3 Status of Exploration, Development, and Operations

IMMSA started to exploit the Santa Bárbara veins in 1926 and currently has three main underground mines (San Diego, Segovedad, and Tecolotes). and a flotation plant that produces lead, copper, and zinc concentrates with small amounts of gold and high amounts of silver. The veins have a total length of more than 20 km. The mining methods are primarily cut and fill with limited use of long hole open stoping. The three mines feed a single mill in the process plant located at Segovedad.

Santa Barbara operates a 5,500 t/d flotation concentrator to recover gold, silver, lead, zinc and copper values into separate lead, copper and zinc concentrates. The process flowsheet includes three-stage crushing, ball mill grinding, flash flotation, bulk lead-copper rougher-scavenger flotation, zinc rougher-scavenger flotation, lead-copper separation, concentrate thickening and filtration and disposal of flotation tailings into a conventional tailing storage facility.

1.4 Mineral Resource Estimates

Santa Bárbara collects samples from diamond core drilling (surface and underground) and rock samples from underground workings as part of the exploration and mine geology activities. The mine geology department has performed most of these activities without quality assurance/quality control (QA/QC) protocols and conducting down hole surveys, which do not follow industry best practices. Since 2019, a contractor (Tecmin Drilling and Exploration Services (Tecmin)) has performed drilling campaigns from surface and underground, which included the implementation of QA/QC protocols.

The mineralization in Santa Bárbara's veins is appropriately interpreted using various sources of information, which include drilling, underground mapping, and rock channel sampling. SRK relied upon the information that is stored in paper format and the reconciliation of Santa Bárbara's planned vs. executed grades and tonnages system to determine drilling and channel rock sampling. SRK is of the opinion that this approach is reasonable. This opinion is also based on the long history of mining at Santa Bárbara.

The estimation of Santa Bárbara's resources is made based on the available information, which is mostly historical documentation (such as geological maps of the mine, vertical sections, and plan views) and on the original drillhole logging sheets.

The historical data is being digitized and is available in digital format for the construction of a three-dimensional (3D) geological model, aid in statistical analysis, and required to estimate mineral resources in a 3D block model. The 3D geological model using Leapfrog Geo is currently on-going, including the capture of the remaining information into a digital format. IMMSA is focusing on finalizing the geological model in 2024 for construction and estimation of a block model for the Santa Barbara deposit.

Santa Bárbara periodically updates the resource estimation using largely manual resource/reserve calculations based on historical and recent information. AutoCAD and Excel software are used when possible.

The estimation of resources is done area by area and includes supporting information (logging sheets, maps, and sections), which contain the geological and mineralization outlines and assay data.

Using the maps and sections, the areas of mineralization bodies are calculated based on the long sections constructed for each vein. The volumes (less mined areas) are calculated from the interpreted areas in the long sections multiplied by the true width (based on dip) of the veins.

A standard density of 3 tonnes per cubic meter (t/m^3) is applied. This value is based on historical reconciliation information.

The classification of resources is based on the following criteria.

1.4.1 Measured

No Measured resources are stated, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. In the Qualified Person's (QP) opinion, other limitations are a lack of density measurements and insufficient QA/QC protocols in the mine sampling protocols.

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of downhole surveys, SRK established that there are no Measured resources in Santa Bárbara.

1.4.2 Indicated

Indicated mineral resources are defined by material that is interpreted to be continuous in size, shape, and grade and must be located within 30 meters (m) of either underground development or surface/ underground drilling results. Indicated mineral resources may be projected 30 m above or below levels or 30 m beyond the stope face; however, the projection distance is limited to 15 m below the last developed level. No Indicated mineral resources are permitted above the first level of the mine.

1.4.3 Inferred

Inferred resources can be established in areas with sufficient geological confidence, and if the following requirements are met:

1. The material not classified as Indicated located between two levels separated by a maximum of 120 m and if no diamond drilling is present
2. The material is within 60 m of multiple surface/underground drillholes or located within 15 m of a single drillhole.

1.5 Mineral Resource Estimate

Mineral resources have been reported based on economic and mining assumptions to support the reasonable prospects for economic extraction (RPEE) of the resource. The resources have been reported based on a Net Smelter Return (NSR) cut-off of US$83.4/tonne. Current mineral resources are reported in-situ and are exclusive of reserves, as summarized in Table 1-1.

Table 1-1: Santa Bárbara Summary Mineral Resources at End of Fiscal Year Ended December 31, 2023, SRK Consulting (U.S.), Inc.[(1)]

IMMSA Underground - Santa Barbara								Cut-off[2]: NSR US$83.4				
Category	Quantity	Grade						Contained Metal				
	Tonnes (kt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR US$	Au (koz)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured												
Indicated	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
M+I	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
Inferred	18,238	0.17	95	3.86	2.25	0.55	195	98	55,444	704,651	410,943	100,798

[1] Mineral resources are reported exclusive of mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is the QP's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

[2)] Mineral resources are reported at metal equivalent CoG's based on metal price assumptions,* variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$83.4/t.

*Metal price assumptions considered for the calculation of metal equivalent grades are: gold (US$/oz: 1,725.00), silver (US$/oz: 23.0), lead (US$/pound (lb): 1.09), zinc (US$/lb: 1.32), and copper (US$/lb: 3.80).

** CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: Gold (33%), Silver (82%), Lead (79%) and Zinc (81%) and Copper (63%) assuming recovery of payable metal in concentrate

*** CoG calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Au*13.106+Ag*0.545+Pb*17.966+Cu*44.826+Zn*19.788

Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

In SRK's opinion, the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

SRK recommends finalizing the construction of a 3D geological model for the Santa Bárbara deposit and the digitizing of all the supporting information, including geological / mineralization maps and sections, drilling, and rock sampling information. The new 3D geological model will be the basis for the construction of a block model and future mineral resource estimates using standard industry procedures. In 2023, Santa Bárbara has advanced in data digitization and expects to have this completed in the second half of 2024.

Mineral resources are in compliance with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Using the mining blocks (panels) defined by the geologist, the QP has reviewed each panel relative to the defined cut-off grades (CoG's). Depletions have been accounted for within each panel using the latest survey information for most of the panels, and only a few panels that were exploited in the last two months of 2023 were adjusted according to the planned exploitation. It is SRK's opinion that the differences with the real exploited material are not material.

Mineral resources have been reported based on economic and mining assumptions to support the reasonable prospects for economic extraction of the resource. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. Table 1-1 summarizes current mineral resources exclusive of reserves.

1.6 Conclusions and Recommendations

In the QP's opinion, the assumptions, parameters, and methodology used for the Santa Bárbara underground mineral resource estimates, while not optimized to provide flexibility in the planning processes, are appropriate for the style of mineralization and mining methods.

It is the QP's opinion that measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- Continue the digitization of all geological information and storage of data into a commercial secure database, including the drilling and rock sampling information
- Complete the 3D geological modeling using implicit modeling (Leapfrog Geo), block model construction and estimation using the new digital database, which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains
- Continue the routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.0 t/m^3 value, using the current protocols for analysis and in all the areas of the deposit
- Rigorous approach to classification that appropriately considers the noted detractors in confidence and utilizes criteria designed to address them

The QP is of the opinion that with consideration of the recommendations any issues likely to influence the prospect of economic extraction can be resolved with further work.

2 Introduction

2.1 Registrant for Whom the Technical Report Summary was Prepared

This technical report summary was prepared in accordance with the SEC S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for IMMSA, a subsidiary of SCC, by SRK on the Santa Bárbara Mine.

2.2 Terms of Reference and Purpose of the Report

The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in SRK's services, based on:

- Information available at the time of preparation
- Assumptions, conditions, and qualifications set forth in this report

This report is intended for use by IMMSA subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits IMMSA to file this report as a technical report summary with U.S. securities regulatory authorities pursuant to the SEC S-K regulations, more specifically Title 17, Subpart 229.600, item 601(b)(96) - Technical Report Summary and Title 17, Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations. Except for the purposes legislated under U.S. federal securities law, or with other securities regulators as specifically consented to by SRK, any other use of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with IMMSA.

The purpose of this technical report summary is to report mineral resources for the Santa Bárbara project.

The effective date of this report is December 31, 2023.

References to industry best practices contained herein are generally in reference to those documented practices as defined by organizations, such as the Society for Mining Metallurgy and Exploration (SME), the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), or international reporting standards as developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

2.3 Report Version Update

This technical report summary is an update of a previously filed technical report summary and is the most recent report. This report presents an update from the previously filed technical report summary entitled "SEC Technical Report Summary Initial Assessment on Mineral Resources Santa Bárbara Chihuahua, México, effective date December 31, 2022, and reported February 21, 2023. The current report accounts for depletion completed during 2022, and updated Mineral Resources based on 2023 exploration activities.

2.4 Sources of Information

This report is based in part on internal Company technical reports, previous feasibility studies, maps, published government reports, Company letters and memoranda, and public information, as cited throughout this report and listed in the References Section (Section 24).

Reliance upon information provided by the registrant is listed in the Section 25, when applicable.

SRK's report is based upon the following information:

- Site visits to the Santa Bárbara project, completed in 2021 and 2022
- Discussions and communications with key Santa Bárbara operations personnel
- Data collected by the Company from historical mining operation
- Review of the data collection methods and protocols, including sampling, QA/QC, assaying, etc.
- Review of updated plan maps, including geological interpretations, sampling, and sampling location, in both paper format and AutoCAD files
- Review of the original drillhole logging sheets
- Review of paper documents supporting the resource/reserve estimates by blocks, including interpretation on sections, spreadsheets, and manual calculations. Part of this information was provided in digital format (AutoCAD, Excel, and Word).
- Review updated information of blocks exploited in 2023 and new blocks added to the mineral resource inventory in 2023.

2.5 Details of Inspection

Table 2-1 summarizes the details of the personal inspections on the property by each QP or, if applicable, the reason why a personal inspection has not been completed.

Table 2-1: Site Visits

Expertise	Date(s) of Visit	Details of Inspection
Geology, exploration, and mineral resources	June 9 to 13, 2021	Review drilling and sampling procedures, visit to underground workings, and review of resource estimation procedures
Geology, exploration, and mineral resources	November 22 to 28, 2021	Review of estimation procedures and check of resource blocks and supporting data
Geology, exploration, and mineral resources	November 16 to 18, 2022	Review exploration procedures and the updated resource blocks and supporting data

Source: SRK, 2022

In 2023 the QP (Geology, exploration, and mineral resources) did not visit the Santa Barbara operation but maintained continuous communication with the personnel of the project. The procedures used for the data collection and estimation processes have remained the same as previous estimates and therefore QP does not consider there to be any material changes that would warrant a site inspection.

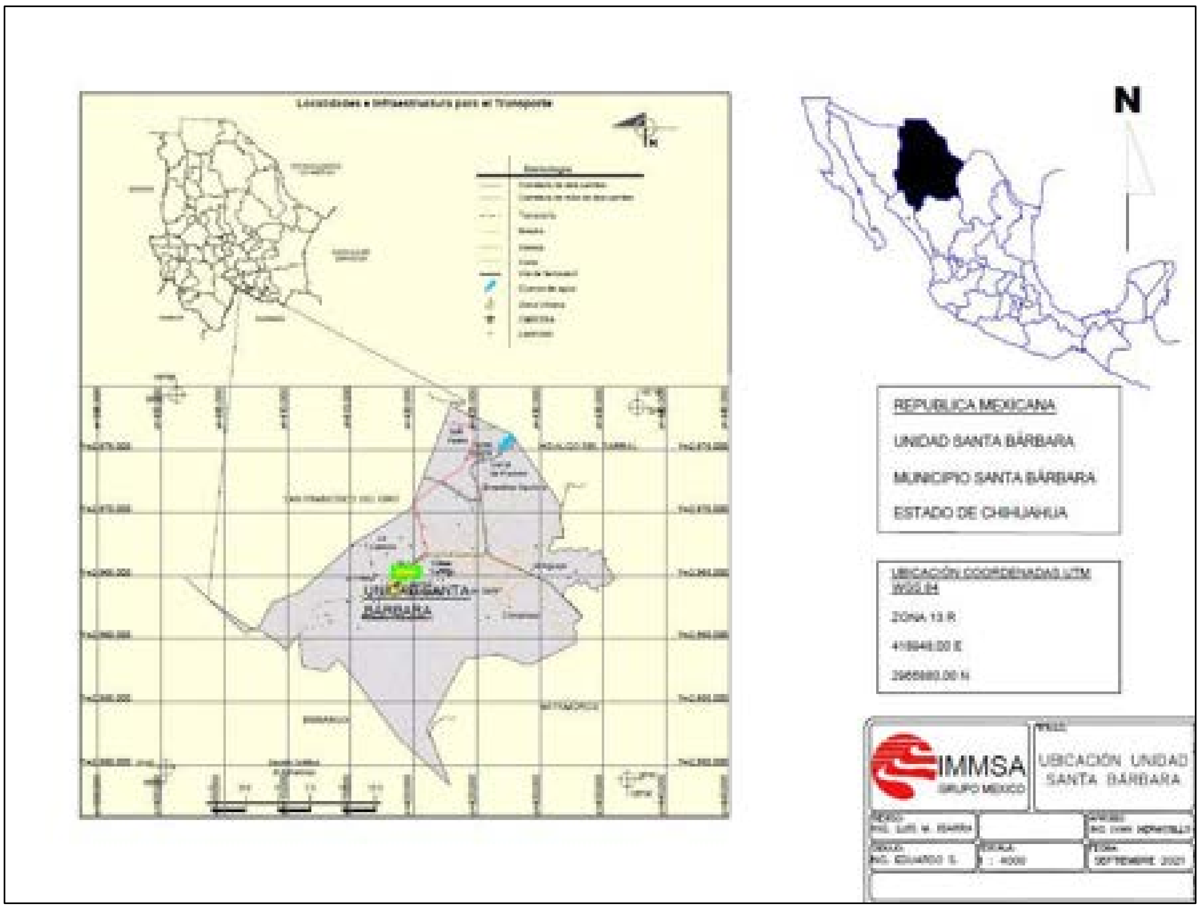
2.6 Qualified Person

This report was prepared by SRK Consulting (U.S.), Inc., a third-party firm comprising mining experts in accordance with § 229.1302(b)(1). IMMSA has determined that SRK meets the qualifications specified under the definition of Qualified Person in § 229.1300. References to the QP in this report are references to SRK Consulting (U.S.), Inc. and not to any individual employed at SRK.

3 Property Description

3.1 Property Location

The Santa Bárbara project is located in northern México approximately 25 km southwest of the city of Hidalgo del Parral, in the state of Chihuahua. The mine uses the Universal Transverse Mercator (UTM) World Geodetic System (WGS84) Zone 13R coordinate system and is located at 2 965 880 N and 418 948 E at an altitude of 2,000 m above sea level (masl). Access to the mine is connected to Hidalgo del Parral by a paved road 25 km in length and to the state capital of Chihuahua 250 km along Highway 24 (Figure 3.1).



Source: IMMSA, 2021

Figure 3.1: Location Map

3.2 Property Area

IMMSA currently holds 33 mining titles over the Santa Bárbara project covering a total area of 27,772.5082 ha, with the titles held 100% by the Company.

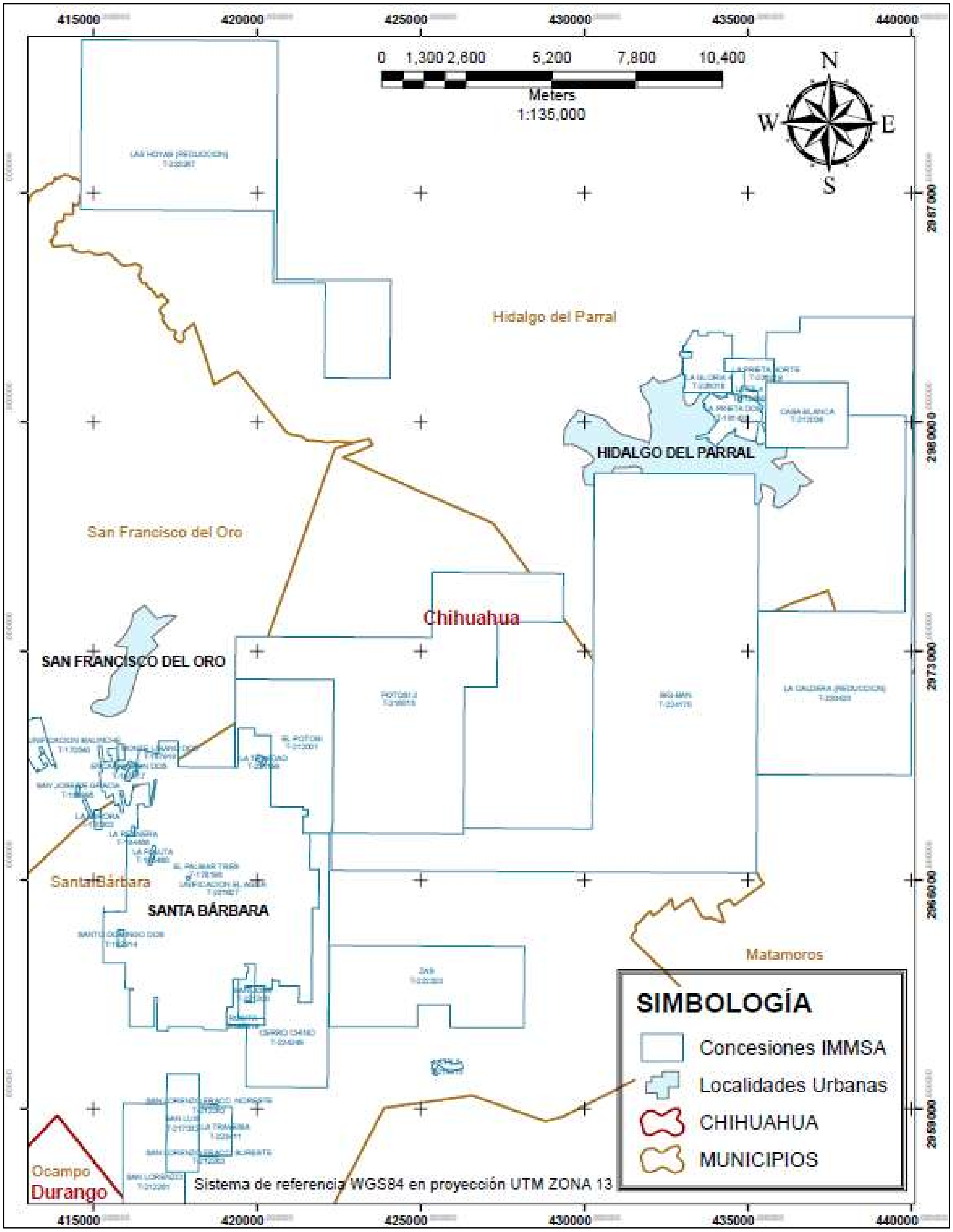
3.3 Mineral Title, Claim, Mineral Right, Lease, or Option Disclosure

The 33 mining concessions are in force for 50 years and extendable to 50 more years (Table 3-1 and Figure 3.2). The oldest concession was originally awarded in 1980 and has a current expiration date for 2030 but has the option for extending a further 50 more years.

Table 3-1: Land Tenure Table

Number	Title Number	Concession Name	Holder	Awarded	Valid Until	Surface (ha)
1	167051	LAS AURAS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	19/08/1980	18/08/2030	6.0000
2	168995	SAN JOSE DE GRACIA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	2/9/1981	1/9/2031	3.0000
3	170302	LA AURORA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/04/1982	13/04/2032	12.0000
4	170540	UNIFICACION MALINCHE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	13/05/1982	12/5/2032	95.4933
5	178198	EL PALMAR TRES	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/07/1986	13/07/2036	1.0000
6	181420	LA PRIETA DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	18/09/1987	17/09/2037	200.7286
7	184488	LA REYNERA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	6/11/1989	5/11/2039	2.4465
8	185480	LA FLAUTA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/12/1989	13/12/2039	6.0000
9	187914	SANTO DOMINGO DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	10.0000
10	187917	ENCARNACION DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	5.0000
11	187918	MONTE LIBANO DOS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	10.0000
12	187919	ROSITA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/11/1990	21/11/2040	49.2316
13	210933	SANGRE DE CRISTO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/02/2000	28/02/2050	3.8184
14	212001	EL POTOSI	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	18/08/2000	17/08/2050	997.2857
15	212036	CASA BLANCA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/08/2000	24/08/2050	500.0000
16	212261	SAN LORENZO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	488.9706
17	212262	SAN LORENZO FRACC. NORESTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	4.4796
18	212263	SAN LORENZO FRACC. SURESTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/09/2000	28/09/2050	1.2479
19	212856	LA FE 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	31/01/2001	30/01/2051	12.9835
20	215015	LA FE 5	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	29/01/2002	28/01/2052	21.9015
21	217032	SAN LUIS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/06/2002	13/06/2052	300.0000
22	218013	POTOSI 2	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	3/10/2002	2/10/2052	3,590.0000
23	220423	LA CALDERA (REDUCCION)	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/07/2003	2/8/2049	3,515.1687
24	221199	LA TRINIDAD	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	11/12/2003	10/12/2053	2.8916
25	221200	SAN JOSE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	11/12/2003	10/12/2053	8.1400
26	222320	ZAS	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/06/2004	24/06/2054	1,423.7084
27	223287	LAS HOYAS (REDUCCION)	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/11/2004	24/11/2054	3,757.0000
28	223411	LA TRAVESIA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	14/12/2004	13/12/2054	150.0000
29	224170	BIG-BAN	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	20/04/2005	19/04/2055	7086.3171
30	224249	CERRO CHINO	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	22/04/2005	21/04/2055	912.2357
31	226018	LA GLORIA 4	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	15/11/2005	14/11/2055	248.0037
32	226019	LA PRIETA NORTE	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	15/11/2005	14/11/2055	113.1502
33	231627	UNIFICACION EL AGUA	INDUSTRIAL MINERA MÉXICO, S.A. DE C.V.	25/03/2008	24/03/2058	4234.3056

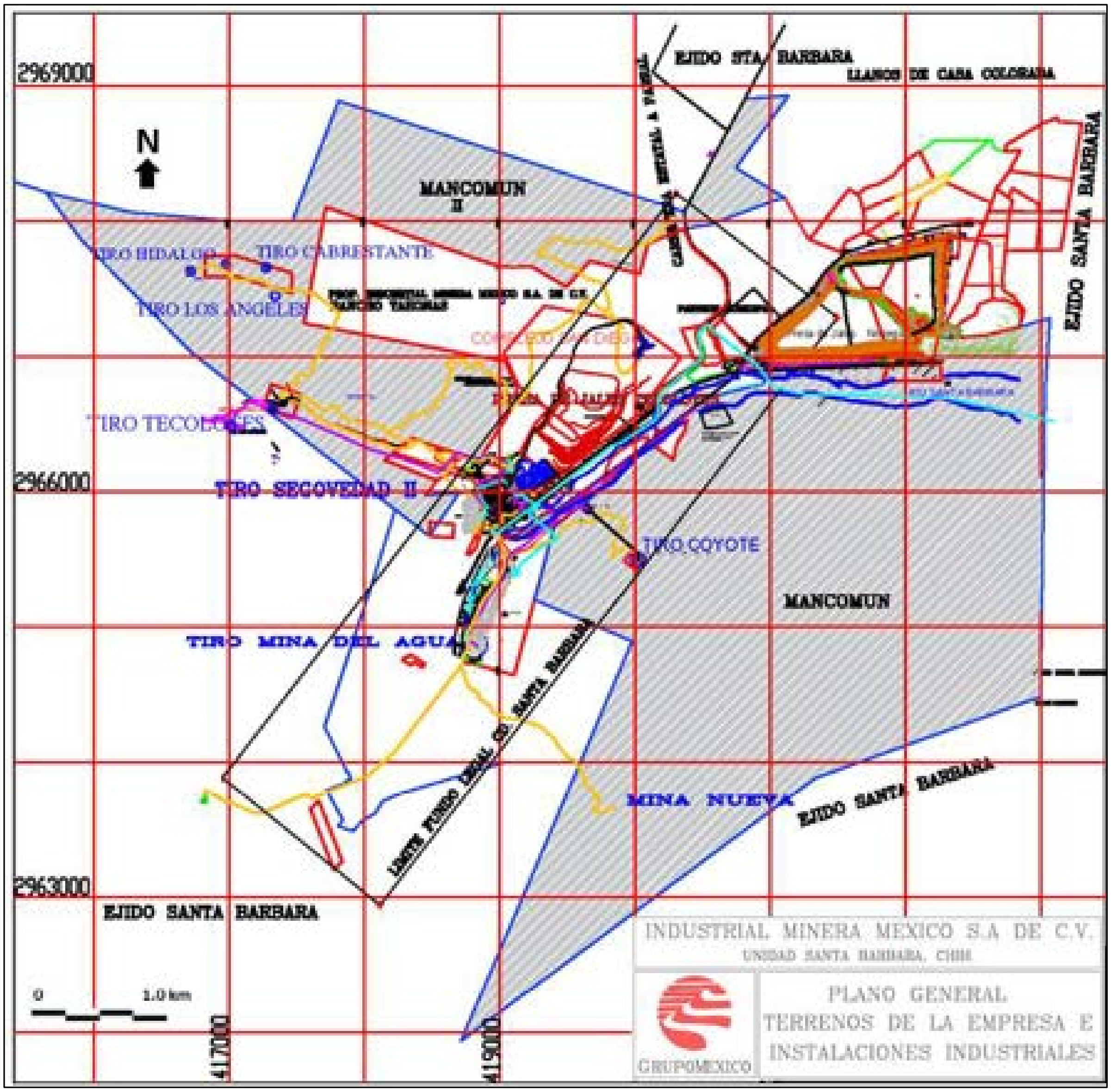
Source: IMMSA, 2021



Source: IMMSA, 2021

Figure 3.2: Map showing Concession Value

For the Santa Bárbara project, there are surface lands that cover an area of 20.92 ha and are owned by IMMSA, which provide the Company within sufficient rights to any work or exploration that the Company requires to carry out for the advancement and continuity of activities in the Santa Bárbara project. There are an additional 371.07 ha covered by a contract with the community of Santa Bárbara that allows for any work or exploration required by IMMSA for the advancement and continuing operation of the Santa Bárbara project (Figure 3.3).



Source: IMMSA, 2021

Figure 3.3: Map of Additional Areas Available Under Contract

3.4 Mineral Rights Description and How They Were Obtained

IMMSA currently holds 33 mining titles over the Santa Bárbara project covering a total area of 27,772.5082 ha, which extends from 2030 to 2058.

The following are the obligations of the registrant to retain the properties at Santa Bárbara according to the Mexican Mining Law:

- Execute and verify the works and works foreseen by the Mexican Mining Law in the terms and conditions established by it and its regulations.
- Pay the mining rights established by the law on the matter.
- Comply with all the general provisions and the official Mexican standards applicable to the mining-metallurgical industry in terms of safety in mines, ecological balance, and environmental protection.
- Allow personnel commissioned by the Mexican mining entity (Secretaría) to carry out inspection visits.
- The execution of works will be proven by means of investments in the area covered by the mining concession or by obtaining economically exploitable minerals. The regulations of the law will set the minimum amounts of the investment to be made and the value of the mineral products to be obtained.
- The holders of mining concessions or those who carry out works and works by contract must designate an engineer legally authorized to practice as responsible for compliance with the safety regulations in the mines, if the works and works involve more than nine workers in the case of the coal mines and more than 49 workers in other cases.
- The mining law stipulates investments in works and works that are mandatory for the registrant of a mining concession.
- The investments in the works and works foreseen by the law that are carried out in mining concessions or the value of the mineral products obtained must be equivalent at least to the amount that results from applying the quotas to the total number of hectares covered by the mining concession or the grouping of these.

Reports delivered to the Mexican mining entity (Secretaría) to verify the execution of the mining works and works must contain:

1. Name of the holder of the mining concession or of the person who carries out the mining works and works by contract
2. Name of the lot or of the one that heads the grouping and title number
3. Period to review
4. Itemized amount of the investment made, or amount of the billing value or settlement of the production obtained, or an indication of the cause that motivated the temporary suspension of the works
5. Surplus to be applied from previous verifications and their updates
6. Amount to be applied in subsequent checks
7. Location plan and description of the works carried out in the period

The mining entity (Secretaría) shall consider the works and works of exploration or exploitation to have not been executed and legally verified when, in the exercise of its powers of verification, it finds:

1. The verification report contains false data or does not conform to what was done on the ground.
2. The non-adjacent mining lots object of the grouping do not constitute a mining or mining-metallurgical unit, from the technical and administrative point of view.

In the above cases, Secretaría will initiate the cancellation procedure of the concession or of those mining lots incorporated into the grouping, in the terms of Article 45 of the Mexican Mining Law, final paragraph of the law.

3.5 Encumbrances

SRK is not aware of any legal encumbrances on IMMSA-owned or leased surface or mineral rights but has relied on IMMSA's legal documentation regarding this aspect of the Santa Bárbara project.

Several obligations must be met to maintain a mining concession in good standing, including the ones listed in Section 3.4.

The regulations establish minimum amounts that must be invested in the concessions. Minimum expenditures may be satisfied through sales of minerals from the mine for an equivalent amount. A report must be filed each year that details the work undertaken during the previous calendar year.

Mining duties must be paid to the Secretaria de Economía in advance in January and July of each year and are determined on an annual basis under the Mexican Federal Rights Law.

Duties are based on the surface area of the concession and the number of years since the mining concession was issued. Mining duties totaled MXN$11,307,300 in 2023.

Permits to conduct mining work at Santa Bárbara have been obtained. Existing permits will require updates or extensions based on the life-of-mine (LoM) plan outlined in this report, and additional permits will be necessary should the method of tailings storage change.

3.6 Other Significant Factors and Risks

The mine is subject to risk factors common to most mining operations in México, and IMMSA has an internal process in place to study and mitigate those risks that can reasonably be mitigated. No known factors or unusual risks affect access, title, or the ability to conduct mining. Specific exploration activities are authorized into 2024.

3.7 Royalties or Similar Interest

There is no payment for royalties; 100% of the concessions are owned by IMMSA.

4 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

4.1 Topography, Elevation, and Vegetation

Santa Bárbara topography varies from flat in the Parral Valley to mountainous and rugged to the south and southwest (where the Sierra de Santa Bárbara is located). Santa Bárbara has 12,000 ha of hills, 6,000 ha of mountainous terrain, and 4,000 ha of rugged terrain. The average elevation is 1,969 masl (http://www.inafed.gob.mx/work/enciclopedia/EMM08chihuahua/municipios/08060a.html).

The vegetation is characteristic of the semi-arid regions of northern México. Vegetation is of the montebajo type, and the stunted vegetation made up of oaks, junipers, walnuts, acamos, willows, mesquite, strawberry trees, and gatuños, transitioning from grasslands in the lower elevations to coniferous in its mountainous regions. Figure 4.1 shows the characteristics of the Santa Bárbara area.

Source: SRK, 2021

Figure 4.1: Photograph of the Santa Bárbara Town, Looking North

4.2 Means of Access

Access to the Santa Bárbara project is well supported via public roads and railways. The state of Chihuahua has an area of 247,455 square kilometers (km^2) has a network of railways (approximately 2,650 km) and has good road infrastructure covering 19,720 km in total, of which 7,100 km are paved, 315 km are lined, and 12,225 km are dirt roads. The Santa Bárbara project connects directly with Highway No. 24, which leads directly to the state capital, Chihuahua, Chihuahua, at 252 km and also connects with Parral at a distance of 25 km.

4.3 Climate and Length of Operating Season

The climate in Chihuahua state is warm and arid. Average temperatures vary from 0 degrees Centigrade (°C) to 35°C, with an average of 19°C. The average annual precipitation is approximately 330 millimeters (mm), with most of the rain typically occurring from July to September. Exploration, development, and mining activities can be completed year-round with no hindrance from the climate.

4.4 Infrastructure Availability and Sources

The Santa Bárbara project is an active underground mining operation comprised of three mines (Segovedad, Tecolotes, and San Diego) with one flotation plant that produces zinc, lead, and copper concentrates, with significant amounts of silver. The asset is considered mature.

4.4.1 Water

All the water used in industrial operations at Santa Bárbara comes from the mine and the concentrator plant, where a large part of this water is recovered from the tailings dam, creating a closed circuit for its proper use. IMMSA Santa Bárbara does not have any water concessions. In 2022, this included 235,053 m^3 of fresh water and 1,560,816 m^3 of recovered water. The recovered water from the tailings dam is received in the general pool located in the process plant.

Drinking water is purchased in pipes from the Junta Municipal de Agua y Saneamiento del Estado de Chihuahua, with an average of approximately 700 m^3 per month. The water is deposited in tanks (Rotoplas) that are distributed in different points of the industrial complex.

4.4.2 Electricity

For 2023, the monthly average consumption is 60,000 kilowatt-hours (kWh). Electric power is supplied by Eólica el Retiro S A P I DE CV, Energia Chihuahua, SA de CV and the Federal Electricity Commission.

The providers include:

- Eolica el Retiro S A P I DE CV
- Energy Chihuahua S.A. of C.V. (gas) only from January to October 2022
- Federal Electricity Commission (transmission is paid)

A Caterpillar brand generator with an acoustic cabin of 350 kW, a diesel engine, and a tank of 2,000 liters (L) provides energy to the tailings dam pumping station (backup).

4.4.3 Fuel

Diesel

Average monthly diesel consumption is 816 liters per month (L/month) (IMMSA, 2023). From the tanks located on the surface, the diesel is sent through pipes to the deposits inside the mine, and from these it is fed to the equipment through dispatch guns.

The diesel supplier is CONBILUB, S.A. DE C.V., and diesel comes from Ciudad Camargo Chihuahua. Diesel is received in 20,000-L tankers. An average of three to four pipes per week are received.

There is currently no supply contract; diesel is supplied through scheduled supply orders.

Gasoline

The operation consumed an average of 23 L/month in 2023. The gasoline is supplied by one of the gas stations located in the city of Santa Bárbara, Chihuahua located 800 m from the mining unit.

4.4.4 Personnel

There is an ample supply of skilled personnel from the local area, which has a long history of mining operations. In addition to Santa Bárbara, there are a number of operating mines in the immediate vicinity of the Santa Bárbara project. The Santa Bárbara mine site currently employs 1,334 employees including staff and unionized personnel.

4.4.5 Supplies

The Santa Bárbara project has a highly favorable location and infrastructure, and local communities in the surrounding area are well suited with basic accommodations, fuel, industrial materials, contractor services, and bulk suppliers. Supplies to the mine can be transported with ease via the rail or road network system. Parral City is an important source, providing services and supplies.

5 History

The following sections provide a summary of the history of the Santa Bárbara project, compiled from historical publications and internal corporate documents. Mining activity in the Santa Bárbara area started in 1500's and occurred intermittently during the following centuries and continues in the present with IMMSA.

5.1 Previous Operations

Exploration and mining activity at the Santa Bárbara project dates to the initial discoveries in the late 1500s. In 1899, the Montezuma Lead Co was founded in the district and acquired other operations and increased production over the next few years. In 1913, the Mexican Metallurgical Company negotiated the sale of some its assets to ASARCO S.A. After the Mexican Revolution, Compañía Industrial Minera ASARCO S.A. was formed and consolidated some properties in the district. In 1932, Compañía Industrial Minera ASARCO assumed control of most of the operations in the area and took control of the American Smelters Securities Company, the main subsidiary of ASARCO S.A. The name was changed to ASARCO MEXICANA S.A. in 1965 and to Industrial Minera México S.A.de C.V. in 1974. In 1978, this became Industrial Minera México S.A DE C.V (Grupo México), and finally in 2012 this was absorbed by Industrial Minera México S.A. DE C.V.

Table 5-1 summarizes milled tonnes per year from 2002 to October 2023.

Table 5-1: Santa Bárbara Milled Tonnes (2002-Oct 2023)

Year	Milled Tonnes
2002	1,590,650
2003	1,450,124
2004	1,453,793
2005	1,486,622
2006	1,483,704
2007	1,486,622
2008	1,460,854
2009	1,542,128
2010	1,578,342
2011	1,552,869
2012	1,589,618
2013	1,595,042
2014	1,591,851
2015	1,556,699
2016	1,529,573
2017	1,337,389
2018	1,670,776
2019	1,636,644
2020	1,732,554
2021	1,515,951
2022	1,495,711
2023 (October)	1,374.958

Source: IMMSA, 2023

5.2 Exploration and Development of Previous Owners or Operators

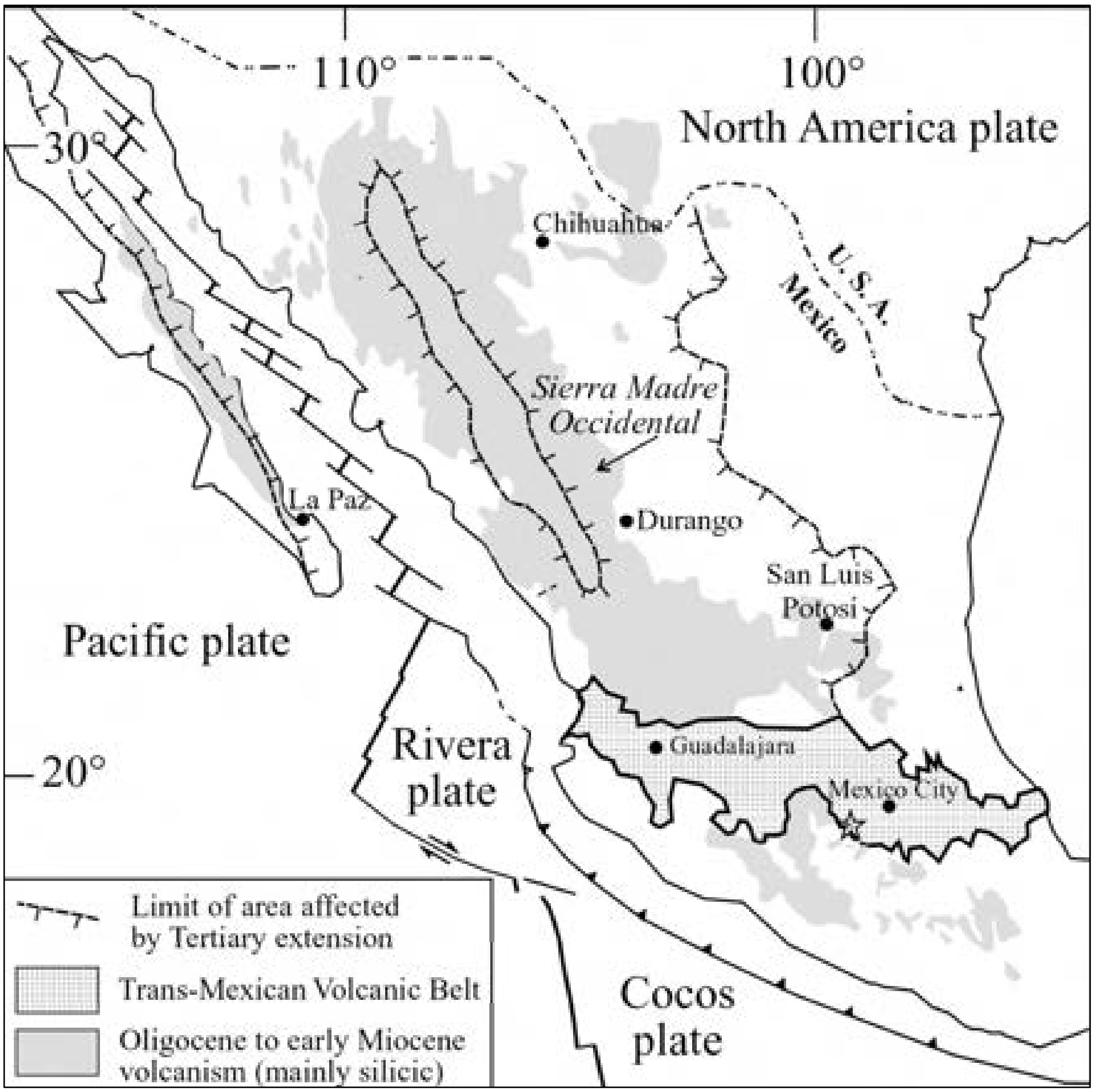
Since the 1920's, all exploration and development have been completed by IMMSA under its current legal name or by its previous name Asarco, S.A or Grupo México. Details of the exploration are discussed in Section 7 of this report.

6 Geological Setting, Mineralization, and Deposit

6.1 Regional, Local, and Property Geology

6.1.1 Regional Geology

The Sierra Madre Occidental extends for over 2,000 km from the U.S.-México border south to Guadalajara, where it is covered by the Late Miocene to Quaternary Trans-Mexican volcanic belt (Figure 6.1). Eocene-Oligocene volcanism south of the Trans-Mexican volcanic belt is from Morán-Zenteno et al. (1999).



Source: Camprubí et al., 2003; based on Ferrari et al., 2002

Figure 6.1: Geodynamic Map of México, showing Tertiary Extension and Volcanism and the Present Configuration of Plates

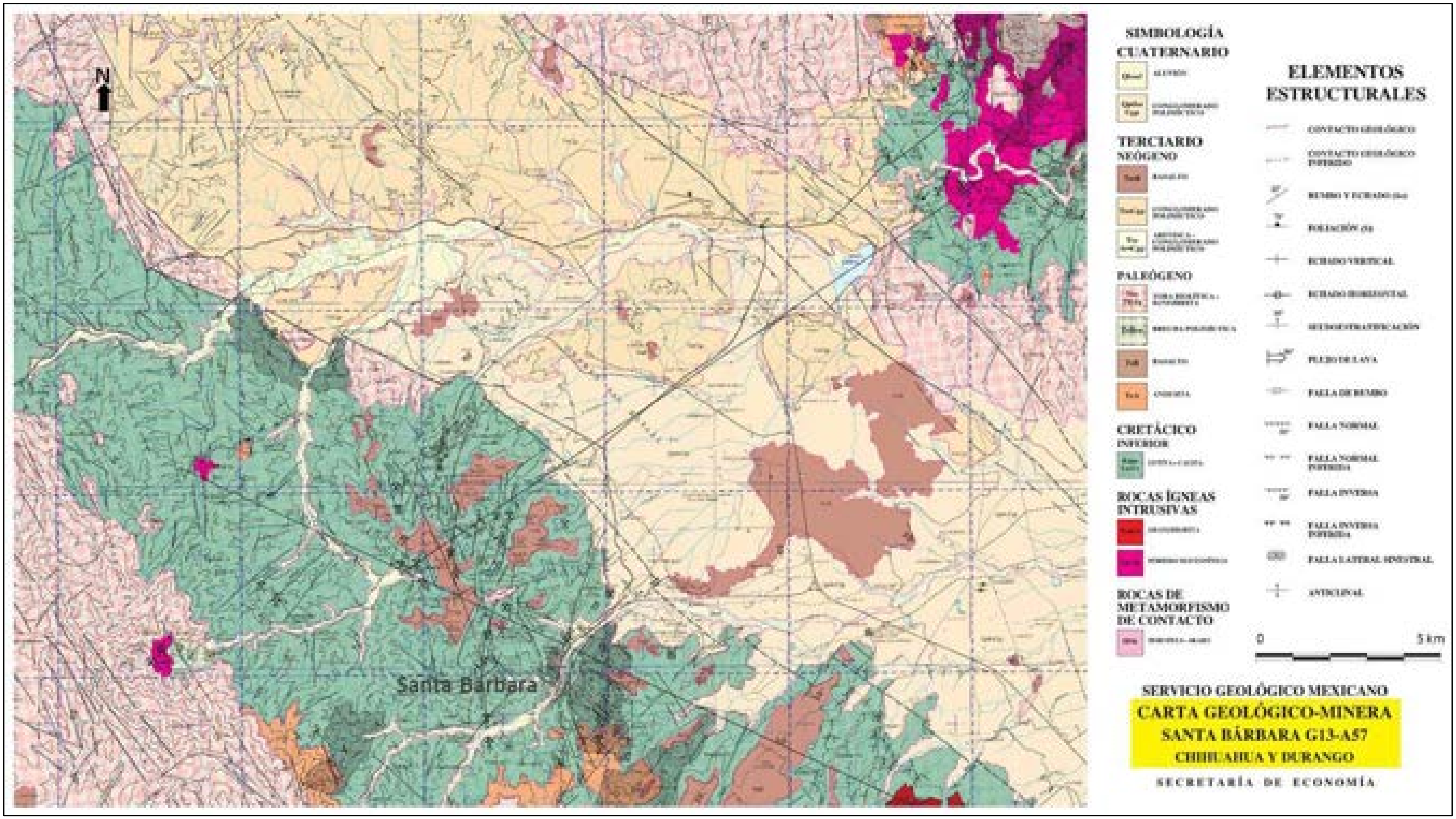
Rocks in the lower part of the Sierra Madre Occidental are Late Cretaceous to Early Tertiary calc-alkaline, granodioritic to granitic batholiths that intrude voluminous, coeval volcano-sedimentary rocks (Henry and Fredrikson, 1987; Aguirre-Díaz and McDowell, 1991; González-León et al., 2000). The volcano-sedimentary rocks were named Lower Volcanic Supergroup by McDowell and Keizer (1977) and represent the magmatic activity that took place during the Laramide Orogeny (Staude and Barton, 2001; Camprubí et al., 2003).

The upper 1,000 m of the Sierra Madre Occidental succession, however, consists of silicic ignimbrites and, to a lesser extent, rhyolitic domes and minor basaltic to andesitic lavas (the Upper Volcanic Supergroup of McDowell and Keizer, 1977). These rocks mark the so-called ignimbrite flare up of the Sierra Madre Occidental and have been emplaced in Early Oligocene along the whole Sierra Madre Occidental (McDowell and Keizer, 1977; McDowell and Clabaugh, 1979; Henry and Fredrickson, 1987; Wark et al.,1990; Gans, 1997; McDowell et al., 1997; Nieto-Samaniego et al., 1999) and in Early Miocene in the southern Sierra Madre Occidental (Ferrari et al., 2002). Tertiary volcanic rocks coeval with the Sierra Madre Occidental (Latest Eocene to Miocene) are also found to the south of the Trans-Mexican volcanic belt in the Michoacán, Guerrero, México, and Oaxaca states (Figure 6.1), but they are referred to as the Sierra Madre del Sur Tertiary magmatic province (Morán-Zenteno et al., 1999; Camprubí et al., 2003).

The time relation between the Tertiary volcanism and epithermal deposits is not well understood, as only some of the deposits are properly dated. Mexican epithermal deposits mainly formed less than 2 million years ago (m.y.) after the occurrence of the youngest acid volcanic host rocks, as determined in the Pachuca-Real del Monte (McKee et al., 1992) and San Dimas districts (Enriquez and Rivera, 2001), or not long after 2 m.y., as in Fresnillo (Lang et al., 1988). McKee et al. (1992) noted that, during this time, no extrusive volcanic activity occurred, although intrusions were common. The implication is that the epithermal deposits were related to intrusive rocks crystallizing during the volcanic hiatuses, providing heat for the hydrothermal activity, and possibly fluids, metals, and ligands (Camprubí et al., 2003).

The structural features suggest three tectonic stages. The first stage is related to the regional metamorphism of the Triassic rocks, the second stage is caused by the Laramide Orogeny, and the third stage occurred in the Pliocene and is related to extension that resulted in a system of fractures and faults.

Regionally, rocks ranging from the Early Cretaceous to recent are present. The oldest represent basin and shelf sediments, while the sedimentary rocks of the Late Cretaceous are represented by shallow basin sediments. The Tertiary is represented by sills and rhyolite structures that overlay the oldest formations. Continental Conglomerates discordantly overlie the Cretaceous rocks. Quaternary age clastic sediments have filled and are widely distributed within the valley (Figure 6.2).

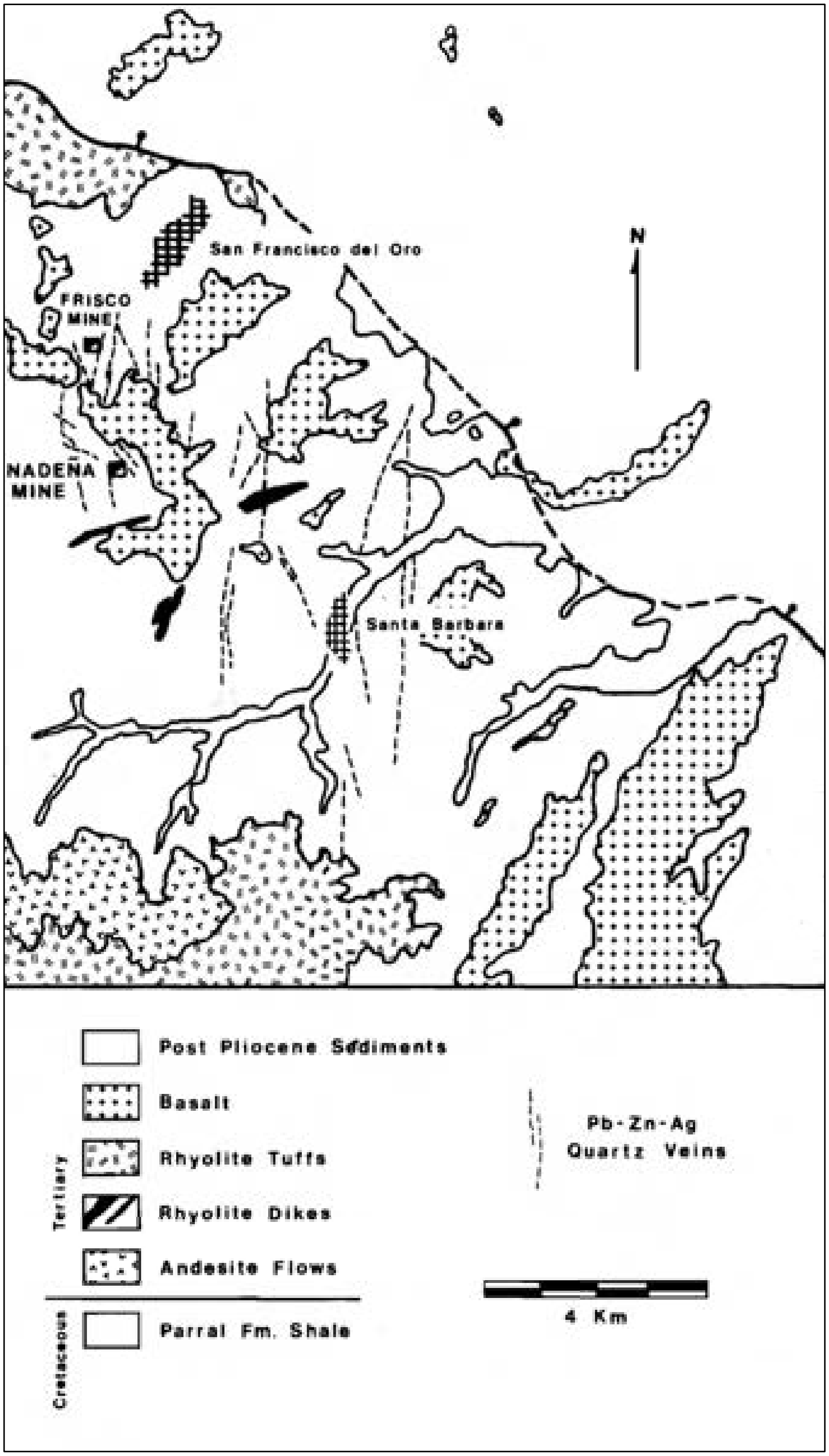


Source: Servicio Geológico Mexicano, 1999

Figure 6.2: Regional Map

6.1.2 Local Geology

Local stratigraphy is characterized by marine Aryan sedimentary rocks from Mesozoic sub-volcanic magmatism, presumed to be Tertiary in age, and continental sediments from the Cenozoic. The oldest rock found in the local area belongs to the Parral Formation of Aptian-Albian age, which is made up of shales and marls with intercalations of fine horizons of fine-grained sandstone. Partially covering the Parral Formation, there are beds of pyroxene andesites composed by fragments of pre-existing rocks that outcrop north of the district in the vicinity of the town of San Francisco del Oro. The rhyolitic complex is made up of a sequence of tuffs, sills, and dikes, covering the upper parts of the hills. The San Rafael conglomerate fills the valley of the same name and emerges to the north of the district, forming soft hills. The conglomerate is the product of the filling of a graven limited by the Santiago Faults to the west and the Esmeralda Fault to the northeast and is constituted by fragments of surrounding rocks. The youngest lithological unit in the region is an olivine basalt, which forms almost horizontal layers. These are described in more detail below. Figure 6.3 presents the map of the local geology.



Source: Glenn, et al, 1988

Figure 6.3: Local Geology Map

Basement Rocks

The basement material is formed by a black to grey shale (age of 120 m.y.) with various degrees of hydrothermal alteration and varying in composition from clay to partially calcareous with the presence of quartz, carbonaceous matter, and some anhedral phenocrystals of magnetite and pyrite observed.

Andesites

Andesite sills are seen in the southern part of the district, lying discordantly on a heavily eroded shale surface, suggesting the sills were formed after periods of folding and erosion. The andesites range in color from dark green to dark grey and have porphyritic and massive texture. Locally, there is a rhyolite dike cutting the andesite, suggesting that the andesite is older.

Rhyolites

Rhyolites occur as dikes and diatremes with quartz and plagioclase phenocrysts within an aphanitic matrix. At depth, the dikes may tend to thin. Their color varies from brownish pink to light pink and to white when they are weathered.

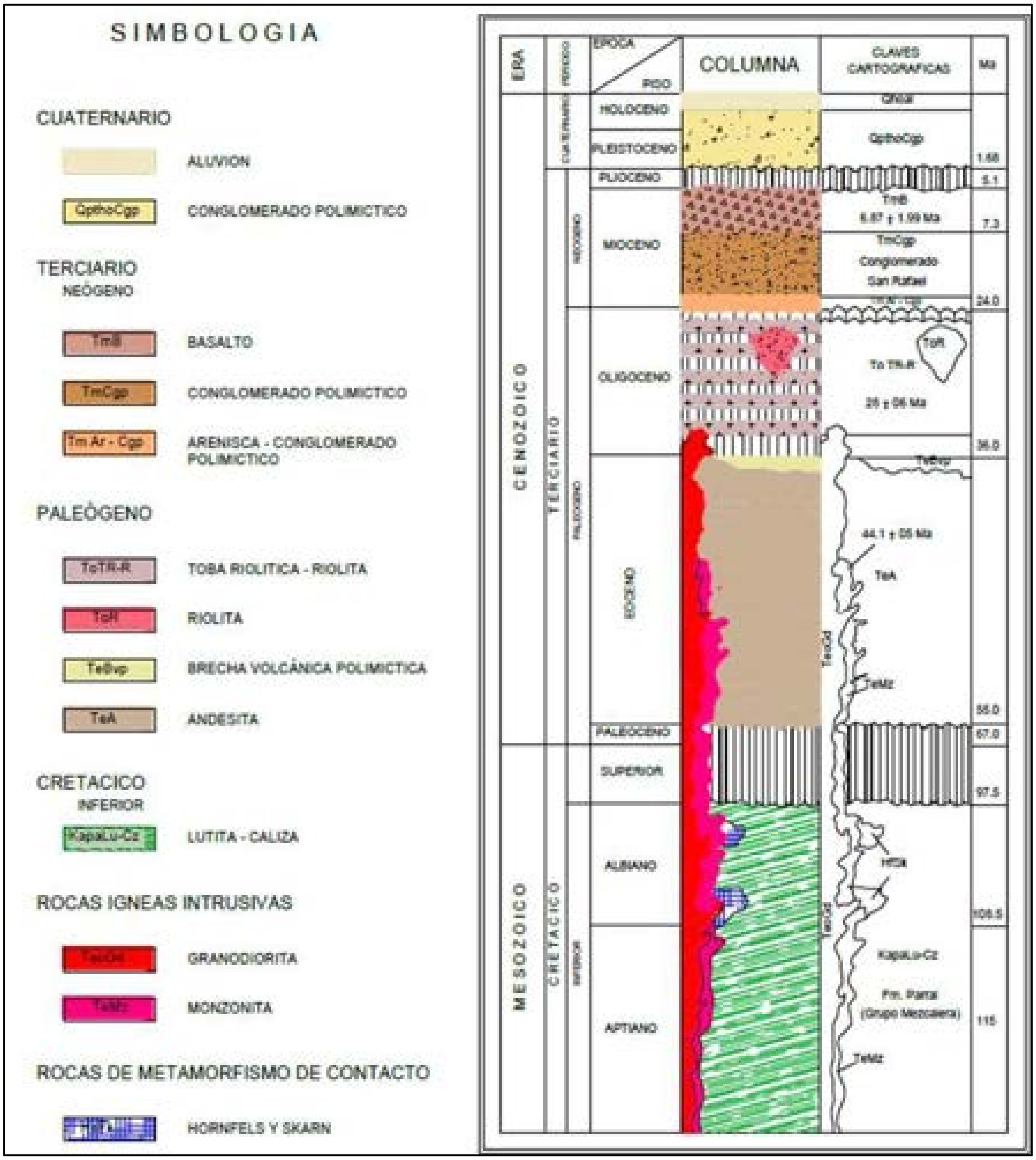
Basalt

Basalts are the youngest rock in the region and vary in color from dark gray to black, with textures ranging from aphanitic to vesicular. Localized amygdaloidal basalt is present and the amygdaloids are filled with calcite. Basalt thickness varies from 30 to 60 m.

San Rafael Conglomerate

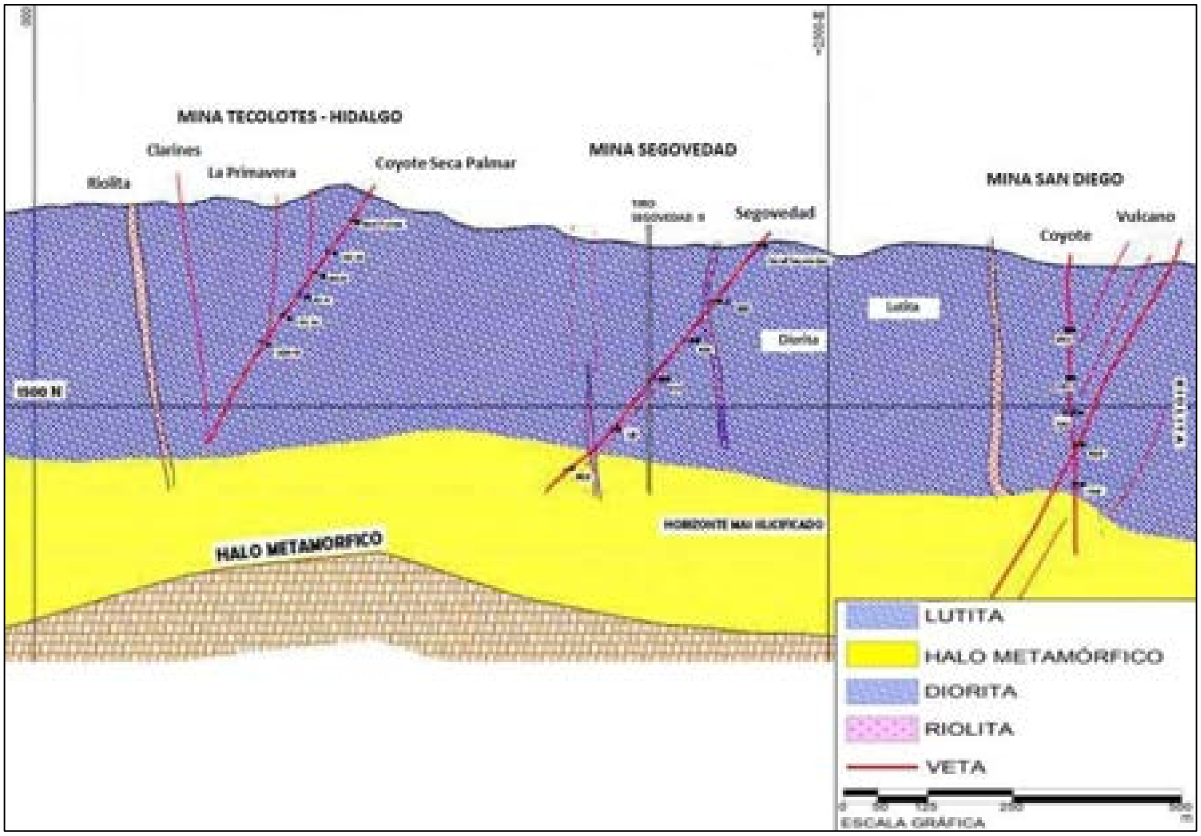
The San Rafael conglomerate is made up of poorly sorted subangular and rounded fragments of andesites, rhyolites, quartz, and shale ranging in size from 2 to 80 centimeters (cm) cemented in a clay-sandy matrix. The thickness of this conglomerate varies from 0 to 450 m.

Figure 6.4 presents the stratigraphic column of the district of Santa Bárbara, and Figure 6.5 displays a cross-section through the key lithologies.



Source: IMMSA, 2022

Figure 6.4: Stratigraphic Column



Source: IMMSA, 2021

Figure 6.5: Local Geology Cross-Section, Looking North

6.1.3 Structural Geology

There are three significant structural events:

- Compression and folding caused by the two periods of orogenic deformation
- Extensional faulting creating horst and graben structures
- Volcanic activity related to the final stage of the post-orogenic process

These events created the main structures associated with mineralization, a north-south system, a northeast 15-degree (°) system, and a northwest 25° system. In addition, these events generated the morphology shown by the Parral Formation, which forms an anticline, with a strike of north 28° west with a dip from 10° to north.

The folding is considered mainly because of compression efforts of tectonic origin, resulting from the disturbances that occurred during the Laramide Orogeny and possibly the presence of an intrusive that at depth caused uplifts and fracturing in weaker areas. These faults have been filled by different types of material, according to the chronology of mineralization:

- Pre-mineralization failures filled by sulfides, north-south, northeast 10°, and northwest 20° systems
- Faults parallel to the veins, filled by rhyolite and fluorite
- Faults perpendicular to the veins, filled with calcite and fluorite

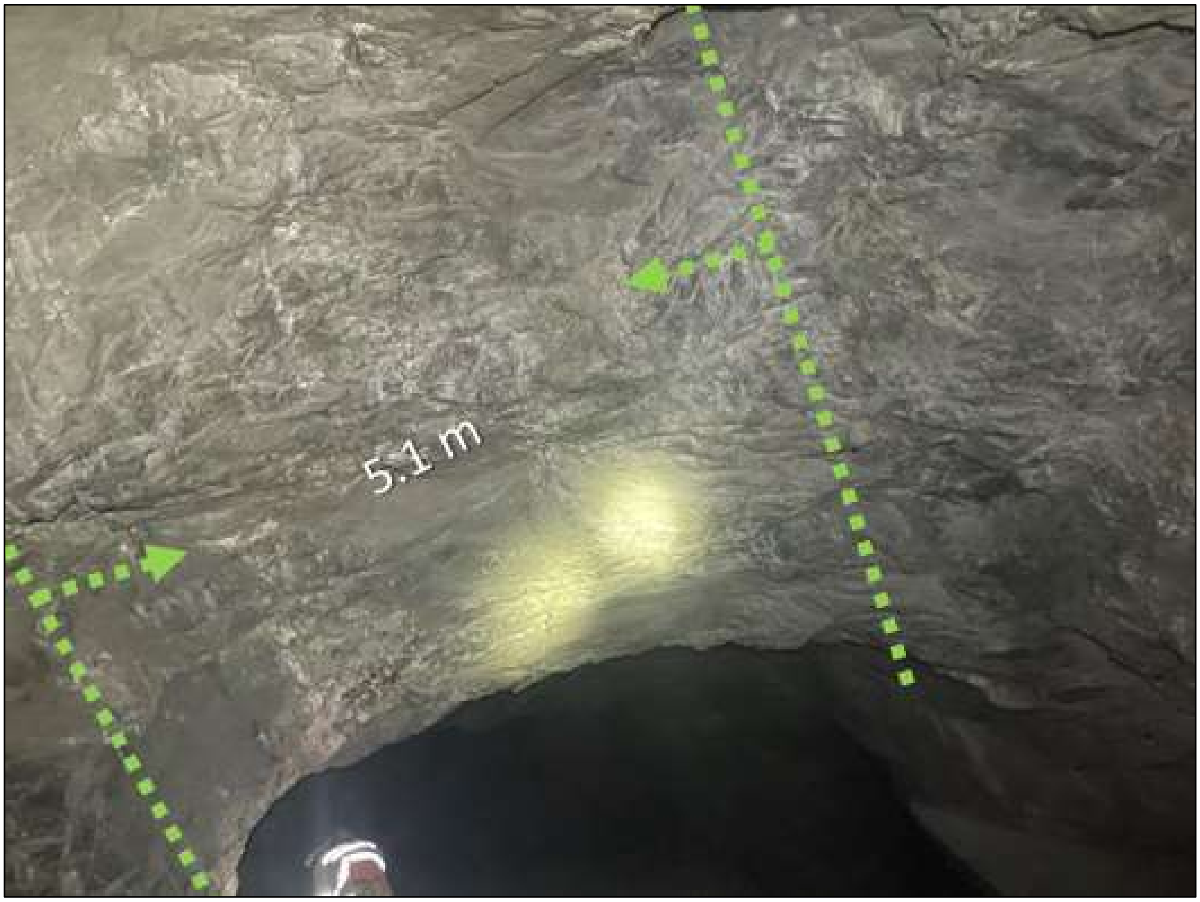
- Faults perpendicular to the veins and subsequent to mineralization, filled with diabase
- Faults parallel to the veins, filled with salvages and secondary minerals (hematite and limonite)

6.1.4 Property Geology

The lead, zinc, copper, silver, and gold mineralization present at Santa Bárbara is associated to quartz veins and fault veins hosted by sedimentary rocks of the Parral Formation (Cretaceous). Three vein systems are currently in exploitation:

- Segovedad
- Tecolotes
- San Diego

IMMSA has identified high-grade shoots of up to several hundred meters in length and of more than 500 m in vertical extension, which are found in structural zones in the three vein systems. Vein width varies from less than a meter up to 20 m. Figure 6.6 shows an example of a vein at the Mina Nueva zone (south of the San Diego Zone) with sulfide bands (galena, sphalerite, and pyrite) and quartz with a 5.3 m horizontal width.

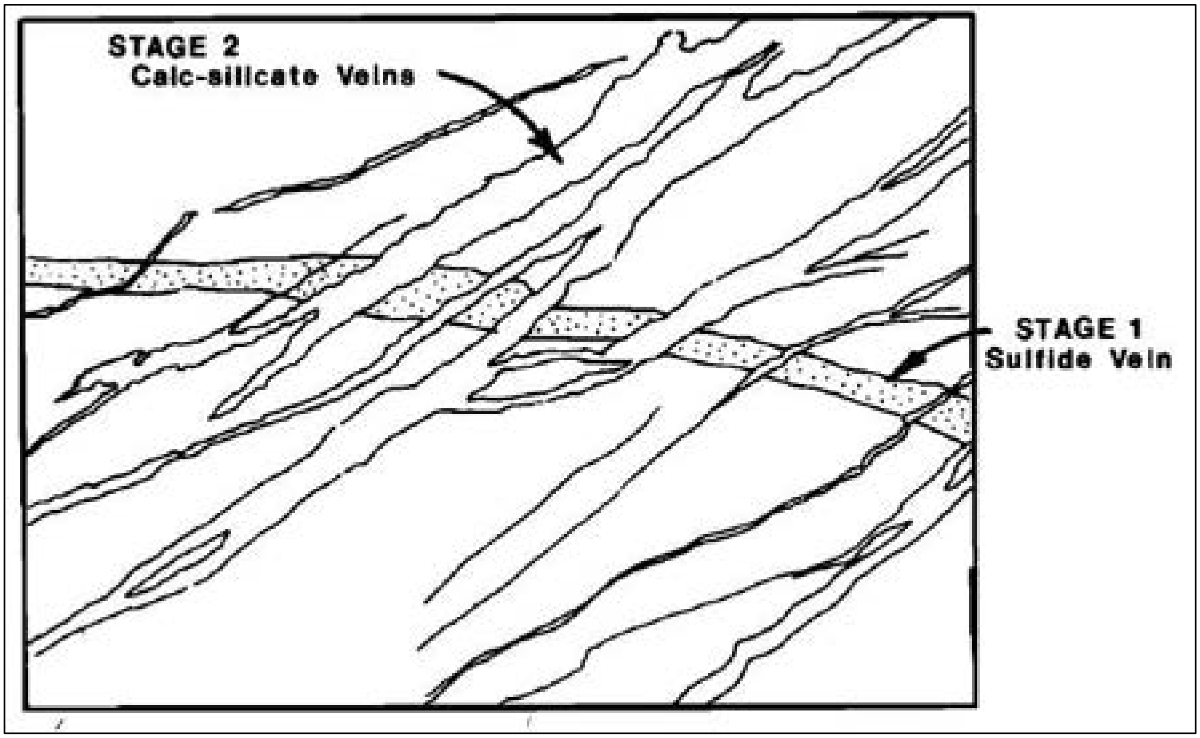


Source: IMMSA, 2022

Figure 6.6: Mina Nueva Zone (above) and Coyote Hilos (bottom) Veins Characteristics

Pb-Zn-Ag quartz veins are localized along small displacement faults that cut obliquely across the hinge zone of a broad asymmetric anticline. Single veins are more or less continuous for distances up to 800 m. Veins average about 1.5 m wide but locally may pinch and swell from several centimeters to as much as 3 m in width. Pb-Zn-Ag mineralization is found over a vertical extent of more than 500 m (Glenn et al., 1988).

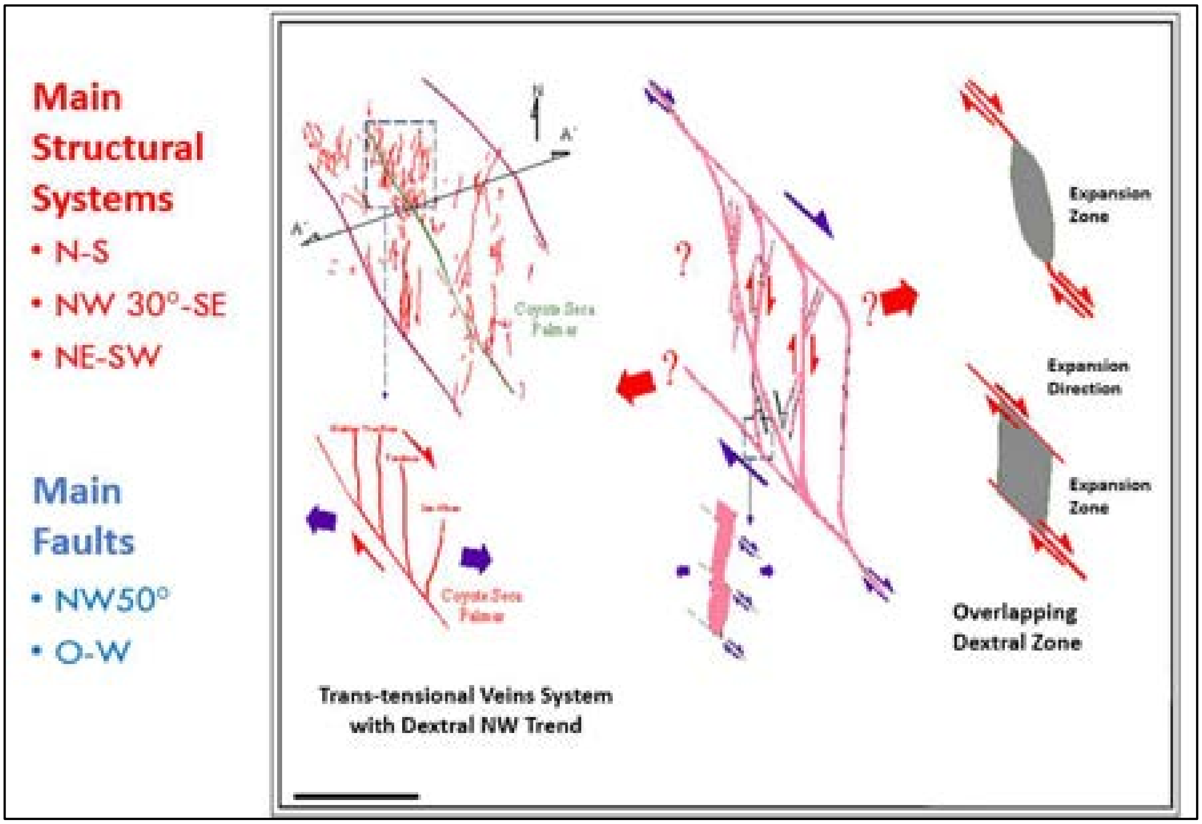
The mineralization was emplaced in several distinct vein stages that display cross-cutting relationships (Figure 6.7). Stage 1 ores contain massive sulfides: sphalerite, galena, and very minor chalcopyrite. Stage 2 ores contain abundant calc-silicates, chalcopyrite, and a small amount of gold, but only minor sphalerite and galena. Silver was deposited during both stages, but the bulk of the silver was associated with galena and deposited in Stage 1. Stages 3 and 4 contain quartz, calcite, and fluorite and are not important ore-bearing stages (Glenn et al., 1988).



Source: Glenn et al., 1988
Note: Area of sketch is 1 m across.

Figure 6.7: State 2 Veins Cutting a Stage 1 Vein

Figure 6.8 presents the structural model and interpretation of the main structural systems and faults at Santa Barbara.



Source: IMMSA, 2022

Figure 6.8: State 2 Veins Cutting a Stage 1 Vein

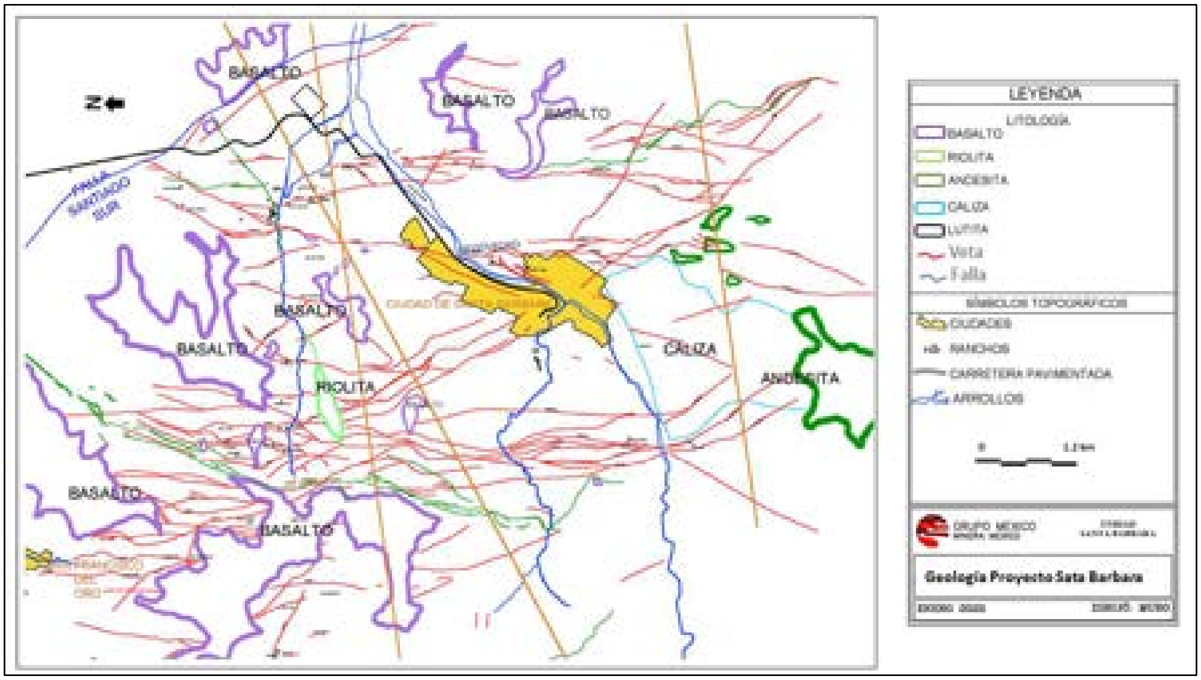
In addition to their occurrence in veins, silver, lead, and zinc are also present in replacement bodies in the San Francisco del Oro-Santa Bárbara. In the district, greater than 95% of the mineralized material comes from veins (Glenn et al., 1988).

Wall-Rock Alteration

The style and mineralogy of vein-related alteration differs both with the stage of veining (early sulfide rich or late calc-silicate rich) and with the composition of the enclosing rocks. Early sulfide-rich veins have alteration envelopes composed of epidote, axinite, chlorite, minor andradite, and quartz. Late calc-silicate-rich veins have envelopes composed of fine-grained manganoan hedenbergite, andradite, axinite, monticellite (Ca Mg - SiO_4), and quartz (Glenn et al., 1988).

In general, where a vein crosses a calcareous horizon, calc-silicates have been deposited. Where the vein crosses a carbonaceous horizon, there are far fewer calc-silicates. Alteration generally does not extend far into the wall rock. Alteration along Stage 1 veins is usually limited to within 1 or 2 m of the vein and is characterized by an inner zone of epidote, chlorite, and axinite and by an outer zone of fine-grained quartz and recrystallized calcite (Glenn et al., 1988).

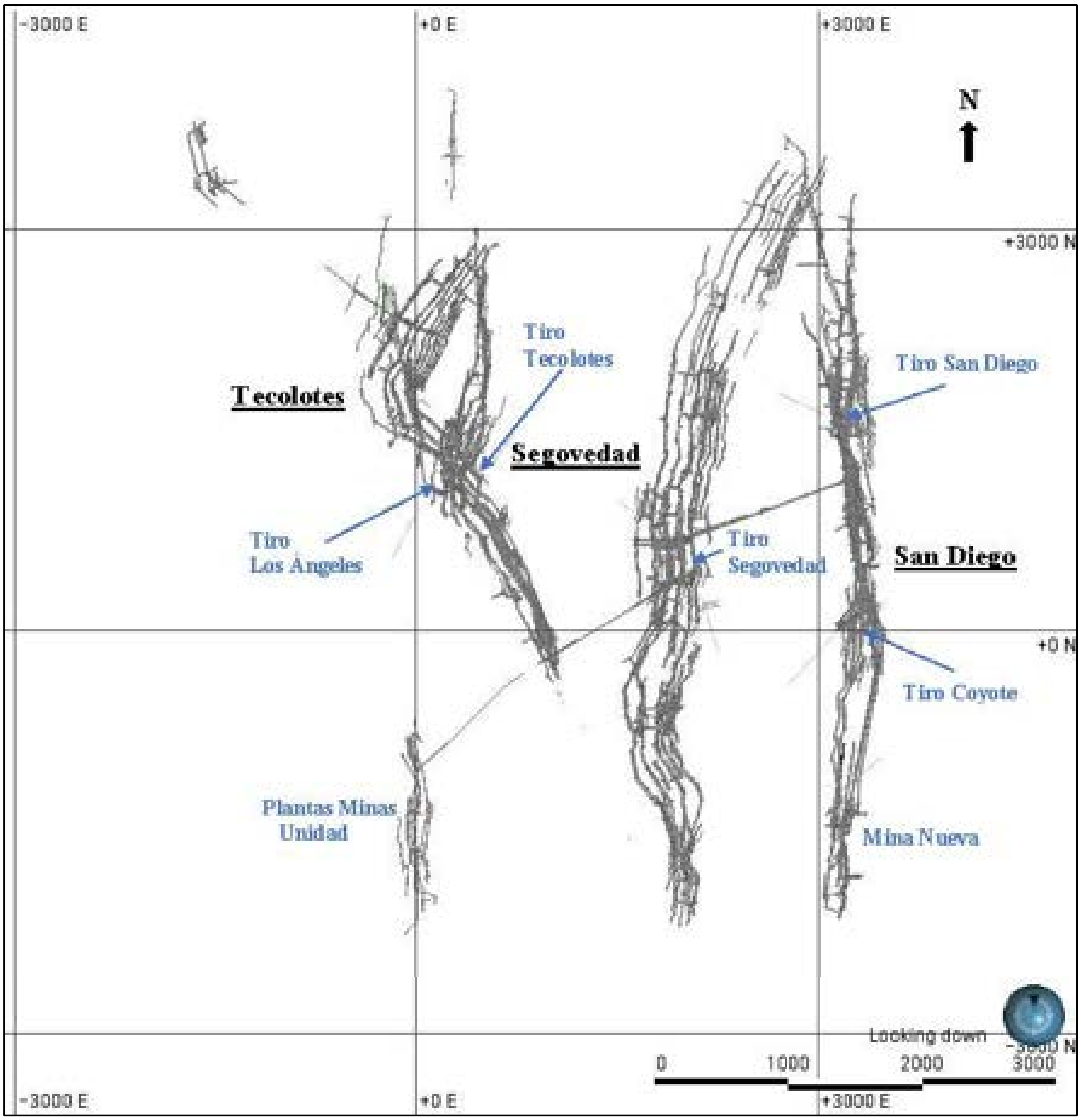
Alteration zones developed along Stage 2 veins are generally much wider than those around Stage 1 veins, sometimes extending up to 25 m into the enclosing rocks. Alteration within 2 or 3 m of Stage 2 veins is pervasive and intense. Rock texture and bedding are destroyed within 1 m of the vein (Figure 6.9).



Source: IMMSA, 2022

Figure 6.9: Property Geology Map

The total extension of the Tecolotes, Segovedad, and San Diego vein systems vary from 3 to 6.5 km along strike (Figure 6.10), and the vertical extension of the shoots have a vertical extension of up to 600 m in Segovedad, 800 m in San Diego, and 500 m in Tecolotes. Some of the high-grade shoots are open at depth. Figure 6.11 shows the long section of the Loteria Limpia Vein and the extension of the underground workings, reaching up to 900 m vertical extension of the ore shoot that has been exploited.



Source: SRK, 2022

Figure 6.10: Plan View of the Underground Workings in Santa Bárbara

Source: IMMSA, 2021

Figure 6.11: Long Section of Loteria Limpia Vein and Underground Workings

6.2 Mineral Deposit

6.2.1 Type of Deposit

The mineral deposits of Ag-Pb-Zn quartz veins of the Santa Bárbara mining district are hosted in sedimentary rocks of the Cretaceous formed by carbonaceous shales and calcareous siltstones and minor lenses of limestone of the Parral Formation. The hydrothermal solutions, possibly emanating from an intrusive body suspected to be at depth, were introduced into the fracture systems (Scott, 1958). According to the mineralogy of the veins, which includes sphalerite, galena, chalcopyrite, pyrite, and arsenopyrite, the deposit is considered as hypothermal formed at high temperature according to Lindgren’s classification.

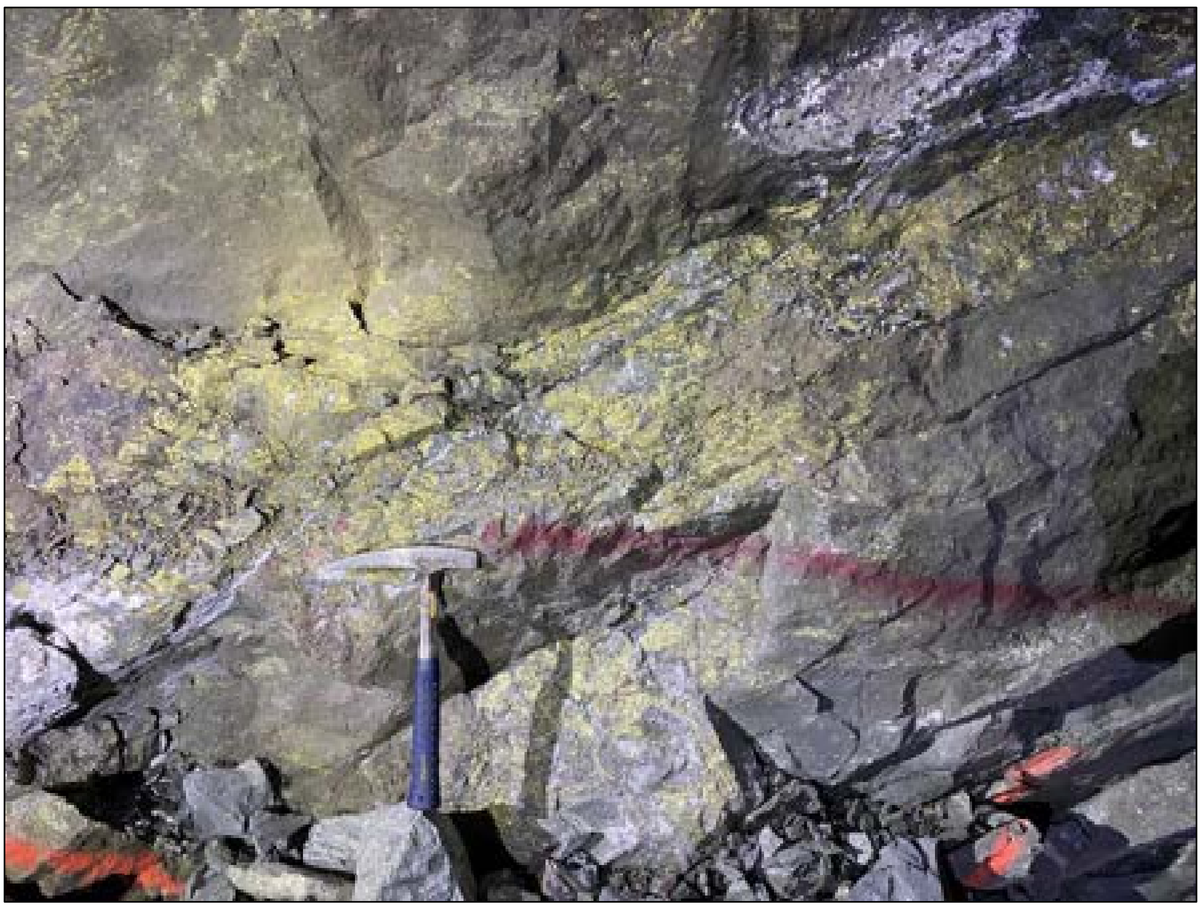
6.2.2 Fissure Filling Site

Fracture filled mineralization (veins) is a characteristic of hypothermal processes. The mineralization found in filling fractures and fissures was formed by the circulation of hydrothermal fluids along the structures affecting the rocks of the Parral Formation, especially in the sandy rocks. The formation of higher-grade ore shoots is associated to areas of intense fracturing associated to zones of structure inflections and cross-cutting structures. Locally, these solutions will partially or totally replace the pre-existing rock, especially when the host rock is more calcareous.

6.2.3 Paragenesis of the Site

There are four main zones within the hydrothermal system:

- Leaching zone: located near the surface where soluble minerals have been leached.
- Oxide zone: limited by local water table which varies from 50 to 200 m deep. The characteristic minerals are malachite, azurite, cuprite, chrysocolla, smithsonite, anglesite, cerussite, limonite, silver, and gold.
- Secondary enrichment zone: located between the lower limits of the water table and the primary sulfide zone. The primary minerals are covellite, chalcocite, bornite, pyrite, and plumbo-jarosite.
- Primary sulfides: sphalerite and marmatite (Zn), galena associated with sphalerite, chalcopyrite (Figure 6.12), silver, and small amounts of tetrahedrite, tennantite, and chalcopyrite (in three forms: compact, disseminated, and included with sphalerite). Scattered pyrite is observed throughout the veins.



Source: SRK, 2021

Figure 6.12: Photography of Chalcopyrite Mineralization in Mina Nueva Zone

7 Exploration

Since early last century, exploration activities have advanced in parallel with the mining operations, attempting to extend the veins and define the continuity of the mineralization at Santa Bárbara. In 2022, the exploration works completed by the Exploration department were focused on Veta San Martin (San Diego) in the Gemelas and Coyote Hilos zones, Veta Hidalgo (Tecolotes) and veta Explorador (Segovedad). Surface drilling at Mina Nueva.

7.1 Exploration Work (Other Than Drilling)

7.1.1 Procedures and Parameters Relating to the Surveys and Investigations

Access to underground workings associated with the long mining history allows the Company to collect geological information via mapping and sampling. The underground workings are currently surveyed with Total Station and historically surveyed using theodolite instruments; this accurately locates the samples and mapping used to develop mine scale models. Maps containing sampling, geology, structural, and mineralization data are created. Historical maps (paper format) are maintained and stored in the mine geology office. It is QP's opinion that the processes in place are well-established and follow generally accepted best practices for survey methods underground.

The QP highlights that all the information to date has not been stored in a single central database, which is considered best practice. The lack of a central database limits the ability to integrate multiple sources of data into a geological model. The QP highlights that there is a limited risk that not all information is used when generating maps and cross-sections or that the process of updating the interpretations can result in a time-consuming process for the geological staff.

In 2022 Santa Barbara started the data digitization using a contractor, who processed all the available drilling and rock sampling information. The data was organized into Excel spreadsheets and imported into Leapfrog Geo software. In 2023, The mine geology team received training in Seequent Leapfrog Geo (And Edge) Software and started the construction of a 3D geological model using the implicit modeling technique in Leapfrog and advanced the construction of the mineralized structure of San Diego. For 2024 Santa Barbara plans to complete the geological models of Segovedad and Tecolotes, to complete block modeling and resource estimation in 2024. At present the QP has done insufficient work to use these as the basis for updated mineral resource estimates, and this work is planned for 202

IMMSA started the implementation of this modern technologies to provide rapid methods to interpret and integrate data in three dimensions. While these methods would provide improved productivity, it is QP's opinion that the mine has demonstrated sufficient quality in the survey process to accurately reflect the geology, which is supported by the long mining history of the deposit.

7.1.2 Sampling Methods and Sample Quality

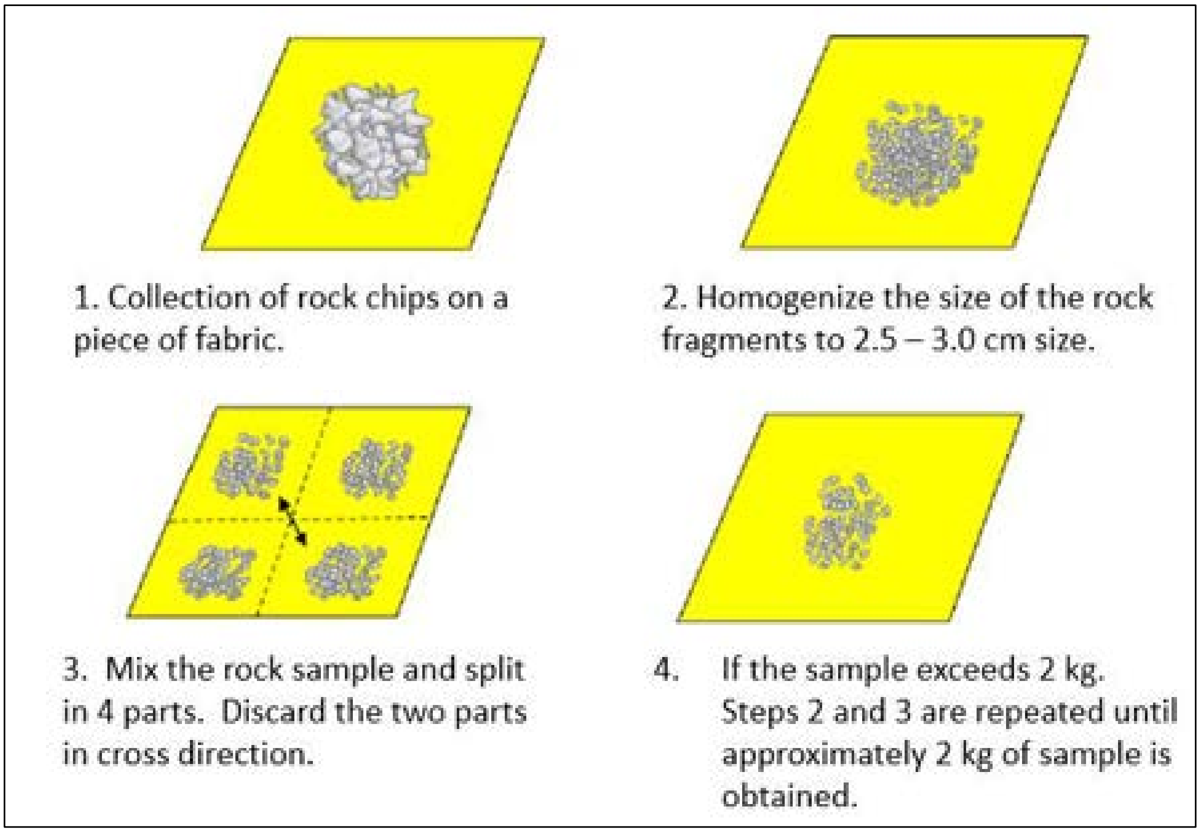
Mine Channel/Rock Chip Sampling

In 2023, IMMSA collected rock samples in Segovedad (1,250), Tecolotes (2,605) and San Diego (1992) respectively.

The rock samples from the underground workings are collected from the underground drift fronts and roofs using hammer and chisel. Sample limits are defined by geologists according to changes in mineralization and lithology and perpendicular to the vein attitude. The rock chips are collected simulating a channel by the geology technicians and assistants. Chip channel sample lengths vary from 0.2 to 1.2 m.

The distance between channels is not systematic and depends on availability of the mine geology personnel. The geologists try to use 5 m spacing between channels along the roof and 3 m spacing along the development as each new face is available.

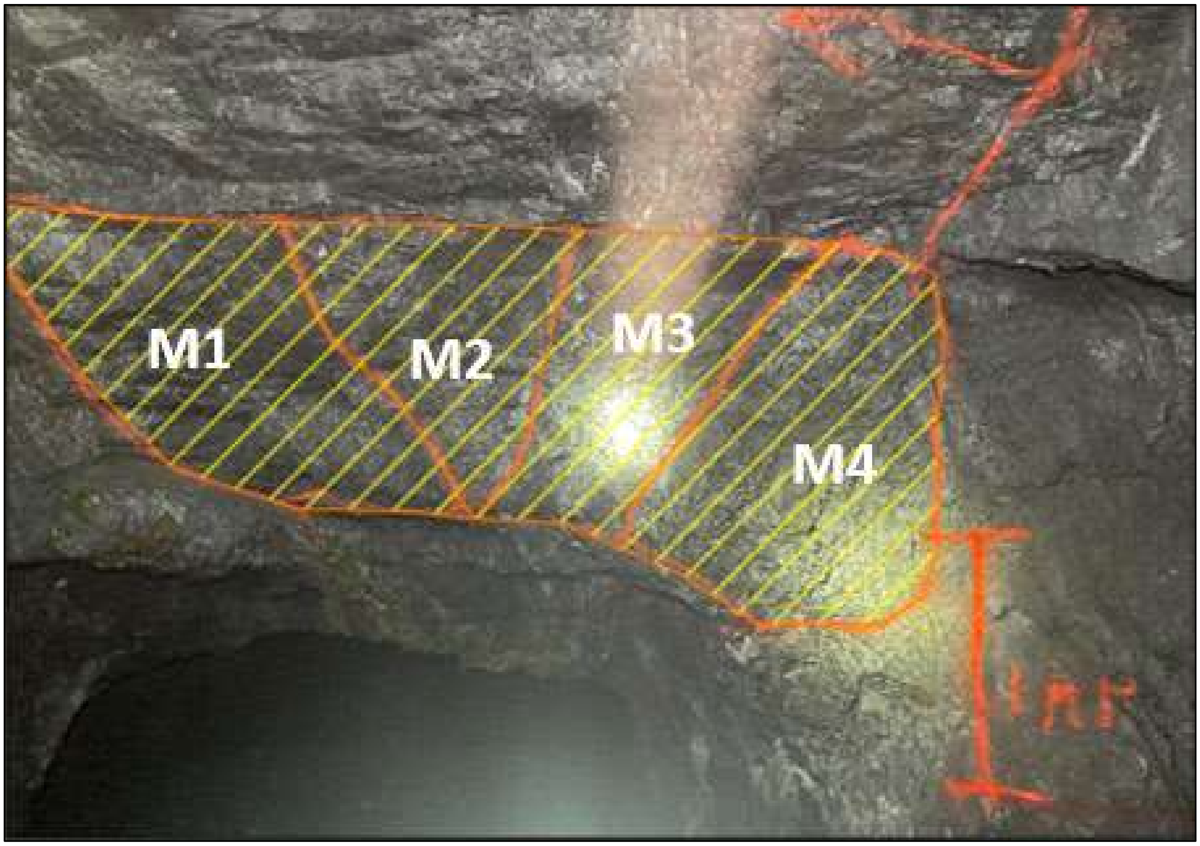
Each rock sample is collected from the channel of approximately 2 centimeters (cm) depth on a piece of fabric disposed in the floor, and then the big pieces of rock are further broken down (using a hammer) to a size of approximately 2.5 to 3.0 cm using a hammer (Figure 7.1). The sample is mixed inside the fabric, split by hand, and then a 2-kg sample is packed in plastic bags, which are labeled and then closed with ties.



Source: IMMSA.,2021

Figure 7.1: Rock Sample Splitting Procedure

In 2022 IMMSA implemented an additional method of rock sampling which consists of collecting chips from the drift fronts or roofs in areas (panels) of homogeneous mineralization/geology characteristics (Figure 7.2) defined by the mine geologist. Each sample (1 to 2 kg) is collected with hammer and chisel from the defined panel. IMMSA is not collecting field duplicates of these samples to evaluate the quality of this sampling methodology. According to IMMSA, this methodology has shown advantages for the short-term planning of the operation.

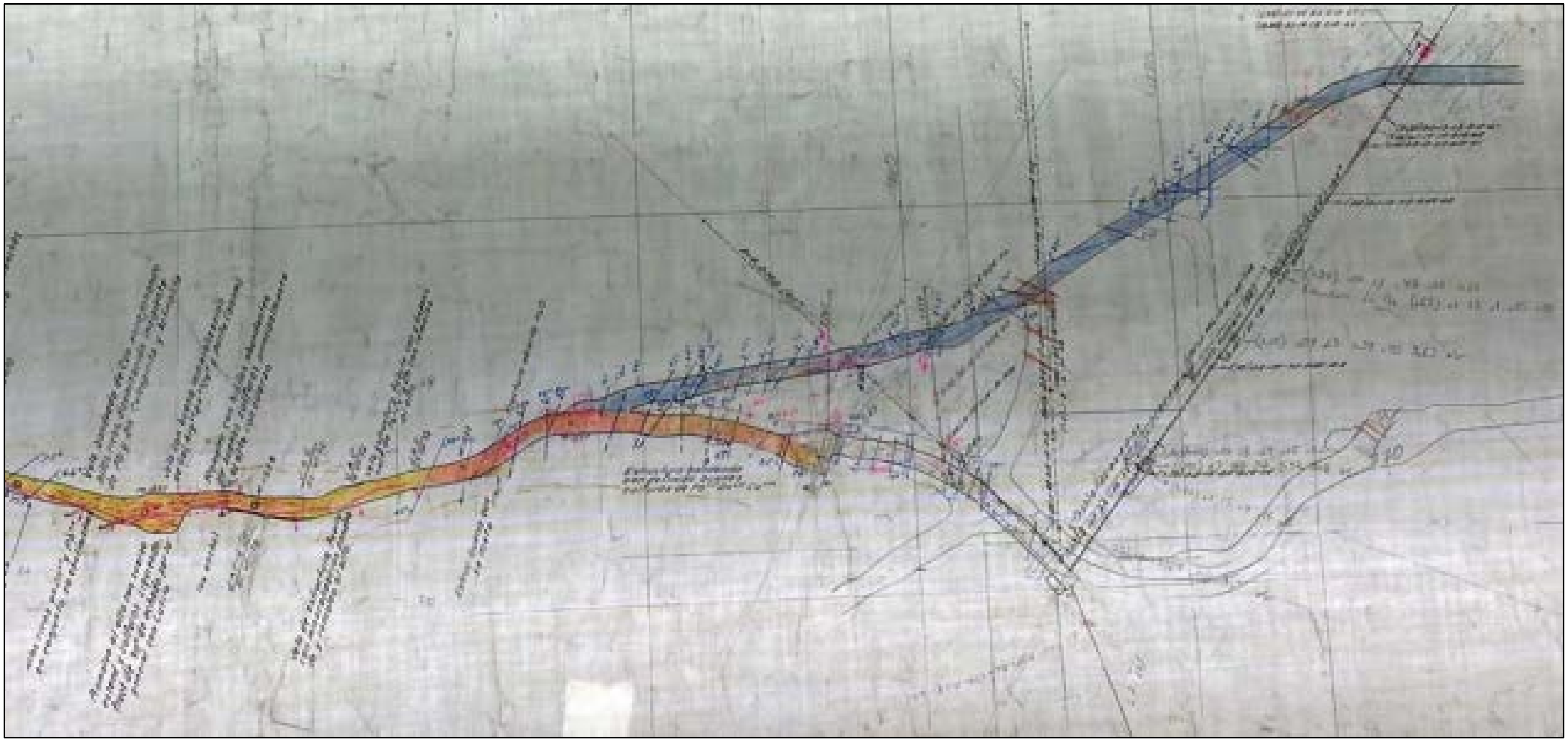


Source: IMMSA.,2022

Figure 7.2: Chip-Panel Rock Sampling (Samples marked as M1, M2, M3 and M4)

In the QP's opinion, the rock channel sampling procedures are not in-line with industry best practices. Sampling errors can be introduced due to changes in rock hardness and noncontinuous channel sampling, which may result in some degree of bias (positive or negative). The lack of an adequate rock sampling protocol likely results in lower-quality rock sampling. The chip-panel samples can provide a more detailed understanding of the mineralization behavior, but the lack of a QA/QC protocol limits the use of the QP to evaluate the quality of this procedure.

The sample channels and chip-panels are located using compass and tape from surveyed points located along the underground workings. The mine topography maps provided by the mine topography department are used to draw the geology, structure, and rock sampling lines (horizontal projection). This information from the field is translated onto paper maps (Figure 7.3) and is stored in the geology office. This information has not been digitized in 3D software and therefore has limited use for construction of future models.



Source: IMMSA, 2021

Figure 7.3: Example of Underground Geological Paper Map of Mina Segovedad (Plan View)

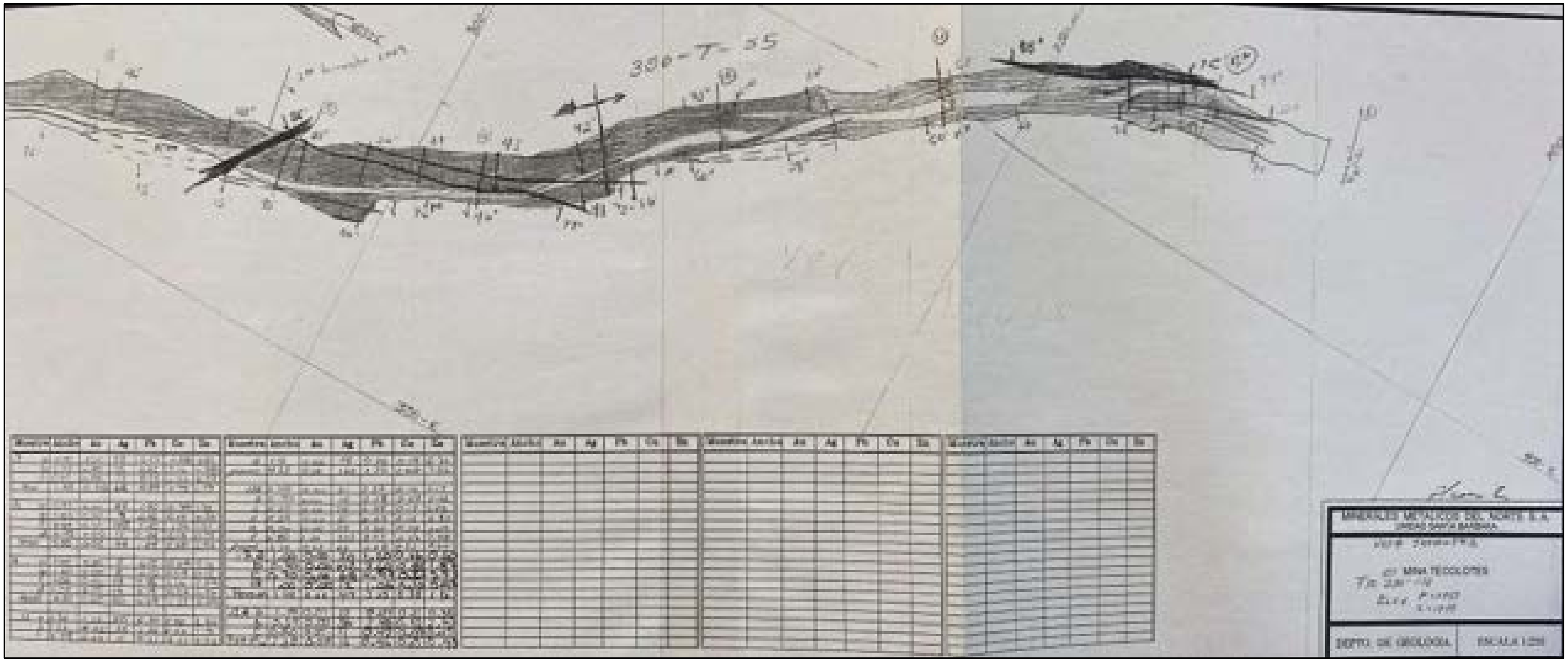
The geologists complete the geological description of the channel. The samples are described including the following information:

- Lithology
- Alteration (type, intensity, and mineralogy)
- Mineralization (styles, intensity, and mineralogy)
- Structures (description, orientation, and mineralogy)

The samples collected by the geology technicians are delivered to a Company geologist, who reviews and delivers the samples to the on-site laboratory to provide a chain of custody. Internal quality controls are not included in the sample stream by Santa Bárbara's geologists.

All the chip channel samples collected by the operation are sent to the internal on-site laboratory for assaying, where assaying is completed as described in Section 8.

Once the geology staff receives the assay results, the results are transferred to the maps by hand (Figure 7.4) and recently to Excel spreadsheets. This information and the historical assay results received from the internal laboratory are not in digital format.



Source: IMMSA, 2021

Figure 7.4: Example of Underground Sampling and Map of Mina Tecolotes (Plan View)

For historical sampling, the assays results were received in paper tables, and the results were transcribed directly onto the maps and the resources/reserves supporting documents. During the process of defining the current mineral resource, the QP visited the mine three times between June 2021 and November 2022 and reviewed the paper sheets to validate the results and positioning of the assays. The QP determined that the results are appropriate for use in the estimation process.

7.1.3 Information About the Area Covered

Exploration is generally centered around the mined areas and their extensions, which cover an area of approximately 60 km^2. All the underground workings and stopes have been sampled for decades, but there is not a unique register of all the samples collected. As the stope is advanced vertically, a new set of samples is collected from the ceiling of the stope at a 5 m spacing.

7.1.4 Significant Results and Interpretation

The sampling methods and sample quality are not in-line with best practices and there is not a QA/QC protocol; however, the QP considers that the results are representative of the geological units and mineralization controls. The results from channel sampling are acceptable to support the geological interpretations and estimation of mineral resources at Santa Bárbara. It is the QP's opinion that the lack of control on the samples limits the ability to estimate the mineral resources to the highest levels of confidence (Measured), and that changes to the protocols would be required to improve the process.

Channel sampling is also used for mine planning (medium and short term). In SRK's opinion, based on the long mining history of Santa Bárbara and reconciliation of planned to actual production, the quality of these samples is acceptable. However, the QP recommends reviewing the sampling protocols and implementing QA/QC processes.

7.2 Exploration Drilling

The drilling in Santa Bárbara has been documented since the last century. Historically, sludge sampling was also conducted, but due to poor sample quality and high potential for contamination, these should have not been used to support resource estimation.

Since 1950, core sampling was the preferred method. About 5,000 drillholes were completed prior to 2001, and at least 2,000 drillholes have been completed since 2001.There is no register that summarizes the total quantity of drilling completed at Santa Bárbara, so these drillhole numbers are approximate.

7.2.1 Drilling Type and Extent

The operation has completed at least 7,000 drillholes since the last century, but the actual number is not clear due to lack of a historical drilling register.

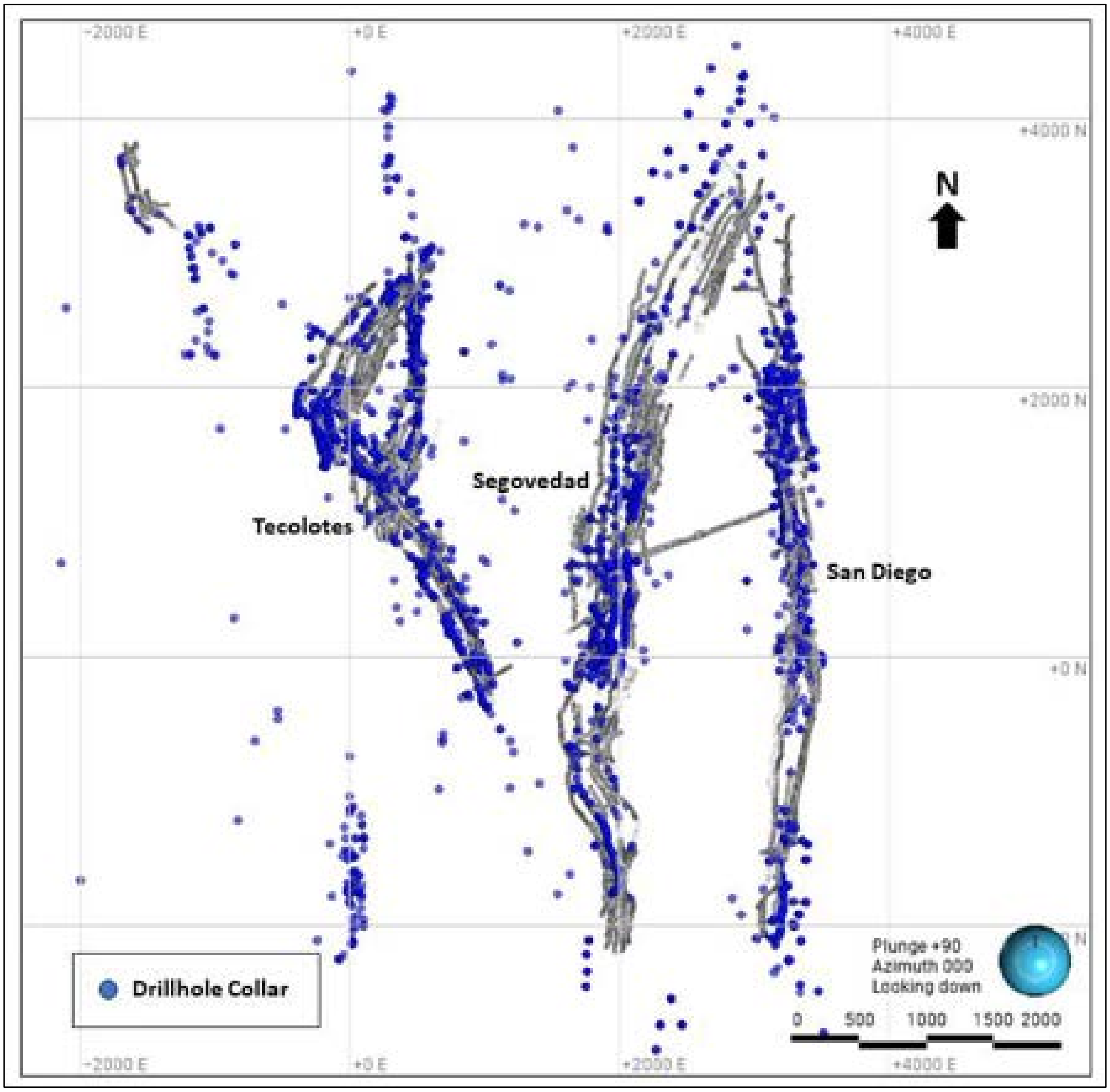
Most of the drilling completed by the operation is in TT46, NQ, and BQ core sizes and has not been downhole surveyed. The majority of the drillholes are more than 100 m in length, including a considerable number of drillholes of more than 200 m, which have an associated drillhole deviation that is not being considered, resulting in location errors of the drillhole intercepts and reserve panels defined with the drilling, representing a moderate to high risk level.

A summary of the last 5 years of drilling is as follows:

- Mine exploration in 2015 included 5,977 m of surface drilling and 16,609 m from underground stations, which increased estimates by 1,135,750 tonnes.
- For 2016, mine exploration included 14,300 m from underground stations, which increased estimates by 1,416,756 tonnes.
- For 2017, mine exploration included 2,571 m of surface drilling and 11,838 m from underground stations, which increased estimates by 613,872 tonnes.
- For 2018, 10,769 meters from underground stations were drilled, which increased estimates by 418,345 tonnes.
- For 2019, 11,070 m of surface drilling and 208 m from the underground stations were achieved, which increased estimates by 2,160,062 tonnes.
- In 2020, 19,873 m from underground stations were drilled, which increased estimates by 2,606,888 tonnes.
- In 2021, 7,905 m of underground and surface drilling were completed.
- In 2022, 15,321 m of underground and surface drilling were completed, including 6,967 m of the Mine Geology Department and 8,354 m drilled by the Exploration department (Contractor Tecmin).
- From January to November 7, 2023, the geology mine department completed 6,836 drillholes in Santa Barbara; additionally, the contractor (Tecmin) drilled 17,287 m.

IMMSA completed in 2023 most of the historical drilling data capture and digitizing and is now working in the construction of the 3D geological model. A total of 2,507 drillholes (215,814 m), including 26 drillhole (8,349 m) of 2023, have been digitized,

Figure 7.5 shows the location of the collars of the drilling completed at Santa Barbara.

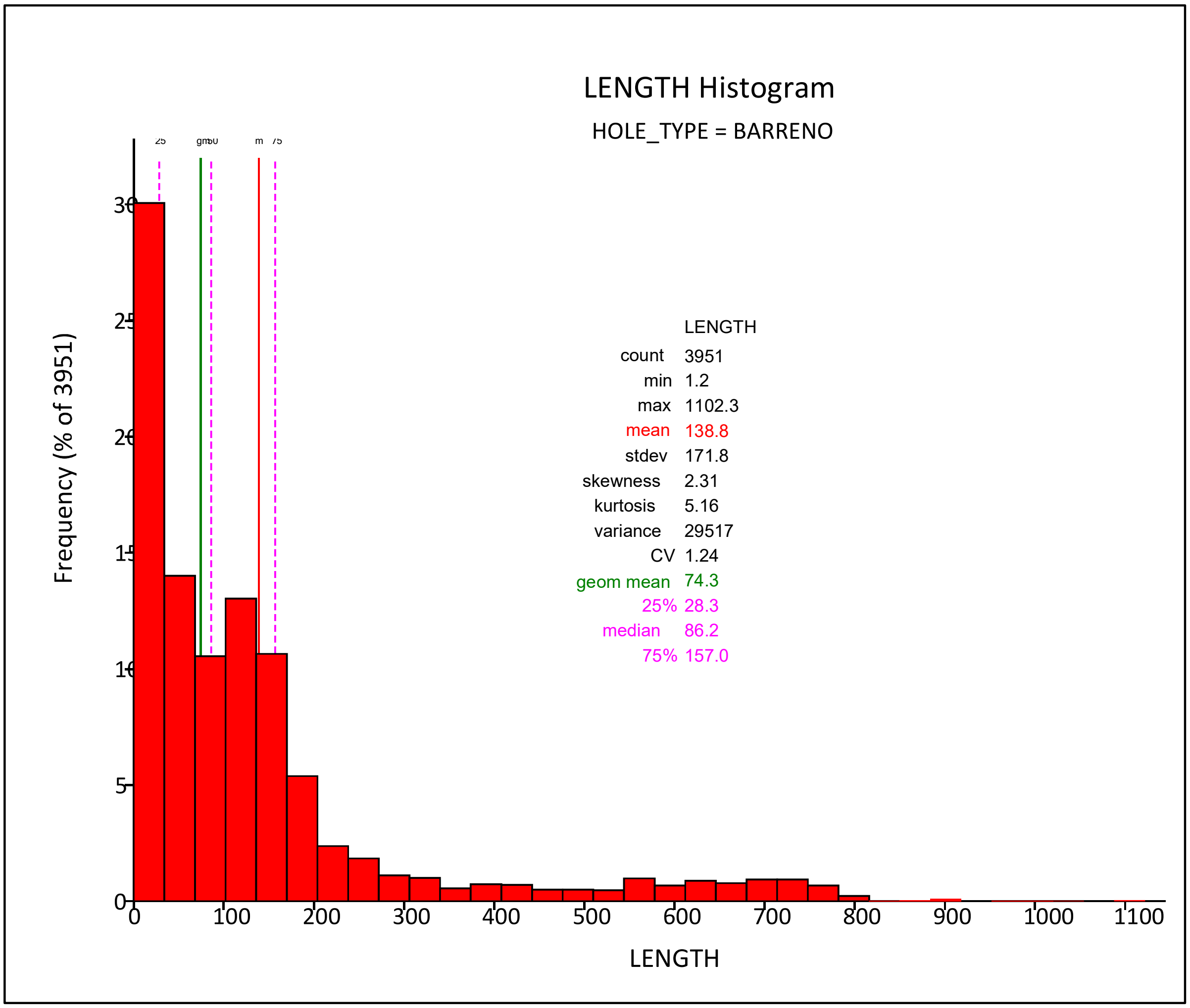


Source: IMMSA, 2023

Figure 7.5: Location of Drillhole Collars Completed at Santa Bárbara

Figure 7.6 shows the histogram of the total length of the updated database of drillholes. The average length is 138.8 m, with at least 75% of the drillholes longer than 28 m. At least 25% of the drillholes have lengths more than 157 m. Most of the drilling completed by the Mine Geology department, including the 2023 campaign, lacks downhole surveys. Santa Barbara have completed a detailed review of the digitized data to check the adequacy and identify possible errors.

The lack of downhole surveys results in uncertainty related to the location of the drillhole intercepts and the definition of the reserve panels based on these intercepts. In SRK's opinion, this represents a moderate risk level. It is the QP's opinion that this risk is limited, as the drillholes defining the Indicated portion of the deposit are relatively close to the current underground workings and therefore will have limited deviation. Impact on Inferred resources for longer holes will likely have slightly higher risk. The QP has considered this risk during the classification process that reflect the levels of confidence.



Source: SRK, 2023

Figure 7.6: Histogram of Drillhole Length (1950 to 2023)

Recent drillholes completed by the contractor (Tecmin) including the 2023 campaign, have deviation measurements taken every 50 m along the drillhole, which is considered appropriate and accounts for lower risk than the historical drillholes completed by Santa Barbara.

Underground diamond drilling completed by the mine geology department includes fan drilling in variable grid spacing due to local variations in the position of the mineralization. The drillholes are designed to perpendicularly intercept the vein.

On completion of each drillhole, the collar location is surveyed. The following information is recorded on paper drill log sheets:

- Hole number, with collar location, length, planned dip, and azimuth
- Start and completion dates of drilling
- Collar location (X, Y, and Z coordinates)

- Core lengths and recoveries
- Geological and mineralogical descriptions
- Assay results

The mine geology drillholes are used in conjunction with the surface exploration drillholes in the mineral resource estimation.

The location of the all the historical collars and drilling traces are not registered in a unique location, paper map, or digital format. The historical data that was not digitized in 2022 and 2023, can be found in individual paper maps and sections.

Collar locations are surveyed by Total Station instruments. Historically, different coordinate systems have been used by SCC; these were converted into the current coordinate system during the creation of the new database used for geological modeling in Leapfrog.

7.2.2 Drilling, Sampling, or Recovery Factors

Mine Geology Drilling Programs

The mine geologists complete the core logging in paper formats according to defined protocols, but there is historical information that includes different logging coding or is not logged at all. A data capture protocol that unifies criteria for all the previous and recent drilling and rock sampling will be needed. The current logging includes the lithological, structural, alteration, and mineralization characteristics. The sample limits are defined according to changes in geology and mineralization. Only the mineralized zones and a halo of 1 to 2 m around the mineralized zones are sampled. It is the QP's opinion that the limited sampling around the mineralization is less than ideal, and further sampling into the hanging wall and footwall contacts is recommended to ensure all mineralization is captured.

A core splitter or an electrical saw are used to cut the core (Figure 7.7), and a half of the core is collected in plastic bags and sent to the internal laboratory for assaying (gold, silver, copper, lead, and zinc). The remaining half core is stored at the operation complex for 5 to 10 years and then discarded (Figure 7.8). Small core pieces (10 to 20 cm) from the drillhole intervals that have been described as non-mineralized rock are stored (Figure 7.9). The remaining core is discarded after logging.

Source: SRK, 2021

Figure 7.7: Core Splitter and Electrical Saw used at Santa Bárbara

Source: SRK, 2021

Figure 7.8: Santa Bárbara Core Box

Half of the core that remains after sampling is stored in the Santa Bárbara operation. The core is discarded after several years, and not all of the historical drilling core is conserved in the operation, which has limited the ability to undertake a detailed re-assay program. The internal laboratory conserves the pulps for 1 month after assaying and then discards the samples.

Source: SRK, 2021

Figure 7.9: Pieces of Core of Non-Mineralized Drilling Intervals

There is no QA/QC protocol for the historical drilling completed by the operation (mine geology) staff.

Exploration Department Drilling (Tecmin)

The contractor has performed the surface and underground drilling since 2019, including all exploration drilling. This contractor has worked in Tecolotes, Segovedad, and San Diego, completing 125 drillholes (53,000 m) before 2022 and 8,524 in 2022 (January – November 2022). From January to November 2023, Tecmin completed 17,287 m of drilling. This underground and surface drilling includes downhole surveying every 50 m.

For these activities, the IMMSA's exploration department has implemented a QA/QC protocol, which is run by Tecmin personnel, that includes the use of blanks, duplicates, and certified reference materials checks. SRK considers that the QA/QC protocols implemented by the exploration department are in-line with best practices.

IMMSA's exploration department has implemented a QA/QC protocol that includes the use of blanks, duplicates, and certified reference materials checks, which will require a detailed review by SRK to evaluate its adequacy.

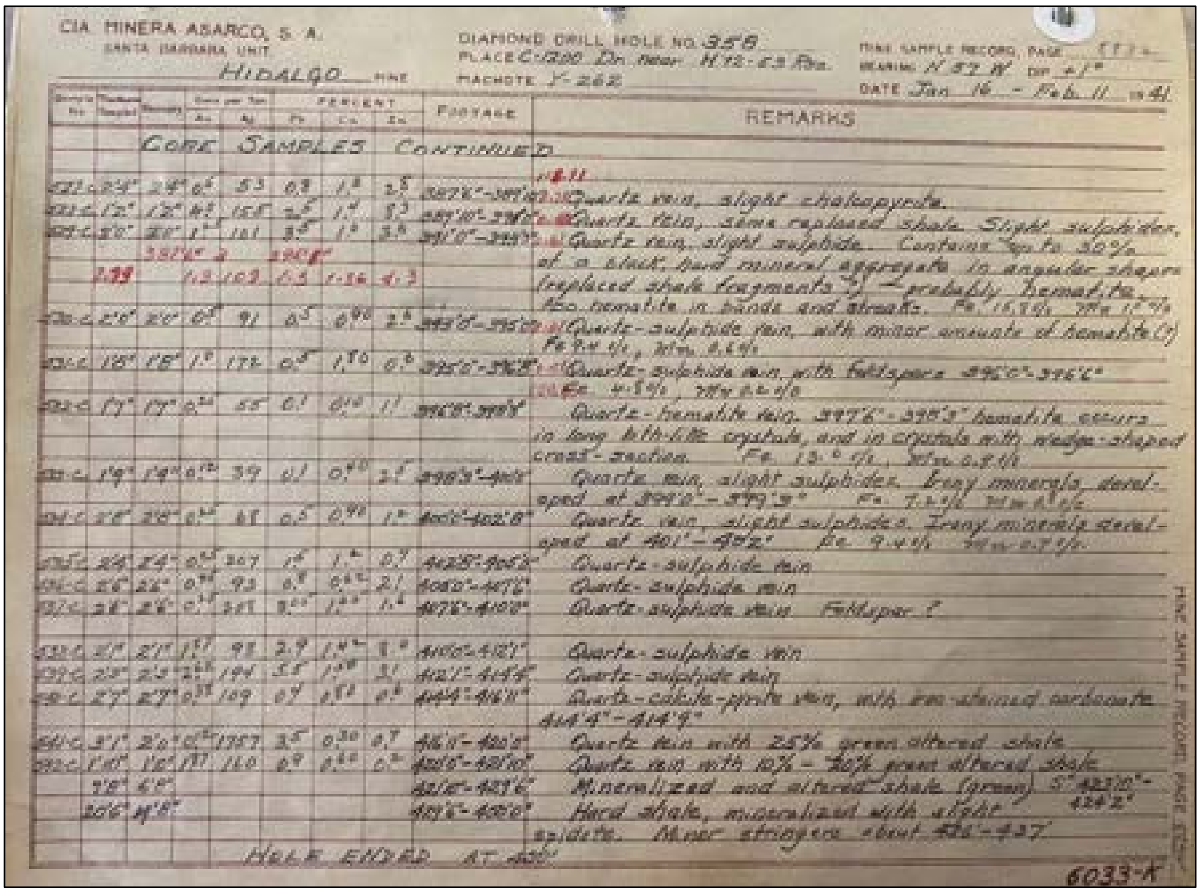
Once the diamond drilling has been carried out and the core has been recovered, the core boxes are transported to the logging facility where the core is logged and sampled.

Once at the logging facility, the core boxes are placed in order on logging tables with the run blocks (from-to) clearly visible. The core is then washed. The core is then logged with the following features recorded: structures, mineralization, alteration, rock type, contacts, and clasts. Sample intervals are marked.

Geotechnical information, such as recovery and rock quality designation (RQD), are also recorded, as these data are needed to assess rock quality and determine mining widths, pillars, and mine support programs.

The logging formats include the zinc, lead, copper, silver, and gold grades. Although part of this information was digitized in Excel, previous problems with Santa Bárbara's servers resulted in the loss of information, and only a small part of this digitized information is currently available in Excel format.

The drillhole information, core logging, and sampling is recorded in paper logs (Figure 7.10). The drilling historical information is kept as paper logs in binders located in the Santa Bárbara geology office.



Source: IMMSA, 2021

Figure 7.10: Diamond Drilling Core Logging Sheets as Used by Santa Bárbara for Historical Drilling

Santa Bárbara does not have a database or a geological data management protocol, which makes it difficult to consolidate and appropriately manage the information. In 2021, Santa Barbara started the digitization of the historical drilling, mapping, and sampling information and generating of a unique database. As of December 2023, most of the available information was digitized in Excel spreadsheets and imported into Leapfrog Geo software.

Tecmin photographs all core boxes before and after sampling (Figure 7.11). Tecmin takes specific gravity measurements. The samples are selected according to changes of lithology and mineralization characteristics. The specific measurement results have not been used for the resource estimation because these measurements are not representative of all the areas of the deposit.

Source: IMMSA, 2021

Figure 7.11: Photography of Drill Core Box

7.2.3 Drilling Results and Interpretation

The historical drilling information, which supports most of Santa Bárbara's mineral resources, has been completed without proper QA/QC protocol and downhole survey measurements. These practices are not in-line with industry best practices and result in errors in the location of the mineralization intersection and quality of the samples and assays.

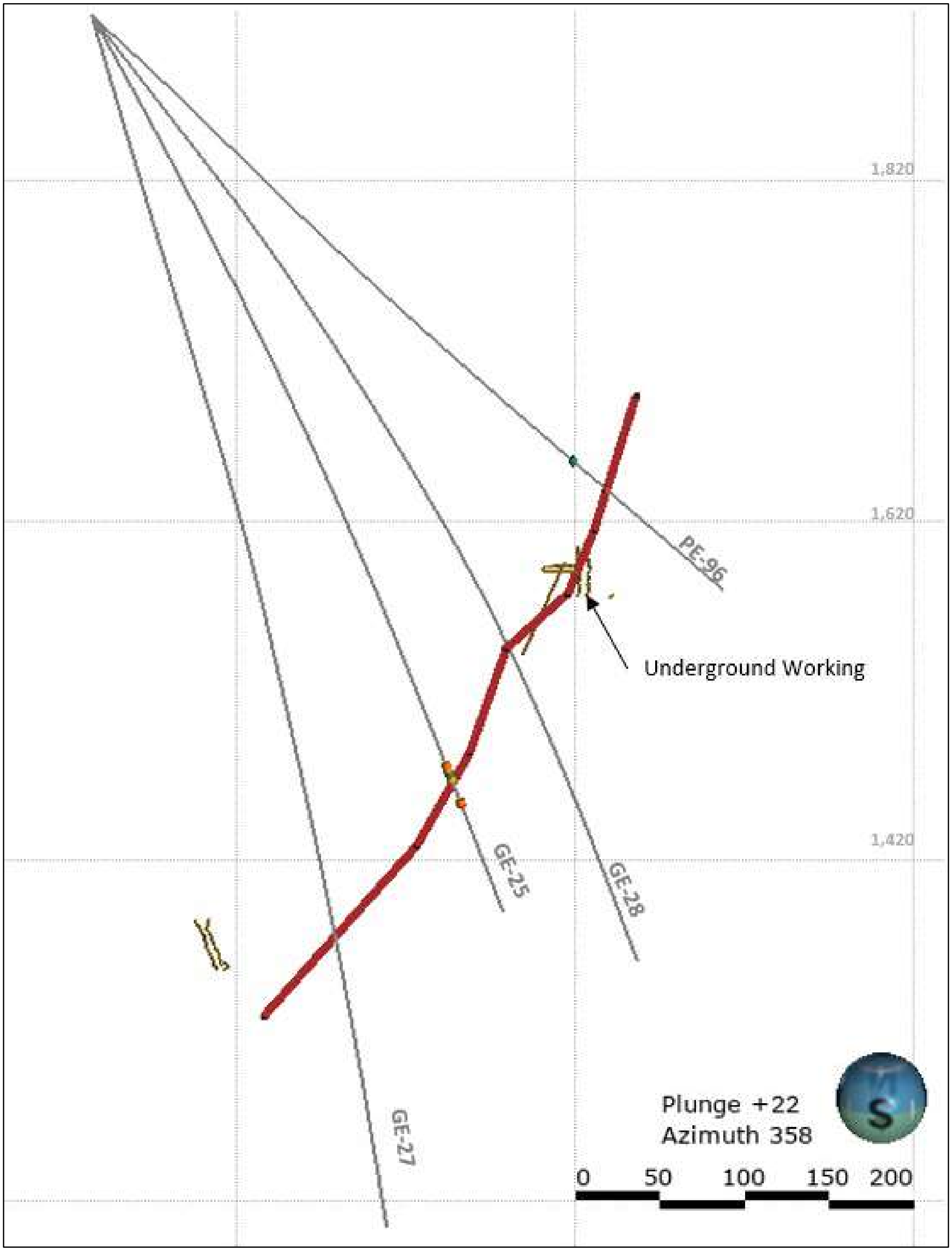
In SRK's opinion, the lack of historical drilling downhole surveys represents a moderate risk due to location errors of mineralized intercepts in areas unsupported by nearby underground workings.

According to Santa Bárbara, in general the core recovery is above 90%, except in some areas of faulting. Recent drilling has shown core recovery average above 95% and locally low recoveries associated to weathering zone and faulting. Lower recoveries observed in historical data may be due to drilling practices or drilling equipment in use at the time.

Historical and recent drilling campaigns, including the 2022 campaign, have been carried out using NQ, BQ, and TT46 sized core. In 2023 Santa Barbara started using mostly NQ core size for the mine geology drilling and BQ size when necessary. Recent drilling by Tecmin uses HQ or NQ sized core.

Mine operations and Tecmin personnel perform the drilling from underground chambers and surface drill stations. This drilling is completed in fan formations from underground drill stations.

Drillholes are orientated as perpendicular to the mineralization controls (stratigraphy and veins) as possible. In some cases, the angle of the intersection to the mineralization can be shallow, but Santa Bárbara tries to minimize the number of cases. Figure 7.12 shows the intersection angles relative to the interpreted geology in a vertical section, including the completed drilling. Santa Bárbara's geology and distribution of mineralization is irregular, and the variable drilling inclination is acceptable considering the geology and mineralization of the deposit.



Source: SRK, 2021

Figure 7.12: Example of Vein Interpretation in a Vertical Section

Core is logged into predefined logging sheets to ensure consistency in the type of information collected across all holes. The information is then combined into workbooks which store the information for each individual borehole.

This data is combined with channel sampling and geological interpretations based on underground workings to update plans and vertical sections on either paper maps or in AutoCAD.

The variability of the mineralization that characterizes Santa Bárbara's skarn and veins deposit is appropriately interpreted using the different sources of information. SRK relied upon reconciliation of the planned vs. actual grades and tonnes mined to evaluate the quality of drilling data. Based on the reconciliation and the long history of mining at Santa Bárbara, it is SRK's opinion that the drilling and sampling are acceptable.

7.3 Hydrogeology

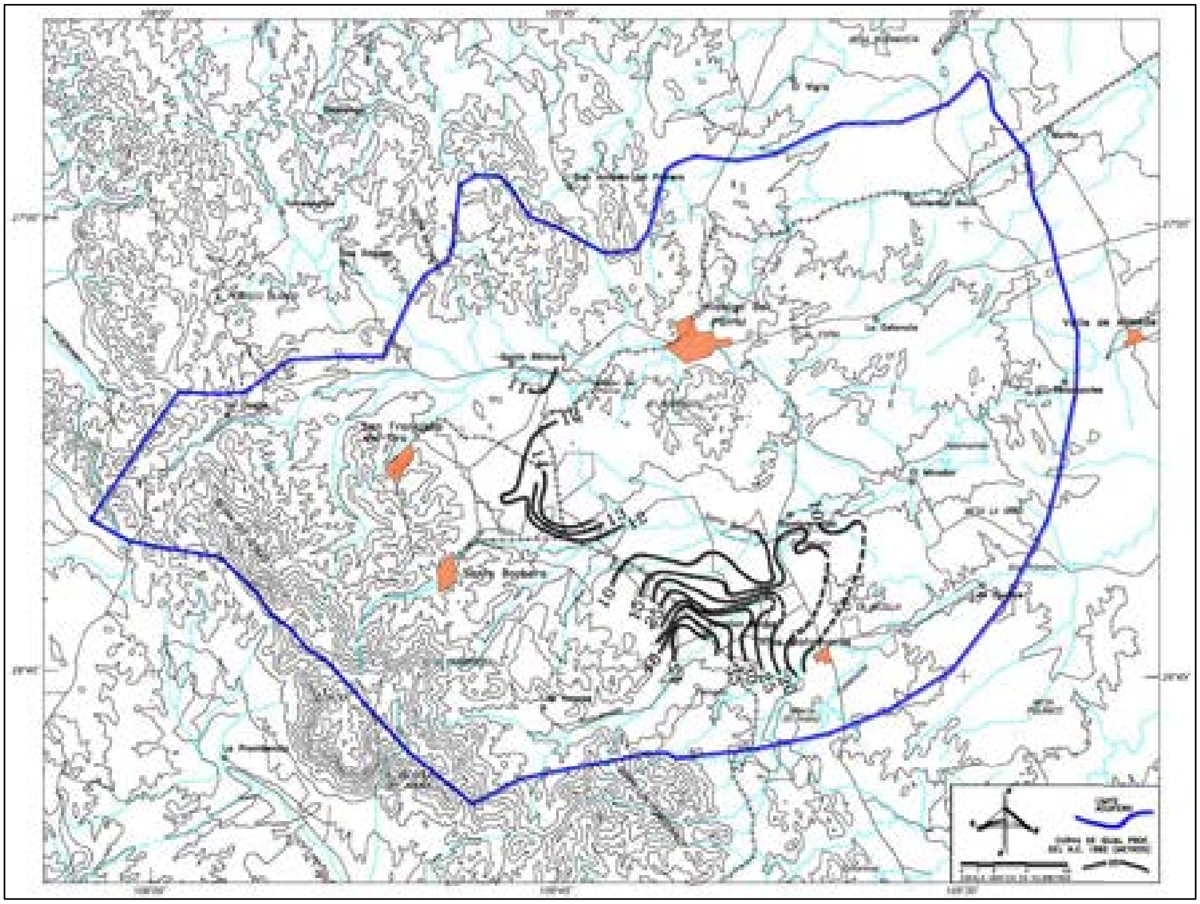
The following information is summarized from the report "Actualización de la Disponibilidad Media Annual de Agua en el Acuífero Parral Valle del Verano (0834), Estado de Chihuahua" prepared by Conagua (Comision Nacioal del Agua), Ciudad de México, 2020.

Lithological units can be grouped into hydro-stratigraphic units based on permeability. Pre-tertiary rocks (limestone, shale, and slate) have low permeability and wide distribution. The limestone is interbedded with shale, which reduces its permeability.

Tertiary rocks (rhyolites, andesites, basalts, and tuffs) generally have low permeability, although the presence of faults and fractures can significantly increase the permeability.

Quaternary rocks composed of gravel, sand, silt, and clay generally have good permeability and form good aquifers if sufficiently thick.

A study conducted in 1982 showed static levels depths of less than 10 m near the confluence of the Roncesvalles Stream and the Santa Bárbara River. Depths greater than 40 m occur towards the south of the basin in the vicinity of the Roncesvalles hacienda. The depths gradually decreased 10 m towards the east and near Villa de Matamoros and to the north and northeast directions along the Santa Bárbara River. Further north of the Santa Bárbara River, depths of the order of 12 m were found, as shown in Figure 7.13.



Source: CONAGUA, 2020

Figure 7.13: Depth of Static Level, 1982

In the 1982 study, groundwater extraction was indirectly calculated, resulting in 19.8 cubic hectometers (hm^3) per year being extracted, of which 6.8 hm^3/year are pumped from the mines, and the remaining 13 hm^3/year are extracted from the aquifer.

The aquifer was in equilibrium since 1982, and drawdowns were observed due to lower mining production.

The average annual total recharge, calculated as the sum of the natural recharge (23.8 hm^3/year) plus the induced recharge (2.98 hm^3/year), gives a value of 26.7 hm^3/year.

For this aquifer, the volume of groundwater extraction is 60,851,836 m^3/year, which is reported by the Public Registry of Water Rights (REPDA) of the Subdirección General de Administración del Agua, as of the cut-off date of February 20, 2020.

The availability of groundwater constitutes the average annual volume of groundwater available in an aquifer, which users will have the right to exploit, use, or take advantage of, in addition to the extraction already under concession and the committed natural discharge, without endangering the ecosystems. The result indicates that there is no available volume to grant additional concessions.

From the hydrological environment, locally, there are leaks due to different types of aqueous bodies, such as Rio Santa Bárbara, the Vacas Stream, and the Tecolotes Stream; these cross the mineralized *veins on the surface and serve as conduits inside the mines. Another important element is the fracture systems after mineralization that serve as a water conduit; these systems are northeast-southwest and east-west. This phenomenon fills cavities and circulates through mining works; however, this is not always the case, as it can be found occupying the crevices (pores and cracks) of the soil, the rocky substrate, or the unconsolidated sediment, which acts like a sponge. As indicated above, in the mines, the underground water can be found in faults, old holes filled with water, and leaks either by crossing streams or being very close to aquifers.*

In Santa Bárbara's study area, a lithological unit zone has been detected with physical properties to store water due to the stratification planes and the interstices of the rock. Since there is an alternation of shale and clayey shale as well as some basalt flows, this makes the rock porous; this zone is located to the north of the zone (in the area known as the Franqueño) and at a depth of 0 to 200 m.

7.4 Geotechnical Data, Testing, and Analysis

During 2023, SRK conducted three geotechnical site visits to Santa Barbara to support the underground geotechnical assessment for reserves certification and to provide operational support. The following sections contain a summary of relevant information and recommendations for the geotechnical mine stability that are largely based on SRK's site visits.

Geotechnical Data

A persistent, shallow dipping bedding was observed in the shale country rock throughout the mines. The bedding layers had a typical spacing of approximately 19 cm but were observed to range between 30 cm and 2 cm. Ground conditions in the shale were generally observed to be good, frequently with calcite infilling. Skarn ore veins generally had good quality ground conditions, but some lower quality, oxidized areas were observed. Areas of intense foliation and difficult ground conditions were seen to be influenced by local folding and faulting.

A 3D brittle-fault model needs to be established for each mine within Santa Barbara. These models need to be developed and interpreted using structural data from mapping, lineation models, and drillhole data. SRK understands that the geology department routinely undertakes geological-structural mapping of current development, which is usually presented in two-dimensional (2D) drawings. The development of a major structural model needs to integrate this mapping information. Observations suggest strong structural control in several areas of the mine related to the presence of major folds and pervasive folding. Structural integration with the lithology is highly recommended, correlating mineralization trends with interpreted structural trends and other supporting orientation data. Also, a level of confidence needs to be assigned to the structural geology model for use in geotechnical design work and ground support assessment.

There is no integration of the lithology models or mapped structures by IMMSA's geology department into the previous design studies completed to date, including design stability analyses and ground support design.

Structural domains have not been defined for Santa Barbara.

Laboratory test results are very limited; empirical estimations from indirect uncalibrated strength measurements (e.g., point load test (PLT) and Schmidt hammer) were used in previous studies. The response of intact rock under loading conditions needs to be assessed through a comprehensive laboratory testing campaign to provide insight into the overall rock mass behavior. The following tests need to be undertaken: Uniaxial compressive strength (UCS), elastic modulus measurement (E), triaxial compressive strength (TCS) tests, Brazilian tensile tests (BTS), and direct shear of discontinuities (DTS).

A 3D geotechnical model is not available at Santa Barbara. This model is required to assess variations in geotechnical parameters within the rock mass and constitutes the basis for designing excavations and rock reinforcement.

Stress measurements have not been undertaken at Santa Barbara to date.

Ground Support Practices

There is no ground support performance data collected to date. Aspects of interaction between rock bolts, bonding agent, and the rock mass or friction capacity of anchors in different ground conditions can be investigated with pull tests.

Since ground support highly depends on the quality of its installation; IMMSA should define QA/QC procedures and standards for the installation of ground support are critical to prevent fall of ground (FOG).

The eight-foot length split sets used at Santa Barbara are generally not suitable for large spans and wedge potential. Santa Barbara will likely need to implement longer support such as cable bolts for areas that are determined to be at risk for wedge failures. Santa Barbara should implement a ground support strategy to mitigate wedge failure risk in wide spans. Depending on previous results, this may be an increase of support (cable bolts) or kinematic assessment above a certain span width.

Geotechnical Monitoring Program

A robust monitoring system is required to assess FOG risks. Once FOG controls have been implemented, monitoring systems are required to assess the performance of these controls and to ensure that if changes in conditions occur, they are detected in time and corrective action is taken.

Seismic monitoring has not been undertaken at Santa Barbara to date.

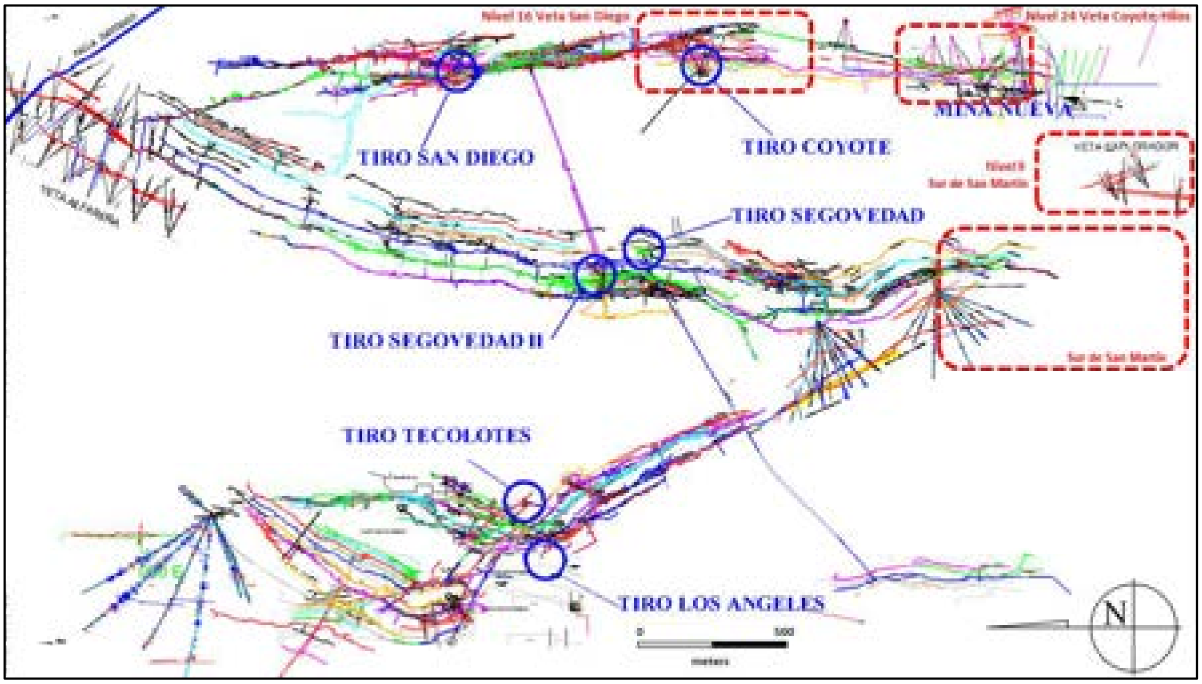
Mining Method and Operational Considerations

The mining methods employed at Santa Barbara, longhole open stoping, AVOCA stoping (a variation of sublevel stoping methodology) and overhand cut and fill:

- The reliability of the geotechnical data inputs into previous designs needs to be assessed. The design acceptance needs to be redefined given the low confidence in the geotechnical model. For example, IMMSA has used a minimum factor of safety (FoS) of 1.2 for pillar design, which can be considered low in comparison with industry standard recommendations, such as Lunder and Pakalnis, 1997 that suggest a minimum FoS of 1.6.

7.5 Exploration Target

For 2024, Santa Bárbara will continue the exploration in areas of extension of the main vein systems in the areas of Veta San Diego, Veta Coyote - Hilos, Veta Explorador (Interior Mina), and Area Sur de San Martin with surface drilling. The map in Figure 7.14 presents the location of the mentioned areas.



Source: IMMSA, 2023

Figure 7.14: Areas of Exploration in Santa Bárbara (Underground and Surface Drilling) – Areas Marked in Red Rectangles

8 Sample Preparation, Analysis, and Security

8.1 Sample Preparation Methods and Quality Control Measures

Trained staff were involved at all stages of the sampling, sample packaging, and sample transportation process. After geological logging and sample selection, the core is split in half longitudinally using an electric core cutter. Core pieces are placed in the cutter machine and cut following the cut line marked by the geologist. The core splitter was used historically. Half of the core was assayed, and the other half was stored in the core box to be available for future assaying or relogging of core.

The sample was placed in plastic bags with its corresponding sample tag and sent to the internal and external laboratories using defined laboratory submission sheets to track the number of samples and batch numbers. Figure 8.1 shows the submission format used by Santa Bárbara (Exploration Department) for the samples sent to the SGS Laboratory (SGS) in Durango. SGS is an independent laboratory to the operation.

SGS

SGS Servicios Minerales – Geoquímica
Formato de recepción de muestras

Para uso del laboratorio
Orden de trabajo núm.: ____________
Fecha de recepción: ____________

Ubicación del Lab. SGS: Durango   En atención a:

Detalles de envío		Detalles de facturación	Igual que datos del reporte ☐
Enviado por:	CARLOS CESAR LEURA TORRES	O. de compra núm.:	Cotización SGS: MX-DU20-050 REV00
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO	Nombre: INDUSTRIAL MINERA MEXICO	RFC: IMM8505281U0
Teléfono:	52(444)1441300 EXT 22324	Nombre de la compañía:	INDUSTRIAL MINERA MEXICO
Email:	carlos.leura@mm.gmexico.com	Teléfono:	
Transporte/núm. guía:		Dirección:	CAMPOS ELISEOS 400 OFNA. 1102, LOMAS DE CHAPULTEPEC
País de origen de la muestra:	MEXICO	Ciudad: DEL. MIGUEL HIDALGO	Provincia/Estado: CD. DE MEXICO
Instrucciones para reporte		País: MEXICO	Código Postal: 11000
Reportar a:	ARCADIO MARIN MARTINEZ	Email 1:	
Nombre de la compañía:	INDUSTRIAL MINERA MEXICO	Email 2:	
Teléfono:	52(444)1441300 EXT 22323	**Destino de la muestra**	
Dirección:	PLANTA DE COBRE, FRACC. MORALES.	Rechazos	Pulpas
Ciudad: SAN LUIS POTOSI	Provincia/Estado: S.L.P.	☑ Regresar después 30 días	☑ Regresar después 30 días
País: MEXICO	Código Postal: 78180	☐ Disponer después 30 días	☐ Disponer después 30 días
Email 1: arcadio.marin@mm.gmexico.com	PDF ☑ XLS ☑ CSV ☑	☐ Pagar después de 30 días	☐ Pagar después de 30 días
Email 2: carlos.leura@mm.gmexico.com	PDF ☑ XLS ☑ CSV ☑	Regresar con atención a:	
Email 3: diana.garciarobles@mm.gmexico.com	PDF ☑ XLS ☑ CSV ☑	Dirección de regreso:	
Email 4: manuel.moreno@mm.gmexico.com	PDF ☐ XLS ☐ CSV ☐		
El reporte final y la factura serán enviados en PDF por email. Para términos y condiciones de SGS consultar: http://www.sgs.com/en/Terms-and-Conditions.aspx		Paquetería:	
		Núm. de cuenta:	

Identificación de la muestra e instrucciones de análisis. Servicio urgente deberá ser aprobado por el lab. Cargo extra será aplicado.

Nombre del proy.:	STA. BARBARA GE-80			☑ Servicio estándar	☐ Servicio urgente
Tipo de muestra:	☐ Núcleo	☐ Rocas	☐ Sedimentos	☑ Pulpa	☐ Suelo
	☐ Concentrados	☐ Metales	☐ Otra:		
Tipo análisis:	☐ Grado exploración	☑ Grado mineral	☐ Grado control	☐ Grado venta	☐ Tercería
Instrucciones especiales:					
IMPORTANTE: Si tiene conocimiento que las muestras contienen materiales peligrosos por favor indíquelo				☐ Asbestos	☐ Radiactivo

Identificación de Muestras De:	A:	Núm.	Preparación de muestras y análisis requeridos Preparación	Análisis (Códigos analíticos de SGS o elementos)	Elementos de interés
297620-297639			ARCHIVO ADJUNTO	GE_FAA313	ORO
			ARCHIVO ADJUNTO	GE_ICP14B	34 ELEMENTOS
Número total de muestras enviadas:	20		☑ Ver archivo adjunto para datos de muestras		☑ Ver archivo adjunto para análisis requeridos
Autorización del cliente (Firma):				Fecha:	2-11-2021

QF-NA-MIN-23 Ver. 2.1 emitida en Marzo 2016

Source: IMMSA, 2021

Figure 8.1: Example of SGS's Sample Submission Format

8.2 Sample Preparation, Assaying, and Analytical Procedures

8.2.1 Density Analysis

Santa Bárbara does not have historical density data or supporting documentation for the density used in the mineral resource estimate. The plant and the mine have been using a standard density value of 3.0 t/m^3 for decades.

The drilling contractor (Tecmin) has been collecting density measurements and has the following process for the density analysis for the surface drilling; this is not used to support the mineral resource estimate. Increasing the size of the density database to confirm the current density values used should be considered a priority for Santa Bárbara.

In 2022, new measurements have been collected from 25 drill holes. Table 8-1 presents the summary of the data collected by Tecmin between August 2021 and October 2023. This information doesn't appropriately cover all the deposit and is there not considered by the QP to be truly representative of the entire deposit. SRK has recommended that the specific gravity (SG) testing should continue to complete a robust database.

Table 8-1: Specific Gravity Measurements (2021-2022)

Area	Number of Drillholes	Specific Gravity of Non-Mineralize Rock	Specific Gravity of Mineralized Rock
Mina Nueva	20	2.59	2.90
San Diego	31	2.60	2.90
San Martin	4	2.72	2.97
Segovedad	3	2.62	2.67

Source: IMMSA, 2023

From August 2022 to August 2023 the SG tests included 33 drillholes. Tecmin did not differentiate Mineralized and non-mineralized samples and obtained 2.77 grams per cubic centimeter (g/cm^3) and 2.92 g/cm^3 for San Martin and Segovedad areas respectively. The QP suggest organizing the SG test results by rock type and location to appropriately evaluate the variability.

The specific gravity (SG) measurement method is based on the Archimedes principle and consists of measuring the weight of the rock sample P in air and subsequently the weight of the sample in water Pwater. We can determine the specific weight using the formula: SG = P / (P - Pwater)

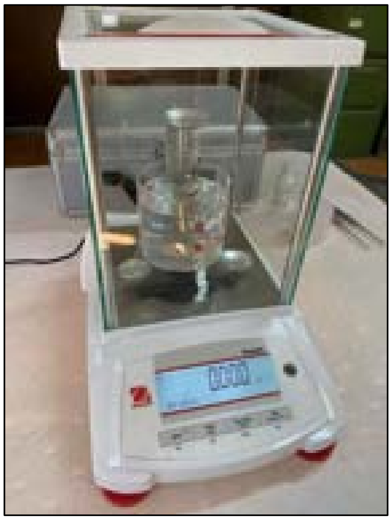
The steps carried out to obtain the specific gravity of the samples collected from drill core are described below:

1. Record the sample location and cut:
    - Draw hole trajectory
    - Write down nomenclature in the core (Figure 8.2):
        - Hole ID
        - Depth
    - The size of the sample will be at the discretion of the personnel that select the sample and depending on the capacity of the scale used; the data of the sample collected should be noted down in the core box. Figure 8.3 (a) shows the scale used at Santa Bárbara to complete the specific gravity tests. Santa Bárbara's exploration team uses an OHAUS Dial-O-Gram model 310 mechanical scale with the capacity to measure weight up to 310 grams (g)

2. Wash the sample with water to remove residues
3. Dry the sample in an electric oven or in sunlight if an oven is not available
4. Level the balance until the bubble is centered using the help of the position adjustments of each leg of the balance and calibrate the balance before starting to measure the samples, making sure that it reads zero (in the case of a precision digital scale)
5. Weigh the dry sample (P) (Figure 8.3 (b))
6. Waterproof seal the sample with an appropriate material (take into account the density of this material to use in the sample density calculations). Seal at least three times. Wait for a period of time for optimal drying of the samples
7. Weigh the sample in purified water (preferably) and take the data (P_Agua) (Figure 8.3 (c)
8. Wash the sample and reincorporate it into the core box from where it was collected
9. Determine the specific gravity with the data obtained and fill in the hole density format

Source: SRK, 2021

Figure 8.2: Core Samples Selected for Specific Gravity Testing



Scale used for Specific Gravity Testing

Dry Sample Weighting

Weighting of sample submerged in water

Source: SRK, 2021

Figure 8.3: Scale used in Santa Bárbara

Photographs and brief descriptions were taken, and the corrections to obtain the density data were applied. The density data is then recorded in Tecmin's database.

The QP considers these procedures to follow industry standards and recommends that the process be expanded to include all material (host rocks and mineralization) and be completed at regular intervals within the core. Increasing the size of the density database to confirm the current density values used should be considered a priority by the Company.

8.2.2 Sample Preparation, Internal Laboratory

The internal laboratory prepares the core and channel samples and assays all of the samples collected by the mine geology department. The internal laboratory is owned by the mine and run by IMMSA employees. Protocols of sample preparation and subsampling should be reviewed to manage appropriately the contamination, including the implementation of QA/QC controls in these processes.

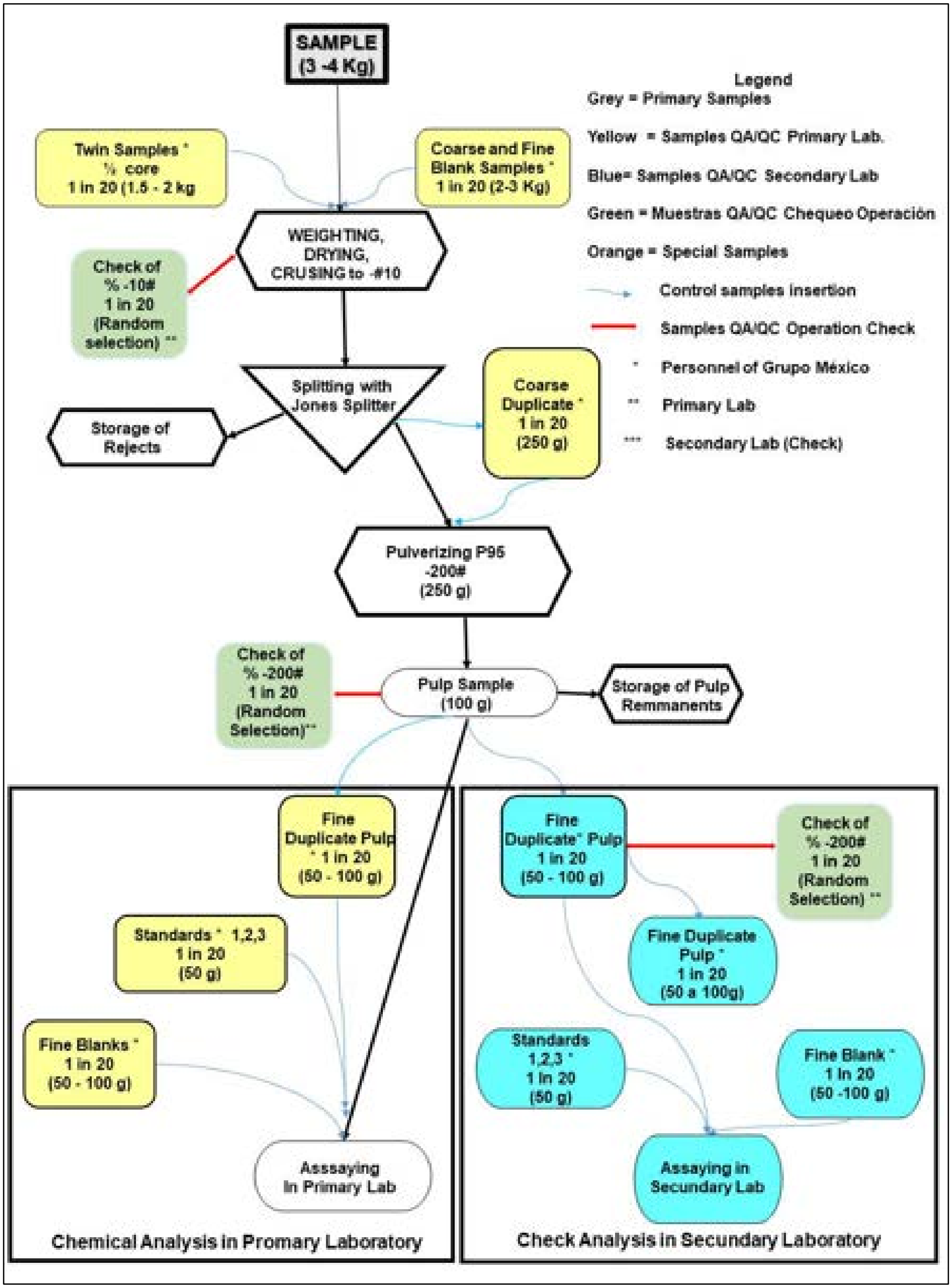
The internal laboratory follows internal QA/QC protocols, which include continuous maintenance and calibration of equipment, monitors sample contamination, and uses certified standard reference materials, which, in SRK's opinion, are considered in-line with industry standards.

Sample preparation in the internal laboratory includes:

- Sample drying
- Crushing, 75% passing 10 mesh
- Subsampling (Riffle sample splitter) to obtain a 250 g sample
- Pulverizing, 85% passing 200 mesh
- Subsampling to obtain 50 g pulp samples

Figure 8.4 shows Santa Bárbara's internal laboratory's preparation process flowchart and QA/QC controls using during the process. The core samples collected by Tecmin are sent to Santa Bárbara's internal laboratory.

No certification has been completed on the current mine laboratory, which in the QP's opinion does not meet the required standards for reporting under international best practice. More-detailed validation and external checks should be completed if the laboratory is not certified given the lack of independence presented. The QP recommends that IMMSA undertake a program to certify the laboratory as is completed at their other operation.



Source: IMMSA, 2021

Figure 8.4: Flowchart of Sample Preparation (Internal Laboratory)

8.2.3 Chemical Analysis, Internal Laboratory

The following chemical analyses are used at Santa Bárbara's internal laboratory, using 100 g pulp samples:

- **Inductively coupled plasma (ICP):** multielement (Ag, Au, Pb, Zn, Cu, iron (Fe), cadmium (Cd), arsenic (As), bismuth (Bi), and antimony (Sb)) plasma analytic method; ICP atomic emission spectrophotometer:
  - Detection limits:
    - Au: 0.01 to 100 g/t
    - Ag: 0.1 to 500 g/t
    - Zn: 0.001% to 15%
    - Cu: 0.001% to 15%
    - Pb: 0.001% to 20%
- **Fire assay (gravimetric method):** Determination of Au and Ag by fire assay and gravimetric termination (detection limits: Au: not applicable; Ag: 10 to 30,000 g/t)
- **Volumetric determination of zinc:** For high zinc concentrations (detection limits: 4% to 60%)
- **Volumetric determination of copper:** For high copper concentrations (detection limits: 4% to 40%)
- **Volumetric determination of lead:** For high lead concentrations (detection limits: 4% to 88%)

8.2.4 Sample Preparation, SGS Laboratory

The core samples collected by Santa Bárbara's exploration department are sent to SGS. SGS is independent of IMMSA and holds accreditation under ISO/IEC 17025:2017 under the Standards Council of Canada, which indicates the laboratory is accredited under the general requirements for the competence of testing and calibration laboratories.

SGS's sample preparation procedures comprised of drying the sample, crushing the entire sample in two stages to -6 mm and -2 mm by jaw crusher (more than 95% passing), riffle splitting the sample to 250 to 500 g, and pulverizing the split to more than 95% passing -140 mesh in 800-cubic-centimeter (cm^3) chrome steel bowls in a Labtech LM2 pulverizing ring mill.

8.2.5 Chemical Analysis, SGS Laboratory

The following chemical analysis packages are used at SGS by Santa Bárbara's exploration department:

- **GE_ICP14B:** multielement (34 elements) analysis by aqua regia digestions and ICP-optical emission spectrometry (OES) (Ag, aluminum (Al), As, barium (Ba), beryllium (Be), Bi, calcium (Ca), Cd, chromium (Cr), cobalt (Co), Cu, Fe, mercury (Hg), potassium (K), lanthanum (La), lithium (Li), magnesium (Mg), manganese (Mn), molybdenum (Mo), sodium (Na), nickel (Ni), phosphorus (P), Pb, sulfur (S), Sb, scandium (Sc), tin (Sn), strontium (Sr), titanium (Ti), vanadium (V), tungsten (W), yttrium (Y), Zn, zirconium (Zr), nitric acid (HNO_3), and hydrochloric acid (HCl)
- **GE_FAA515 Au:** Au analysis by 50 g fire assay with atomic absorption spectrometry (AAS) finish (Au: 30 g, 50 g; HNO_3; HCl) (Detection limits: 5 to 10,000 parts per billion Au)
- **GO_FAG515 Ag:** Used for the determination of over limits of Ag by fire and gravimetric termination using a 50 g sample (Detection limits: 10 to 100,000 parts per million Ag)

- **GO_ICP90Q:** Analysis of ore grade samples (Pb, Cu, Zn, Fe, and As) by sodium peroxide fusion and ICP-OES (As, Fe, Cu, Ni, Pb, Sb, Zn, and sodium peroxide (Na_2O_2)) (Detection limits: 0.01% to 30% for each element)
- **GC_CON12V Zn:** Used for the determination of zinc using a volumetric and gravimetric concentration for samples with zinc greater than 32% (Detection limits: 5% to 65% Zn). The process involves preparation and determination of zinc in ores, concentrates, and metallurgical products by separation, precipitation, and titration of acid solubles, fusion with ICP-OES-AAS of acid insoluble.

8.3 Quality Control Procedures/Quality Assurance

8.3.1 Security Measures, Chain of Custody

The mine geology and exploration departments have control and supervision over the process of sample collection from drilling and channel sampling, maintaining the custody chain for the samples until the delivery of the samples to the laboratory.

At the drill rig, the contractor and Santa Bárbara's drillers are responsible for removing the core from the core barrel (using manual methods) and placing the core in prepared core boxes. The core is initially cleaned in the boxes, and once the box is full of core, it is closed and transported by the authorized personnel to the logging facility where Santa Bárbara's (mine geology and exploration) geologists or technicians take possession. On receipt at the core shed, geologists follow the logging and sampling procedures. The samples are transported to the laboratories (internal and SGS) by authorized personnel.

In QP's opinion, there are sufficient protocols in place to ensure the quality and integrity of the samples from exploration to the laboratory. Storage of data using a central repository system is recommended to ensure data security is maintained.

8.3.2 QA/QC Protocols

Historically and recently until 2023 (prior to Tecmin drilling), the mine geology department has not implemented QA/QC protocols for its historical drilling and rock sampling activities, which is a practice that is not in-line with best industry standards and represents a potential source of uncertainty in the estimates. Given the lack of QA/QC information, the QP has had to rely on reconciliation data to assess the level of confidence in the historical drilling information. Section 9.1 of this report discusses this process in more detail.

Since 2019, Santa Bárbara's exploration department has been responsible for the surface and underground drilling. IMMSA have used a drilling contractor Tecmin to complete this drilling. The QA/QC protocols include the following controls:

For the drilling completed in the Santa Bárbara unit between 2019 to 2023, a series of protocols have been carried out. The controls used are divided into standards (low, medium, and high), coarse blanks, duplicates, and core duplicates:

- Core duplicates to control systematic sampling errors
- Coarse and fine blank controls to detect possible contamination during crushing and pulverization. This material should be barren of the elements of economic interest. In this case,

silica sand was used for pulp blanks and volcanic gravel material -$^{1}/_{4}$-inch silica for the coarse blanks

- Coarse and fine duplicate controls to evaluate precision of the procedure (subsampling)
- Certified standard reference materials (CSRM) (low, medium, and high grade) to measure accuracy

Control samples are inserted under the following criteria:

- Before and after each mineralized zone or with high mineralization in either zinc, lead, copper, or silver, control samples of the fine and coarse blanks type are inserted
- Inside or outside mineralized zones and in areas with or without economic values, CSRM controls were inserted with high, medium, and low values based mainly on expected zinc grades
- Fine and coarse duplicate samples in mineralized areas and in zones with or without economic values at the discretion of the geologist
- Twin samples (core duplicates) in mineralized zones and in zones with or without economic values at the discretion of the geologist

Santa Bárbara has established limits of acceptability for the different controls, including:

- **Blanks:** There is contamination when the assay results are above five times the detection limit for a specific element evaluated. When contamination occurs, Santa Bárbara informs the laboratory to check the internal protocols and, if necessary, repeat the assaying of a specific batch if the contamination is considered repetitive and continuous.
- **Duplicates:** Duplicates use an acceptability level of ±20% relative error range from the 45° line (scatter plot) for coarse and fine duplicates. Checks outside of these acceptability ranges are considered failures, and if they occur in a certain period (e.g., failures are more than 10% of the total control samples), Santa Bárbara contacts the laboratory to review their preparation procedures. SRK recommends using an acceptability range of ±10% relative error for the fine duplicates.
- **Second laboratory checks:** Santa Bárbara is not using second laboratory checks (Tercerías). SRK recommends sending pulps of part of the assayed samples to a third commercial laboratory as part of the QA/QC protocol.
- **Certified Reference Material (CRM) / Standard:** The CRM's are bought from commercial laboratories that are selected (grades and mineralization type) consistent with Santa Bárbara's mineralization and rock types. The performance of these checks is evaluated using graphs where the two and three standard deviations (SD) reference lines are drawn in conjunction with the assay results obtained. A failure is considered when a specific CRM assay result is outside of the 3-SD reference line or when two contiguous CRM's are outside of the 2-SD reference line. In these cases, Santa Bárbara requests the reanalysis of some samples (two to five) above and below the failure in a specific batch of samples included in the laboratory assay certificate.

The QP has reviewed the information and notes there is no indication of bias (high or low) in the CSRM results. A number of individual CRM's have reported outside of the 2-SD limits assigned, but no overall trends are noted.

Tecmin has prepared QA/QC reports for each drilling campaign and doesn't have a consolidated report, which is recommended to keep track of the results of the protocols and their evolution.

The most recent report of the exploration department includes the results of the QA/QC protocol completed for the 2022-2023 drilling campaign for 71 drillholes. This included 136 certified reference material samples, 159 coarse blanks, 40 coarse duplicates, 44 fine duplicates, and 36 core duplicates.

Figure 8.5 through Figure 8.11 provide a summary of the QA/QC control samples results, including a table of the certified values for each CRM along with its associated results, plus a summary of the coarse blanks and coarse duplicates used at Santa Bárbara.

In general, for the 2022-2023 drilling campaign, the results of the controls are reasonable. IMMSA has requested the re-assaying of samples when the CRM's have failed or has maintained communications with the SGS lab (Durango) when there are failures in blanks and duplicates.

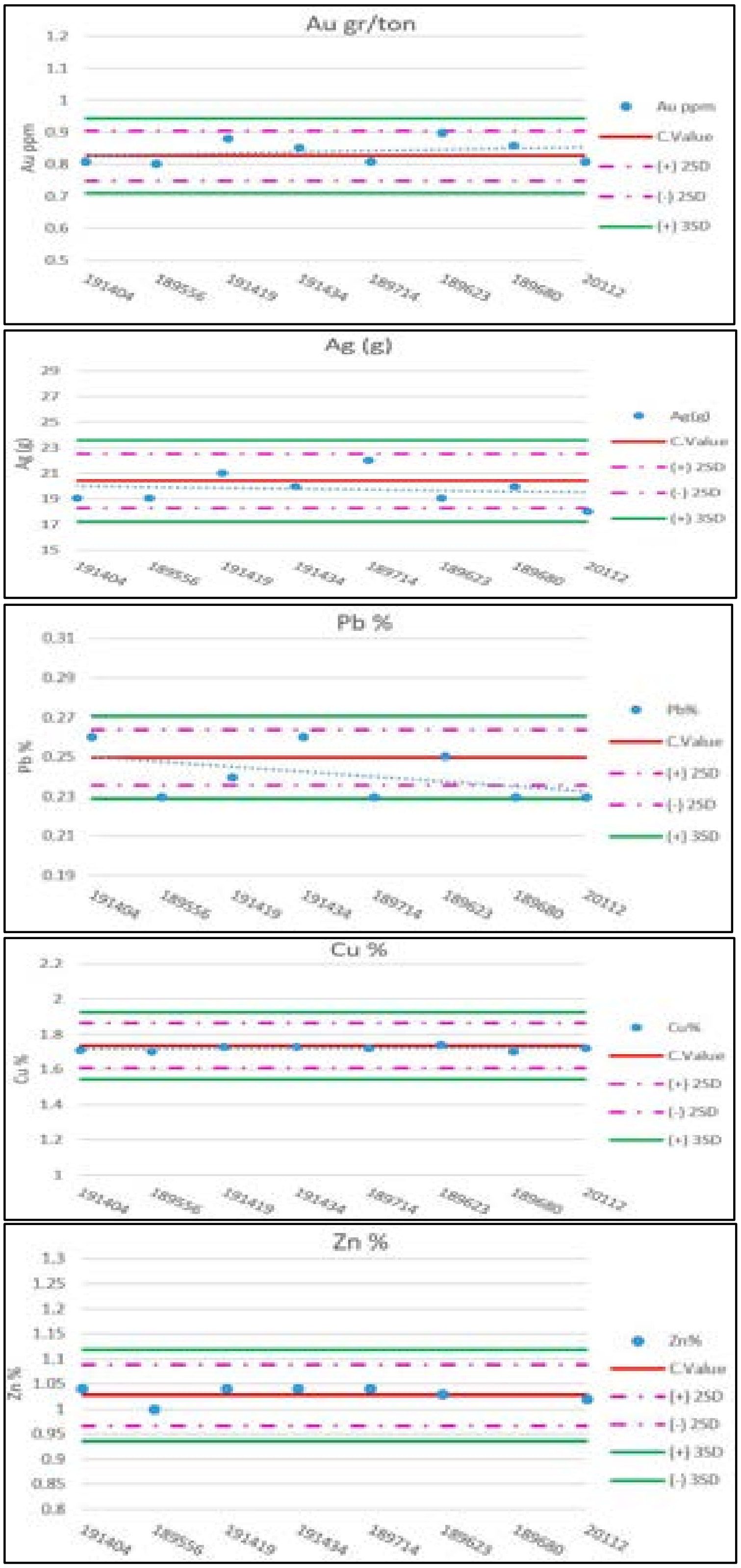
OREAS 623 std1	C. value	SD
Fire Assay		
Au, Gold (ppm)	0.827	0.039
4-acid digestion		
Ag, silver (ppm)	20.400	1.058
Pb, Lead (wt%)	0.250	0.007
Cu, Copper (wt%)	1.734	0.064
Zn, Zinc (wt%)	1.027	0.030

OREAS 624 std 2	C. value	SD
Fire Assay		
Au, Gold (ppm)	1.164	0.053
4-acid digestion		
Ag, silver (ppm)	45.253	1.256
Pb, Lead (wt%)	0.624	0.019
Cu, Copper (wt%)	3.101	0.079
Zn, Zinc (wt%)	2.374	0.086

OREAS 622 std 3	C. value	SD
Fire Assay		
Au, Gold (ppm)	1.85	0.066
4-acid digestion		
Ag, silver (ppm)	102.42	3.28
Pb, Lead (wt%)	2.21	0.07
Cu, Copper (wt%)	0.49	0.01
Zn, Zinc (wt%)	10.24	0.18

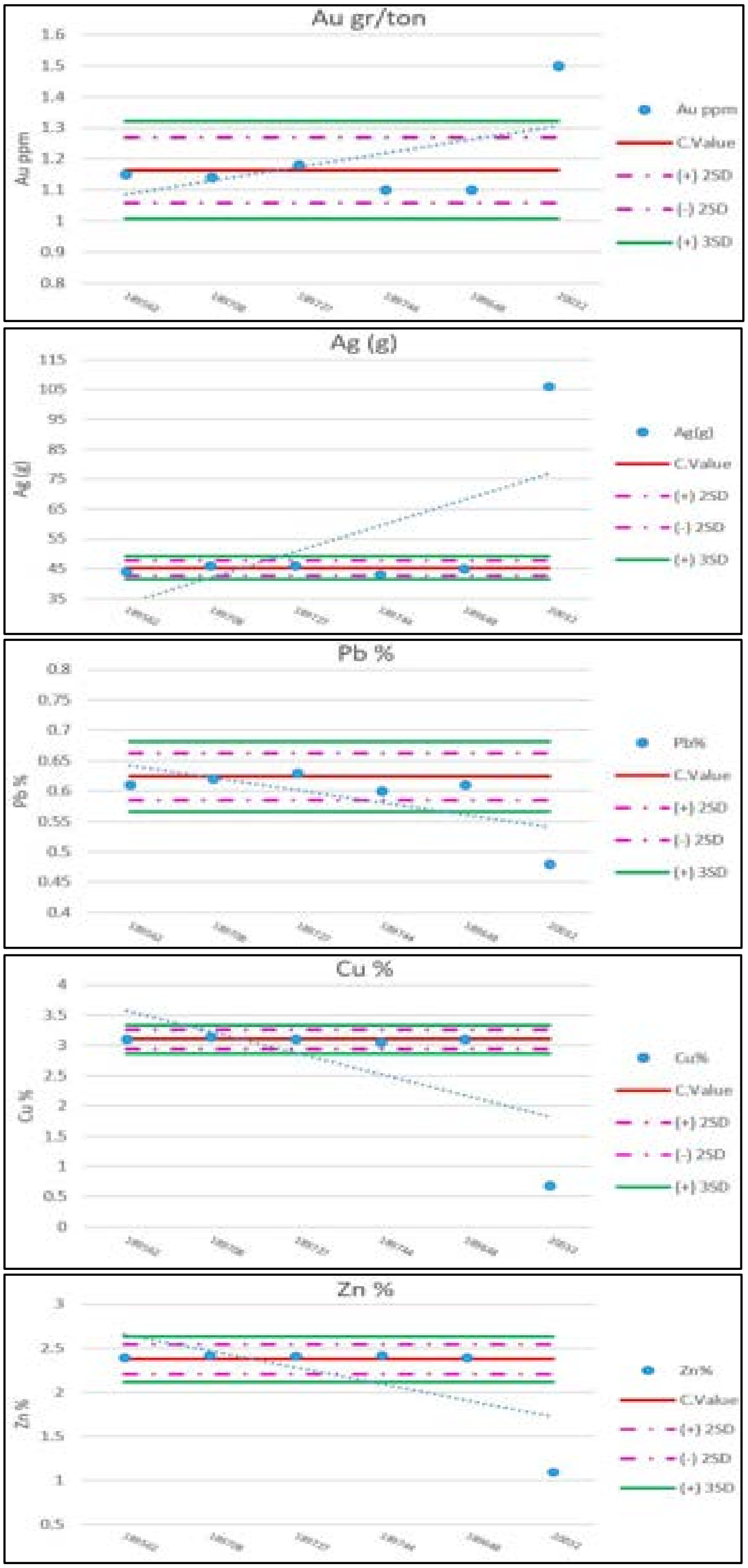
Source: IMMSA, 2023

Figure 8.5: Certified Values of the OREAS 623, 624 and 622 CSRMs



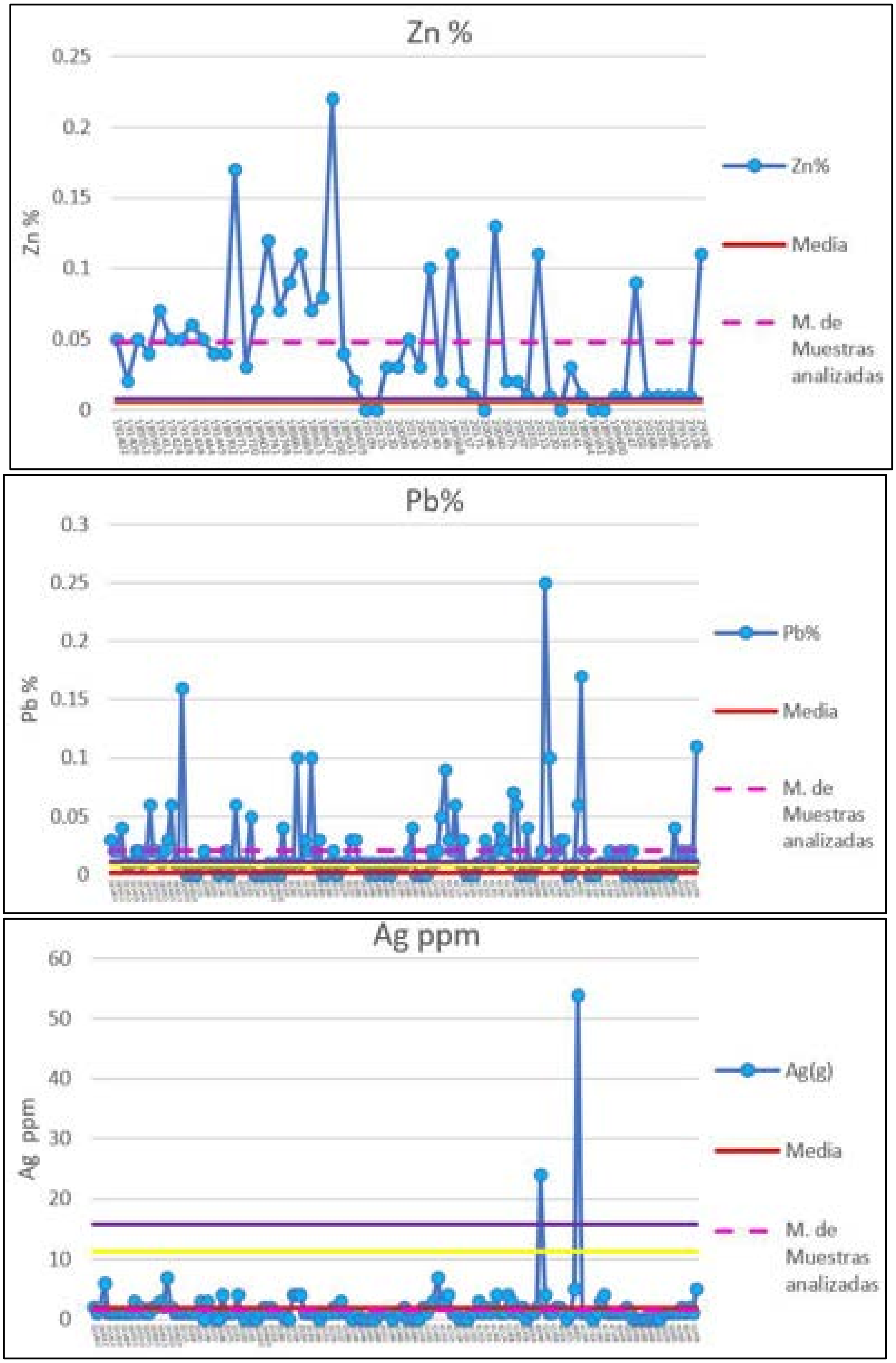
Source: IMMSA, 2023

Figure 8.6: Graph showing the Results of OREAS 623, Au - Ag - Pb - Cu- Zn – Drilling Campaign 2022-2023



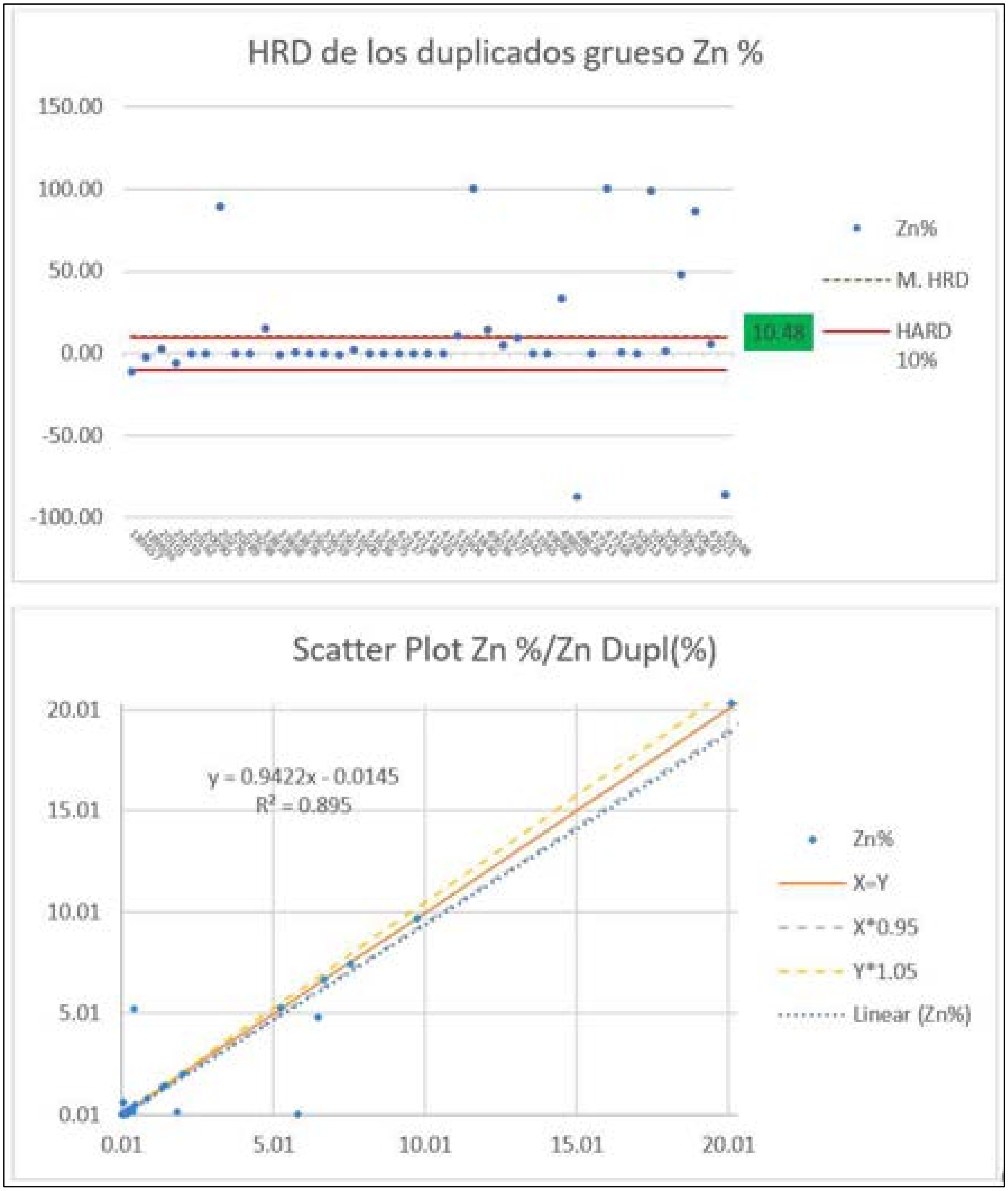
Source: IMMSA, 2023

Figure 8.7: Graph of Results of OREAS 624, Au - Ag - Pb - Cu- Zn – Drilling Campaign 2023 – 2023



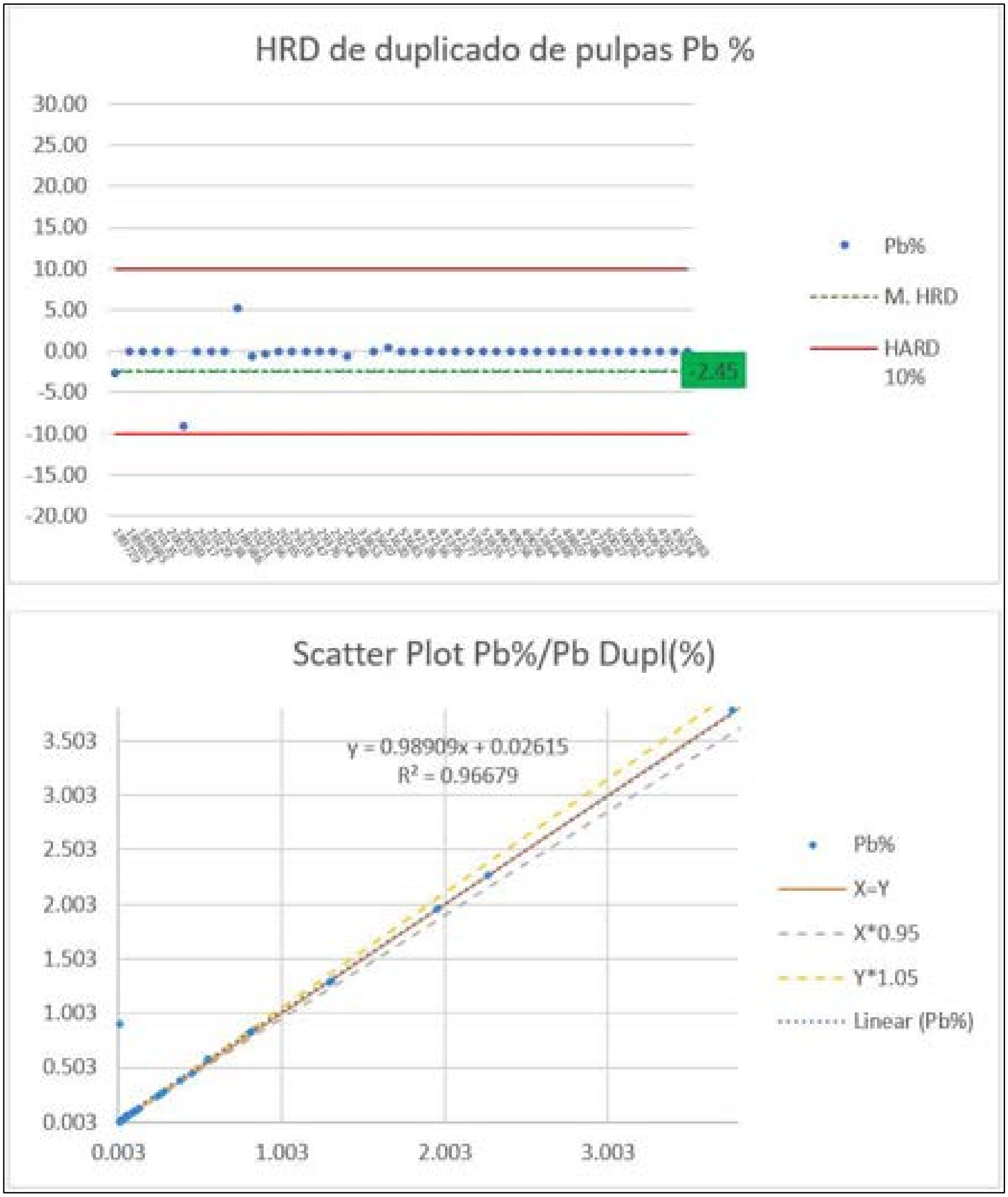
Source: IMMSA, 2023

Figure 8.8: Results of Coarse Blanks, Zn, Pb and Ag – Drilling Campaign 2022 – 2023



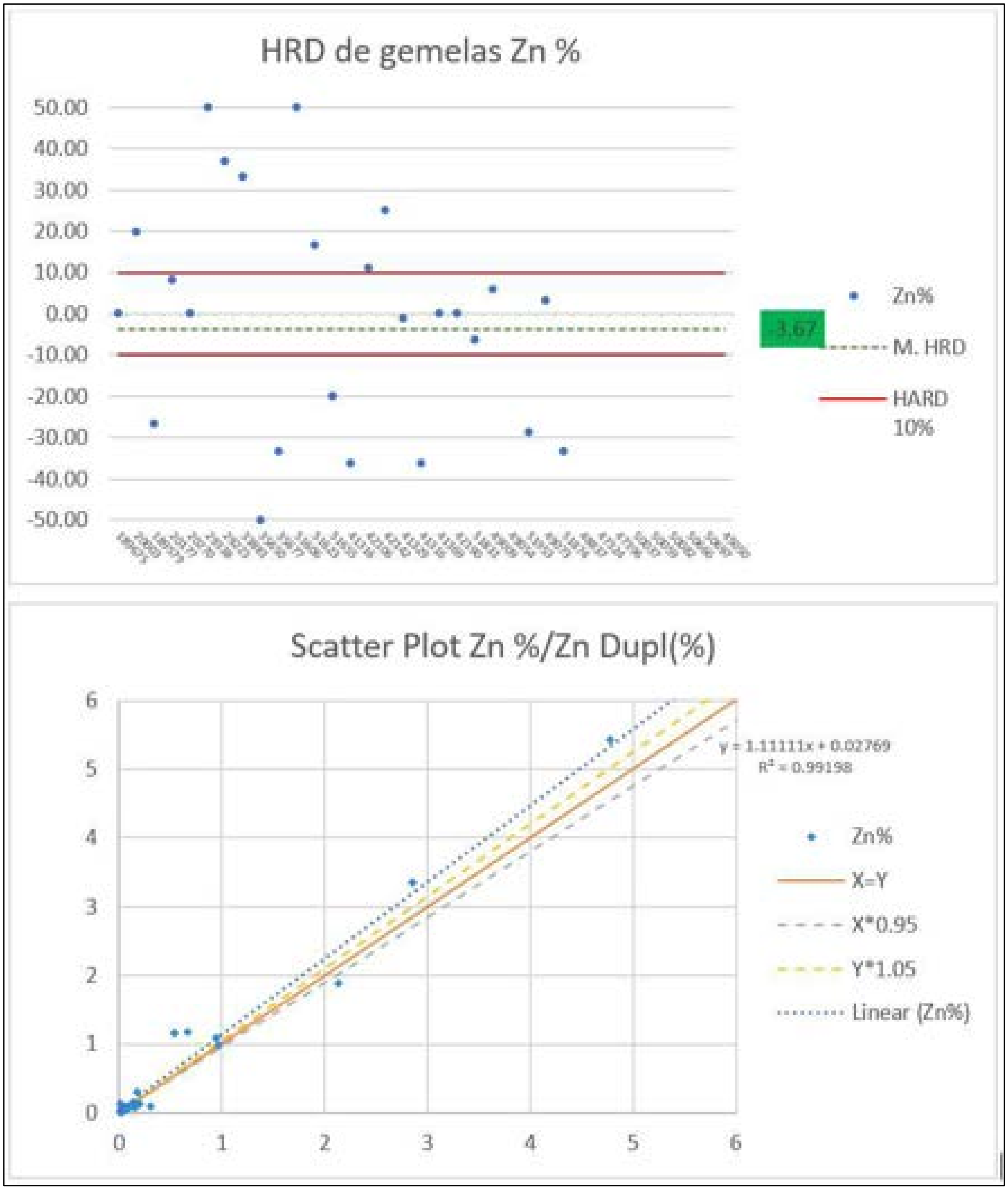
Source: IMMSA, 2023

Figure 8.9: Graphs showing the Coarse Duplicate Results (HRD and Scatter Plot), Zn – Drilling Campaign 2022 -2023



Source: IMMSA, 2023

Figure 8.10: Graphs showing the Fine Duplicate Results (HRD and Scatter Plot), Pb – Drilling Campaign 2022 -2023



Source: IMMSA, 2023

Figure 8.11: Graphs showing the Core Duplicate Results (HRD and Scatter Plot), Zn – Drilling Campaign 2023 - 2023

8.4 Opinion on Adequacy

The security of the drilling and channel sampling is considered adequate for Santa Bárbara's mine geology and exploration departments.

The mine geology department has not implemented quality controls for the samples collected from historical drilling and historical and recent rock sampling from underground workings, which the QP considers to be not in-line with industry best practices and represents a source of uncertainty for the data collected by the mine geology department.

Since 2019, the exploration department through its drilling contractor, Tecmin, has implemented procedures for drilling and core sampling, which SRK considers to be in-line with industry best practices. The QP recommends the inclusion of second laboratory controls (Tercerías) periodically (every 3 months) and the review of the acceptability criteria of +- 5% used to evaluate the results of the core, fine and coarse duplicates, which is considered strict.

The procedures of preparation and chemical analysis and quality protocols of Santa Bárbara's internal laboratory are adequate and appropriate. However, the QP recommends that IMMSA obtain certification for the internal laboratory's quality management system soon.

Overall, the QP considers that even with the points noted above, the current samples are of sufficient quality to support the estimation of Mineral Resources. Given some of the concerns noted and the potential risks that could be created from any bias in the databases, the QP has limited the confidence of the estimates to remove assignment of the highest levels of confidence (Measured).

8.5 Non-Conventional Industry Practice

It is QP's opinion that the current procedures of sampling and QA/QC of Santa Bárbara's mine geology department are not in-line with best practices and represent a potential source of uncertainty in the estimate. Given the large database and lack of historical raw material (core) to complete detailed checks, it is QP's opinion that this must be addressed via the classification of the deposit.

In order to reach a level of confidence in the sampling information, SRK has relied on information presented from the mining operation to determine potential risk. Santa Bárbara's current mineral resources rely on the quantity of data (drilling and rock channel sampling) collected during the history of the operation. The long history of mining operations, which started during the first part of the last century, provides support to the historical data based on the recognized performance of the Santa Bárbara operation for decades. Section 9 of this report summarized the work completed by the QP.

9 Data Verification

9.1 Data Verification Procedures

The verification process completed by the QP in 2021 included the following activities:

- SRK's QP visited the Santa Bárbara project two times between June and November 2021 The purpose of the site visits was to:
    - Complete an underground site inspection and recognize the geology and the mineralization controls
    - Review geological plans and sections to validate information used by IMMSA to generate grade estimates
    - Review the exploration procedures, including the sampling methods, sampling quality, drilling procedures, core sampling, and data management
    - Undertake review of the raw sampling data in hard format to the Excel files used to generate the grade estimate
    - Review of the historical data supporting the reserve calculations
    - Collection of core samples and chemical analysis of available stored core (validation sampling included 30 samples collected from three drillholes)

In 2022, the QP visited the operation in November 2022 and did not complete additional verification sampling but reviewed the exploration procedures and the data supporting the mineral resources.

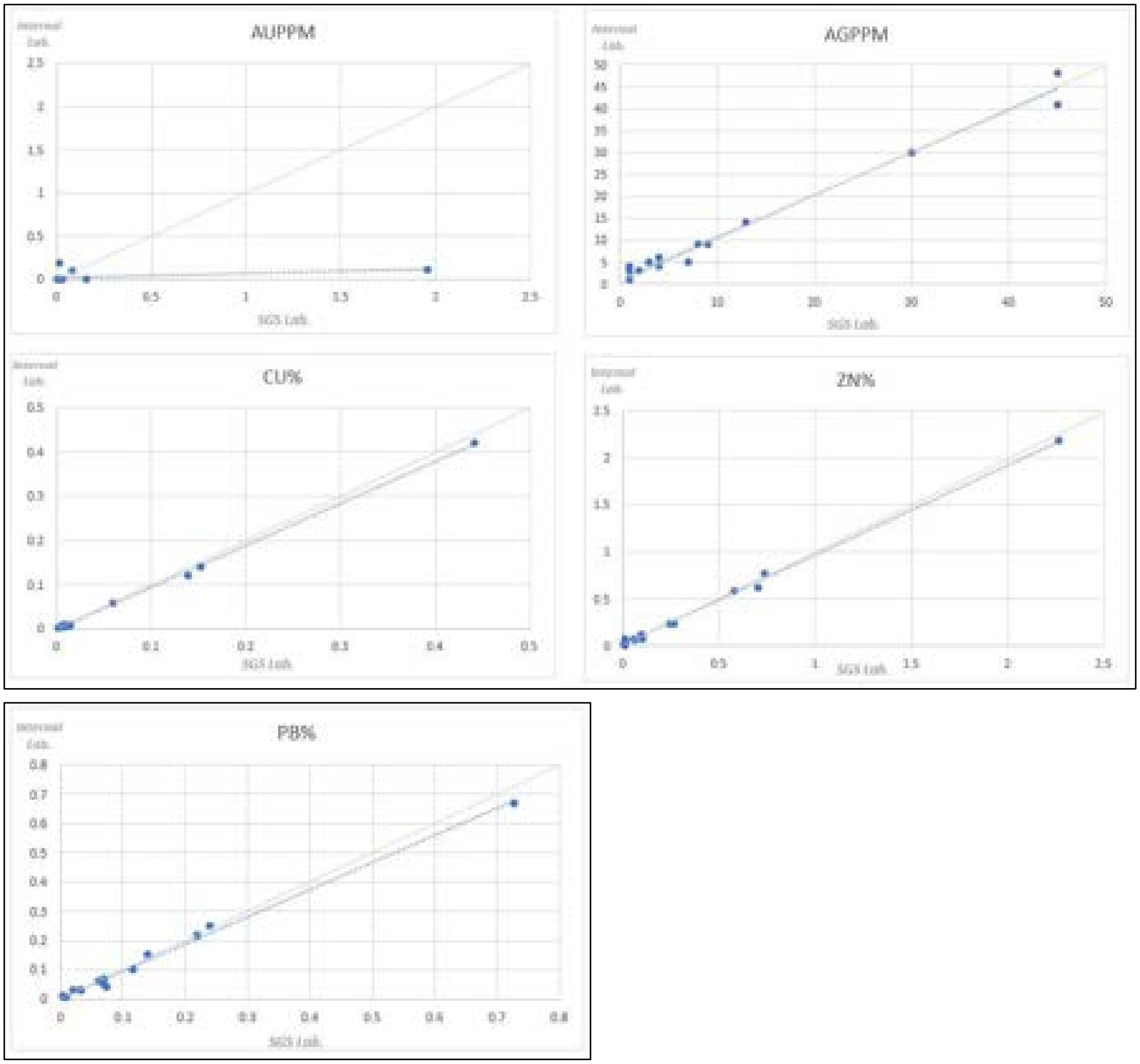
9.1.1 Results of the Validation Samples

Santa Bárbara does not maintain core and discards core after several years. The internal laboratory does not maintain a pulp record and has discarded the pulps and rejects of all the historical samples, which has limited the ability to conduct validation. Only a limited number of historical drill core remains available at the mine. The selection of the drillholes was limited to the core available and does not provide a spatial coverage of the entire operation supporting the current mineral resources. It is the QP's opinion that this process provides a validation on the protocols being used.

SRK's QP completed a review of the available core and notes that IMMSA should review the current practices to improve the core storage facility. Issues noted by SRK are not limited to but included a lack of organization of box storage and poor stacking of core boxes.

Upon completing the review, SRK's QP selected samples from drillholes covering different zones of the deposit. These samples were prepared using Santa Bárbara's internal laboratory. To ensure the quality of the check analysis, SRK also utilized coarse and fine blanks, coarse duplicates, and a certified reference material inserted in the samples sent to SGS for QA/QC purposes. The results of the QA/QC controls passed the acceptability criteria in all cases. Some samples were analyzed at both SGS and Santa Bárbara's internal laboratory.

The average values by drillhole recorded on the original logging sheets tended to be significantly higher in grade compared to the values obtained from the re-assaying program, but the SGS and Santa Bárbara results were in close agreement (Figure 9.1).



Source: SRK, 2021

Figure 9.1: Scatterplots of the Chemical Analysis Results, SGS vs. Santa Bárbara's Internal Laboratory

SRK cannot explain the difference between the values recorded on the original logging sheets and the results obtained from the validation submission. It is possible that the poor state of the core and footage markers may have contributed to these differences. It is also possible that the samples or the footage markers in the core box have been moved or misplaced over time. Table 9-1 shows the results of the validation sampling.

Table 9-1: SRK Validation Samples

Information in Logging Sheets										Santa Bárbara Internal Laboratory									SGS Laboratory (Durango) Analysis Results				
Drillhole	Sample Number	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Drillhole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
										GE-80	522.8	525.85	3.05	0	9	0.05	0.008	0.62	0.011	8	0.0697	0.0105	0.7029
										GE-80	528.9	531.95	3.05	0	6	0.03	0.006	0.06	<0.005	4	0.0302	0.0054	0.0608
GE-80	n/a	682.90	684.15	1.25	0	16	0.1	0.03	0.1	GE-80	681.45	684.45	3.00	0.19	48	0.25	0.14	0.77	0.013	45	0.2398	0.1524	0.737
GE-80	n/a	684.15	686.00	1.85	0.16	263	2.1	0.48	2.1	GE-80	684.45	687.5	3.05	0	14	0.03	0.06	0.01	0.021	13	0.0329	0.0595	0.0086
GE-80	n/a	686.00	687.50	1.50	0	25	0.08	0.12	0.12														
GE-80	n/a	687.50	690.35	2.85	0	15	0.1	0.05	0.19	GE-80	687.5	690.55	3.05	0	5	0.006	0.01	0.02	0.011	3	0.0088	0.0074	0.0079
GE-80	n/a	725.70	727.15	1.45	0	16	0.73	0.09	0.4	GE-80	724.1	727.15	3.05	0	1	0.01	0.005	0.02	0.007	<2	0.0037	0.0083	0.013
				0.00						GE-80	745.45	748.5	3.05	0.1	30	0.1	0.01	0.12	0.081	30	0.1161	0.0143	0.0974
GE-80	n/a	748.50	750.00	1.50	0	37	0.15	0.24	0.6	GE-80	748.5	751.55	3.05	0	5	0.04	0.01	0.07	0.007	7	0.0725	0.0077	0.1018
				0.00						GE-80	751.55	754.6	3.05	0	1	0.005	0.007	0.08	0.01	<2	0.0029	0.0059	0.0113
PS-106	n/a	327.90	331.15	3.25	0	13	0.71	0.16	0.87	PS-106	327.3	330.35	3.05	0	4	0.22	0.01	0.24	0.029	4	0.2194	0.0101	0.245
PS-106	n/a	445.30	447.15	1.85	0	1	0.1	0.01	0.4	PS-106	445.3	448.35	3.05	0	4	0.06	0.004	0.07	0.017	<2	0.06	0.0019	0.054
				0.00						PS-106	442.25	445.3	3.05	0	3	0.03	0.004	0.04	0.007	<2	0.0196	0.0015	0.0198
PS-106	n/a	524.10	525.55	1.45	0	13	0.77	0.05	1.72	PS-106	524.75	527.8	3.05	0.12	41	0.15	0.42	0.59	1.96	45	0.1389	0.4414	0.5805
PS-106	n/a	568.30	570.10	1.80	0	3	0.33	0.02	0.52	PS-106	568.3	571.35	3.05	0	3	0.07	0.007	0.24	0.021	2	0.0689	0.0144	0.2647
PS-106	n/a	570.10	571.75	1.65	0	3	0.18	0.03	0.71														
PS-106	n/a	571.75	573.80	2.05	0	7	0.55	0.03	0.78														
PS-106	n/a	573.80	575.00	1.20	0	23	2.2	0.35	3.09	PS-106	573.3	574.4	1.10	0	9	0.67	0.12	2.18	0.159	9	0.727	0.1384	2.27
Mean Result					n/a	33.0	0.59	0.12	0.83					n/a	8.7	0.10	0.05	0.25	n/a	8.1	0.11	0.05	0.26

Source: SRK, 2021
n/a: Not applicable

9.1.2 Review of Reconciliation Information Planned vs. Real Grades

Table 9-2 shows the production planned vs. real tonnages and grades for Santa Barbara, 2023. The differences are reasonable, except for gold and copper, which require the review of IMMSA.

Table 9-2: Planned vs. Real Production, 2023, Tonnage and Grades

Total	Real 2023													Plan 2023	Difference Real vs. Plan
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
	144,231	**117,376**	**145,977**	**136,399**	**130,894**	**146,646**	**136,297**	**131,931**	**138,046**	**147,161**	**136,195**	**137,324**	**1,648,476**	**1,638,900**	**1%**
t/d	5,547	4,891	5,958	5,683	5,034	5,431	6,414	4,979	5,361	5,400	5,341	5,333	5,432	5,400	1%
Au g/t	0.22	0.23	0.22	0.23	0.22	0.23	0.20	0.22	0.21	0.24	0.19	0.19	0.22	0.14	57%
Ag g/t	71	59	68	74	73	73	63	63	68	66	71	71	68	71	-4%
Pb %	1.18	1.14	1.19	1.34	1.35	1.36	1.35	1.27	1.30	1.28	1.18	1.18	1.27	1.31	-3%
Cu %	0.32	0.29	0.32	0.37	0.35	0.35	0.32	0.29	0.31	0.31	0.37	0.37	0.33	0.38	-13%
Zn %	1.85	1.80	1.96	1.98	2.01	2.03	1.98	1.91	2.04	1.97	1.69	1.69	1.91	1.81	6%

Source: IMMSA, 2023

9.2 Limitations

Santa Bárbara stores the core of recent drilling completed by the mine geology team, and after some years, the core is discarded. The samples were selected from the available drillholes from different areas of the Santa Bárbara project. The internal laboratory does not store the rejects and pulps from the core and channel samples collected by the mine geology team.

The historical data could not be independently verified due to the non-existence of the core and lack of the original assay certificates. SRK considers there to be limited risk in the use of the historical data, as these typically have supported Santa Bárbara's production for decades.

9.3 Opinion on Data Adequacy

Based on the validation work completed, SRK is of the opinion that data supporting the resources is adequate to support the mineral resource estimate. The lack of QA/QC data for the historical data (not including the drilling completed by the exploration team) remains a concern, but in the QP's opinion, the historical mining and production for more than 50 years provides additional verification of the historical data supporting the resources. Given the uncertainty related to the lack of QA/QC, it is the QP's opinion that assigning the highest level of confidence (Measured) to the estimated resource blocks can be done until the quality control and quality assurance procedures are improved. This will ensure no bias exists (positive or negative) in the data, which is a key requirement for the level of accuracy considered within the Measured category. Revised procedures should include a robust QA/QC program for both internal and external laboratories and third-party checks on a routine basis.

10 Mineral Processing and Metallurgical Testing

10.1 Testing and Procedures

The mine is not currently conducting any metallurgical testwork specific to supporting the current disclosure. Economic ore minerals include sphalerite, marmatite, galena, chalcopyrite, and tetrahedrite. The QP has therefore relied on the production data from the three concentrates to determine the recoveries to support the declaration of the mineral resources. Santa Bárbara is an operating mine and has been in operation under the current Company for over 50 years. Mineral processing is completed via conventional flotation processes, with three concentrates being produced (in order of scale):

- Zinc concentrate
- Copper concentrate
- Lead concentrate

10.2 Sample Representativeness

The QP concluded that the current material is representative of the future mining areas with no known changes in the mineralization styles expected over the short term. Should the mine conduct further exploration on potential exploration targets, additional metallurgical testwork will be required. At minimum, this should include a sensitivity study for potential recoveries using the current operating setup to estimate potential recoveries.

10.3 Laboratories

Currently, all sampling for the Santa Bárbara mill is conducted on-site at the internal laboratory. IMMSA directly owns the internal laboratory. Santa Bárbara's internal laboratory does not have any type of quality certification of its quality management system.

10.4 Relevant Results

The results provided in Table 10-1 shows the variation of recoveries between 2019 and 2023 within the concentrates. It is noted that the recoveries within the copper concentrate are currently below the 2019 levels.

Table 10-1: Metallurgical Performance 2019 to 2023 (Oct)

Component	Year	Tonnes (t)	Assay Grade						Recovery (%)					
			Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Fe (%)	Au	Ag	Pb	Cu	Zn	Fe
Head Grade	2019	1,636,644	0.24	79	1.31	0.4	2	3.53	100.5	100.4	100.0	100.3	100.3	100.0
	2020	1,732,554	0.27	79	1.34	0.45	2	3.53	99.4	100.0	100.0	100.0	100.1	100.0
	2021*	1,515,951	0.25	75	1.3	0.39	1.94	3.47	98.6	98.9	98.9	99.7	99.0	100.0
	2022 (June)	1,495,711	0.23	71	1.21	0.35	1.72	3.61	98.1	99.1	98.7	99.7	99.2	100.0
	2023 (Oct)	821,523	0.23	70	1.26	0.33	1.94	3.77	97.4	99.4	98.6	100.0	99.5	100.0
Concentrate Lead (Pb%)	2019	31,234	4.02	2,912	56	3.84	5.95	5.57	31.7	70.0	81.4	18.2	5.7	3.0
	2020	31,437	3.83	2,861	55.95	3.7	6.94	5.5	25.5	65.4	75.6	15.1	6.3	2.8
	2021*	28,384	4.25	2770	53.61	4.78	5.57	6.33	31.8	69.1	77.5	22.8	5.4	3.4
	2022 (June)	27,246	3.62	2724	53.09	4.39	5.56	6.44	28.2	70.0	79.8	23.1	5.9	3.2
	2023 (Oct)	14,958	2.87	2715	55.69	4.71	5.93	6.22	23.1	70.6	80.3	25.8	5.6	3.0
Concentrate Copper (Cu%)	2019	10,517	2.25	10,723	7.49	30	1.95	26.23	6.0	8.7	3.7	47.8	0.6	4.8
	2020	12,785	4.96	1,331	11.81	28.22	2.19	24.95	13.5	12.4	6.5	46.7	0.8	5.2
	2021*	7,809	2.62	1058	9.04	29.52	1.16	26.29	5.4	7.3	3.6	38.7	0.3	3.9
	2022 (June)	7,234	2.47	1173	10.89	28.58	1.48	25.49	5.1	8.0	4.3	39.9	0.4	3.4
	2023 (Oct)	3,413	1.36	827	3.20	31.17	1.79	28.24	2.5	4.9	1.1	38.9	0.4	3.1
Concentrate Zinc (Zn%)	2019	52,149	0.32	136	0.95	1.68	51.9	7.91	4.3	5.5	2.3	13.3	82.7	7.2
	2020	51,824	0.3	108	0.72	1.46	53.32	7.55	3.3	4.1	1.6	9.8	79.7	6.4
	2021*	46,106	0.22	114	0.83	1.68	50.68	7.75	2.7	4.6	2.0	13.0	79.4	6.8
	2022 (June)	39,699	0.18	129	0.86	1.32	52.13	7.53	2.1	4.8	1.9	10.1	80.7	5.5
	2023 (Oct)	24,486	0.10	107	0.92	1.29	52.94	7.26	1.3	4.5	2.2	11.5	81.3	5.7
Tails	2019	1,542,743	0.15	13.6	0.18	0.09	0.24	3.18	58.6	16.2	12.6	21.0	11.3	85.1
	2020	1,636,507	0.16	15.3	0.23	0.13	0.28	3.2	57.1	18.2	16.3	28.4	13.3	85.6
	2021*	1,433,652	0.16	14	0.22	0.11	0.28	3.15	58.7	17.9	15.8	25.3	13.8	85.9
	2022 (June)	1,421,531	0.15	12	0.16	0.10	0.22	3.34	62.7	16.3	12.6	26.6	12.2	87.8
	2023 (Oct)	778,666	0.17	14	0.20	0.08	0.25	3.50	70.5	19.3	15.1	23.8	12.3	88.1

Source: IMMSA, 2023

It is the QP’s opinion that using a 3-year trailing average for the recoveries is the most appropriate for use in the assessment of the CoG for 2023 as the results from the 2023 production are slightly higher and do not represent a full year of production and therefore may result in possible over-statement of recoveries.

The QP has therefore elected to use the trailing average from January 2021 to June 2023 production information and recoveries for the assessment of the CoG, as described in Section 11.4 of this report, as this represents the most recent performance and in the view of the QP is a reasonable reflection of the current material.

Using the data provided in Table 10-1 and by calculating the total recovery for the key elements, Table 10-2 shows a comparison of the 2021 and 2022 cumulative recoveries that have been used for the purpose of analyzing the CoG. The recoveries show a slight reduction in the recovery for Au, Cu and Pb compared to slight increases in the Ag and Zn, between 2021 and 2022. The biggest change in recoveries is within the Ag, where the year on year difference is due to lower recoveries in the Copper Concentrate.

Table 10-2: Cumulative Recovery used for CoG Analysis

Element	Recovery (%) 2021	Recovery (%) 2022	Recovery (%) 2023
Au	36.5	31.8	33.4
Ag	82.0	85.5	81.5
Pb	79.4	79.2	79.0
Cu	65.2	63.1	62.7
Zn	80.0	80.8	80.3

Source: SRK, 2023

10.5 Adequacy of Data and Non-Conventional Industry Practice

In the QP’s opinion, the results to date are sufficient for the definition of a mineral resource with reasonable prospects for economic extraction of the three concentrate products produced. The QP is not aware of any non-conventional industry practice being utilized.

11 Mineral Resource Estimates

The mineral resource estimate presented herein represents the most recent resource evaluation prepared for the Santa Bárbara project in accordance with the disclosure standards for mineral resources under §§229.1300 through 229.1305 (subpart 229.1300 of Regulation S-K).

11.1 Key Assumptions, Parameters, and Methods Used

This section describes the key assumptions, parameters, and methods used to estimate the mineral resources. The technical report summary includes the mineral resource estimates, effective December 31, 2023.

11.1.1 Mineral Titles and Surface Rights

The mineral resource estimate stated herein is expressed on 100% terms of the resources contained within mineral title and surface leases which are currently held by IMMSA as of the effective date of this report. All conceptual optimizations to constrain the statement of mineral resources have been limited to within these boundaries, as well. Current and future status of the access, agreements, or ownership of these titles and rights is described in Section 3 of this report.

11.1.2 Database

IMMSA finalized digitizing the historical database for the Santa Bárbara project into Excel files and imported into Leapfrog Geo software for implicit 3D geological modeling, block modeling and resource estimation. The new geological model is in process and for this resource estimation, the manual validation by SRK to validate the current mineral resources was completed following the same procedures of the two previous resource estimations. SRK considers the procedures used by IMMSA to be reasonable but are not in-line with current, typical industry standards.

All drilling and sampling completed by the Company are logged for a variety of geological parameters, including rock types, mineralogy, and structure. Historical drilling featured cross-sections, and maps have locally been used for modeling purposes for the mineralization contacts. SRK considers movement to a digital database will result in improvements in the ability to develop a robust geological model supporting the mineral resource estimate, which is a focus for 2024.

11.1.3 Geological Model

There is extensive knowledge of the geology, structural, and mineralization controls of the Santa Bárbara deposit. The 3D geological model construction was started in 2023 and will be the focus for Santa Barbara in 2024. The historical information is stored on maps, which include the underground workings, lithology, structure, and mineralization.

Currently, the geological interpretations are in paper format and in AutoCAD vertical, long, and plan sections. The mine geologists map the underground workings and define the channels and the sample limits. Location of sampling points are noted on the geological maps. The mapping includes description of the rock type and the mineralization characteristics, which is then transcribed into the topographic maps and used in conjunction with the assay results.

Once the maps are generated, IMMSA geologists delineate the veins, mineralized zones, and the geological interpretation in the plan views, as shown in Figure 7.3. This information is then used to define the extension of the resource blocks. To generate the volumetric measurement, the area is first determined by measuring the perimeters of the defined blocks and recorded. The volume is then calculated for the mineral resource estimation using the true width of the vein or the projection of irregular areas using sectional interpretations (**Error! Reference source not found.**).

IMMSA initiated the geological interpretations of San Diego, using the implicit modeling of Leapfrog Geo software. Integrating the mine maps, horizontal and section interpretations, and the existing geological models into a single model will present some challenges due to the quantity of data and the complexity of the deposit and work is planned for 2024 to complete this task. At the time of reporting insufficient work has been completed to use the geological as the basis for the current mineral resources.

To generate a consolidated 3D geological model in 2024, the following activities are in process:

- Compilation of the 3D database of the underground chip channel samples. The exclusion of samples in already mined zones should be defined by the QP in charge of the geological modeling. The 3D modeling software Leapfrog Geo is being used for this activity.
- Conversion of all the information to a unique coordinate system.
- Consolidation of the rock and drill core sampling database (collar, survey, assay, lithology, alteration, vein codes, etc.) in Excel and paper formats. This activity will require the digitizing of additional information from the maps and drill logs in paper that have not yet been digitized.
- Digitizing sections and maps with lithology information that are not in digital format. This consolidated information will be the basis for the 3D geological interpretation.
- Digitizing and construct depletion solids.

11.2 Mineral Resource Estimates

The mineral resource statement presented herein represents the latest mineral resource evaluation prepared for Santa Bárbara.

The mineral resource estimation for Santa Bárbara was completed using the available data based on handmade documentation and calculations, including, in part, information in AutoCAD and Excel formats. Due to the characteristics of the available information of Santa Bárbara, the 3D geological model in process, geostatistical analysis, block model construction, and geostatistical estimation using specialized software are not included as part of this report.

This mineral resource estimation is based on the current Mining blocks/stope calculations completed by Santa Bárbara and include the following aspects:

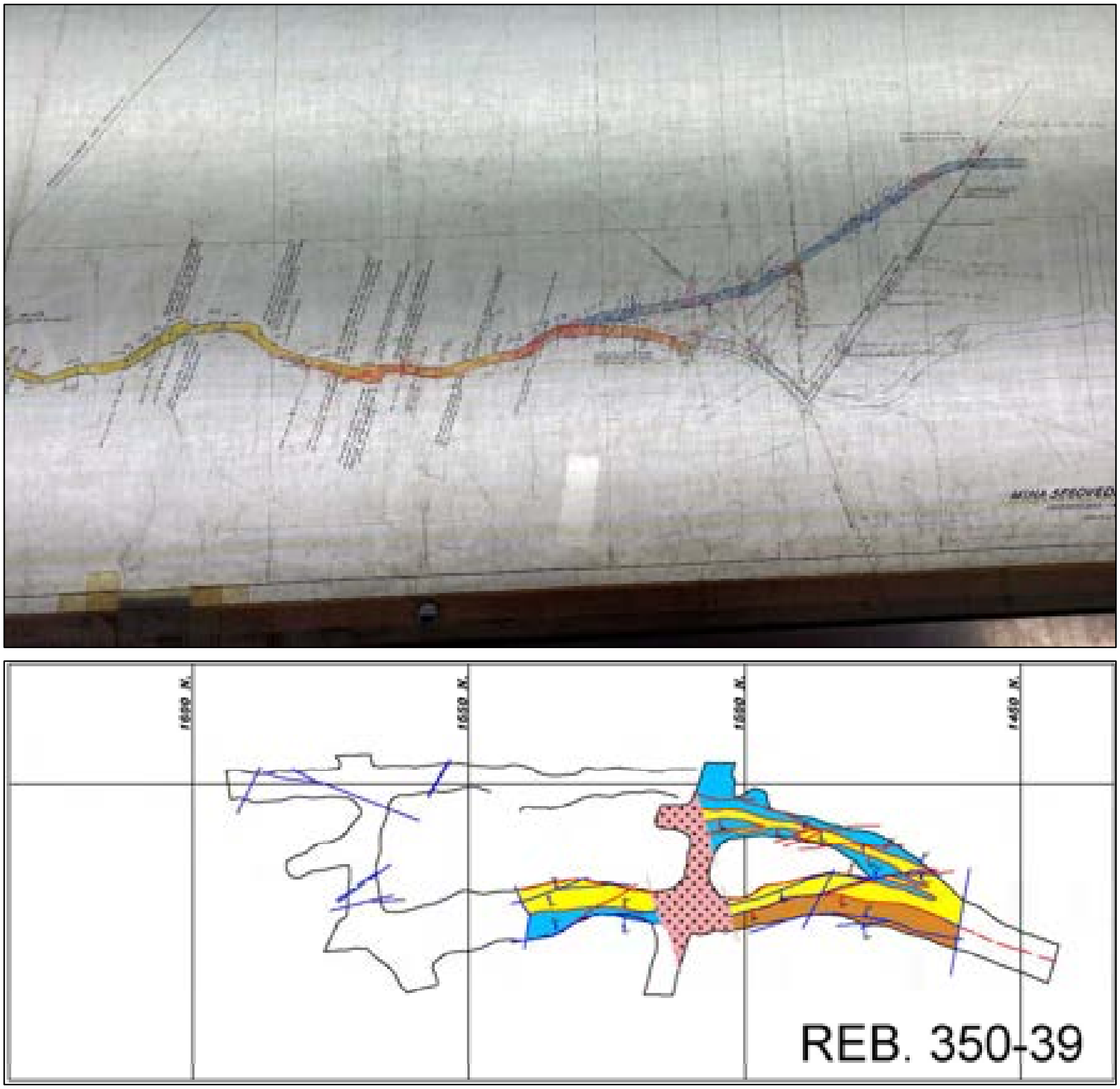
- Data compilation and verification, channel, and core sampling
- Calculation of areas of blocks in vertical or horizontal sections
- Volume calculations from areas and influence distances
- Calculation of grade weighted averages
- Tonnage calculations
- Classification

11.2.1 Data Compilation and Verification

The geological information and the sampling of the underground workings have been historically collected on paper and transferred to maps and formats, including the geological interpretations, lithology, mineralization type, and alteration among other characteristics.

The information that is registered in maps and formats is complemented with the assay results obtained from the internal laboratory and transferred to the maps and formats by hand. In the second half of 2021, Santa Bárbara started digitizing all the historical information, including the drilling, rock sampling, and mapping and this activity is expected to be finalized in the first half of 2024. In 2023 the digitalizing of historical drillholes were finalized and most of the San Diego interpretations and rock sampling was completed. For the first half of 2024, IMMSA plans to complete the digitalization of the pending information of Tecolotes and Segovedad.

Part of the historical and the more-recent information (geology, mineralization, structural, sampling, etc.) collected on maps has been transferred to a digital format using AutoCAD software using the mine topography information provided by the surveyors (Figure 11.1). This information is then used to generate sections, complete the geological interpretations, and produce long sections, vertical sections, and plan views from where the mineralized zones areas are delimited using the lithology, mineralization, and the sample results.



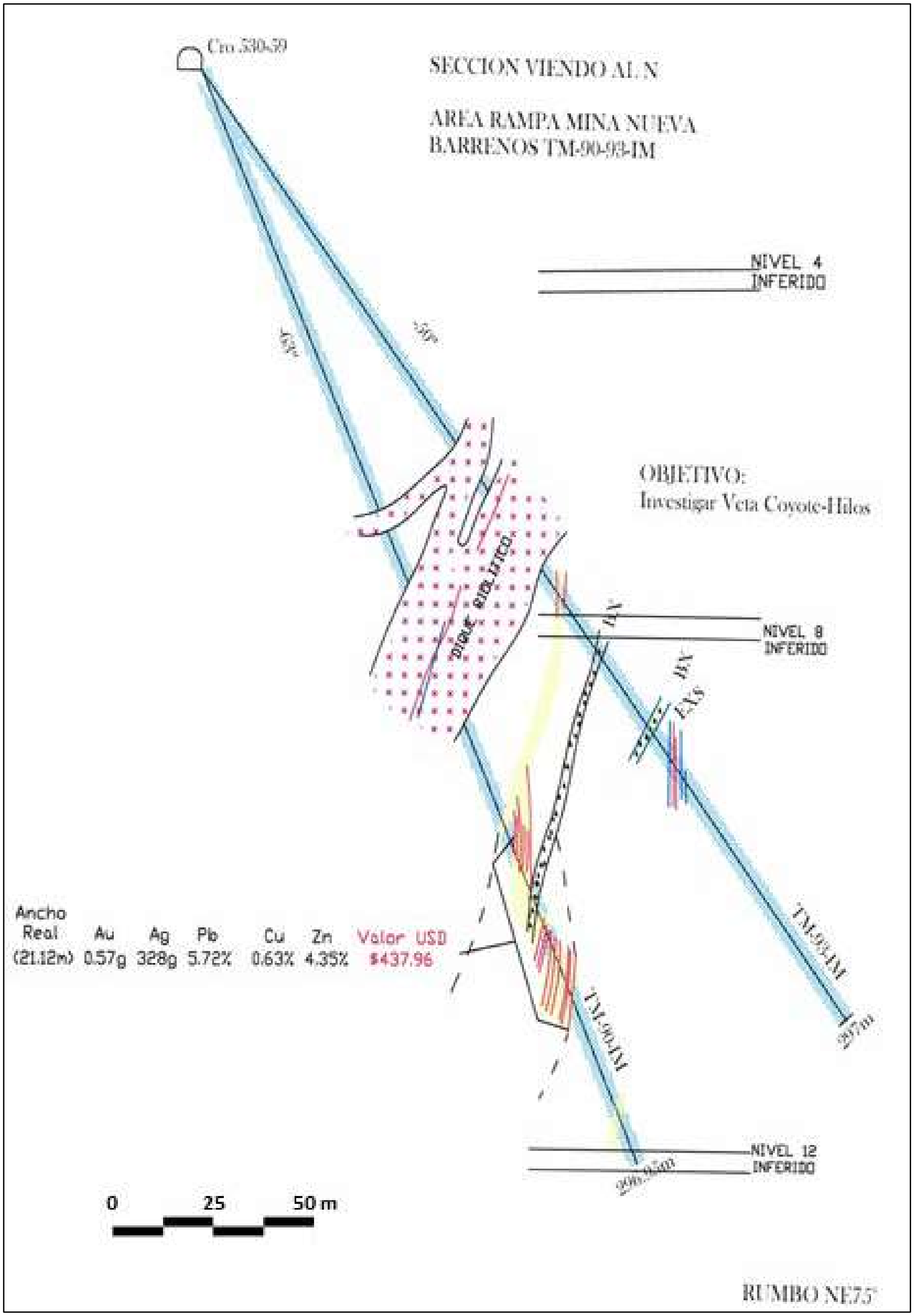
Source: SRK, 2021

Figure 11.1: Examples of Plan Views of Underground Workings and Geology Mapping in Paper Format and as Digitized in AutoCAD

The following is the process to define the block shapes:

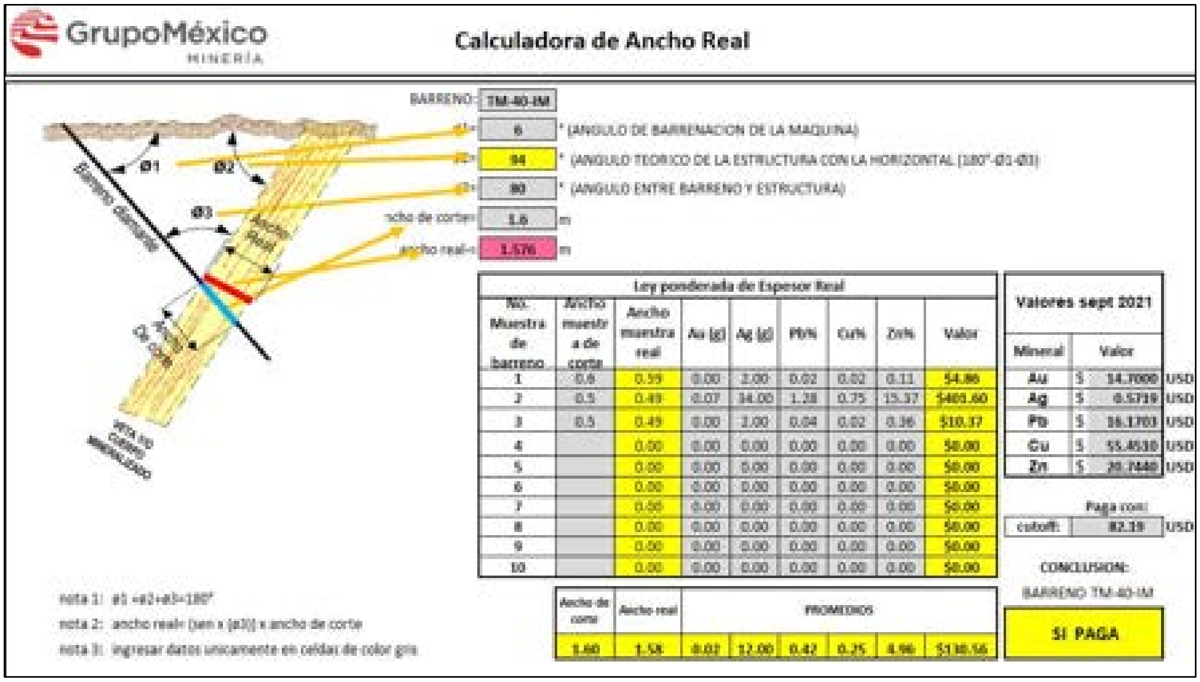
- Based on the geological underground mapping and channel sampling, the geologists define the extension of the continuous mineralization in veins and locally in replacements in plan views and outline the mineralized areas in paper maps or in AutoCAD. The mineralization is associated to the veins in Santa Bárbara. The vertical sections approximately perpendicular to the vein directions are used to interpret behavior of the veins (Figure 11.1 and Figure 11.2).
- Santa Bárbara's topography department generates updated long sections (parallel to the general direction) for each vein with the information of mined areas and underground workings. The interpreted blocks are in the long sections, and the area is measured directly from them using AutoCAD and historically with manual methods.

- The real width of the vein is calculated from the information of drilling and/or channel sampling, which is weighted according to the influence in the block.
- To calculate the true width of the veins when drilling is used, IMMSA performs the correction of apparent widths using the table shown in Figure 11.3.
- The maximum extension of the block from channels or drilling are established by the manual of resources of IMMSA, which provides the parameters to classify each block, and if necessary limited by existing underground workings or mined areas.
- Once the geologists have defined the block areas from the long sections, the volume of the block is defined by multiplying the area by the vein true width.
- The calculated volumes require additional correction due to the dip of the vein. The dip of the vein in the location of the block is obtained from the underground mapping and the general interpretation of the vein. The dipping factor is calculated, which is greater or equal than 1.



Source: SRK, 2021

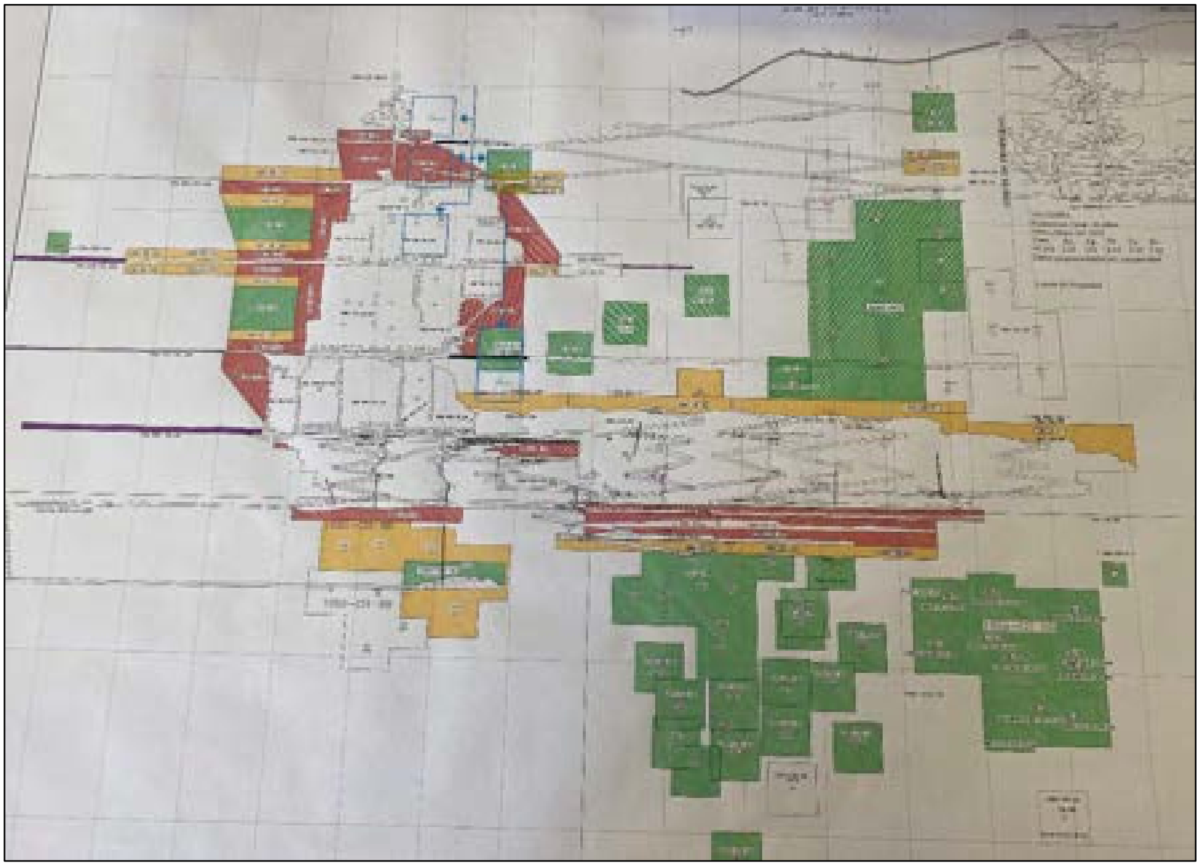
Figure 11.2: Example of Geological Interpretation in Vertical Section



Source: IMMSA, 2021

Figure 11.3: Spreadsheet used to Obtain the True Width of the Veins When using Drilling

Figure 11.4 shows an example of a long section showing resource blocks and their areas that are measured from the long section. These long sections include the mined areas for every vein.



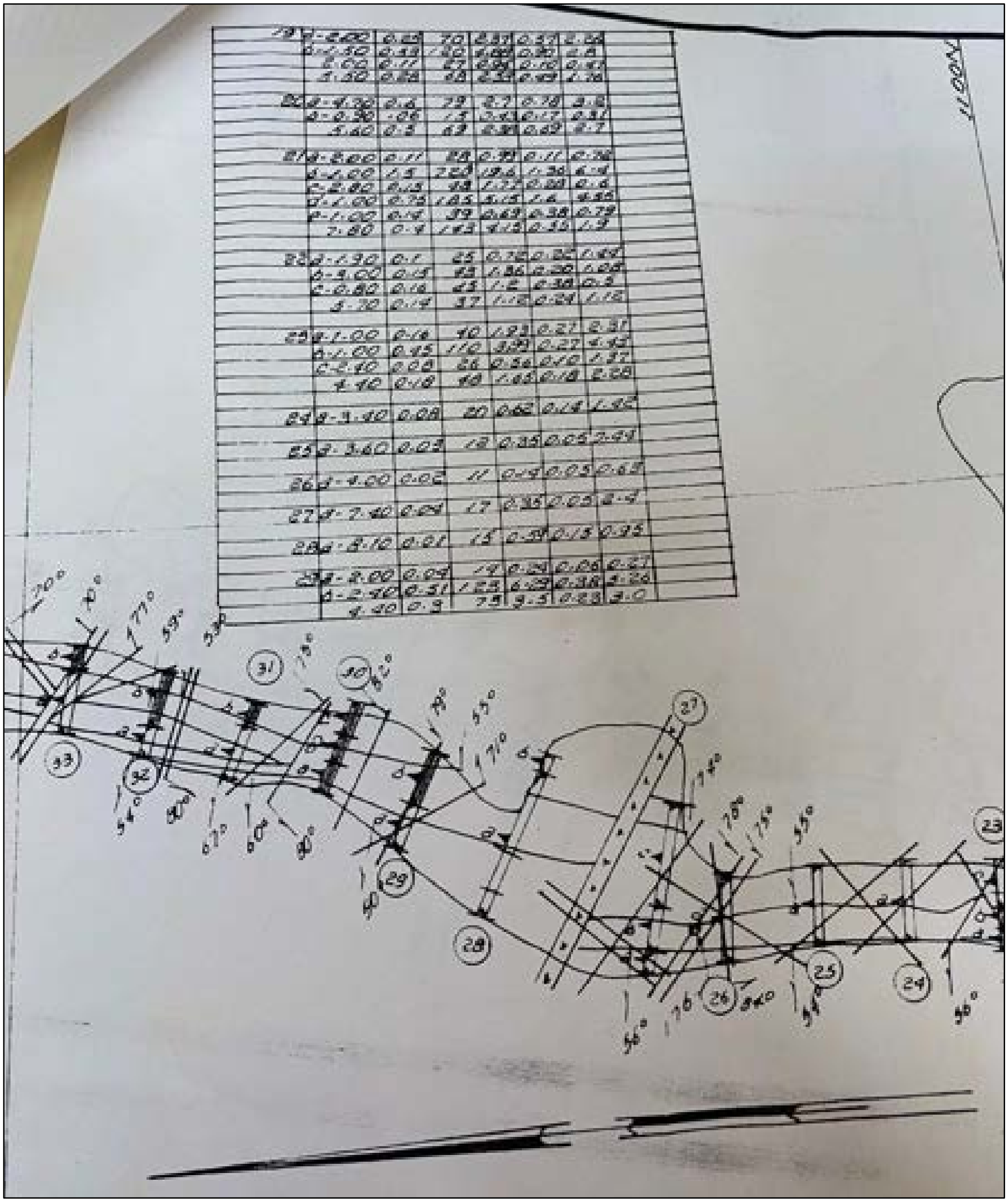
Source: IMMSA, 2021
Note: Internal mine planning confidence ranges are shown in red, orange, and green.

Figure 11.4: Long Section Example of Veta Coyote Including the Resource Blocks and the Underground Workings at the Santa Bárbara Project

11.2.2 Calculation of Weighted Averages Grades and Volume Calculation

The samples are taken perpendicular to the veins from the stope faces or roofs as well as from the underground workings along the veins or from drillholes intersection the block. Figure 11.5 shows an example of a handmade map including the channel sample lines and the corresponding table with assay results:

- Average grades of each group of channel samples and/or drillhole are obtained using length or distance weighting where necessary.
- Each block can have the influence of various channel sample groups and drillholes. Areas of influence are defined by the geologist for each group of channel samples or drillholes. These areas are then used to obtain the final grades of the block. This is like a polygonal style of estimation process, which provides a single estimated value for the defined area (stope). This was a traditional method used in underground mines in the past, but new techniques provide more flexibility to assess changes to potential mine plans.



Source: IMMSA, 2021

Figure 11.5: Example of Plan View of Underground Working and the Channel Samples Perpendicular to the Vein and the Assay Results Table

IMMSA updates the resource calculations for the existing blocks on an annual basis, updating the outline of the blocks, which considers the recent mined areas and using the new set of channel samples collected from the advanced stopes and drilling if new data is available.

11.2.3 Capping

Before the final calculation of weighted average grades for each resource block, the geologists review the assays and apply capping if required using the following procedure:

- Evaluate the grades of a specific zone within a resource block
- Identify samples considered outliers based on local grades within the particular vein and resource block
- Calculate the weighted average of the raw grades for each element
- Cap the identified outliers for each element with the average grade calculated in the previous step
- Recalculate the final weighted average grade

This is a local capping approach based on experience and knowledge of the operation and within different areas of the operation, which the QP considers reasonable.

11.2.4 Density

Santa Bárbara uses a 3.0 t/m^3 density value. The plant and the mine have been using this density value for decades, which provides a reasonable level of confidence. Santa Bárbara initiated the collection of specific gravity tests to increase the size of the database to confirm the current density values. It is the QP’s opinion Santa Bárbara should consider this activity a priority for 2024.

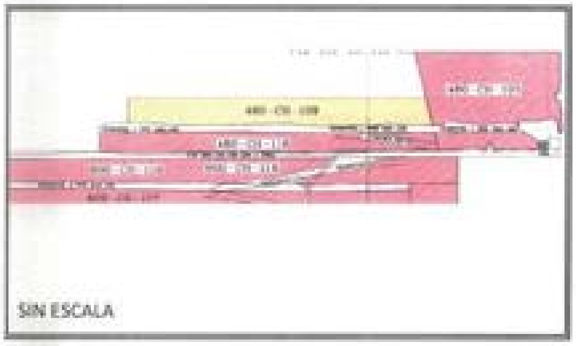
It is the QP’s opinion that different vein systems, rock types, and the characteristics of the mineralization will likely have variable densities. The use of a standard density value likely results in over and under estimation of different rock types on a local scale. The QP considers this to be an aspect for further investigation to obtain a more-robust density calculation and reduce risk of local estimation errors due to tonnage estimates.

The tonnages are calculated by multiplying the obtained volumes by the 3.0 t/m^3 density value.

11.2.5 Documentation

Plans and calculations for the resource estimates are made in a sufficiently detailed manner to be useful for other purposes. The calculation for each block is carried out in spreadsheets (Figure 11.6) using Excel and/or in forms filled out by hand. In the spreadsheets, the final tonnage and grades of the various elements are recorded on a per block basis. The calculations for each block are accompanied by drawings and sections as necessary. All spreadsheets, drawings, and other documents are stored in paper folders and maintained in the mine geology office (Figure 11.7). Figure 11.8 shows the information stored in paper folders supporting the resource estimation for each block.

INDUSTRIAL MINERA MEXICO S.A. C.V UNIDAD SANTA BARBARA
HOJA PARA CALCULO DE RESERVAS



MINA	SAN DIEGO
VETA	COYOTE HILOS
BLOQUE	480-CH-116
CLASIFICACIÓN	PROBADO
FECHA	OCTUBRE 2023
CALCULADO POR:	ING. PAMELA RDZ
CHECADO POR	ING MARIO CERVANTES
TONELADAS TOTALES	40,996
CAMBIO DE AÑO ANTERIOR	TON Y LEY
NOTA:	

(1) Techos o que se corresponda
(2) Longitud de tramo, area, volumen totalizados

FIGURA O SECC NUM (1)	CALCULOS AUXILIARES						OBSERVACIONES
	AREAS				TONELAJE		
	DIMENSIONES	PROM. FINALES (1)	ANCHO LONG(1)	METROS CUBICOS	DENSIDAD	TON. METRICAS SECAS	
1	X	4,117	3.19	13,140 X	3.0	39,419	AREA
							CALCULADA
							EN AUTOCAD
							LONGITUDINAL
		4,117		13,140 X	3.0	39,419	

LOCALIZACION MUESTRAS	DATOS PESO (2)		Au	Ag	Pb	Cu	Zn		VALOR	OBSERVACIONES
PTE 480-CH-116	138.50	2.36	0.84	44	2.62	0.31	3.17			VER ANEXO
SILL 480-100 N Y S	111.50	4.22	1.07	168	1.79	0.21	3.92			VER ANEXO
	250.00	3.19	0.94	121	2.25	0.26	3.50			

DATOS FINALES

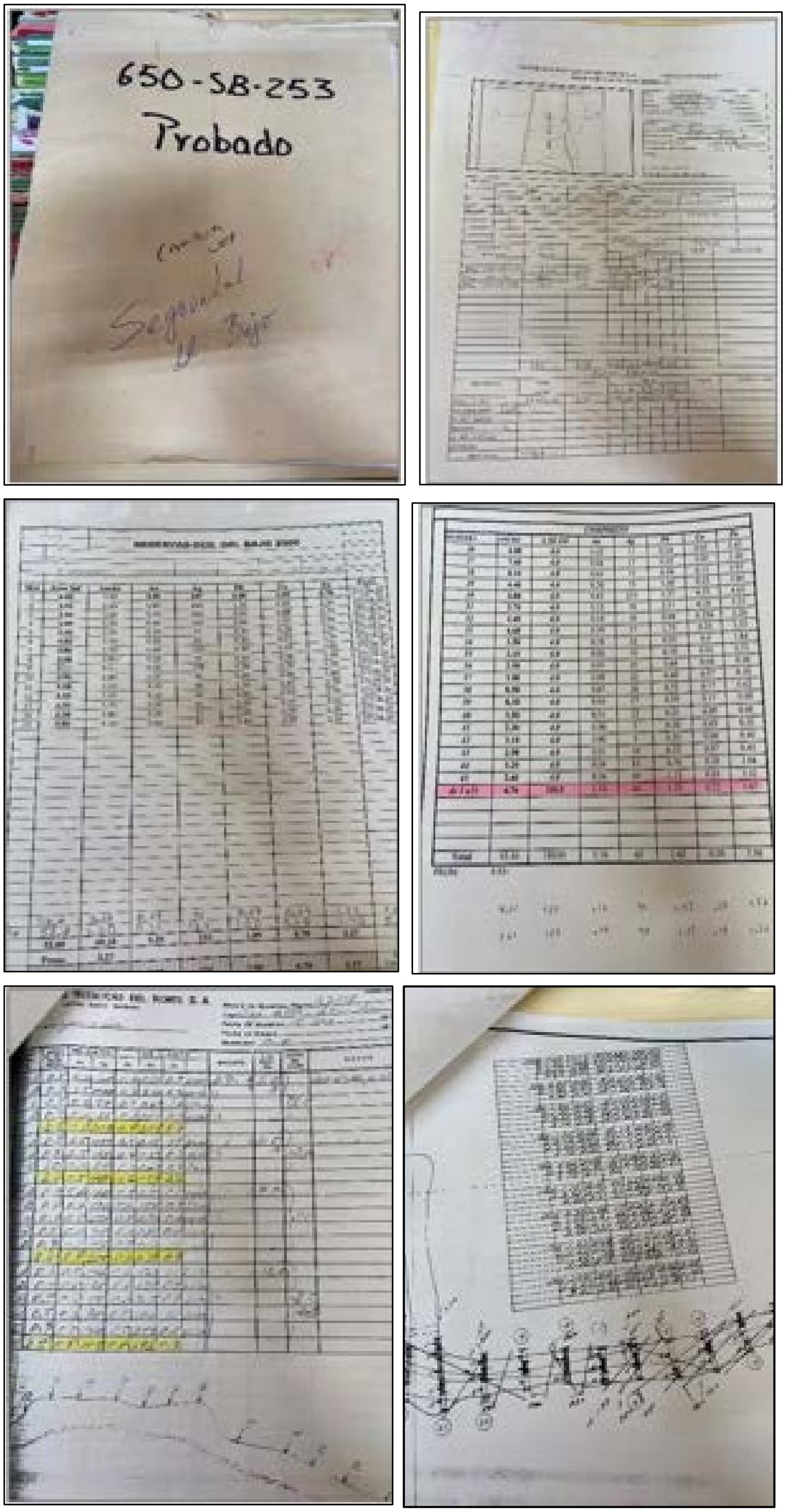
DESCRIPCION	TONELADAS		Au	Ag	Pb	Cu	Zn		VALOR	OBSERVACIONES
TOTAL IN-SITU	39,419	3.19	0.94	121	2.25	0.26	3.50			
FACTOR ECHADO 1.04										ECHADO PROMEDIO 74
IN-SITU RESULT.										
DILUCION (%)										
IN-SITU ACEPTADO										
QUEBRADO										
GRAN TOTAL	40,996									

Source: SRK, 2023

Figure 11.6: Example of Table used for Calculation of Resources/Reserves in Santa Bárbara

Source: IMMSA, 2021

Figure 11.7: Information of Historical Drilling and Information of Resource Blocks Stored at Santa Bárbara



Source: IMMSA, 2021

Figure 11.8: Example of Data Supporting a Resource Block at Santa Bárbara

11.2.6 Depletion

The shape of the blocks and their extensions are defined by using the updated underground surveying information produced by the IMMSA survey department. The mined areas and underground workings are mapped in the plan, vertical, and long sections that the geologists use to outline the resource blocks in long sections. This methodology makes it possible to discount the mined areas, since the resource blocks do not include the underground workings and exploited stopes, which act as limits during the blocks' outlining.

The historical surveying of underground workings and exploited zones is an aspect that introduces some level of inaccuracy when establishing the volumes exploited and the extension of some blocks.

At the operation, the engineering department is responsible for keeping the topography of the mining works updated (digitally and physically in plans). The current system involves capture of survey points directly into a digital copy of the underground workings, which is validated in the field by the survey. The survey data points are used to update the AutoCAD definition of the depleted areas.

The QP comments that the final depletion shapes have been surveyed at the end of November 2023 with the additional depletion of December 2023 based on the planned depletions. It is QP's opinion that this will not have a material impact on the final reported mineral resources.

11.3 Resource Classification and Criteria

The QP has classified the mineral resources in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K) and in a manner consistent with industry guidelines and definitions as defined by CRIRSCO. Mineral resources are classified as Indicated and Inferred, according to the following definitions and criteria.

11.3.1 Measured Resources

No Measured resources are stated, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. In QP's opinion, other limitations are a lack of density measurements and insufficient QA/QC protocols in the mine sampling protocols.

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of measurements of downhole surveys for historical drilling, SRK established that there are no Measured resources in Santa Bárbara.

11.3.2 Indicated Resources

Based on good geological evidence, it is the mineral that determines its continuity in terms of the size, shape, and content of the mineralization in the structures already known in exploitation, being able to be quantified at any depth of the deposit based on diamond drilling, whether it is superficial or underground, as long as it does not have a gap greater than 30 m, both vertically and horizontally.

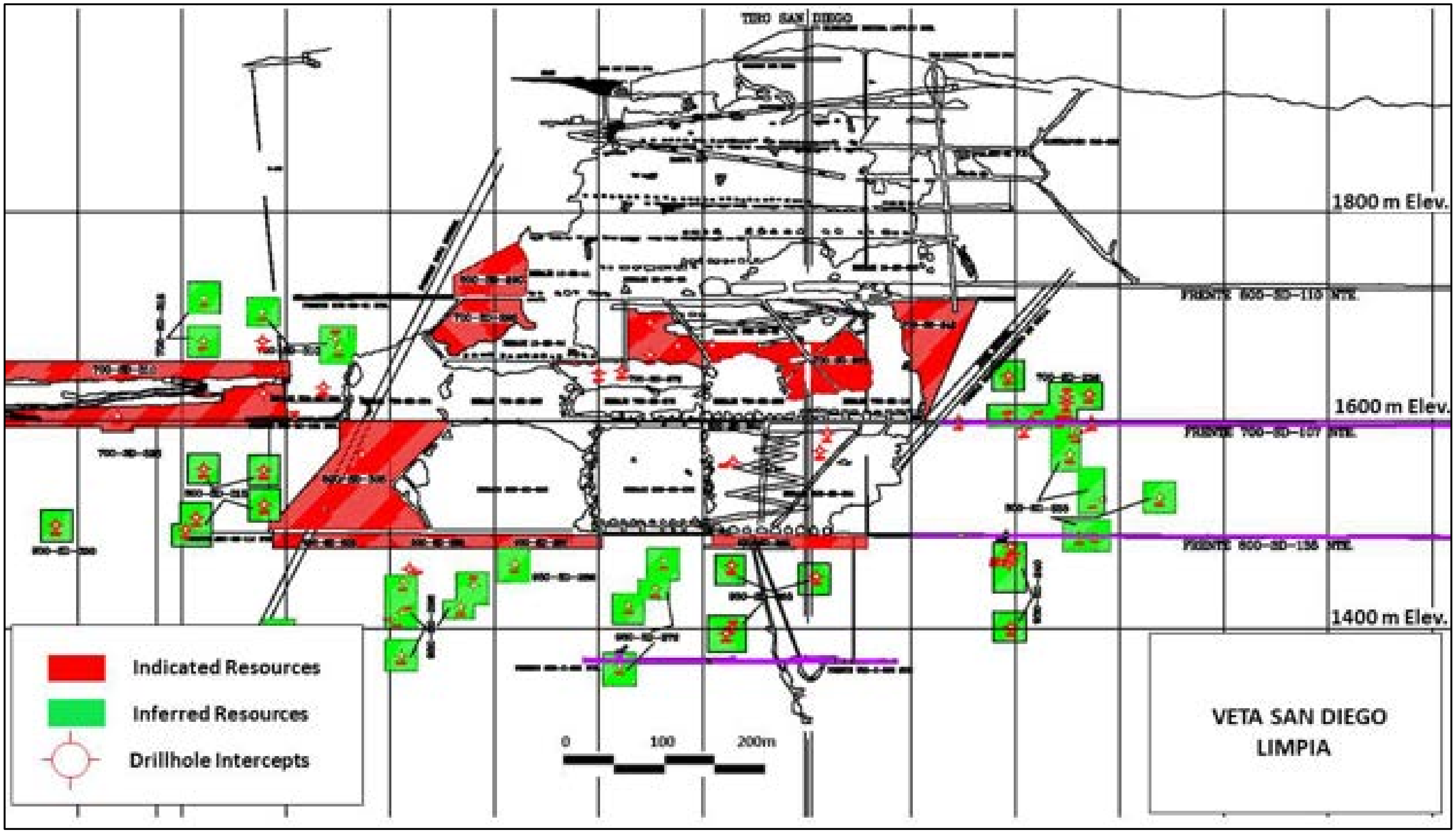
Where there are no vertical works connecting the levels or diamond drilling, the mineral sampled may only be quantified up to 30 m above or below the level or above the head of the stope. It is established that below the last level in the different sections of the mine and regardless of their elevation in each section, only Indicated resources can be quantified up to 15 m below the last level without diamond drilling. To have the desired reliability, Santa Bárbara considers that there should be no Indicated resources above the first level of the mine.

11.3.3 Inferred Resources

Inferred resources can be established in areas with sufficient geological confidence where the following requirements are met:

- The remaining mineral between two levels, with a maximum separation of 120 m, when there is no diamond drilling.
- The mineral is determined by diamond drilling, either superficial or underground, at any depth of the deposit, when systematic drilling is carried out, with a separation of no more than 60 m between drillholes. When the above is not complied with, only a radius of influence of 15 m is allowed.

Figure 11.9 shows an example of the resource blocks in Veta San Diego Limpia (long section) of 2021 and the distribution of their classification.



Source: IMMSA, 2021

Figure 11.9: Long Section of Veta San Diego Limpia Including the Mineral Resource Blocks

11.4 Uncertainty

11.4.1 Indicated Resources

It the QP's opinion that the Indicated resources are estimated based on adequate geological evidence and sampling. The distances of influence from underground sampling and distances between drilling are the controlling aspects on the uncertainty. Santa Bárbara uses a maximum of 30 m from channel sampling and 30 m between drillholes. The criteria and uncertainty correspond to the medium degree of uncertainty column in Table 11-1.

Table 11-1: Sources and Degree of Uncertainty

Source	Degree of Uncertainty		
	Low	**Medium**	**High**
Drilling	Recent drilling completed by the exploration team is in line with industry standards. This drilling is focused in new areas that are extensions of the vein systems found at Santa Bárbara.	Protocols of historical drilling data supporting the mineral resources do not fulfill industry standards.	
Sampling		Protocols of rock sampling are not in-line with industry standards. Density of rock and core sampling supporting the mineral resources is reasonable.	
Geological knowledge	There is an extensive knowledge of the geology and mineralization of the Santa Bárbara mineral deposit. This aspect and the experience of the management team provides confidence to the geological assumptions during geological interpretations.		
QA/QC	Sample preparation, chemical analysis, and the QA/QC procedures implemented by the exploration team for the drilling completed by the contractor Tecmin in recent years meet current industry standards. These works are focused in new areas that are extension of the veins systems at Santa Bárbara.	A lower precision of historical data has been recognized. Drilling and channel sampling completed by the mine geology department supporting the mineral resources have not been supported by adequate QA/QC protocols.	
Data verification	The extensive historical production information and knowledge of geology and mineralization provides support to the historical data collected since the early 20th century.	The lack of an important part of the core from historical drilling supporting the mineral resources limited the verification activities.	
Database	Original geology, structural and mineralization maps, drill core logging formats (including the assay results), and interpretation plan and vertical sections that support the mineral resources are stored in the operation in paper format, and a part of it is now in digital format.	Most of the data supporting mineral resources is stored on paper. Local errors related to handwritten supporting data are expected.	
Bulk density		A unique value is used for all the rock types and does not consider the mineralization, vein system, and geology changes. This introduces local inaccuracies. Plant and mine have been using a unique density value for decades, which provides support to this number.	
Variography		Not all of the project data are in digital format for an adequate continuity analysis. Continuity assumptions of mineralization have been based on the extensive geological knowledge of the deposit.	
Grade estimation		Grades and volume calculations are based on historical and recent data, which provides some level of inaccuracy. Part of the calculations were completed using handmade drawings, which introduce inaccuracies.	
Prices, NSR values	Prices and costs are based on Santa Bárbara mining and production information (not exceeding 12 month averages) with 15% as premium applied for resources.		
Drill and sample spacing		Distances to underground workings and channel sampling are less than 30 m. There is a minimum of two drillholes within a drill spacing of 30 m.	There is a minimum of one hole at a distance less than 15 m.
Depletion		The resource blocks are defined considering the updated topography of the mine. The adequacy and precision of the historical surveying information of the underground workings and exploited areas introduces some level of inaccuracy to the limits of the resource blocks.	
Criteria of classification	Distances of influence of samples are supported on the good knowledge of geology and mineralization. These distances are considered conservative, which mitigates in some extent the risk associated to over-estimation of the continuity of mineralization.		

Source: SRK, 2023
Note: Changes in metal prices will likely result in significant changes in the values derived from the NSR equation. Currently, only limited stopes fall below the operating costs of US$83.4/t.

11.4.2 Inferred Resources

The Inferred category is limited to the resources that are in areas where the quantity and grade are estimated based on limited sampling and moderate to limited geological evidence. This category is considered to have the highest levels of uncertainty, which correspond to the high degree of uncertainty column in Table 11-1. These areas of the Santa Bárbara project represent the areas with the lowest drilling density and influence distances to channel sampling of up to 60 m. SRK considers that these areas of the mineral resource will need additional drilling and underground workings prior to mining.

Considering the uncertainty noted above and the means designed to address uncertainty in the modeling and estimation process, SRK is of the opinion that the stated mineral resources are appropriate.

In addition, there is potential for some of these uncertainties or risks to be mitigated or reduced through additional study. Section 23 of this report summarizes recommendations for these studies. It is the QP's opinion that measures should be taken to mitigate the uncertainty, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- Complete the digitization of all geological information for all the areas of the deposit and storage of data into a commercial secure database
- Complete the detailed geological modeling methods using the new digital database, which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains
- Introduction of more-routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.0 t/m^3 value
- Rigorous approach to classification which appropriately considers the noted detractors in confidence and utilizes criteria designed to address them

11.5 Cut-Off Grades Estimates

Definitions for mineral resource categories used in this technical report summary are those defined by the SEC in S-K 1300. Mineral resources are classified into Indicated and Inferred categories. Mineral resources are reported in total, as currently no mineral reserves are reported in accordance with S-K 1300 requirements.

Geologists use diamond drilling information, channel sampling, and development information to identify mineralized areas. The mineralized areas are then divided into smaller blocks based on the vein. Information on each block, such as classification, dimensions, thickness, and sampled grades, are entered into an Excel spreadsheet to compile the final mineral resources.

Santa Bárbara's mineral resources are considered to be amenable to underground mining methodologies, as has been established at the mine to date. Due to the variable characteristics of the orebodies, four types of mining methods are used: shrinkage stoping, long-hole drilled open stoping, cut-and-fill stoping, and horizontal bench stoping. The ore, once crushed, is processed in the flotation plant to produce concentrates (zinc concentrate, copper concentrate, and lead concentrate).

Given that process recoveries and costs in the resource model are grade and/or domain dependent, the resources are reported with respect to a block NSR value, which is calculated on a stope block (panel) basis. The cut-off value used for the resource estimate is based on an NSR value, in units of US$/t, which can be directly compared to operating unit costs. The NSR formula is:

$$NSR = \frac{\text{Gross Revenue – Off-Site Charges}}{\text{Tonnes Processed}}$$

The calculation of the NSR is effectively a calculation of unit values for the individual metals, which results in a value for a block based on the contained metal.

IMMSA reviewed supply and demand projections for zinc, lead, and copper, as well as consensus long term (10-year) metal price forecasts. IMMSA's supplied the QP with internal selected metal prices for mine planning for the Santa Bárbara project. The QP has reviewed these prices against independent forecasts from banks and other lenders, and in the QP's opinion the proposed prices are considered appropriate. The QP has adjusted the IMMSA selected metal prices to the selected mineral resource estimation prices using a factor of 15% higher, which is in-line with typical industry practice.

NSR cut-off values for the mineral resources were established using a gold price of 1,725 US$/oz, a zinc price of US$1.32/lb, a lead price of US$1.09/lb, a silver price of US$23.0/oz, and a copper price of US$3.80/lb (Table 11-2).

Table 11-2: Price Assumptions

Factors	Value	Unit
Metal Prices		
Au	1,725.00	US$/oz
Ag	23.00	US$/oz
Pb	1.09	US$/lb
Cu	3.80	US$/lb
Zn	1.32	US$/lb
Exchange rate (MXN:US$)	18.2109	

Source: SRK, 2023

It is the QP's opinion that the metal prices used for mineral resources are reasonable based on independent checks using consensus, long-term forecasts from banks, financial institutions, and other sources.

Santa Bárbara's metallurgical recovery factors are based on historic performance of the processing plants and are shown in Table 11-3. The basis for these factors is discussed in Section 10.4 of this report. The QP has elected to use the 2022 recoveries for the basis for the year-end mineral resources.

Table 11-3: Metallurgical Recovery Assumptions

Element	Value	Unit
Au	33.4	%
Ag	81.5	%
Pb	79.0	%
Cu	62.7	%
Zn	80.3	%

Source: SRK, 2023

In addition to the price and metallurgical recovery, IMMSA has applied additional NSR factors in the metal equivalency calculation to account for other aspects of the mineralization. These additional factors include but are not limited to:

- Smelter recoveries
- Smelter penalties (arsenic and bismuth)
- Fleet/transport costs

The NSR factors can be expressed as a further percentage and are averaged out over the annual production. Table 11-4 shows a comparison of the 2022 vs. 2023 factors for the additional percentages applied to the recoverable metal (in-situ metal times recovery). It is the QP's opinion that there is no material change in the percentages.

Table 11-4: NSR Adjustment Factors

Element	Value (2021)	Value (2022)	Value (2023)	Unit
Au	71.7	68.6	70.8	%
Ag	90.6	90.7	90.4	%
Pb	94.3	94.4	94.4	%
Cu	84.7	87.4	85.5	%
Zn	85.2	84.6	84.5	%

Source: SRK, 2023

In summary, using the above prices, recovery, and NSR adjustments for the smelter terms, the QP has applied the following equation to define the stope values on a stope-by-stope basis. The following criteria should be considered inclusive of the average metallurgical recovery:

NSR Value = Au (g/t)*13.106+Ag (g/t)*0.545+Pb (%)*17.966+Cu (%)*44.826+Zn (%)*19.788

The operating unit cost used to determine the reasonable prospects for economic extraction has been determined by reviewing the costs over the past three years. Based on current market conditions, the QP has elected to use the 2023 costs as the basis for the assessment, which in their opinion is a reasonable basis for the declaration of mineral resources (Table 11-5) and reflect the same conditions under which the recoveries have been assumed.

The economic value of each stope is then calculated in an Excel spreadsheet using the NSR equation above, and the QP has assigned a flag for all stopes based on an assessment of their economic value where the NSR values is above/below a CoG of the operating unit cost of US$83.41/t.

Table 11-5: Operating Unit Cost

Factor	Value	Unit
Mine	32.40	US$/t
Mill	14.65	US$/t
Indirect (mine)	16.56	US$/t
Indirect (mill)	2.82	US$/t
Subtotal	**66.43**	**US$/t**
Smelting, refining, and transportation	15.85	US$/t
Administrative	1.13	US$/t
Total Operating	**83.41**	**US$/t**

Source: IMMSA, 2023

11.6 Summary Mineral Resources

Santa Bárbara mineral resources are consistent with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Using the panels defined by the geologist, the QP has reviewed each panel relative to the defined CoG's. Mineral resources have been reported on an in-situ basis. No further accounting for additional stockpile material is considered in the current estimate. Depletions have been accounted for within each panel using the latest survey information for most of the panels, and only a few panels that were exploited in December of 2023 were adjusted according to the planned exploitation. It is QP's opinion that the differences with the real exploited material are not material.

In the QP's opinion, the assumptions, parameters, and methodology used for the Santa Bárbara underground mineral resource estimates, while not optimized to provide flexibility in the planning processes, are appropriate for the style of mineralization and mining methods.

Table 11-6 summarizes the mineral resources for the Santa Bárbara underground operation as of December 31, 2023. Mineral resources have been reported in total, as currently no mineral reserves are declared for the Santa Bárbara project in compliance with the new S-K 1300 standards.

Table 11-6: Santa Bárbara Summary Mineral Resources at End of Fiscal Year Ended December 31, 2023, Based on Price[1]– SRK Consulting (U.S.), Inc.

IMMSA Underground - Santa Barbara								Cut-off[2]: NSR US$83.4				
Category	Quantity	Grade						Contained Metal				
	Tonnes (kt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR US$	Au (koz)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured												
Indicated	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
M+I	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
Inferred	18,238	0.17	95	3.86	2.25	0.55	195	98	55,444	704,651	410,943	100,798

[1] Mineral resources are reported exclusive of mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Gold, silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is QP's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

[2)] Mineral resources are reported at metal equivalent CoG's based on metal price assumptions, * variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors.*** Mining, processing, and G&A costs total US$83.4/t.

* Metal price assumptions considered for the calculation of metal equivalent grades are gold (US$/oz: 1,725.00), silver (US$/oz: 23.0), lead (US$/pound (lb): 1.09), zinc (US$/lb: 1.32), and copper (US$/lb: 3.80).

** CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: Gold (33%), Silver (82%), Lead (79%) and Zinc (81%) and Copper (63%) assuming recovery of payable metal in concentrate

*** CoG calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Au*13.106+Ag*0.545+Pb*17.966+Cu*44.826+Zn*19.788

Note: The mineral resources were estimated by SRK Consulting (U.S.), Inc., a third-party QP under the definitions defined by S-K 1300.

11.7 Comparison to Previous Estimates

As part of the annual year end reporting requirements SRK has completed a comparison of the Mineral Resources between December 31, 2022, and December 31, 2023 for the Project. The results of the comparison are shown in Table 11-7.

Table 11-7: Comparison IMMSA December 31, 2022 vs. 2021 Mineral Resources Statement for Santa Barbara Mine, SRK Consulting (U.S.), Inc.

IMMSA Underground - Santa Barbara								Cut-off (2): NSR2022 US$83.4				
Category	Quantity	Grade						Contained Metal				
	Tonnes	Au	Ag	Zn	Pb	Cu	NSR	Au	Ag	Zn	Pb	Cu
	(kt)	(g/t)	(g/t)	(%)	(%)	(%)	(US$)	(koz)	(koz)	(t)	(t)	(t)
Indicated 2022	23,470	0.28	100	3.17	1.88	0.52	177.95	210	75,343	744,170	440,969	122,874
Indicated 2023	25,512	0.27	103	3.15	1.99	0.52	181	221	84,495	804,089	508,525	132,349
Difference (%)	2,042	-0.01	3	-0.02	0.11	-0.00	3	11	9,152	59,920	67,556	9,475
Difference (%)	9%	-3%	3%	-1%	6%	-1%	2%	5%	12%	8%	15%	8%
Inferred 2021	19,664	0.17	100	4.03	2.36	0.56	204	107	63,479	792,334	464,917	109,834
Inferred 2023	18,238	0.17	95	3.86	2.25	0.55	195	98	55,444	704,651	410,943	100,798
Difference (%)	-1,426	-0.00	-6	-0.17	-0.11	-0.01	-9	-9	-8,035	-87,683	-53,973	-9,036
Difference (%)	-7%	-1%	-6%	-4%	-5%	-1%	-4%	-8%	-13%	-11%	-12%	-8%

Source: SRK, 2023

SRK has reviewed the changes and does not consider there to be any material change in the estimates between the two time periods. Where differences exist, they can be attributed to the following factors:

- Mining depletion during 2023 (based on 11 months actuals and including planned depletion for last 1 month).
- Change in the CoG on a NSR basis of +$2.81/t or (+3.5%), resulting in a minor drop in the tonnage. The change in the CoG accounts for:
  - Changes in the recovery factors used between 2022 and 2023.
  - Slight increase in the cost of mining and indirect costs.
- Additional exploration and mine sampling to increase confidence in the mineral resources prior to mining.
- No changes were made to the price assumptions during the time period for the purpose of declaration of Mineral Resources.

11.8 Opinion on Influence for Economic Extraction

It is the QP's opinion that the geology and mineralization controls of the Santa Bárbara deposit are very well understood based on the extensive knowledge of the deposit from decades of exploitation.

The mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards. The mine is currently in production and in the QP's opinion, there remains a reasonable prospect for economic extraction of the resource.

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

12 Mineral Reserve Estimates

Section 12 Mineral Reserve Estimates is not applicable for the current level of study and has not been included in this report.

13 Mining Methods

Section 13 Mining Methods is not applicable for the current level of study and has not been included in this report.

14 Processing and Recovery Methods

Section 14 Processing and Recovery Methods is not applicable for the current level of study and has not been included in this report.

15 Infrastructure

The Santa Bárbara project has some existing infrastructure which supports the current operation. However, the QP has not inspected the infrastructure to sufficient levels to support the declaration of mineral reserves at this stage.

16 Market Studies

Section 16 Market Studies is not applicable for the current level of study and has not been included in this report. SRK has used costs, pricing, and criteria as supplied by the operation which were reviewed and considered to be reasonable to support the current level of studies. To support the declaration of mineral reserves, at a minimum, a pre-market study of the various concentrates will need to be completed.

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

Section 17 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups is not applicable for the current level of study and has not been included in this report.

18 Capital and Operating Costs

Section 18 Capital and Operating Costs is not applicable for the current level of study and has not been included in this report.

19 Economic Analysis

Section 19 Economic Analysis is not applicable for the current level of study and has not been included in this report.

20 Adjacent Properties

The Santa Bárbara deposit sits within a larger metalliferous province. The Santa Bárbara mining unit adjoins to the north-east with the San Francisco mining unit belonging to Grupo Frisco, located at a distance of 12.3 km (Figure 20.1).

Source: IMMSA, 2021

Figure 20.1: Location of the San Francisco del Oro Project

21 Relevant Data and Information

The Santa Bárbara mine is currently in production and has previously disclosed mineral resources in 2022. The Company is currently in the process of updating the required technical work which will be based on a revised 3D block model of the mineral resources in 2024.

22 Interpretation and Conclusions

SRK is of the opinion that the data and analysis presented herein is of sufficient quality and completeness to support the estimation of mineral resources. Santa Bárbara's vein deposits have been mined historically and are currently in production, processing three concentrates (zinc, copper, and lead) via underground mining operations.

22.1.1 Drilling and Sampling

The drilling and analytical work are supported by surveys and limited quality control measures to support confidence in the accuracy and precision of the data.

Historically and including 2023, Santa Bárbara's mine geology department has not implemented quality controls for the procedures of collection of samples from drilling and rock sampling from underground workings, which SRK considers to be not in-line with industry best practices and represents a source of uncertainty for the data collected by the mine geology department.

Since 2019, the exploration department has been managing the drilling campaigns at Santa Bárbara, using a contractor (Tecmin). The recent drilling has been completed following procedures and QA/QC protocols, which SRK considers to be in-line with industry best practices.

22.1.2 Geology and Mineralization

The geology and mineralization controls are very well known, supported by the almost 100 years of mining operation and knowledge of the deposit. The geology, mineralization, and sampling information that support the mineral resources is available in paper documents and partially in digital format.

22.1.3 Mineral Resource Estimates

The estimate was categorized in a manner consistent with industry standards. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for eventual economic extraction of the resource. A CoG has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is exclusive of reserves, but as no reserves have been quoted for December 31, 2023, the mineral resources are reported in total. Comparison of the updated Mineral Resources demonstrates, in the QP's opinion, no material changes from the previous estimates.

SRK is of the opinion that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

23 Recommendations

It is the QP's opinion that measures should be taken to mitigate uncertainty in several areas, including but not limited to:

- Continual drilling in the most critical areas of the deposit, locally to spacing of less than 50 x 50 m
- SRK recommends reviewing the procedures of drilling and sampling and design and implementing a complete QA/QC protocol for the drilling and rock sampling activities performed by Santa Bárbara's mine geology department.
- Regarding the exploration department's QA/QC protocol, SRK recommends including the second laboratory controls (Tercerías) periodically (quarterly, as an example) and reviewing the acceptability ranges for the CRM's and the coarse and core duplicates, which are considered very strict.
- Complete the Digitization of all geological information and storage of data into a commercial secure database
- Complete the detailed geological modeling methods using the new digital database which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.
- Introduction of more-routine density sampling of all the areas of the deposit within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3 t/m^3 value. It is the QP's opinion this is needed to assign higher levels of confidence (i.e. Measured)
- Rigorous approach to classification which appropriately considers the noted detractors in confidence and utilizes criteria designed to address them.

23.1 Mineral Resource Estimates

- SRK recommends finalizing the construction of a 3D geological model for the Santa Bárbara deposit and the digitizing of all the supporting information, including geological/mineralization maps and sections, drilling, and rock sampling information for all the areas of the deposit. The new 3D geological model will be the basis for the construction of a block model and future mineral resource estimates using industry standard procedures.
- SRK recommends designing and implementing a complete QA/QC protocol for the drilling and rock sampling activities performed by Santa Bárbara's mine geology department.

23.2 Recommended Work Programs

The recommended work program includes the following activities:

- Continue the database capture of historical data, including drilling, historical mapping, channel sampling, and geological interpretations of all the areas of the deposit to support the construction of a 3D geological model and future mineral resource estimates using a block model.
- Finalize the construction of 3D geological model and update mineral resource estimates.

23.3 Recommended Work Program Costs

Table 23-1 provides the approximate budget of the 2023 work program.

Table 23-1: Recommended Work Program Costs

Discipline	Program Description	Cost (US$ million)
Geology and exploration	Ongoing exploration and grade-control drilling	3.5
Updated mineral resource estimates	Generation of geological model and mineral resource estimates	0.2
Mining methods/mineral resource estimates	Development of mine plan and optimization of mining methodology	0.4
Total		**$4.1**

Source: SRK, 2023

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25 Reliance on Information Provided by the Registrant

SRK was provided legal documentation by IMMSA and has relied on that information for the purposes of this section. SRK has relied on this information and disclaims responsibility for its accuracy or any errors or omissions in that information.

The Consultant's opinion contained herein is based on information provided to the Consultants by IMMSA throughout the course of the investigations (Table 25-1).

Table 25-1: Reliance on Information Provided by the Registrant

Category	Report Item/ Portion	Portion of Technical Report Summary	Disclose Why the QP Considers it Reasonable to Rely Upon the Registrant
Legal Opinion	Sub-sections 3.3, 3.4, 3.5, 3.6, and 3.7	Section 3	IMMSA has provided a document summarizing the legal access and rights associated with leased surface and mineral rights. This documentation was reviewed by IMMSA's legal representatives. The QP is not qualified to offer a legal perspective on IMMSA's surface and title rights but has summarized this document and had IMMSA personnel review and confirm statements contained therein.

Signature Page

This report titled “SEC Technical Report Summary, Initial Assessment on Mineral Resources, Santa Bárbara, Chihuahua, México” with an effective date of December 31, 2023, was prepared and signed by:

SRK Consulting (U.S.) Inc.

(Signed) **SRK Consulting (U.S.) Inc.**

Dated at Denver, Colorado
February 5, 2024

srk consulting

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February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA

Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject Consent Letter – Santa Bárbara Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendments thereto (collectively the, “Form 10-K”) to be filed by Southern Copper Corporation (the “Company”) with the U.S. Securities and Exchange Commission (“SEC”), SRK Consulting (U.S.), Inc. (“SRK”), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled “SEC Technical Report Summary Initial Assessment on Mineral Resources Santa Bárbara Chihuahua, México” with an effective date of December 31, 2023, and a report date of February 5, 2024 (the “Technical Report Summary”), that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;

(2) the use of and references to SRK’s name as a “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;

(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and

(4) to the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th of February 2024.

/S/ Ben Parsons

Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

SEC Technical Report Summary
Initial Assessment on Mineral Resources
San Martín
Zacatecas, México

Effective Date: December 31, 2023
Report Date: February 5, 2024

Report Prepared for

Southern Copper Corporation

7310 North 16th Street, Suite 135
Phoenix, Arizona 85020

Report Prepared by

srk consulting

SRK Consulting (U.S.), Inc.
999 Seventeenth Street, Suite 400
Denver, CO 80202

SRK Project Number: USPR001375

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List of Abbreviations

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

Abbreviation	Unit or Term
A	ampere
AA	atomic absorption
A/m^2	amperes per square meter
ANFO	ammonium nitrate fuel oil
Ag	silver
Au	gold
AuEq	gold equivalent grade
°C	degrees Centigrade
CCD	counter-current decantation
CIL	carbon-in-leach
CoG	cut-off grade
cm	centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
Cu	copper
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gram
gal	gallon
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/t	grams per tonne
ha	hectare
HDPE	Height Density Polyethylene
hp	horsepower
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation
ILS	Intermediate Leach Solution
kA	kiloamperes
kg	kilograms
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt

Abbreviation	Unit or Term
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter
L/sec	liters per second
L/sec/m	liters per second per meter
lb	pound
LHD	Long-Haul Dump truck
LLDDP	Linear Low Density Polyethylene Plastic
LOI	Loss On Ignition
LoM	Life-of-Mine
m	meter
m^2	square meter
m^3	cubic meter
M+I	Measured + Indicated
masl	meters above sea level
MARN	Ministry of the Environment and Natural Resources
MDA	Mine Development Associates
mg/L	milligrams/liter
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
MME	Mine & Mill Engineering
Moz	million troy ounces
Mt	million tonnes
MTW	measured true width
MW	million watts
m.y.	million years
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
OSC	Ontario Securities Commission
oz	troy ounce
%	percent
Pb	lead
PLC	Programmable Logic Controller
PLS	Pregnant Leach Solution
PMF	probable maximum flood
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SPT	standard penetration testing
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
TSF	tailings storage facility
TSP	total suspended particulates
µm	micron or microns
V	volts
VFD	variable frequency drive
W	watt
XRD	x-ray diffraction
y	year

Abbreviation	Unit or Term
Zn	zinc

1 Executive Summary

This report was prepared as an initial assessment (mineral resource) technical report summary in accordance with the Securities and Exchange Commission (SEC) S-K regulations (Title 17, Part 229, Items 601 and 1300 until 1305) for Southern Copper Corporation (SSC) on their Industrial Minera México, S.A. de C.V (IMMSA or Company), a wholly owned subsidiary of Southern Copper Corporation, by SRK Consulting (U.S.), Inc. (SRK) on the San Martín Mine (San Martín), located in México.

1.1 Property Description (Including Mineral Rights) and Ownership

The San Martín Project consists of 73 mining concessions with a total surface of 10,360.9508 hectares (ha), with the titles held 100 percent (%) by IMMSA. The 73 mining concessions are valid for 50 years and extendable to 50 more years. The oldest concession was originally awarded in 1979 and has a current expiration date of 2029; however, the concession may be extended 50 more years.

IMMSA owns sufficient surface lands with rights to conduct any work or exploration required to advance or continue of activities within the San Martín project.

1.2 Geology and Mineralization

San Martín mine is located in the Central Mesa of México, between Sierra Madre Occidental and Sierra Madre Oriental. The Cuesta del Cura (Upper Cretaceous) limestone is the main sedimentary formation in the district. This is a sequence of shallow marine limestone and black chert which is overlain by Indura Formation that consists of alternating shales and fine-grained clayey limestones.

The mineral deposits in this district are associated with replacement veins and bodies formed in the skarn in close proximity to the Cerro de la Gloria granodiorite intrusion. The main mineralized veins are San Marcial, Ibarra and Gallo-Gallina which are oriented parallel to the intrusive contact and have thicknesses varying from 0.4 m to 4 m and horizontal extents of up to 1,000 m to the east/northeast from the granodiorite contact. The mineralization is associated with massive and disseminated sulfides occurring in replacement ore bodies between the main veins and in the skarn and include chalcopyrite (CuFeS), sphalerite (ZnS), galena (PbS), bornite (CuFeS), tetrahedrite (CuFe Sb S), native silver (Ag), Pyrite (FeS), arsenopyrite (FeAsS) and stibnite (SbS).

1.3 Status of Exploration, Development and Operations

IMMSA has been exploiting the deposit since 1948. At the beginning of the 1950s, the surface and interior exploration of the mine began in San Martín, from this period until 2005, approximately 100,000 m were drilled from surface and 220,000 m from underground chambers. During the years 1990-1997 approximately 67,000 meters with a total of 165 holes were completed.

Between the years 1990-1997, a large surface exploration program was completed in the area surrounding the San Martín mine. The exploration program included application of standard modern exploration techniques such as satellite imagery, geophysical surveys, mapping.

In 2008, a geological-geochemical study was carried out in the eastern area of the San Martín unit, Sombrerete, Zacatecas; which indicated a number of anomalous N-S striking anomalies in the limestones, associated with the intrusive contact. A total of five holes were completed to test the intrusive-limestone contact, and in order to explore the contact at depth and possible replacement mineralization in the Skarn.

The San Martín Mine was operated by Grupo México until the late 2007 when it closed due to labor unrest. The mine reopened August 21, 2018, upon resolution of the labor issues and has been in continuous production since.

Exploration at San Martín is ongoing with drills targeting economic extensions of the main deposit and new satellite orebodies. Drilling activities completed by San Martín 's exploration department are generally conducted following industry best practices, including quality assurance/quality control (QA/QC) protocols. However, at the internal laboratory used for some of the assays, no certification has been completed, which in the Qualified Person's (QP) opinion does not meet the required standards for reporting under international best practice and therefore limits the confidence in these assays to accurately estimate grades. The QP recommends that more-detailed validation and external checks should be completed if the laboratory is not certified given the lack of independence presented. The QP recommends that IMMSA undertake a program to certify the laboratory as is completed at their other operation (Charcas).

1.4 Mineral Resource Estimates

Historically, San Martín has collected samples from diamond core drilling (surface and underground) and channel samples from underground workings. This work was conducted by a combination of the exploration department and the mine geology department. The work completed by the mine department has not been supported by industry-standard QA/QC protocols, including the lack downhole surveys, which in the QP's opinion is not in-line with industry best practices. In 2023 San Martin started to implement the use of NQ core size in all the drilling completed by the mine geology department, but no new QA/QC protocol has been implemented.

Despite this, the variability of the mineralization at San Martín appears to be appropriately interpreted based on the available information. SRK has reviewed the reconciliation of the planned versus actual grades and tonnages reported at San Martín and based on the long mining history, considered the drilling and channel rock sampling grades reported to be representative of the mined material.

For previous resource estimates, most of the data was obtained from historical paper copies, such as geological mapping within the mine workings and vertical section and plan view interpretations of the geology and mineralization, and very little information was available in digital format to facilitate the construction of both a three-dimensional (3D) geological and 3D resource block model.

In 2022, San Martin accelerated the process of digitization of base information for mineral resource estimation and in 2023 the first complete 3D geological model was constructed. The current resource estimation used the geological model and the digitized data of drilling and rock sampling, completed the typical statistical analysis, constructed a block model and performed the interpolation of Ag, Pb, Zn and Cu.

The geological team of San Martin finalized the geological modeling and Mineral Resource Estimation (MRE) using Seequent Leapfrog Geo and Leapfrog Edge software tools. The geological modeling included the creation of wireframe solids delineating the geological/mineralization domains. Furthermore, the process involved data compositing and capping, geostatistical and variography analyses. Subsequent steps comprised block modeling, grade interpolation techniques, and validation process. SRK worked with San Martin throughout the process to ensure that the geological modeling and mineral resource estimates were performed following standard practices.

A single density value of 3.3 tonnes per cubic meter (t/m^3) is used to obtain tonnages. The San Martín operation has used this density value for an extended period of time, and the density value is reportedly based on historical tests that have not been documented and are not available. The QP considers the lack of testwork and documentation to represent a potential risk to estimating the correct tonnage and has therefore considered this during the classification process. The QP notes that this is also the same tonnage applied by the operation.

Mineral resources have been categorized based on relative confidence in the modeling, estimation, or reporting of the tonnage and grades from the model.

1.4.1 Measured

There are no Measured mineral resources, as insufficient overall confidence exists to confirm geological and grade continuity between points of observation to the level needed to support detailed mine planning and final evaluation studies. In the QP's opinion, other limitations are a lack of density measurements and insufficient QA/QC protocols in the mine samplings protocols. Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures, and the lack of downhole surveys, SRK established that there are no Measured resources in San Martín.

1.4.2 Indicated

Blocks within 40 m search range and using a minimum of two drillholes or rock channel, where the distance to the mining works and rock sampling is also considered for assignment of confidence using the same criteria.

1.4.3 Inferred

Blocks within 80 m search range and using a minimum of one drillhole or channel sample, and reasonable geological continuity. The distance to the mining works and rock sampling is also considered for assignment of confidence using the same criteria.

The estimate was categorized in a manner consistent with industry standards. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for economic extraction of the resource. A cut-off grade (CoG) has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is reported exclusive of reserves.

San Martín mineral resources are in compliance with the S-K 1300 resource definition requirement of reasonable prospects for economic extraction. Depletions have been accounted for using the latest survey information for most of the areas of the mine, and only a few areas that were exploited in the last month of 2023 were adjusted according to the planned exploitation. It is SRK's opinion that the differences with the real exploited material are not material.

Given that process recoveries and costs in the resource model are grade and/or domain dependent, the resources are reported with respect to a block Net Smelter Return (NSR) value which is calculated on a stope block (panel) basis.

NSR cut-off values for the Mineral Resources were established using a zinc (Zn) price of US$1.32/pound (lb) Zn, a lead (Pb) price of US$1.09/lb Pb, a silver price of US$23.0/troy ounce (oz) Ag, and a copper (Cu) price of US$3.80/lb Cu. While minor amounts of gold exist at the project (0.1 grams/tonne (g/t) head grade) gold has not been used as a revenue driver within the NSR calculation.

The Mineral Resources for the San Martín underground operation as of December 31, 2023, are summarized in Table 1-1 and are reported on an in-situ basis and are reported based on an NSR cut-off of US$63.1/tonne (t). Mineral Resources have been reported in total (which in effect are exclusive of Reserves) as currently no Mineral Reserves are declared for the Project in compliance with the new S-K 1300 standards.

Table 1-1: San Martín Summary Mineral Resources at End of Fiscal Year Ended December 31, 2023, SRK Consulting (U.S.), Inc.(1)

IMMSA Underground – San Martín							Cut-Off (2)		NSR(3) US$63.1	
Category	Tonnage Quantity (kt)	Grade					Metal			
		Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR(3) (US$)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured										
Indicated	12,978	77	1.97	0.34	0.65	106	32,236	256,307	43,909	84,753
M+I	12,978	77	1.97	0.34	0.65	106	32,236	256,307	43,909	84,753
Inferred	52,330	72	2.66	0.32	0.48	107	121,500	1,393,758	167,526	251,323

Source: SRK, 2024

(1)Mineral resources are reported exclusive of mineral reserves. Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

(2)Mineral resources are reported at metal equivalent CoGs based on metal price assumptions,* variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors. Mining, processing, and G&A costs total US$63.1/t.

*Metal price assumptions considered for the calculation of metal equivalent grades are: gold (US$1,725.00/oz), silver (US$23.0/oz), lead (US$1.09/lb), zinc (US$1.32/lb), and copper (US$3.80/lb).

**CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: silver (71%), lead (31%), zinc (75%), and copper (67%), assuming recovery of payable metal in concentrate.

(3) Cut-off grade calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Ag*0.465+Pb*6.776+Cu*51.067+Zn*17.656

The mineral resources were estimated by SRK Consulting (U.S.), Inc, a third-party QP under the definitions defined by S-K 1300.

koz: Thousand troy ounces

kt: Thousand tonnes

1.5 Conclusions and Recommendations

1.5.1 Property Description and Ownership

The San Martín Project consists of 73 mining concessions with a total surface of 10,360.9508 ha, with the titles held 100% by IMMSA.

IMMSA owns sufficient surface lands with rights to conduct any work or exploration required to advance or continue of activities within the San Martín project.

1.5.2 Geology and Mineralization

The overall geology of San Martín is well understood as a result of the long mine life to date which is supplemented with more recent exploration. The mineralization styles and exploration models are well established, to aid in the determination of the geometry of future Mineral Resources and Mineral Reserves.

1.5.3 Mineral Resource and Mineral Reserve Estimates

It is SRK's opinion that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.

SRK recommends continuing digitizing the drilling and rock sampling and keep the database updated for future geological model update. This could include geological/mineralization maps and sections.

In the QP's opinion, the assumptions, parameters, and methodology used for the San Martin underground mineral resource estimates are appropriate for the style of mineralization and mining methods.

The QP has recommended that IMMSA use a data capture tool and the creation of a geologic database to provide secure storage of drilling data. The database will provide better data control and a potential audit trail for any changes made in the system over time.

1.5.4 Recommendations

It is the QP's opinion that measures that should be taken to mitigate the uncertainty include, but are not limited to:

- Continual infill drilling in the most critical areas of the deposit, locally to spacing of less than 40 m x 40 m
- Introduction of more routine density sampling within the mineralization to confirm level of fluctuation from the current uniform assignment of a single 3.3 t/m^3 value
- SRK recommends reviewing the procedures of drilling and sampling and design and implement of a complete QA/QC protocol for the drilling and rock sampling activities performed by the mine geology department of San Martín
- Obtain certification for the internal mine laboratory to international standards
- QA/QC protocol of the Exploration Department: Implement the use of an umpire laboratory (commercial laboratory) to send the second laboratory check samples periodically (for example, quarterly), and the review of the acceptability criteria used to evaluate the duplicate controls results
- Maintain the digitization of all new geological information and storage of data into a commercial secure database
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.

2 Introduction

2.1 Registrant for Whom the Technical Report Summary was Prepared

This Technical Report Summary was prepared in accordance with the Securities and Exchange Commission (SEC) S-K regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for Southern Copper Corporation (SSC) on its subsidiary Industrial Minera México, S.A. de C.V (IMMSA or Company) by SRK Consulting (U.S.), Inc. (SRK) on the San Martín Mine (San Martín), located in the state of Zacatecas, México.

2.2 Terms of Reference and Purpose of the Report

The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in SRK's services, based on:

i) information available at the time of preparation and
ii) the assumptions, conditions, and qualifications set forth in this report.

This report is intended for use by IMMSA subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits IMMSA to file this report as a Technical Report Summary with U.S. securities regulatory authorities pursuant to the SEC S-K regulations, more specifically Title 17, Subpart 229.600, item 601(b)(96) - Technical Report Summary and Title 17, Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations. Except for the purposes legislated under US federal securities law, or with other securities regulators as specifically consented to by SRK, any other use of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with IMMSA.

The purpose of this Technical Report Summary is to report mineral resources for the Project.

The effective date of this report is December 31, 2023.

References to industry best practices contained herein are generally in reference to those documented practices as defined by organizations such as the Society for Mining Metallurgy and Exploration (SME), the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), or international reporting standards as developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

2.3 Report Version Update

This Technical Report Summary is an update of a previously filed Technical Report Summary and is the most-recent report. This report presents an update from the previously filed technical report summary entitled, "SEC Technical Report Summary Initial Assessment on Mineral Resources San Martín, Zacatecas, México, effective date December 31, 2021, and reported February 25, 2022." The current report accounts changes made in the mineral resource process and a switch from the traditional two-dimensional (2D) methods used in prior years, to more modern three-dimensional (3D) geological models and associated estimates for tonnage and grade. The updated mineral resources based on 2022/2023 exploration activities. The updated models reflect the 2023 models have been depletion using 3D surveys of the completed mining.

2.4 Sources of Information

This report is based in part on internal Company technical reports, previous studies, maps, published government reports, and public information as cited throughout this report and listed in the References Section 24.

Reliance upon information provided by the registrant is listed in Section 25 when applicable.

SRK's report is based upon the following information:

- Site visits to the project
- Discussions and communications with the key personnel of the operation of San Martín
- Data collected by the Company from historical mining operation
- Review of the data collection methods and protocols, including sampling, QA/QC, assaying, etc.
- Review of the original drillhole logging sheets
- Review of paper documents supporting the resource/reserve estimates, including interpretation on sections, spreadsheets, and manual calculations (Excel)
- Review of geological models and resource estimations in Leapfrog Geo software

2.5 Details of Inspection

Table 2-1 summarizes the details of the personal inspections completed between 2021 and 2023 on the property by each QP or, if applicable, the reason why a personal inspection has not been completed.

Table 2-1: Site Visits

Expertise	Date(s) of Visit	Details of Inspection
Geology, Exploration, and Mineral Resources	June 13 – 16, 2021	Review drilling and sampling procedures, visit to underground workings, review of procedures of estimation of resources
Geology, Exploration, and Mineral Resources	October 11 – 15, 2021	Review of procedures of resources estimation and supporting data. Review of QA/QC procedures for sampling. Validation sampling
Geology, Exploration, and Mineral Resources	November 28 – 30, 2021	Review of procedures of estimation, check of resource blocks and supporting data
Geology, Exploration, and Mineral Resources	November 19 – 21, 2022	Review exploration procedures and the updated resource blocks and supporting data
Geology, Exploration, and Mineral Resources	March 27 – 30, 2023	Review exploration procedures, databases and geological modeling in Leapfrog.

Source: SRK, 2023

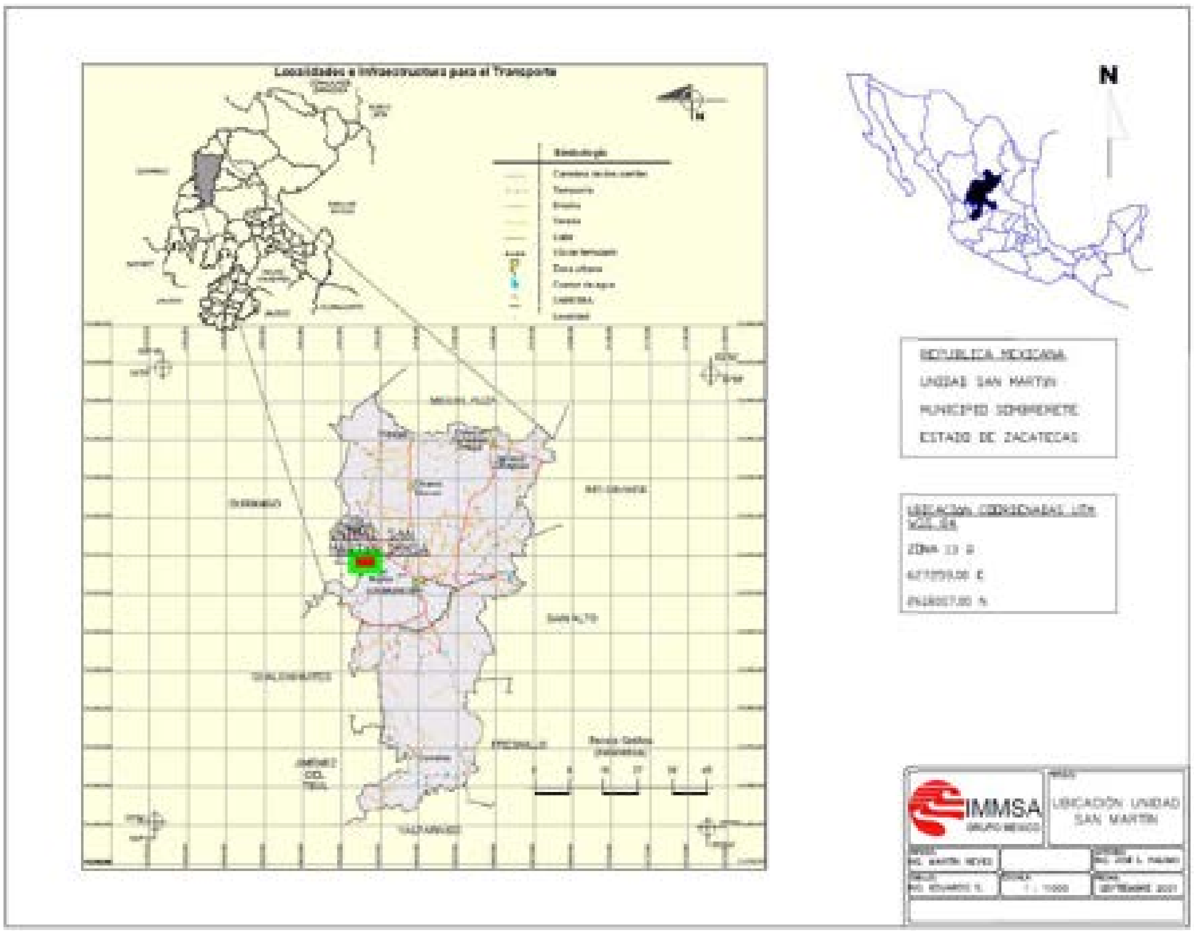
2.6 Qualified Person

This report was prepared by SRK Consulting (U.S.), Inc., a third-party firm comprising mining experts in accordance with § 229.1302(b)(1). IMMSA has determined that SRK meets the qualifications specified under the definition of qualified person in § 229.1300. References to the Qualified Person or QP in this report are references to SRK Consulting (U.S.), Inc. and not to any individual employed at SRK.

3 San Martín Property Description

3.1 Property Location

The San Martín mining district is located in the northwest portion of the state of Zacatecas, approximately 185 kilometers (km) from the city of Zacatecas. The elevation is approximately 2,600 meters (m) with geographic coordinates of 629,000 E and 2,614,000 N (WGS84, UTM Zona 13) (Figure 3-1). The nearest major town is the municipality of Sombrerete (17 km away) in the Sierra Madre Occidental geographic province. This is an area with considerable mining history, dating back to 1555.



Source: IMMSA, 2021

Figure 3-1: Location Map of San Martín

The area is located at the intersection of the physiographic provinces of the Sierra Madre Occidental and La Mesa within the high plains of México. The characteristic relief in the region is considered as elevated open plains, with average elevations in Sombrerete of 2,351 meters above sea level (masl). Sabinas is located in more mountainous terrain to the west of the city with elevations ranging from 2,000 to 3,000 masl.

3.2 Mineral Title, Claim, Mineral Right, Lease or Option Disclosure

In México, mining concessions are granted by the Economy Ministry and are considered exploitation concessions with a 50-year term. Mining concessions have an annual minimum investment to complete and an annual mining rights fee to be paid to keep the concessions effective. Valid mining concessions can be renewed for an additional 50-year term if the mine is active.

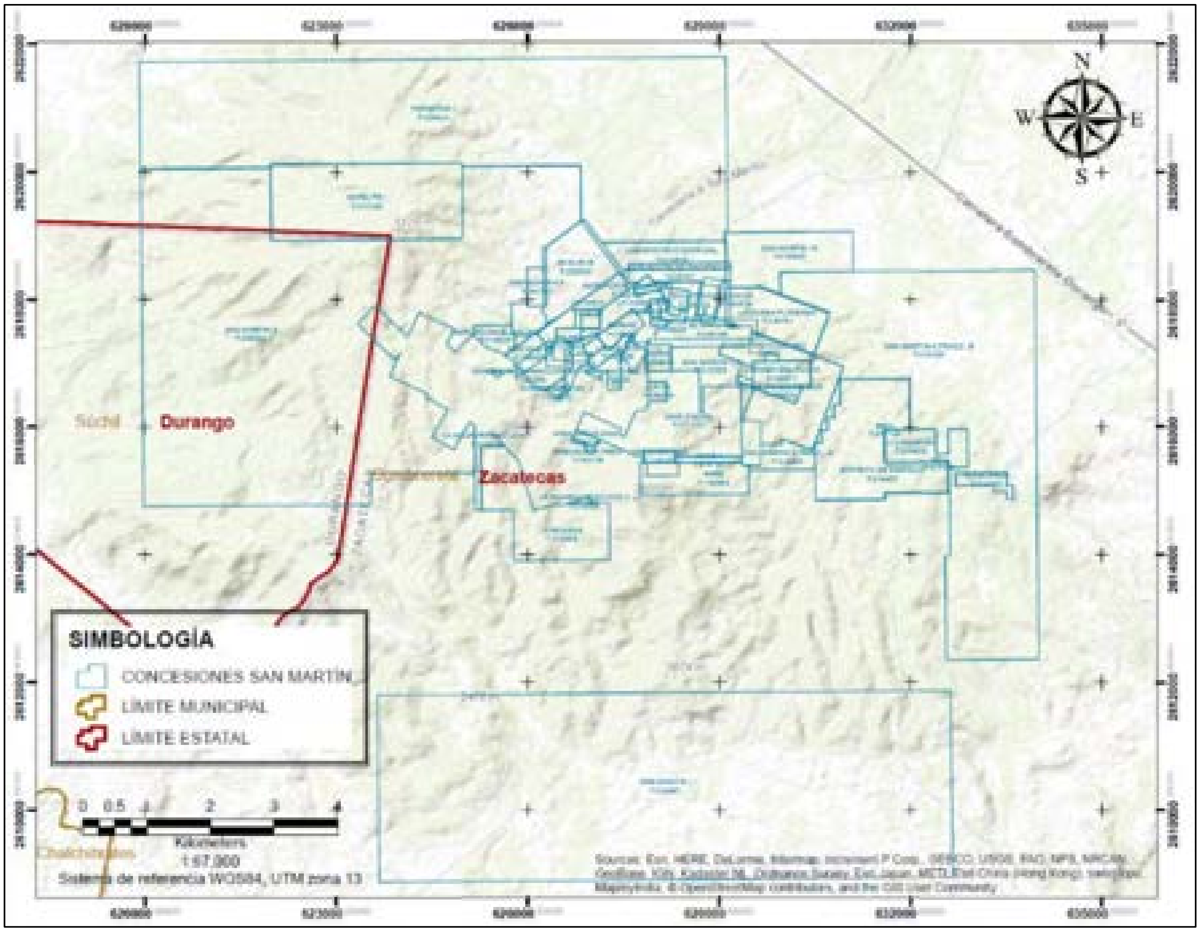
SRK was provided legal documentation by IMMSA and has relied on that information for the purposes of this section as discussed in Section 25 of this report. SRK has relied on this information and disclaims responsibility for its accuracy or any errors or omissions in that information.

The San Marin Project consists of 73 mining concessions with a total surface of 10,360.9508 ha, which are owned by IMMSA. Table 3-1 and Figure 3-2 show San Martín mining concessions.

Table 3-1: Land Tenure at San Martín

No.	Title	Name of the Concession	Expedition	Validity	Surface
1	164419	SAN JUAN	05/07/1979	05/06/2029	4.51
2	164878	PACHUCA	07/11/1979	07/10/2029	17.11
3	168182	CINCO AMIGOS	19/03/1981	18/03/2031	10.00
4	169533	LA FE	12/03/1981	12/02/2031	6.60
5	169534	TAJO DE SAN ANTONIO	12/03/1981	12/02/2031	6.00
6	169535	HUECO No. 3	12/03/1981	12/02/2031	0.01
7	169536	HUECO No. UNO	12/03/1981	12/02/2031	0.07
8	169537	OSIRIS	12/03/1981	12/02/2031	15.87
9	169538	BETANIA	12/03/1981	12/02/2031	1.68
10	169539	SAN JOSE	12/03/1981	12/02/2031	5.26
11	169540	LA XOCHITL	12/03/1981	12/02/2031	11.74
12	171337	CHIO CAMEN	20/09/1982	19/09/2032	209.95
13	171830	SAN EXPEDITO	15/06/1983	14/06/2033	1.00
14	172222	ALPINE	27/10/1983	26/10/2033	15.89
15	172223	INDEPENDENCIA Y LIBERTAD	27/10/1983	26/10/2033	2.00
16	172224	SAN VICENTE DE PAUL	27/10/1983	26/10/2033	2.00
17	172239	SAN ANTONIO	27/10/1983	26/10/2033	15.95
18	172667	PILAR	28/06/1984	27/06/2034	8.96
19	182008	SEGUNDA FRACC. DE AÑO NUEVO	04/08/1988	04/07/2038	1.05
20	182010	LA JOYA	04/08/1988	04/07/2038	5.00
21	182011	CARMEN DEL ROCIO	04/08/1988	04/07/2038	36.00
22	182012	SOMBRERETE No. 2	04/08/1988	04/07/2038	4.60
23	182013	LA ESMERALDA	04/08/1988	04/07/2038	8.00
24	182014	PROVIDENCIA	04/08/1988	04/07/2038	6.00
25	182015	LA ESMERALDA NOROESTE	04/08/1988	04/07/2038	6.00
26	182294	SOMBRERETE CUATRO FRACC. NORTE	31/05/1988	30/05/2038	0.58
27	182296	SOMBRERETE FRACC. ESTE	31/05/1988	30/05/2038	31.49
28	182738	MINA NUEVA TRES	16/08/1988	15/08/2038	2.29
29	182739	MINA NUEVA DOS	16/08/1988	15/08/2038	5.57
30	185879	25 DE OCTUBRE	14/12/1989	13/12/2039	10.66
31	186409	AÑO NUEVO	30/03/1990	29/05/2040	12.94
32	187017	LA ESPADA	29/05/1990	28/05/2040	0.23
33	188009	LUPITA	22/11/1990	21/11/2040	8.57
34	190015	EL MOJA´O	12/06/1990	12/05/2040	2.67
35	191787	SANTA MONICA	19/12/1991	18/12/2041	18.00
36	191993	ANNE	19/12/1991	18/12/2041	74.42
37	195372	EL VIRUTO	14/09/1992	13/09/2042	1.00
38	195448	LA CONQUISTA	14/09/1992	13/09/2042	9.00
39	196525	ROCIO FRACCION UNO	23/07/1993	21/09/2036	35.05
40	196526	ROCIO FRACCION DOS	23/07/1993	21/09/2036	13.00
41	196527	ROCIO FRACCION TRES	23/07/1993	21/09/2036	0.37
42	213180	SATELITE I	30/03/2001	29/03/2051	360.00
43	213359	SAN MARTÍN VII	27/04/2001	26/04/2051	58.13
44	214487	ESPIRITU DE ENRIQUE	10/02/2001	10/01/2051	257.93
45	214539	ALA BLANCA	10/02/2001	10/01/2051	20.00
46	214619	LABORATORIO ESPACIAL	10/02/2001	10/01/2051	78.77
47	214650	LOS ANGELES	26/10/2001	25/10/2051	60.00
48	214800	LA MOJADA FRACCION 2	12/04/2001	12/03/2051	1.76
49	215069	LA MOJADA	02/07/2002	02/06/2052	194.10
50	215148	LA MOJADA FRACC. 1	02/08/2002	02/07/2052	17.60
51	216308	SAN MARTÍN 8 FRACC. B	30/04/2002	29/04/2052	1,000.77
52	216309	SAN MARTÍN 8 FRACC. A	30/04/2002	29/04/2052	34.69
53	216639	AMPLIACION EL MOJAO	17/05/2002	16/05/2052	22.26
54	216640	SAN MARTÍN 10	17/05/2002	16/05/2052	146.26
55	216787	ANNE II	28/05/2002	27/05/2052	10.76
56	217126	ER-II	18/06/2002	17/06/2052	0.67
57	217187	ER-I	07/02/2002	07/01/2052	7.60
58	224667	SAN MARTÍN I	31/05/2005	30/05/2055	2,640.35
59	225031	SAN MARTÍN 9	07/08/2005	07/07/2055	2,459.23
60	225622	PAPANTON I	23/09/2005	22/09/2055	1,804.97
61	232462	2a.FRACCION DE EL BRINCO	08/08/2008	08/07/2058	10.00
62	232649	MI NUEVE	10/02/2008	10/01/2058	109.76
63	234694	SOMBRERETE SEIS	29/07/2009	28/07/2059	110.70
64	235754	ANIMAS	03/02/2010	03/01/2060	18.40
65	235755	ZACATECAS	03/02/2010	03/01/2060	32.60
66	235756	EL GRANATE	03/02/2010	03/01/2060	44.68
67	235757	AMPLIACION DE ZACATECAS	03/02/2010	03/01/2060	45.15
68	235758	ONTARIO	03/02/2010	03/01/2060	37.66
69	235759	AMPLIACION ANIMAS	03/02/2010	03/01/2060	36.84
70	235760	LA NUEVA ERA	03/02/2010	03/01/2060	2.89
71	235761	EL GALLO	03/02/2010	03/01/2060	3.35
72	235762	LA GALLINA	03/02/2010	03/01/2060	0.31
73	238191	LA ZORRA PLATEADA	08/12/2011	08/11/2061	105.67

Source: IMMSA, 2021

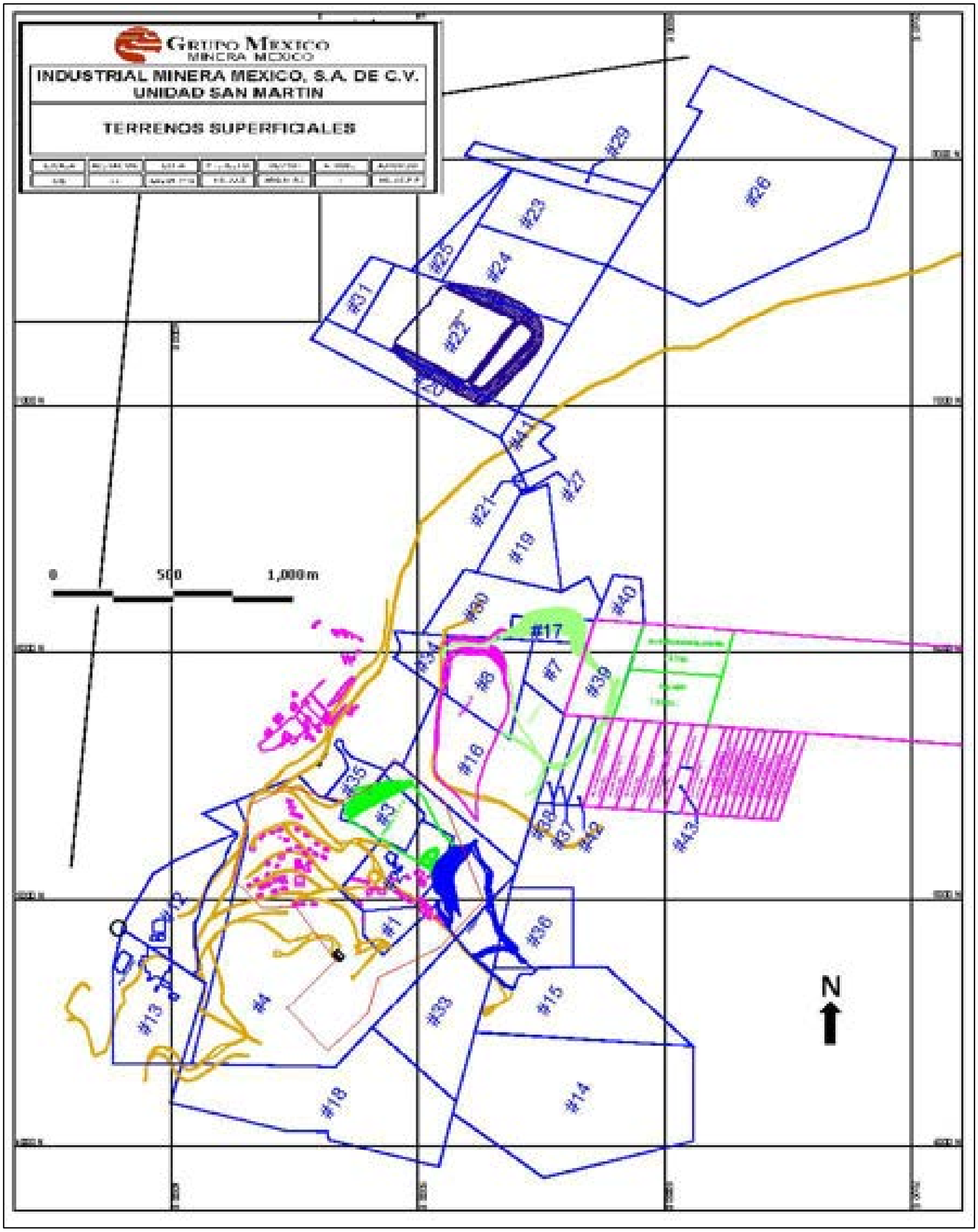


Source: IMMSA, 2021

Figure 3-2: Map showing Concession Value

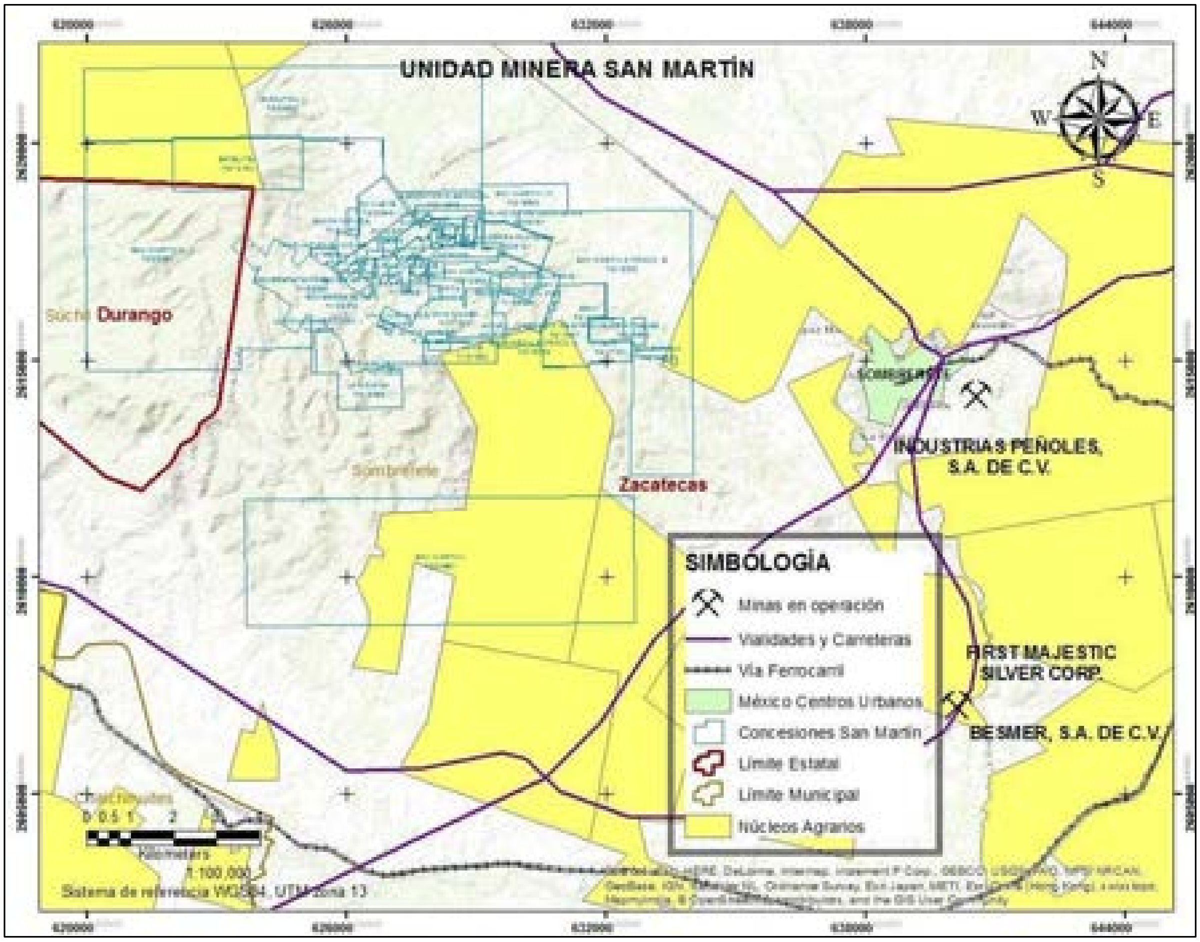
Within the San Martín mining unit, there are surface lands covering an area of 878.96 hectares, owned by Industrial Minera México, S.A. de C.V. (Figure 3-3).

Surface rights in México are commonly owned either by communities ("Ejidos") or by private owners (Figure 3-4). The San Martín mining district land is mainly owned by the Company but some Ejidos also exist within the current concessions. In either case, the mining concessions include "right of way" rights, although in many cases it is necessary to negotiate access to the land. Federal or state roads allow permission to access federal or state lands without other requirements. Additionally, the Mexican Mining Law includes provisions to facilitate purchasing land required for mining activities, installations, and development.



Source: IMMSA, 2021

Figure 3-3: Surface Rights Map – Area of San Martín Operation



Source: IMMSA, 2021

Figure 3-4: Location of Ejidos within the San Martín Concessions

3.3 Mineral Rights Description and How They Were Obtained

Mining rights in México are granted with the concessions. Changes to the Mexican mining legislation incorporated in 2005 now grant the concession holder the right to conduct exploration, operate a mining operation, and/or operate a processing plant on each concession. The procedure for each of the mining concessions begins with the presentation to the Secretaría de Economía, Direccción General de Minas of México, of the Application for Concession or Mining Assignment, format SE-FO-10-001, with all the sections duly completed and accompanied by the required documentation, including payment of the application study and procedure, photographs of the physical evidences of the boundary markers following the standards of the mining law, information supporting the existence of the person or entity responsible of the application.

The following are the obligations of the registrant to retain the properties at San Martín:

- Execute and verify the works and works foreseen by the Mexican Mining Law in the terms and conditions established by it and its Regulations.
- Pay the mining rights established by the law on the matter.

- Comply all the general provisions and the official Mexican standards applicable to the mining-metallurgical industry in terms of safety in mines and ecological balance and environmental protection.
- Allow the personnel commissioned by the Mexican mining entity (Secretaría) to carry out inspection visits.
- The execution of works will be proven by means of investments in the area covered by the mining concession or by obtaining economically exploitable minerals. The Regulations of the Law will set the minimum amounts of the investment to be made and the value of the mineral products to be obtained.
- The holders of mining concessions or those who carry out works by contract, must designate an engineer legally authorized to practice as responsible for compliance with the safety regulations in the mines, if the works and works involve more than nine workers in the case of the coal mines and more than forty-nine workers in the other cases.
- The mining law stipulates the investments in works and works that are mandatory for the registrant of a mining concession:
- The investments in the works and works foreseen by the Law that are carried out in mining concessions or the value of the mineral products obtained must be equivalent at least to the amount that results from applying the quotas to the total number of hectares covered by the mining concession or the grouping of these.

The reports that are delivered to the Mexican mining entity (Secretaría) to verify the execution of the mining works, must contain:

- Name of the holder of the mining concession or of the person who carries out the mining works and works by contract
- Name of the lot or of the one that heads the grouping and title number
- Period to review
- Itemized amount of the investment made, or amount of the billing value or settlement of the production obtained, or an indication of the cause that motivated the temporary suspension of the works or works
- Surplus to be applied from previous verifications and their updating
- Amount to be applied in subsequent checks
- Location plan and description of the works carried out in the period

The mining entity (Secretaría) shall consider the works of exploration or exploitation to have not been executed and legally verified when, in the exercise of its powers of verification, it finds:

- That the verification report contains false data or does not conform to what was done on the ground, or
- That the non-adjacent mining lots object of the grouping do not constitute a mining or mining-metallurgical unit, from the technical and administrative point of view.

In the above cases, the Secretaría will initiate the cancellation procedure of the concession or of those mining lots incorporated into the grouping, in the terms of article 45 of the Mexican Mining Law, final paragraph of the Law.

It is considered by the QP that the Company holds sufficient rights to support operations including the processing plant installations, tailings storage, and other mine operations requirement.

3.4 Encumbrances

IMMSA has all necessary permits for current mining and processing operations, including an operating license, a mine water use permit, and an Environmental Impact Authorization (EIA) for the mines, processing plant, and tailings management facilities.

SRK is not aware of any legal encumbrances on IMMSA-owned or leased surface or mineral rights but has relied on IMMSA's legal documentation regarding this aspect of the project.

Several obligations must be met to maintain a mining concession in good standing, including the following:

- Carrying out the exploitation of minerals expressly subject to the applicability of the mining law
- Performance and filing of evidence of assessment work
- Payment of mining duties (taxes)

The regulations establish minimum amounts that must be invested in the concessions. Minimum expenditures may be satisfied through sales of minerals from the mine for an equivalent amount. A report must be filed each year that details the work undertaken during the previous calendar year.

Mining duties must be paid to the Secretaría de Economía in advance in January and July of each year and are determined on an annual basis under the Mexican Federal Rights Law.

Duties are based on the surface area of the concession, and the number of years since the mining concession was issued. Mining duties totaled MXN$4,218,360 in 2023.

3.5 Other Significant Factors and Risks

The mine is subject to risk factors common to most mining operations in México, and IMMSA has an internal process in place to study and mitigate those risks that can reasonably be mitigated. No known factors or unusual risks affect access to the titles, or the ability to conduct mining. Specific exploration activities are authorized into 2023.

Since the reopening of the unit in 2018 to date, the Company has signed agreements (Company-group of affiliates) to obtain benefits and benefits for employees, which have helped the stability of today's operations in the unit. mining.

There are still some legal issues to be resolved with striking personnel (2007 to 2018) which are being legally addressed with Company lawyers to resolve them.

3.6 Royalties or Similar Interest

There is no payment for royalties, 100% of the concessions are owned by Industrial Minera México, S.A. of C.V.

4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

4.1 Topography, Elevation and Vegetation

The Sierra Madre Occidental is a north-to-northwest-trending range with mountains reaching elevations of more than 3,000 m. It comprises peaks, plateaus and elongated valleys along the range which merge into the mountains to the northwest. Deep canyons carved by drainage cross the Sierra Madre Occidental with increasing depth in the northwest portion of the range.

The Mesa Central province includes a great portion of the north-central part of México. It comprises a large plateau composed of Mesozoic sedimentary rocks at elevations of 1,500 to 2,300 m covering parts of the states of Zacatecas, Durango, San Luis Potosí, Coahuila and Chihuahua. Occasional ranges originated by folding or igneous activity break the flat extensions of the Mesa Central.

The mine is located in more mountainous terrain to the west of the city of Sombrerete with elevations ranging from 2,500 to 2,850 masl. The hydrographic system consists of two basins, the Pacific basin (integrated by the Chapala-Río Grande de Santiago system) and the endorheic inland basin (without access to the sea).

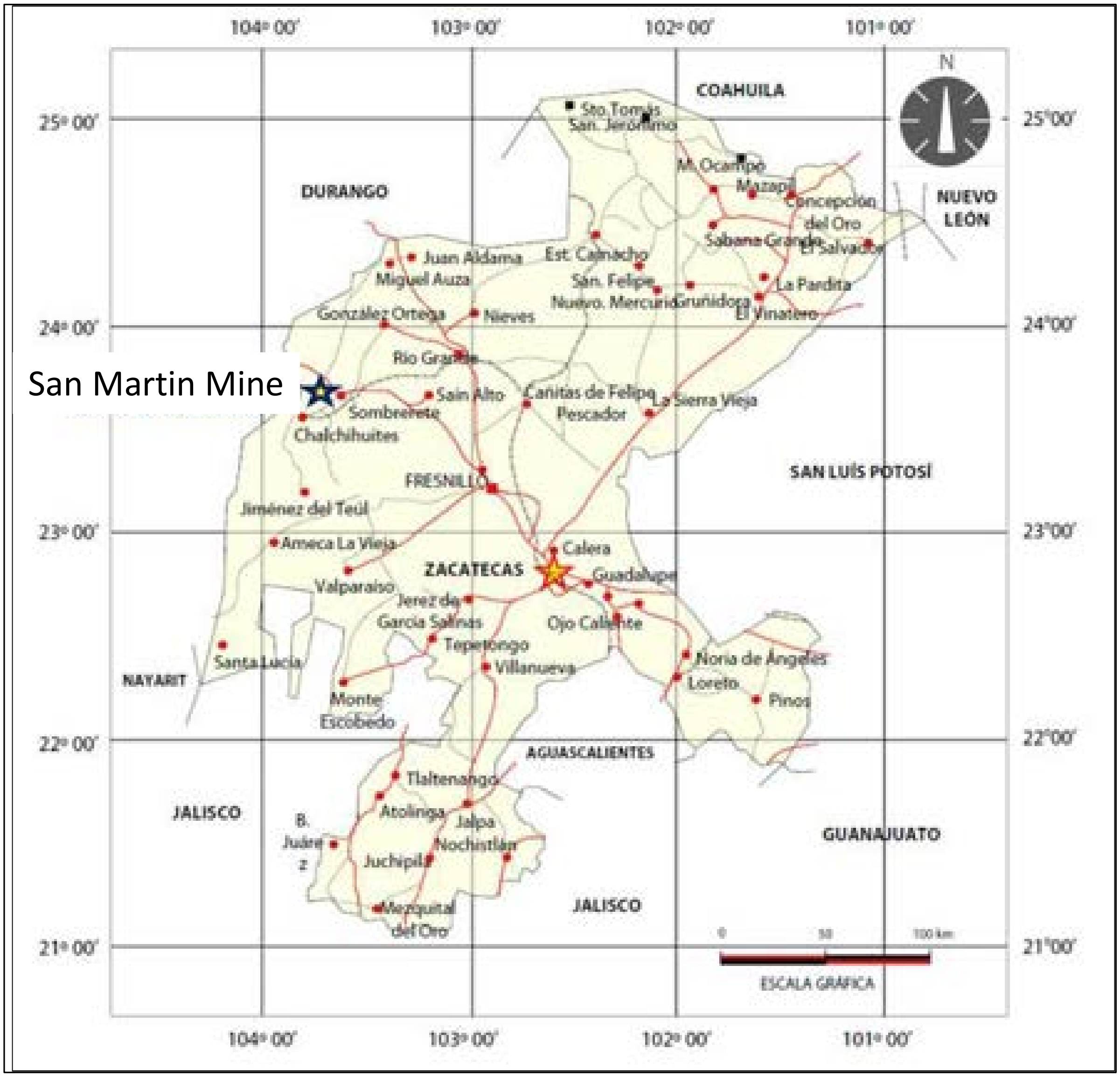
Vegetation in the area consists of xerophile plants in the lower elevations and grasslands, including cactuses (maguey, nopal and biznaga), while in the higher elevations the predominant vegetation consists of coniferous or evergreen oak forests (pine and oak trees). Figure 4-1 shows the characteristics of the surrounding area of San Martín.

Source: IMMSA, 2021

Figure 4-1: Photographs or the Surrounding Area of San Martín

4.2 Means of Access

The state of Zacatecas has an extensive infrastructure of roads and highways that connect the San Martín to the rest of the country (Figure 4-2).



Source: IMMSA, 2021

Figure 4-2: Access Infrastructure to San Martín Mine

The San Martín mining unit has a paved road to Highway 45, which leads to the town of Sombrerete, 17 km away. Highway 45 then connects Sombrete to Fresnillo, Zacatecas and Durango at distances of 110, 171, and 125 km, respectively.

The Secretariat of Communications and Transport (SCT) highlighted the modernization of the Jerez-Tepetongo highway, which has a length greater than 21 km, in which 544.6 million pesos were invested. Meanwhile, the modernization of the Fresnillo-Valparaíso and Fresnillo-Jerez roads continues, as well as the conservation of the federal network of toll-free roads and the feeder roads that communicate the agricultural and producing communities with the headwaters.

4.3 Climate and Length of Operating Season

The climate is considered a semiarid, mild temperature climate according to the Köppen climate classification (BS1kw). The average temperature for the year in at the Project is between 5 and 26˚C. The warmest month on average is May, with an average temperature of 26°C. The coolest months on average are December and January, with an average temperature of 17°C ranging from 5 and 17°C.

The average amount of precipitation for the year in Sombrerete is between approximately 15 and 260 mm. The rainy season occurs in the San Martín area during the months of July to October. The month with the most precipitation on average is August (263 mm), and the month with the least precipitation on average is April (12 mm). Exploration and mining operations are conducted year-round.

4.4 Infrastructure Availability and Sources

Local roads connect the mining district to various population centers within the region. The towns of

Sombrerete in the state of Zacatecas (58,000 inhabitants at an elevation of 2,300 m) and Vicente Guerrero in the state of Durango (21,000 inhabitants at an elevation of 1,960 m), are located within 50 km of the Del Toro area.

All basic facilities such as hotels, restaurants, and telephone (including cellular), banking and postal

services are available in Sombrerete. Elementary and secondary schools are available in all medium to major cities within the region. Higher education institutions and international airports are established in Durango and Zacatecas.

4.4.1 Water

The San Martín Unit has a water concession title for the extraction of 1,841,079 m^3 per year. Currently, water is extracted via three deep wells in the Proaño area, storing it in a pool adjacent to the wells. Next, it’s pumped to the intermediate pools re-pumping station and then finally pumped to pools and freshwater tanks within the industrial area of operation for a total pumping distance of 10.2 km.

4.4.2 Electricity

Electric power is provided by the national grid via a 45km extension constructed by FMS in 2011-2012.

The unit receives a power supply of 115 KV, and the main substation has a capacity of 24 MWA. The Federal Electricity Commission (CFE) is the agency in charge of electrical energy administration; the unit had annual consumption of about 70 GWH in 2023.

4.4.3 Personnel

The site provides good access to qualified personnel with a history of mining within the region and from the neighboring region. The San Martín mine site currently employs 843 employees and 3,191 unionized workers.

4.4.4 Supplies

The mine has a highly favorable location and infrastructure, local communities in the surrounding area are well suited with basic accommodations, fuel, industrial materials, contractor services, and bulk suppliers. Supplies to the mine can be transported with ease via the rail or road network system.

4.4.5 Plant/Tailings

The Minera San Martín unit has two processing plants or concentrators, one with an operating capacity of 2,400 tons/day (plant 2-400) and another with a capacity of 4,400 tons/day (plant 4-400) and discussed in more detail in Section 10.1. At San Martín three concentrates are produced:

- Zinc Concentrate
- Copper Concentrate
- Lead Concentrate

Tailings Dam of the San Martín Mining Unit has programmed a total storage capacity of 4,071 million m^3 or 7.3 million metric tonnes, with a monthly load of 40.5x103 dry metric tonnes with a total volume of water and tailings of 106.57x103 m^3. This structure has the foundation, drainage, filtration and diversion of appropriate stormwater and runoff.

The project of expansion of the tailings Dam includes four stages:

- Stage 1: The curtain will reach the elevation of 2560 masl, with a maximum height of 61 m, a total storage capacity of 9.82 MTMS and the volume of the overlift is equal to 1.65 Mm^3.
- Stage 2: The curtain will reach the elevation of 2566 masl, with a maximum height of 66 m, a total storage capacity of 14.32 MTMS and the volume of the overlift is equal to 1.60 Mm^3.
- Stage 3: The curtain will reach the elevation of 2572 masl, with a maximum height of 74.4m, a total storage capacity of 19.56 MTMS and the volume of the overlift is equal to 1.95 Mm^3.
- Stage 4: The curtain will reach the elevation of 2578 masl, with a maximum height of 80.6 m, a total storage capacity of 29.51 MTMS and the volume of the overlift is equal to 2.35 Mm^3.

The earthquake considered for the analyses developed is for a return period (Tr) of 10,000 years, so the highest degree of risk for the operating condition was considered. The stability condition of the Tailings Dam in each of the expansion project construction stages is secure, both in static and pseudo-static conditions and water flow. Figure 4-3 shows the location image of the Tailings Dam and its expansion project.

Source: IMMSA, 2023

Figure 4-3: Location of the Tailings Dam - Expansion

For the actual Tailings Dam, according to the documents of design, construction and operation discussed in this document, this Dam presents a consolidation and stabilization of the tailings such that a very low probability of tailings sludge overflow. However, if an extraordinary event of high rainfall occurred on the site and According to the superior water storage capacity (7,000 m^3), this volume would be the total sent downstream with a solid content of 20% or less. Assuming this volume, the total overflowed sludge would not reach transported beyond 2 km (shortly before reaching the pumping station, company-owned).

5 History

San Martín is one of the oldest mining districts in México. The first vein discovered by the Spanish was the Ibarra Vein in 1548, other important veins such as the Noria de San Pantaleón, San Marcial, Ramal Ibarra, Las Animas, Sabinas, were discovered later.

5.1 Previous Operations

Prior to 1948 the San Martín Mine exploited narrow high-grade veins that cut the skarn and extend beyond it. These structures continue to depth and appear to be the principal feeders for the sulfide mineralization stage. At great depth (>18 Level) these structures contain massive sulfide mineralization consisting of almost pure chalcopyrite and bornite, locally laced by late native silver.

Kohls and Amezaga (1956) estimated that during the period 1548-1821 250,000 tons of oxidized ore were produced with grades of 450 g / t Ag and 0.5 g / t Au. In the period 1938-1943, primary sulfides were exploited with grades of 450 g / t Ag, 1-3% Pb, 1 to 4.5% Cu and 6% Zn. The QP has done insufficient work to confirm these production figures.

At the beginning of the 1950s, surface and interior mine exploration began in San Martín, from this period to 2005 approximately 100,000 m on the surface and 220,000 m in the interior mine have been drilled, which discovered new mineral resources that have extended the mine life.

In the same period, approximately 42 million tons have been mined, without considering the mineral from the Noria de San Pantaleón and Sabinas. The historical production of the district and the current reserves of the two mines in production (San Martín and Sabinas), are estimated at approximately 95 million tons in this deposit, with a potential of an additional 40 million in the northern, western and southern parts of the La Gloria stock (Maldonado-Espinosa D., IMMSA Report, 2004).

Between the years 1990-1997, a large surface exploration program was completed in the area surrounding the San Martín mine. The exploration program included application of standard modern exploration techniques such as satellite imagery, geophysical surveys, mapping. Over the same period approximately 67,000 meters of diamond drilling with a total of 165 holes. (Sánchez H., J.M-Vega Saldaña J.A., IMMSA Report, 1998), was completed.

In 2008, a geological-geochemical study was carried out in the eastern area of the San Martín unit, Sombrerete, Zacatecas; which indicated a number of anomalous N-S striking anomalies in the limestones, associated with the intrusive contact. A total of five holes were completed to test the intrusive-limestone contact, and in order to explore the contact at depth and possible replacement mineralization in the Skarn (Flores EJ, Álvarez HE, Guerra Paez J., 2008).

The San Martín Mine was operated by Grupo México until the late 2007 when it closed due to labor unrest. The mine reopened in August 21st, 2018, upon resolution of the labor issues and has been in continuous production since. A summary of the production is shown in Table 5-1.

Table 5-1: Production Table Summary, San Martín (2002 to 2023)

C O N C E P T	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2019**	**2020**	**2021**	**2022**	**2023***
Milled tonnes	**1,237,051**	**1,287,239**	**1,259,220**	**1,231,476**	**925,807**	**625,341**	**625,090**	**1,355,065**	**1,217,334**	**1,413,207**	**707,553**
Grades Mill Feed											
Au (g/t)							0.03	0.02	0.01	0.01	0.01
Ag (g/t)	122	107.73	101	87.97	84.51	96	88	108	75	66	52
Pb (%)	0.24	0.21	0.20	0.20	0.20	0.18	0.34	0.34	0.24	0.25	0.20
Cu (%)	1.4	1.34	1.01	0.80	0.71	0.69	0.45	0.50	0.47	0.43	0.42
Zn (%)	2.91	2.65	2.21	2.03	2.18	1.76	1.73	1.68	1.87	1,62	1.51
Lead concentrate tonnes	**1,798**	**NA**	**NA**	**2,367**	**2,575**	**1,151**	**2,001**	**4,882**	**3,659**	**3,540**	**1,371**
Grades											
Au (g/t)		NA	NA				0.65	0.28	0.48	0.37	0.50
Ag (g/t)	1,934	NA	NA	2,800	2,176	2,595	3,458	3,679	3,445	3,587	3,045
Pb (%)	32.20	NA	NA	31.61	34.00	32.24	23.41	29.20	26.06	31.69	29.73
Cu (%)	11.22	NA	NA	7.15	5.65	6.51	11.93	10.61	11.64	9.50	8.53
Zn (%)	3.44	NA	NA	2.94	2.92	2.55	5.52	6.38	5.28	3.73	4.12
Copper concentrate tonnes	**66,652**	**67,429**	**54,537**	**39,227**	**27,898**	**17,668**	**7,105**	**20,077**	**16,134**	**19,091**	**9,752**
Grades											
Au (g/t)							0.31	0.19	0.25	0.28	0.31
Ag (g/t)	1,480	1,535	1,939	1,904	1,906	2,464	3,332	2,959	2,562	2,365	2,188
Pb (%)	2.84	3.48	4.01	2.98	2.37	3.31	11.15	6.64	5.50	7.48	7.09
Cu (%)	20.95	21.09	20.70	19.87	18.38	19.59	17.11	17.92	19.13	19.90	20.61
Zn (%)	5.16	5.65	4.85	3.36	3.78	3.93	10.16	12.95	9.99	7.98	9.15
Zinc concentrate tonnes	**46,067**	**44,324**	**40,532**	**36,745**	**29,902**	**16,007**	**14,411**	**31,577**	**39,335**	**41,320**	**17,552**
Grades											
Au (g/t)							0.12	0.08	0.09	0.14	0.18
Ag (g/t)	161	161	131	118	138	148	343	323	222	213	172
Pb (%)	0.30	0.30	0.26	0.23	0.31	0.36	0.90	0.90	0.61	0.55	0.41
Cu (%)	1.59	1.59	1.57	1.13	1.14	1.11	2.26	2.02	1.54	1.59	1.56
Zn (%)	48.77	48.77	49.91	52.20	51.12	51.45	42.07	46.33	43.46	41.58	43.74

Source: IMMS, 2022

- NA: Not applicable
- 2008-2018 No data
- (*) January – June 2023

5.2 Exploration and Development of Previous Owners or Operators

Detailed information of previous exploration and development completed in San Martín by previous owners is not available. As mentioned in the history section, the exploitation is known in the district from 1548 until around 1950 when IMMSA, took control of the operation. Exploration and sampling used to contribute to the current Mineral Resources are limited to work by the current company and are detailed in Section 7 of this report.

6 Geological Setting, Mineralization, and Deposit

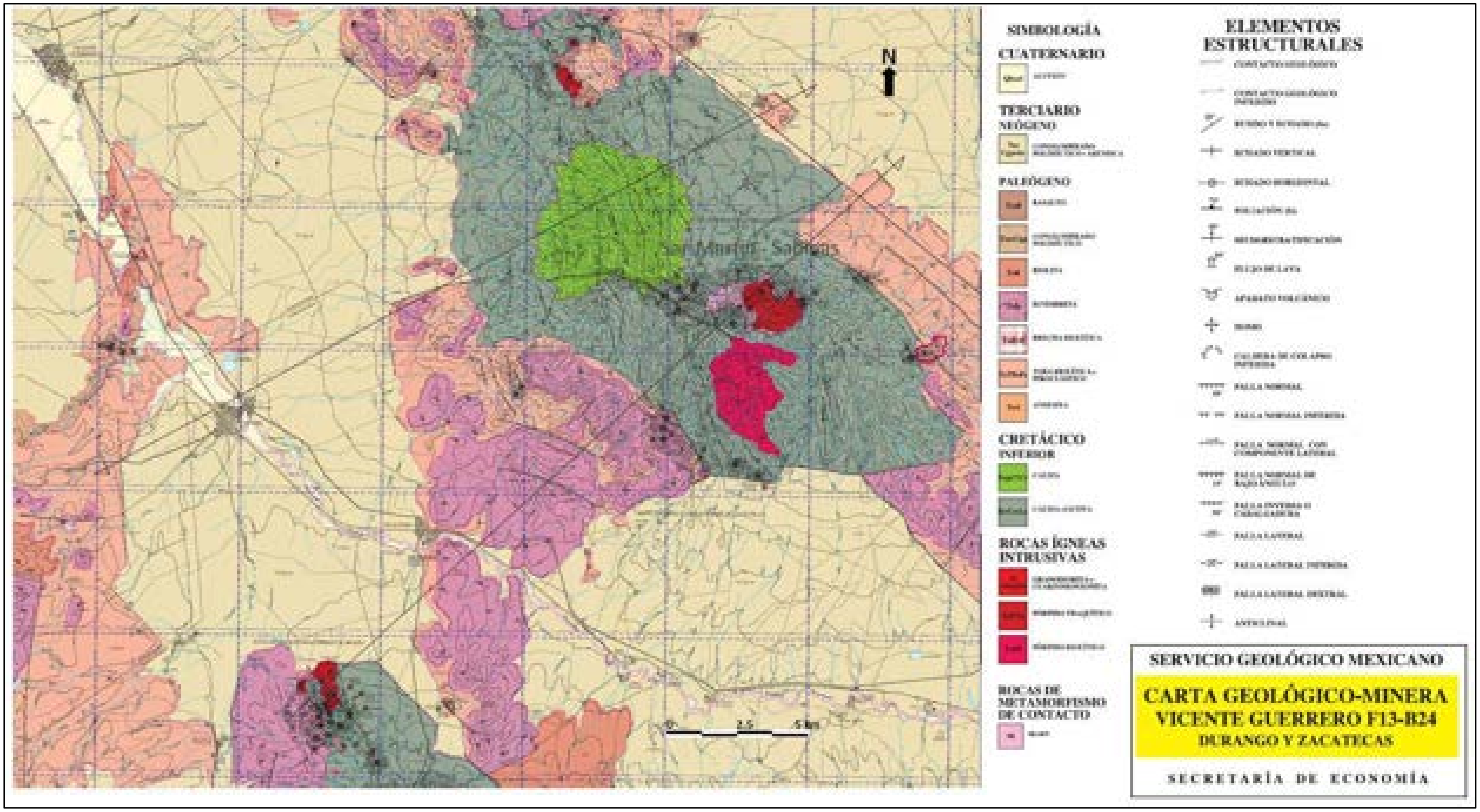
6.1 Regional, Local and Property Geology

6.1.1 Regional Geology

San Martín lies in the Mesa Central which occurs between two major tectono-stratigraphic provinces. The Sierra Madre Occidental, a region of extensive horizontal or gently dipping volcanic rocks, lies to the west. The Sierra Madre Occidental is dominated by two complexes of post-Jurassic igneous rocks (McDowell and Clabaugh, 1979). The lower volcanic complex ranges in age from 100 to about 45 m.y., and the upper volcanic complex from 34 to 23 m.y. Most of the lower complex consists of calc-alkaline intrusions and andesitic lavas and rhyolitic ash flows, whereas the upper complex is dominated by rhyolitic ash-flow tuffs (McDowell and Keizer, 1977; McDowell and Clabaugh, 1979). The Sierra Madre Oriental lies to the east of the Mesa Central and consists of parallel folds of Jurassic and Cretaceous carbonate and siliciclastic rocks, which are unconformably overlain by minor Tertiary and Quaternary sediments. The transition between the Sierras Madres and the Mesa Central is gradational. (Rubin and Kyle, 1988)

The Mesa Central consists of plateaus and valleys dominated by thick Cretaceous carbonate sequences with interbedded chert and shale units; these are commonly overlain, especially toward the western boundary, by Tertiary volcanic rocks of the Sierra Madre Occidental. In addition, Tertiary calc-alkaline intrusions, ranging in composition from granite to diorite, are quite common. These intrusions and their associated hydrothermal systems are largely responsible for the Mesa Central being one of México's most important metal producing regions. Many districts actively produce one or more of the following commodity groups: Pb-Zn-Ag, Sn (+-W), Cu, Ag-Au, and CaF2 (Clark et al., 1982). (Rubin and Kyle, 1988)

In San Martín, the union of the two physiographic provinces, also marks the proposed contact of the Guerrero and Parral units, which in this area are oriented W-NW (Figure 6-1). A trend of regional faults extends from the SE of Real de Ángeles to the NW of San Martín. At both ends of the region the rocks are covered by volcanic rocks of the Sierra Madre Occidental. This structure is a series of subparallel faults that are very evident in México, and that are strongly associated with mineral deposits formed during and after the Laramide Orogeny (Taxco, San Martín and Santa Barbara; Starling. T. 1997). These fault zones appear to have been influenced by local patterns of folds during Laramide deformation in several districts. (Velardeña, San Martín) and mark a fundamental control of magmatic and hydrothermal systems during the early and middle Tertiary.



Source: Servicio Geológico Mexicano, 2001

Figure 6-1: Regional Geology Map

6.1.2 Local Geology

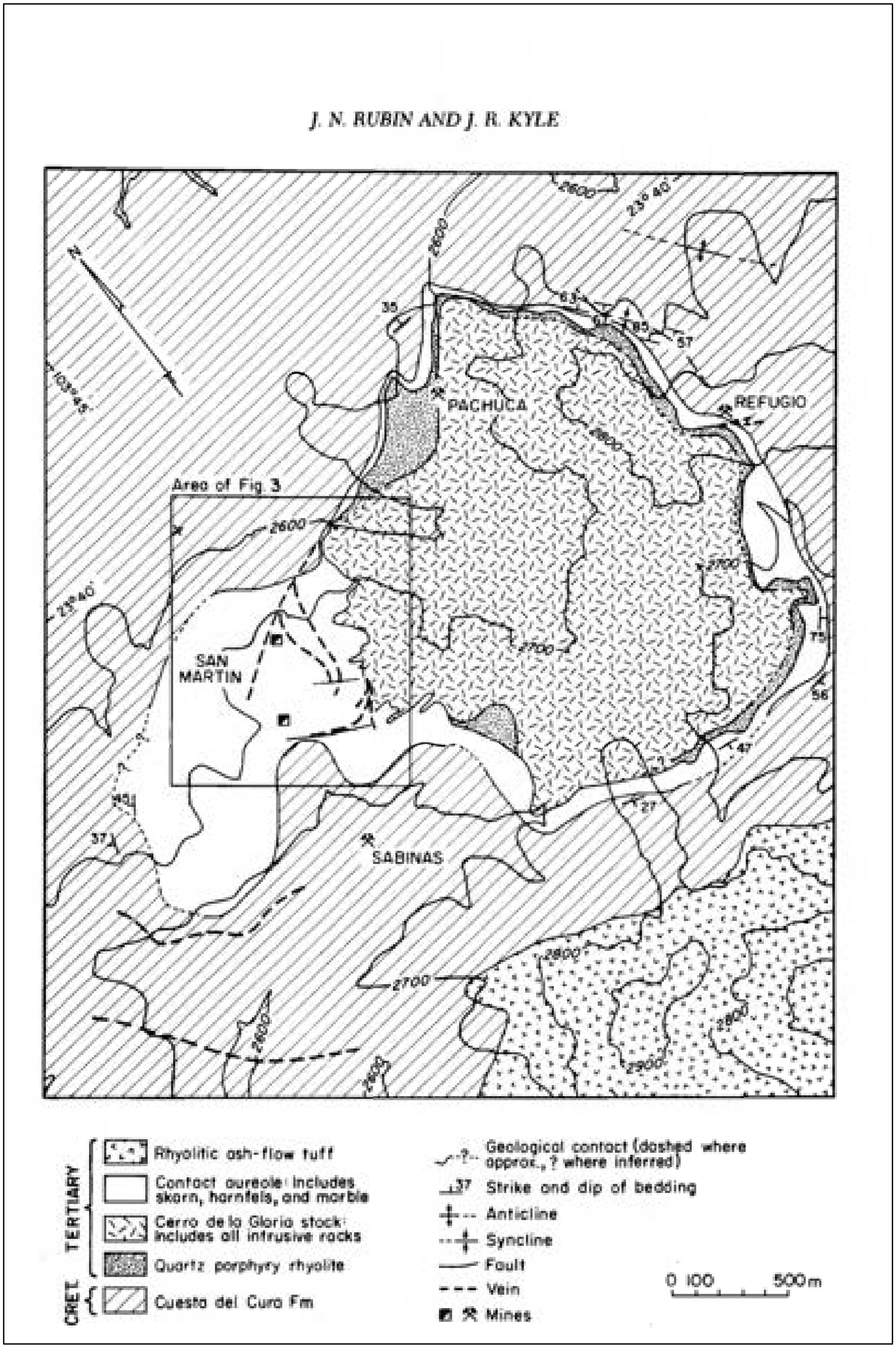
The San Martín-Sabinas district occurs at the NW end of a trend of subparallel regional faults, trending N65°W; extending from Real de Ángeles, with both ends covered by volcanic rocks. The San Martín mining district contains Ag, Pb, Cu, Zn and Au mineralization in veins, and replacement bodies and skarn (andradite, hedenbergite-clinopyroxene). The mineralization is hosted in carbonate rocks of marine origin, proximal to an Eocene-Oligocene granite stock showing multiple phases and textures (Cerro de la Gloria). The granite stock appears to have been emplaced by W-NW striking faults with sinistral-extensional movement. These W-NW faults join districts of base sulfides such as Fresnillo, Zacatecas, Guanajuato, on the west slope of the Sierra Madre Occidental.

Generally, the Laramide deformation produced compression structures of N-NW course, however, in this mine area the main mineralization trends are W-NW, N-S, NE and E, due to phases of extension N-NE, N-S, to the reactivation of W-NW structures and to the intrusion contacts. It is currently interpreted by IMSSA that the high-angle mineralized fault structures have helped fluid control during mineralization to be concentrated at the top and consequently, the Skarn area.

The various phases of intrusion were controlled to the north and south by two W-NW fault zones representing elements of pre-Laramide basement failure zones; these structures were initially developed as dextral faults and later reactivated as sinistral - trans tensional faults during post Laramide extension. The E and W limits of the intrusion are defined by fault zones which have been reactivated with SW throw. The main trends of W-NW fault zones controlled the distal vein systems of Ag-Pb.

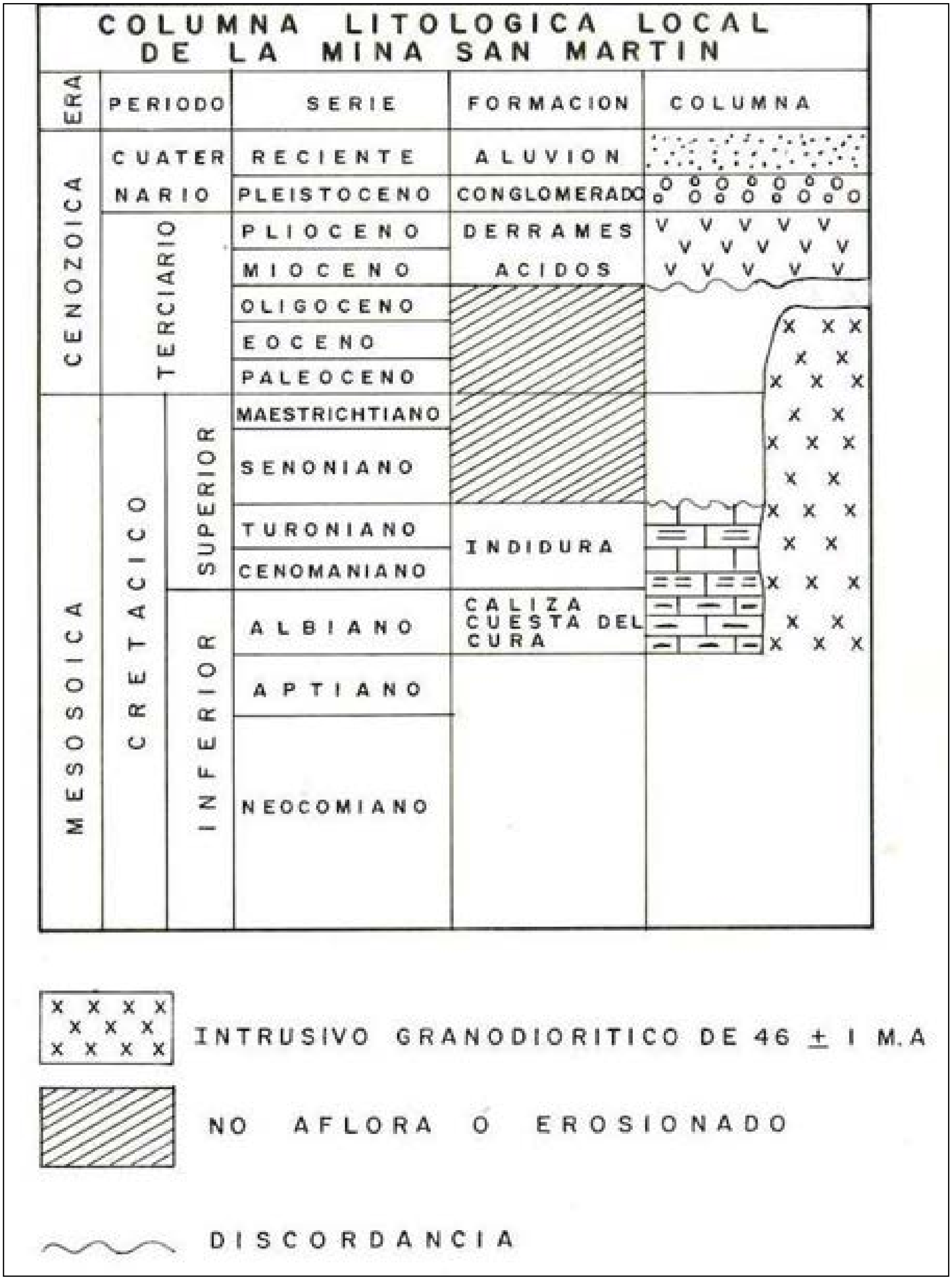
The intrusion in turn produced N-NE, NE, E faults, which are the origin of the main veins known as San Marcial, Ramal Ibarra, Ibarra and Gallo-Gallina. The WNW basement structures appear to have been reactivated during intrusion, joining the main veins and causing wide replacement bodies within the skarn alteration.

Figure 6-2 provides a map of the local geology. Figure 6-3 shows the stratigraphic column of San Martín. Figure 6-4 presents the schematic cross section showing structural and lithological mineralization control relations at San Martín.



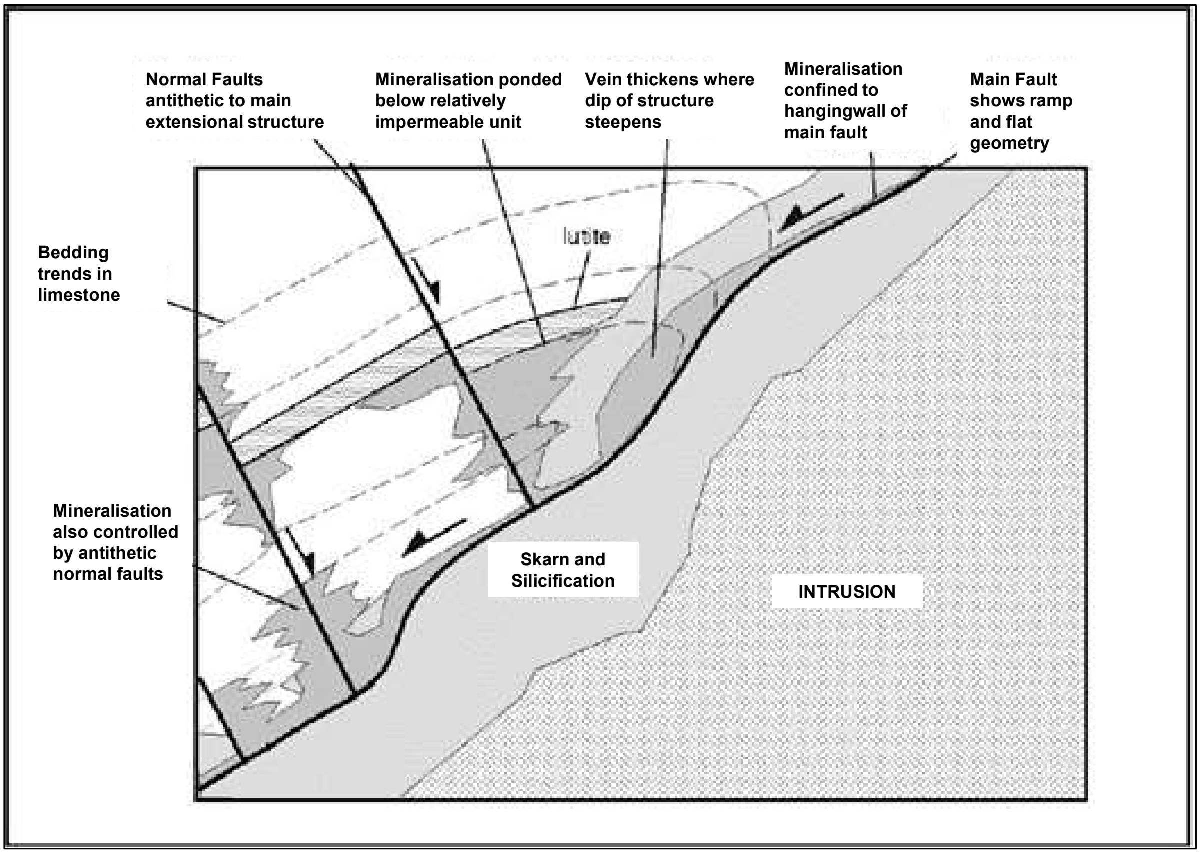
Source: Rubin and Kyle, 1988

Figure 6-2: Local Geology Map



Source: Maldonado, 2004

Figure 6-3: Stratigraphic Column of San Martín



Source: Maldonado, 2004

Figure 6-4: Schematic Cross Section of San Martín

6.1.3 Property Geology

In the area of San Martín, the Cretaceous Cuesta del Cura and Indidura Formations consist of limestones with thin interbeds of flint and shale. It has been observed in the lower levels of the San Martín mine, as well as in deep diamond holes of exploration, that the Cuesta del Cura Formation is approximately 900 m thick, presents changes such as: the presence of carbonaceous shale horizons and almost absence of flint. The Peña formation is intensely folded and faulted by the Laramide orogeny of (40 to 80 Ma), and discordantly covered by tertiary conglomerates, and by Rhyolites and Basalts of the Quaternary across the region.

Lithology of the Intrusive

The stock of Cerro de la Gloria presents an irregular elliptical shape on the surface, in which the largest diameter N–S is 2.1 kms and the smallest E–W, 1.7 kms.

The Stock Cerro de la Gloria dated 46 Ma by K-Ar methods on biotite (Damon et al., 1983) intrudes the limestones of the Cuesta del Cura formation. The stock presents several types of rocks and textures, culminating in fluids related to late porphyritic phases. The igneous evolution in San Martín and the nature of the igneous evolution has been a contributing factor in mineralization.

San Martín has similarity in ore with other deposits of this type in México, however it is apparently richer in Cu – Fe in exoskarn and Cu – Mo in intrusion (endoskarn).

The earliest igneous phase is a medium to fine grain granodiorite, with euhedral grains of hornblende, Plagioclase (An 35-40), abundant biotite and subhedral grains of quartz. Accessory minerals include sphene, magnetite, allanite.

The alteration observed at depth are quartz veins with potassium feldspar envelope, chloritization of biotite, as well as fine-grained sericite.

Exploration intercepted a granitic-dioritic Porphyry which considered to be one of the earliest phases, as demonstrated by the composition of plagioclase (An 45 – 60). Petrographic analyses indicate a dominance of plagioclases and hornblende in phenocrystals, with a lower proportion of quartz, biotite and pyroxene.

The largest dominant phase of Cerro de La Gloria is Granite (Monzogranite), (Figure 6-5). This phase is equi-granular to slightly porphyritic; having potassium feldspar (12mm), subhedral quartz, euhedral plagioclase, and minor hornblende. Accessory minerals include apatite, zircon, sphene and as iron oxides, magnetite and ilmenite. At depth it has an overall increase in grain size and is more equi-granular. Most of the bodies can be seen to the east of the mine forming the body of the Cerro de La Gloria. Inside the mine they are cut by dikes of medium grain of granite porphyry, with similar composition.

The alteration of this granite is located adjacent to the Quartz-Porphyritic dikes, especially in fracture zones where biotite is chloritized, and plagioclase is sericitized. Where alteration occurs the rocks are characterized by the presence of quartz, quartz- feldspar- potassium (chalcopyrite - arsenopyrite), and veins are present which include pyrite and pyrrhotite.

Medium Grain Porphyritic Granites

Porphyritic granite bodies can be mapped at surface and in the mine. While the composition is similar to the Cerro de la Gloria and the Granite Porphyry, potassium feldspar crystals show a uniform direction. These porphyritic dikes are more common in the western part of the Cerro de la Gloria and in the eastern part south of the Refugio.

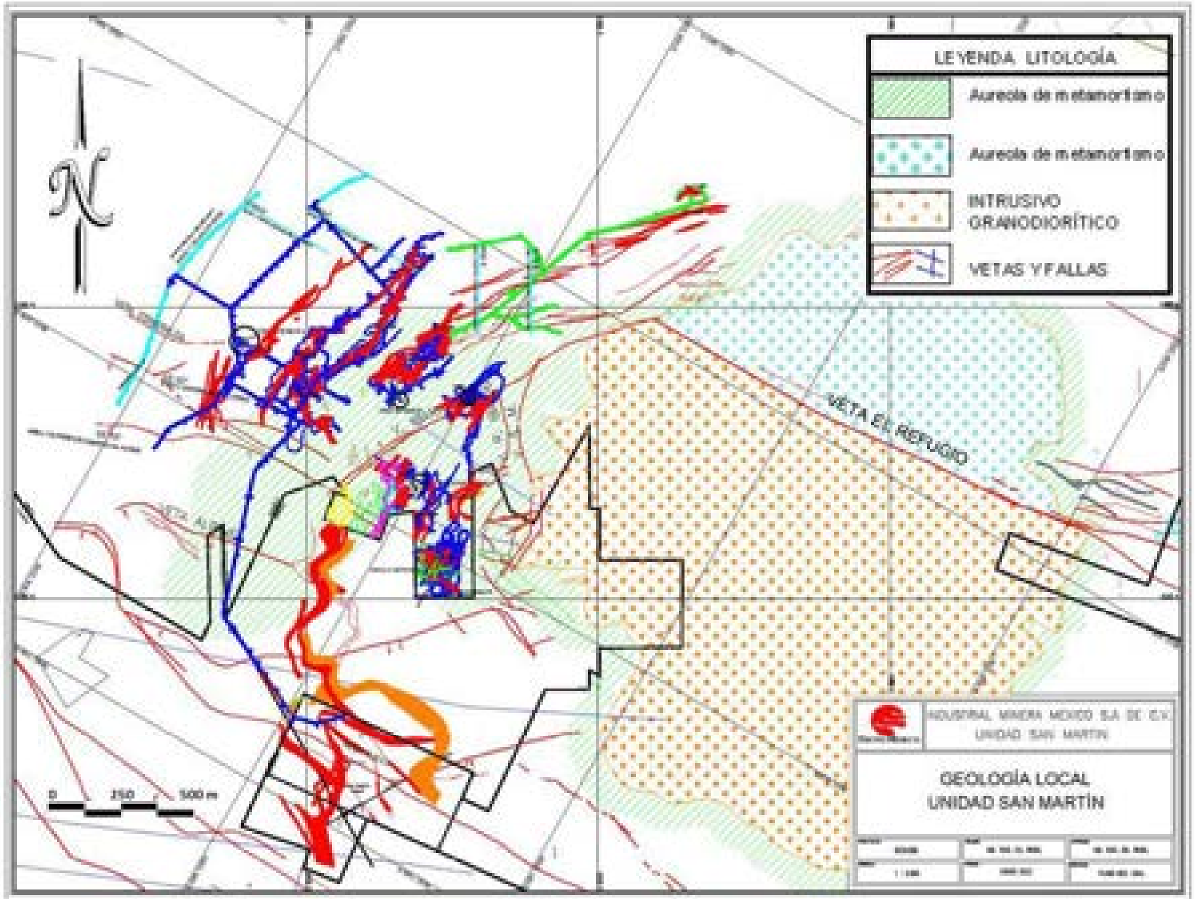
In composition this porphyry granite is like the granite of the Cerro de la Gloria and the Granite Porphyry, the main concentration of these masses of dike occurs in the western part of the Granite of the Cerro de la Gloria, as well as in the eastern part of this Intrusive complex south of the Refugio.

Coarse Grain Porphyritic Granites

Coarse-grained Prophyritic Granite cuts the granite of Cerro de la Gloria, has a composition similar to the other two phases of granite, but has a fine-grained phaneritic matrix. Potassium feldspar phenocrystals, quartz and plagioclases, are more common and rarely biotite. It is altered and replaced by intense veins of quartz, being a possible genesis of saccharoidal quartz, which is located superficially in the SW projection of the large mass of Porphyritic Quartz.

Medium Grain Porphyritic Granites

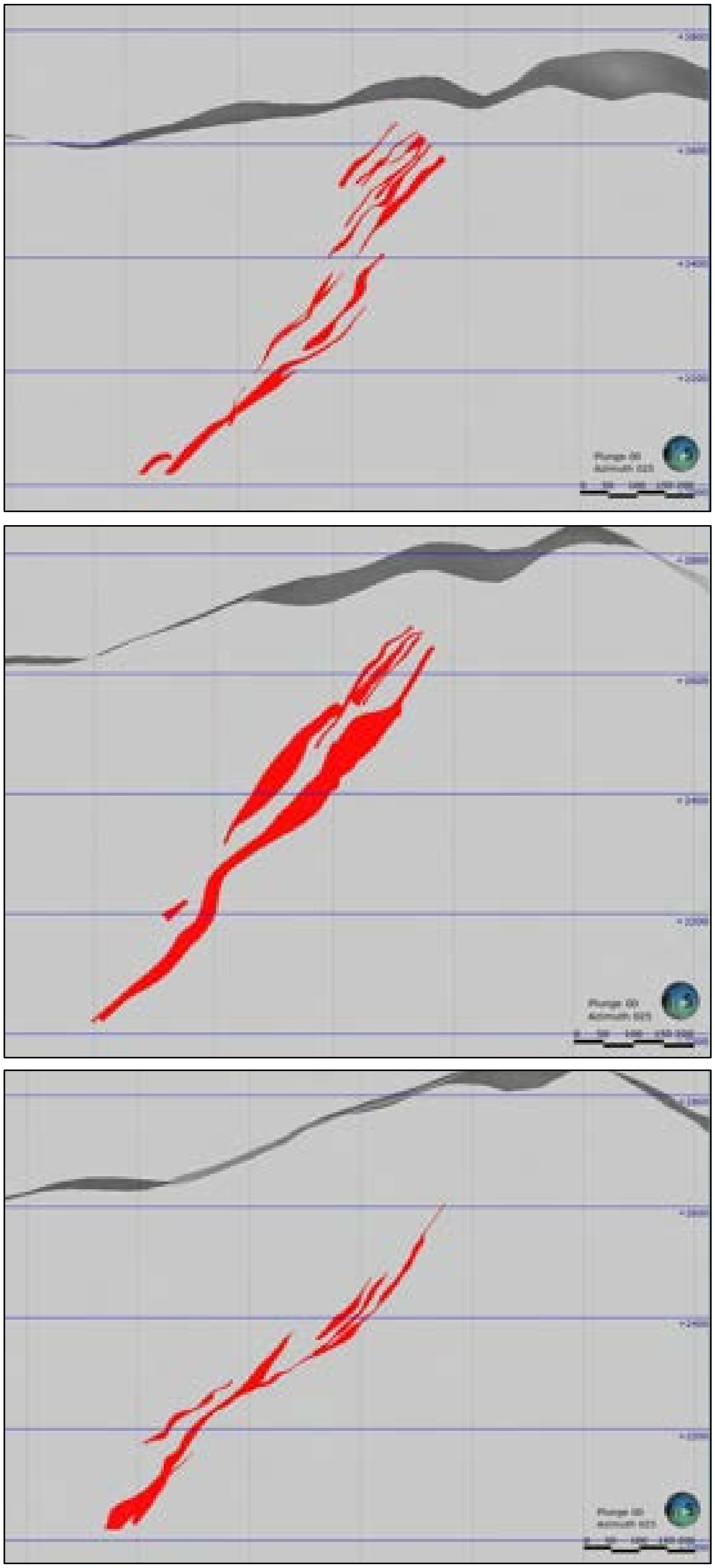
These dikes commonly cut Porphyry Quartz, Porphyry Granite, and Skarn. Its distribution suggests a volatile-rich volatile rich, late-stage crystallization of Porphyritic Quartz. Veins cut intrusive phases, as well as skarn and sulfide-rich veins and massive replacement. The fine-grained, intensely chloritized and sericitized dikes seen in core are examples of these dikes.



Source: IMMSA, 2021

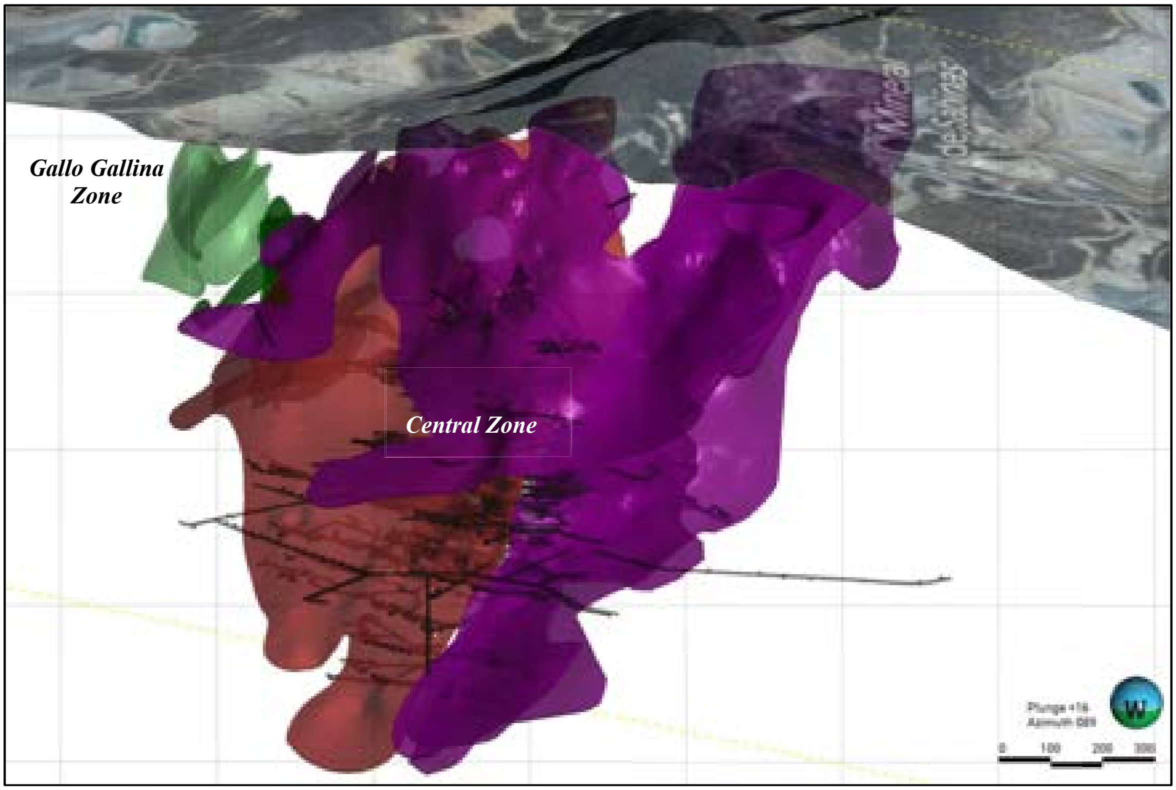
Figure 6-5: Property Geology Map

Figure 6-6 presents an example of the interpreted mineralization in San Martín in vertical sections (Azimuth 025°) from south (upper image) to north (bottom image) distanced 100 m, indicating the distribution and changes in width. The mineralization (replacements) inside the mantles/layers is variable and irregular. The length of the mineralization downdip reach 800-850 m and drilling has found that the mineralization is still open at depth, including areas where the mineralization extends for an additional 400 m. Figure 6-7 shows the 3D view of the mineralized structures (Mantos and Veins) that are part of the geological model. The width of the mantles varies from a few meters up to 50-60 m or more locally.



Source: IMMSA, 2021

Figure 6-6: Vertical Sections – Interpreted Mineralization



Source: IMMSA, 2023

Figure 6-7: 3D View of the Geological Model

6.2 Mineralization

6.2.1 Mineralization and alteration

Detailed studies of mineralogy, alteration, fluid structures and inclusions (Aranda-Gomez; 1978), (Rubin and Kyle;1988), (Starling;1997), (Graf;1997), indicate that the mineralization of St. Martín is subsequent to metasomatism in skarn (andradite-diopside) and prior to that of tremolite (actinolite, vesuvianite, wollastonite). Mineralization is related to the retrograde alteration event overprinting the skarns. This retrograde event is thought to have occurred during the cooling of the porphyry intrusions is related to the retrograde alteration that accompanied the porphyry feldspathic quartz. Fluid inclusions show that sulfide mineralization was associated with high and low salinity fluids (46 %wt Na Cl eq. and 3-8 %wt NaCl eq. Gonzalez Partida, 1997) and temperatures between 250°-300°C, suggesting magmatic and meteoric sources respectively.

Alteration veins associated with porphyries include: early quartz-chalcopyrite-molybdenite, quartz-chalcopyrite-arsenopyrite, fluorite-arsenopyrite with sphalerite and quartz, quartz-sericite-pyrite veins. In the central part of the deposit there is a horizontal zone with respect to the intrusive contact, presenting Ag, Cu and As enrichment close to the contact. Sphalerite tends to be deposited later and in greater quantity than Fe, Mo, As, Cu, but it is strongly associated with marmatite and chalcopyrite. At depth, there is an increase of pyrrhotite and marmatite, with a horizontal zonation similar to that described. In the NE portion of the deposit structures concentric to the intrusive “Ibarra, Gallo –

Gallina", there is an increase of Pb, Zn, Ag in the Skarn. At the far east of the deposit there is an elevated area of Cu and Ag mineralization, while towards the SE (Mina Nueva-Sabinas) Ag, Pb, Zn dominate in massive bodies in the Skarn. Anomalous Au-Ag values have been located within the intrusive vein of the NW-SE system at surface in the Refugio vein, with increasing Pb and Zn mineralization at depth. Figure 6-8 shows core of the Mina Nueva zone with massive sulfides (Sphalerite, Galena, Pyrite).

Source: IMMSA, 2021

Figure 6-8: Photographs of Core in Zones of Massive Sulfides (Sphalerite, Galena, Pyrite), Drillhole DDHMN21-11

Several mineralization stages and paragenetic phases have been suggested:

- Arsenic and fluorite appear early, but are cut by veins of quartz and chalcopyrite with feldspar
- Bornite and chalcopyrite occur together in the Skarn and are deposited at time similar to replacement textures, prior to most other sulfides.
- Sphalerite is usually deposited after chalcopyrite. Pyrite is observed at both early and late ages, as well as very distant from metamorphic halo. Pyrrhotite occurs close to the deep intrusion in the central part of the mineral body in the early stage of paragenesis.
- Mo and W occur in small portions in the Skarn close to contact with the intrusive and often associated with calcite.
- Sphalerite and galena postdate most of the Sulfides of Cu and Fe, but they are later cut by silver minerals, as well as stibnite in calcite.

The deposit of distal minerals of lower temperature such as gold, native silver, tennantite-tetrahedrite, realgar, orpiment, and stibnite, has been suggested to a late collapse of the hydrothermal system.

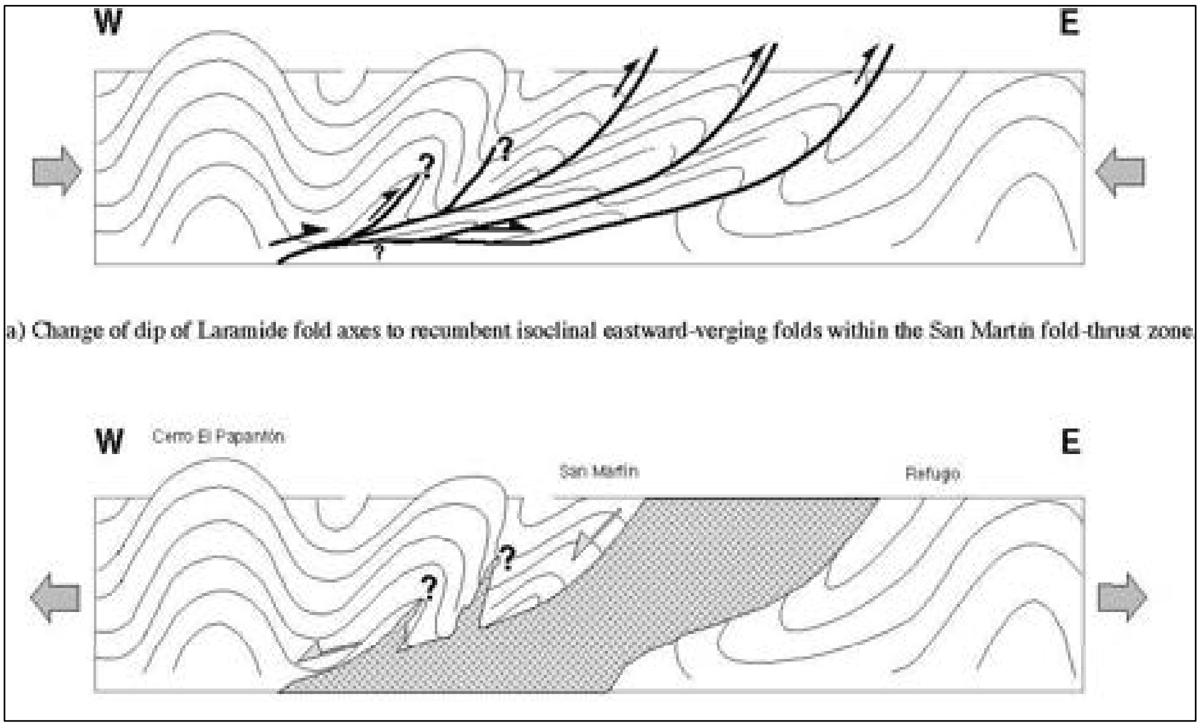
6.2.2 Structural Controls on Mineralization

The mineralization of the San Martín deposit is primarily controlled by a W-NW sinistral dilatational fault zone. Many of these fundamental structures are pre-mineral in origin, which were reactivated during and after the Laramide event.

San Martín is located on the margin of the larger structural zone of discrete WNW regional fault zones, which extend from San Martín to the SE of Zacatecas and Real de Angeles (Figure 6-1)

The intrusive complex plunges shallowly to the southwest, focusing mineralization immediately above the contact. As the Indidura formation is in the area of folding and contains a high content of shales, there is a good possibility of locating mineralization in the contact of the Formations Cuesta del Cura and Indidura.

Veta San Marcial is thin with subvertical dipping. Antithetical veins are also present to the through-going vertical veins. The NE and S margins of the intrusion/deposit are controlled by zones of sinistral faulting striking NW to W-NW. The intrusion of San Martín was pre and syn mineralization in age, acting in part as a solid body within the dilation zone. Field data indicate that mineralization is strongly associated with Porphyric Quartz dikes (Figure 6-9).



Source: Maldonado, 2004

Figure 6-9: Scheme of Structural Evolution Model

The structural model indicates that the Post-Laramide extension (N-NE) produced oblique faults with a large expansional component W-NW to NW, which control the emplacement of intrusions and resulting mineralization.

Structural control can be seen on multiple scales; the largest and most economically important are the concentric and antithetical structures that house the main mineral veins, when these structures are intercepted by the WNW-NW in the Skarn zone, the mass replacement bodies are of large dimensions. These bodies are also formed at the edges of the intersections of the main veins and the antithetical structures.

Thus, the main veins known as San Marcial, Ramal Ibarra, Ibarra, Gallo – Gallina strike NW, N NE, NE, which when combined with structures W NW – NW (faults 3 and 5) form the large bodies of replacement in Skarn known in San Martín, with longitudinal influence of 1.5 km and depth of 1.1 km.

Where the contact of the intrusion is low angle, the ore bodies are narrow or do not exist, but when these surfaces change pitch there is a large increase in grade and volume. Some of the deep exploration targets are located at the intersection of normal faults with the margin of the intrusive (Figure 6-4).

6.3 Mineral Deposit

The Zn-Pb-Cu (- Ag ± Au) San Martín deposit in northwestern Zacatecas is one of the most economically important and largest skarns in México. Mineral associations in this deposit belong to the sulfide skarn type (with rather "classical" prograde and retrograde zones) and contain peripheral sub-epithermal to epithermal veins. Detailed Mineralogy and geochemistry have been completed on the deposit historically which is summarized from Rubin and Kyle 1988, below:

The San Martín skarn deposit was formed by a hydrothermal system associated with intrusion of the 46-m.y.-old Cerro de la Gloria quartz monzonite stock into the middle Cretaceous Cuesta del Cura limestone. The deposit is exploited by two major mines. The San Martín mine extracts Cu-Zn-Ag ore from veins and replacement bodies hosted by skarn, and the Sabinas mine extracts Zn-Pb-Ag (+ or - Au) ore from veins hosted by skarn and recrystallized limestone.

Horizontal metal zonation is well developed in the San Martín district. Cu and Ag correlate positively and the general pattern is Cu + Ag --> Cu + Zn --> Zn + Pb, with increasing distance from the intrusive contact. The contents of Fe, Cu, Zn, and Pb increase with depth within the ore zone.

Au is farthest from the contact and occurs in veins within recrystallized limestone. Structural and stratigraphic controls were of major importance in localizing mineralization. Fractures in the Cuesta del Cura Formation associated with Laramide folding increased the permeability of the host rock; the metasomatic aureole, with accompanying sulfides, is most extensive in the most deformed portion of the limestone.

Chert and shale units of the Cuesta del Cura served as local impermeable barriers to hydrothermal fluids; these units are mineralized only along fractures.

The vein system represents a series of intrusion-related fractures that roughly parallel the intrusive contact and that served as major conduits for the ore-forming fluids. Formation of both the vein system and sulfide-hosting in skarn probably was aided by volume loss during metasomatism. Other retrograde phases include wollastonite, vesuvianite, epidote, and chlorite; fluorite and calcite are common, and minor quartz is also present.

The metallic mineral assemblage is diverse and the paragenetic sequence can be divided into early, intermediate, and late stages. The sequence consists of:

- early arsenopyrite, bornite, chalcopyrite, pyrrhotite, and molybdenite; intermediate sphalerite, with intergrowths of chalcopyrite, and galena; and late tetrahedrite-tennantite, pyrite, native silver, and stibnite.
- Supergene phases include marcasite, acantite, stromeyerite, and pyrargyrite. Deposition of grandite garnet probably was initiated by an increase in F (sub O2) (and possibly decrease in F (sub S2) and took place at temperatures estimated in the range of 500 degrees to 550 centigrade degrees.
- Garnet then became unstable relative to clinopyroxene and later calc-silicate alteration products. Fluid inclusion evidence suggests initially highly saline fluids (at least 24 wt % KCl

and 36 wt % NaCl) with temperatures of major sulfide deposition starting at about 425 degrees C and declining thereafter such that metals were able to be transported as chloride complexes and sulfur was carried mainly as SO_2. Sulfide precipitation was probably caused by a continuing decrease in temperature and an increase in pH brought about by dissolution of $CaCO_3$.

- Local endoskarn formation and noneconomic mineralization of the intrusion preceded exoskarn formation. Relative metal solubilities were the major control on metal zonation. The Cu-Ag association is a product of thermal collapse of the mineralizing system, resulting in low-temperature mineral assemblages coexisting with high-temperature assemblages near the intrusive contact.

7 Exploration

7.1 Exploration Work (Other Than Drilling)

Since early last century exploration activities have advanced in parallel to the exploitation operation, defining the continuity of the mineralization as the exploitation advanced.

At the beginning of 2019, the Zona Centro exploration team undertook the task of carrying out a structural geological mapping, geologically mapping in detail 80 hectares in the Zorra Plateada area, scale 1: 1,000. Likewise, for the Cuervo-Josefina area, 80 hectares were also mapped at a scale of 1: 1,000 and a total of 82 samples of splinters were collected from landfills and old mining works. These two areas are located to the west of the San Martín operation.

In 2023, San Martín collected approximately 5,000 rock samples from underground workings as part of the grade control activities of the mine geology department.

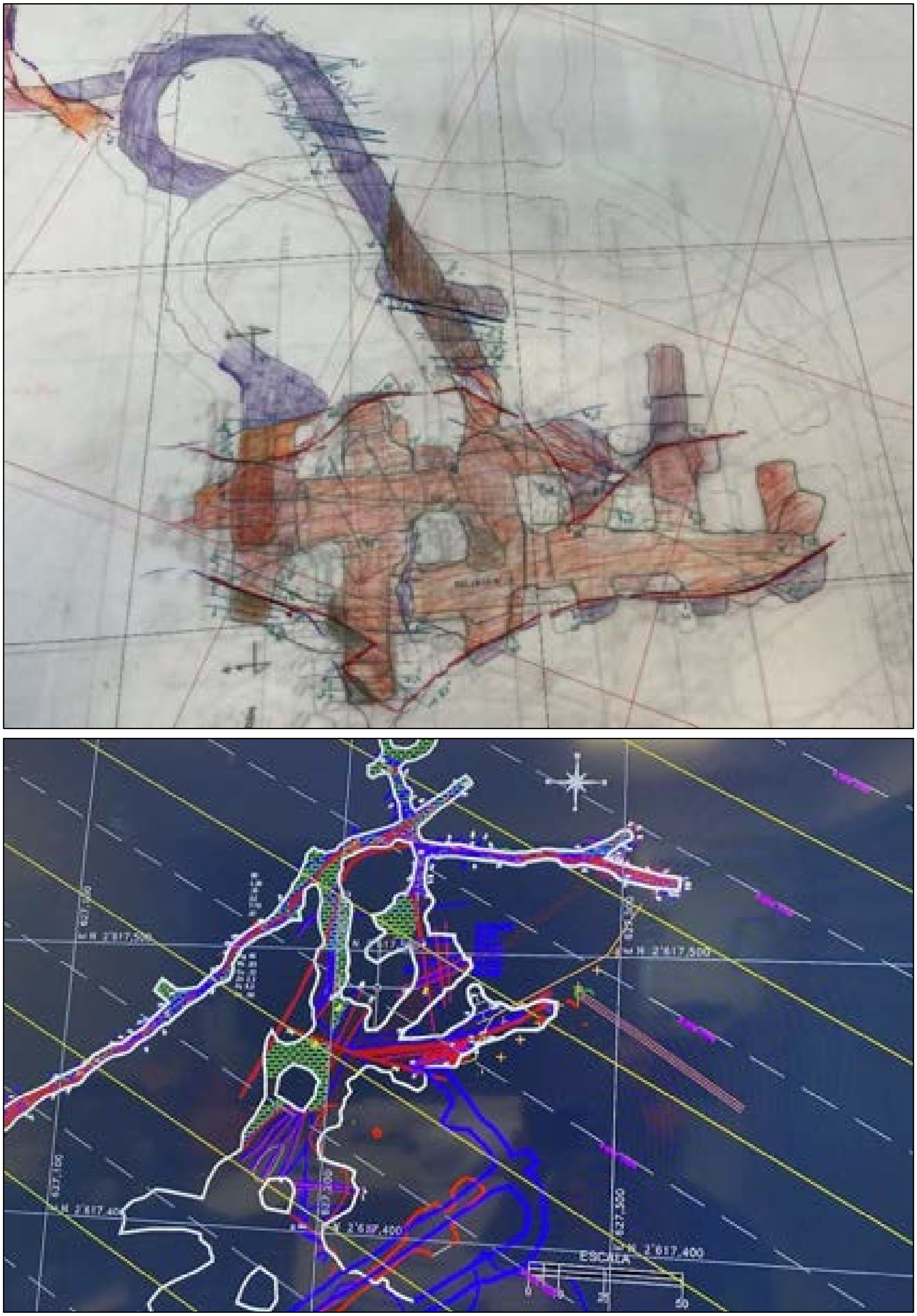
7.1.1 Procedures and Parameters Relating to the Surveys and Investigations

The underground workings are surveyed with Total Station, and historically using Theodolite. The sampling, geology, structural, and mineralization information is registered in maps. The historical maps were completed in paper format and are maintained and stored in the mine geology office.

The sample channels are located using compass and tape from known points located along the underground workings. The mine topography maps provided by the mine topography department are used to draw the geology interpretation, structure, and the horizontal projection of rock sampling lines (Figure 7-1 and Figure 7-2).

Source: IMMSA, 2021

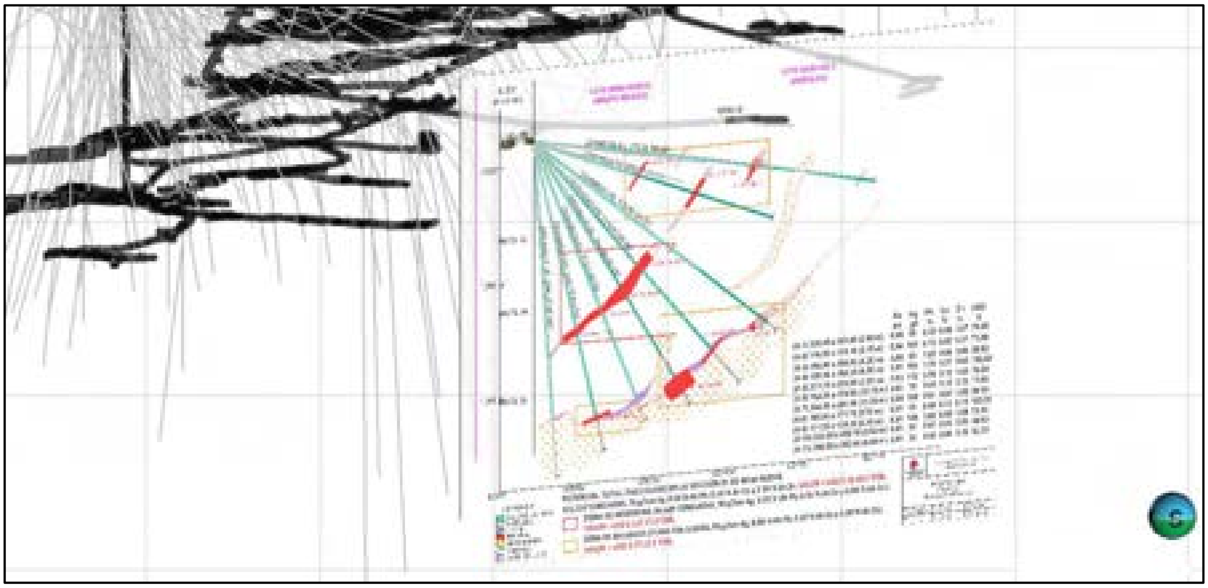
Figure 7-1: Example of Channel Sampling Location Maps (AutoCAD Format)



Source: IMMSA, 2021

Figure 7-2: Example of Geological Underground Maps (Paper and Digital AutoCAD)

In 2023, San Martin completed the digitization of the available rock sampling and drilling information. The georeferenced information was digitized directly from sections and core logging sheets in excel sheets and this information was imported into the Leapfrog geo software for the geological modeling and the mineral resource estimation. Some maps and sections were directly uploaded and georeferenced in Leapfrog to help in the geological interpretations and modeling, Figure 7-3.



Source: IMMSA, 2021

Figure 7-3: 3D View of an Example of Georeferenced Vertical Section in Leapfrog

The QP highlights that there is a limited risk that not all information is used when generating maps and cross sections, or that the process of updating the interpretations can result in a time-consuming process for the geological staff, before importing the data into Leapfrog software.

It is the QP's opinion that the mine has demonstrated sufficient quality in the survey process to accurately reflect the geology, which is supported by the long mining history of the deposit.

7.1.2 Sampling Methods and Sample Quality

Mine Channel/Rock Chip Sampling

Sample limits are defined by the geologists according to changes in mineralization and lithology and are oriented perpendicular to the mineralization controls (stratigraphy and veins), Figure 7-4. The rock chips are collected by the geology technicians, simulating a channel of approximately 15 cm. The rock samples from the underground workings are collected from the roof of drifts using long steel bars and/or with hammer and chisel (Figure 7-5). Sample lengths vary from 1 to 2 m. The geologists try to use 5-m systematic distance between the sampling channels.

Source: SRK, 2021

Figure 7-4: Marks Indicating Limits and Width of Samples

Source: SRK, 2021

Figure 7-5: Left: Rock Sampling using Hammer and Chisel. Right: Homogenization of Fragments Size

Each rock sample is collected in a piece of fabric disposed in the floor, and then the big pieces of rock are homogenized to a size of approximately 2.5 – 4.0 cm using a hammer. The sample is mixed inside the fabric, split by hand and then a sample of 2 – 5 kg is packed in plastic bags which are labelled and then closed with ties.

The geologists complete the geological description of the channel. The samples are described including the following information:

- Lithology
- Alteration (type, intensity, and mineralogy)
- Mineralization (styles, intensity, mineralogy)
- Structures (description, aptitude, mineralogy)

The complex distribution of the mineralization is a distinctive feature of this deposit, and the integration of the interpretation sections and maps will be a challenge when constructing a 3D geological model, despite of the good quality and quantity of geological interpretation information.

Since 2022, IMMSA implemented an additional method of rock sampling that consists of collecting chips from the drift fronts or roofs in areas (panels) of homogeneous mineralization/geology characteristics (Figure 7-2) defined by the mine geologist. Each sample (1 to 2 kg) is collected with hammer and chisel from the defined panel. IMMSA did not collect field duplicates of these samples to evaluate the quality of this sampling methodology. According to IMMSA, this methodology has shown advantages for the short-term planning of the operation.

SRK considers that the current non continuous channel sampling procedure is not in-line with industry best practices and sampling errors can be introduced due to changes in rock hardness when using long bars to collect the rock chip samples. The lack of an adequate rock sampling protocol results in poor-quality rock sampling and uncertainty associated with the results.

The samples collected by the geology technicians and delivered to a company geologist, who reviews the samples and delivers the samples to the on-site laboratory to provide a chain of custody. Internal quality controls are not included in the sample stream by the geologists of San Martín.

All the chip channel samples (2 - 5 kg weight) collected by the operation are sent to the internal onsite laboratory for assaying, where multi-element assays by ICP are completed.

The assay results received by the geology staff are registered in Excel spreadsheets. For the historical sampling, the assays results were received in paper tables and the geologists transcribed the results directly into the maps (Figure 7-1 and Figure 7-2) and the mining panels (stope) supporting documents. Part of the sample information in Excel does not contain the sample length but does contain silver, copper, lead, zinc, iron and arsenic grades. Lithology, alteration, and mineralization description are not included in the Excel spreadsheets but is partially described in the geological maps and sections. The digitalization completed in 2023 used the data that included location, length and assays.

7.1.3 Information About the Area Covered

San Martín samples all the underground workings and stopes maintaining an approximate separation of 5 m between channels. Each stope is advanced vertically and a new set of samples are collected from the ceiling of the stopes, that are used for the mineral resource updates. The area covered by the operation and the exploration around it is approximately 9 km^2.

7.1.4 Significant Results and Interpretation

Although the sampling methods and sample quality do not follow best practices to minimize potential bias or contamination. It is the QP's opinion that the overall the results are representative of the geological units and mineralization controls. The results from channel sampling are accepted for the definition of the geological interpretations and Mineral Resources at San Martín.

The channel sampling is used for the mine planning (medium and short term). SRK relied upon reconciliation of the planned versus executed grades and tonnages system of San Martín to determine the performance of the channel sampling, which is considered reasonable considering the long history of mining at San Martín.

Table 7-1 shows the comparison between the planned and real tonnages and the mill feed grades for the last 4 years. For 2023, there are important differences in silver, lead and zinc, which reflects the variability of grades associated with the deposit. The QP notes there are higher differences in the comparison to the grades of 2022. There is not a protocol of reconciliation that provides robust numbers to evaluate appropriately these differences, but these differences are an aspect to investigate in each of the processes of the operation.

Table 7-1: Comparison of Planned vs. Real Tonnages and Grades for 2020 to 2022

	Milled Tonnage (t)	Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)
Total Plan 2020	**1,298,400**	**0.04**	**92.03**	**0.25**	**0.60**	**2.00**
Total Real 2020	**1,355,065**	**0.02**	**107.80**	**0.34**	**0.50**	**1.68**
Difference 2020	4%	-55%	17%	38%	-16%	-16%
Total Plan 2021	**1,371,150**	**0.02**	**94.28**	**0.34**	**0.52**	**1.90**
Total Real 2021	**1,217,334**	**0.01**	**74.77**	**0.24**	**0.47**	**1.87**
Difference 2021	-11%	-34%	-21%	-29%	-10%	-2%
Total Plan 2022	**1,294,975**	**0.01**	**68**	**0.28**	**0.50**	**1.90**
Total Real 2022	**1,413,207**	**0.01**	**66**	**0.25**	**0.43**	**1.62**
Difference 2022	9%	0%	-3%	-11%	-14%	-15%
Total Plan 2023*	**1,096,700**	**0.01**	**68**	**0.25**	**0.45**	**1.68**
Total Real 2023*	**1,194,185**	**0.01**	**55**	**0.20**	**0.45**	**1.48**
Difference 2023*	9%	-18%	-19%	-20%	1%	-12%

Source: IMMSA, 2023
(*) January – October 2023

7.2 Exploration Drilling

The drilling in San Martín has been documented since the last century, but the total quantity of drillholes completed at San Martín cannot be established due to lack of an available historical drilling register and the loss of previous information.

At the beginning of the 1950s, the surface and interior exploration of the mine began in San Martín, from this period until 2005, approximately 100,000 m were drilled from surface and 220,000 m from underground chambers. During the years 1990-1997 approximately 67,000 meters with a total of 165 holes were completed. (Sánchez J.M, et al., 1998).

7.2.1 Drilling Type and Extent

San Martín has completed diamond core drilling from surface and underground, and the actual number is not known due to the lack of a historical drilling register or a central database and the loss of information during the general strike occurred some years ago. IMMSA finalized the process of data capture of the drilling database. Most of the drilling completed by the operation is BQ core and has not been downhole surveyed, but in 2023, IMMSA implemented the use of NQ core size and the down hole surveying for all the mine geology drilling. The majority of the historical drillholes have lengths more than 100 m and depending on the zone of the project, but there are a considerable number of drillholes longer than 300 m. A lack of downhole surveys for the historical drilling can result in location errors of the drillhole intercepts and potential mining panels (stopes) defined with the drilling, representing a moderate risk level. It is the QP's opinion that this risk is limited as the drillholes defining the Indicated portion of the deposit are relatively close to the current underground workings and therefore will have limited deviation. Impact on Inferred Resource for longer holes will likely have slightly higher risk. The QP has considered this risk during the classification process, reflecting the levels of confidence. Figure 7-6 presents the location of the traces of the drilling completed in San Martín that are part of the drilling database imported to Leapfrog software and used for the resource estimates.

Source: IMMSA, 2023

Figure 7-6: Drillhole Traces – San Martín

Underground diamond drilling completed by the mine geology department includes drilling a fan of holes on sections spaced 25 - 30 m apart perpendicular to the main mineralization trend.

On completion of each drillhole, the collar location is surveyed, and the following information is recorded on paper drill log sheets:

- Hole number, with collar location, length, planned dip and azimuth.
- Start and completion dates of drilling.
- Core lengths and recoveries.
- Geological and mineralogical descriptions
- Assay results.

The historic mine geology drillholes are used in conjunction with the drillholes in the mineral resource estimation.

The location of the collars and drilling traces are now registered in excel files and leapfrog Geo project, and in paper maps or Autocad files. The drillhole information can be found in individual paper plans and vertical sections.

7.2.2 Drilling, Sampling, or Recovery Factors

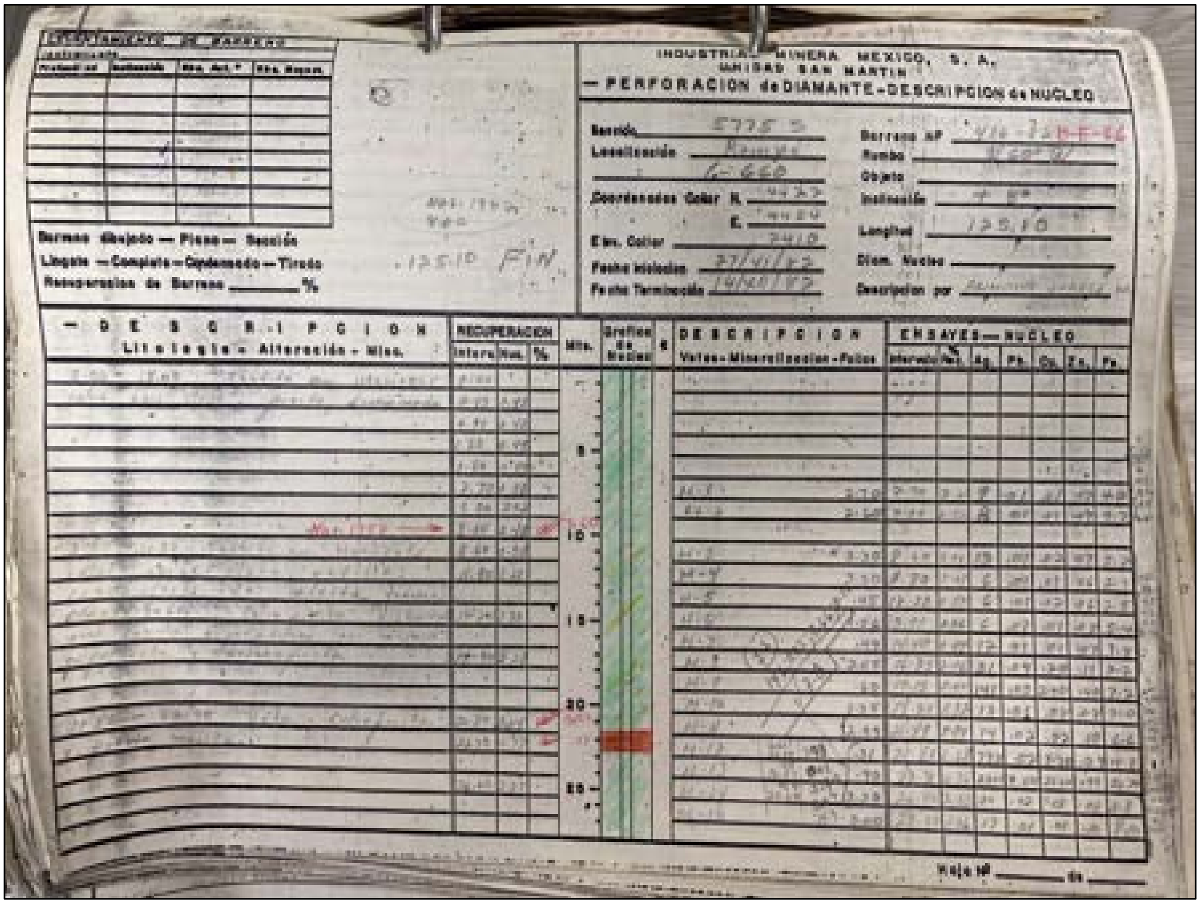
Mine Geology Department Drilling Programs

The historical drilling is completed by the mine geology department of San Martín. It was estimated that there are approximately 2,000 historical drillholes have not been digitized. The mine geologists complete the core logging in paper formats, which includes the lithological, structural, and mineralization characteristics. Although the general characteristic of mineralization is registered in the logging formats, the codes of mineralization and geology characteristics have changed over time. An example of the logging format is shown in Figure 7-7. The sample limits were defined according to changes in geology and mineralization and the logging formats included the zinc, lead, copper, silver, and iron grades (and recently, gold).

Only the areas of visible mineralization and its halo of 4 to 5 m around the mineralized zones (hangingwall and footwall) are sampled. A core splitter or an electrical saw have been used to cut the core, and a half of the core is collected in plastic bags and sent to the internal laboratory for chemical analysis. Small core pieces (10 to 20 cm) from the drillhole intervals that have been described as non-mineralized were stored, and the rest of this material was discarded after logging.

Part of the assay results received by the geology staff were registered in Excel spreadsheets and included in plan section drawings (AutoCAD format). A lot of the sample information in Excel does not contain presently the information of the sample length, which is required for geological modeling and mineral resource estimation. The information digitized includes the length of the samples captured from the original logs and is now in Excel format and have been uploaded into Leapfrog Geo software for geological modeling and resource estimation.

Historically the onsite laboratory has reported the assays in paper and recently in excel files. There is no QA/QC protocol for the historical drilling completed by operations staff. In 2023, IMMSA started the implementation of a QA/QC protocol.



Source: IMMSA, 2021

Figure 7-7: Core Drilling Logging Format Used at San Martín for Historical Information (1982)

A core splitter or an electrical saw is used to cut the core, and half of the core is collected in plastic bags and sent to the internal laboratory for chemical analysis (34 elements). Historically, the remaining core of the sampled zones were stored at the operation complex for 5 to 10 years, but during the period of time due to a strike, all the stored core was discarded. The pulps of the processed historical samples in the internal laboratory were discarded.

In 2023, the mine geology department completed 6,334 m of drilling, and the exploration department 15,257 m.

The San Martín operation currently does not operate a commercial database or a geological data management protocol. The historical drilling information is physically stored in the San Martín Mine geology office with individual hole in individual folders. However, the mine geology staff informed SRK that portions of this documentation were lost in the last decade. To validate drill results from as part of the previous estimates the QP relied on review of the hard copies (paper format) of the historical drilling, and the excel files of a part of the drilling. In 2023, the digitalization of the available information was completed, and the information is in digital formats, including Excel and AutoCAD formats.

The information of drilling, rock sampling and the geological interpretations in plan and vertical sections was uploaded into Leapfrog Geo software for Geological modeling and Mineral Resource estimation.

Exploration Department Drilling Programs

After the restart of the activities in San Martín, IMMSA has used a contractor to be responsible for the exploration drilling. The drilling contractor (Tecmin) completed approximately 35,000 m of drilling during the last 3 years. In 2023, the contractor drilled 15,257 m, including 30 holes (13,480 m) in Gallo gallina. The diamond core drilling is completed using diamond bits, using the standard core sizes HQ, NQ, BQ and AQ. Most drill rods are 10 feet long (3.048 m). This drilling includes downhole surveying at interval of every 20 and 50 m. All new drillhole collars are surveyed using Total Station. The QP notes that multiple coordinate systems have been used historically, which have been translated to a single system during the current data capture process.

The drilling depth is estimated by keeping track of the number of drill rods that have been inserted while drilling, and the recorded drill core lengths. The obtained core is stored in plastic core boxes (Figure 7-8), which are labelled with the borehole identification, box number and from/to measurements.

Source: IMMSA, 2021

Figure 7-8: Core Boxes of San Martín

Once the diamond drilling has been carried out and the core has been recovered, the next step is to transport the core boxes to the logging facility where the core is logged and sampled. Figure 7-9 presents the core logging area of the exploration department in San Martín.

Source: SRK, 2021

Figure 7-9: Core Logging Room of the Exploration Department in San Martín

Once at the logging facility, the core boxes are placed in order on logging tables with the run blocks (from-to) clearly visible. The core is then washed, photographed, and then logged with the following features recorded (structures, mineralization, alteration, rock type, contacts, and clasts), and sample intervals are marked.

Geotechnical information such as recovery and RQD are also recorded, as these data are needed to assess rock quality, determine mining widths, pillars, and mine support programs.

Within the activities carried out in the logging, zones with mineralization or altered are defined, where according to the criteria of the geologist, the samples not smaller than 20 centimeters and not larger than 2.0 m were selected and marked. Later they are labeled with a sample tag and half of the core is cut to be sent for assaying and the other half remains as a control in the box (Figure 7-10).

The QA/QC protocol includes the insertion of blanks, duplicates, and certified reference material checks. These samples are being sent to SGS Laboratory, Durango, México. The onsite internal laboratory is used as a secondary laboratory and no other commercial laboratory is used as an umpire. In 2023 (January – October), 3,628 core samples were sent to the SGS laboratory for chemical analysis.

Core samples are collected in various types of lithology for the measurement of specific gravity, mainly in mineralized areas. After registering the core, samples. The samples are packed in plastic bags, labeled, and sent to the SGS laboratory facilities in Durango (Figure 7-11).

Specific gravity measurements are taken by the exploration team every 50 m according to changes of lithology and mineralization characteristics, using the Archimedes principle-based methodology. The specific measurement results have not been used for the current resource estimation because these measurements are collected in areas surrounding the main part of the deposit. It is the QP's opinion that the use of a single density value for the Project represents a moderate risk to the estimation of the total tonnage, and local fluctuations are likely expected. The risk is only considered moderate as the current assigned density of 3 t/m^3 is based on the mining production which has been established over a long period of time.

Source: SRK, 2021

Figure 7-10: Core Boxes with Sample Marks and the Remaining Half of Core

Source: SRK, 2021

Figure 7-11: Labeled Core Samples

GvMapper Software was used to capture data from exploration drill campaigns. This software is a configurable digital tool for creating, editing, displaying maps and drillhole columns, designed to manage information in a centralized database.

The conditions of the storage facility of the exploration group are in the QP's opinion in good condition and the core is appropriately maintained. (Figure 7-12). The drill core completed by Exploration is being stored along with the sample rejects and pulps.

Source: IMMSA, 2021

Figure 7-12: Core Logging and Core Storage Facility at San Martín

7.2.3 Drilling Results and Interpretation

The historical drilling information, which supports most of the mineral resources of San Martín, have been completed without proper QA/QC protocol and downhole survey measurements. These aspects are not in line with the industry best practices which may result in errors related to the location of the mineralization intersection and quality of the samples and assay results.

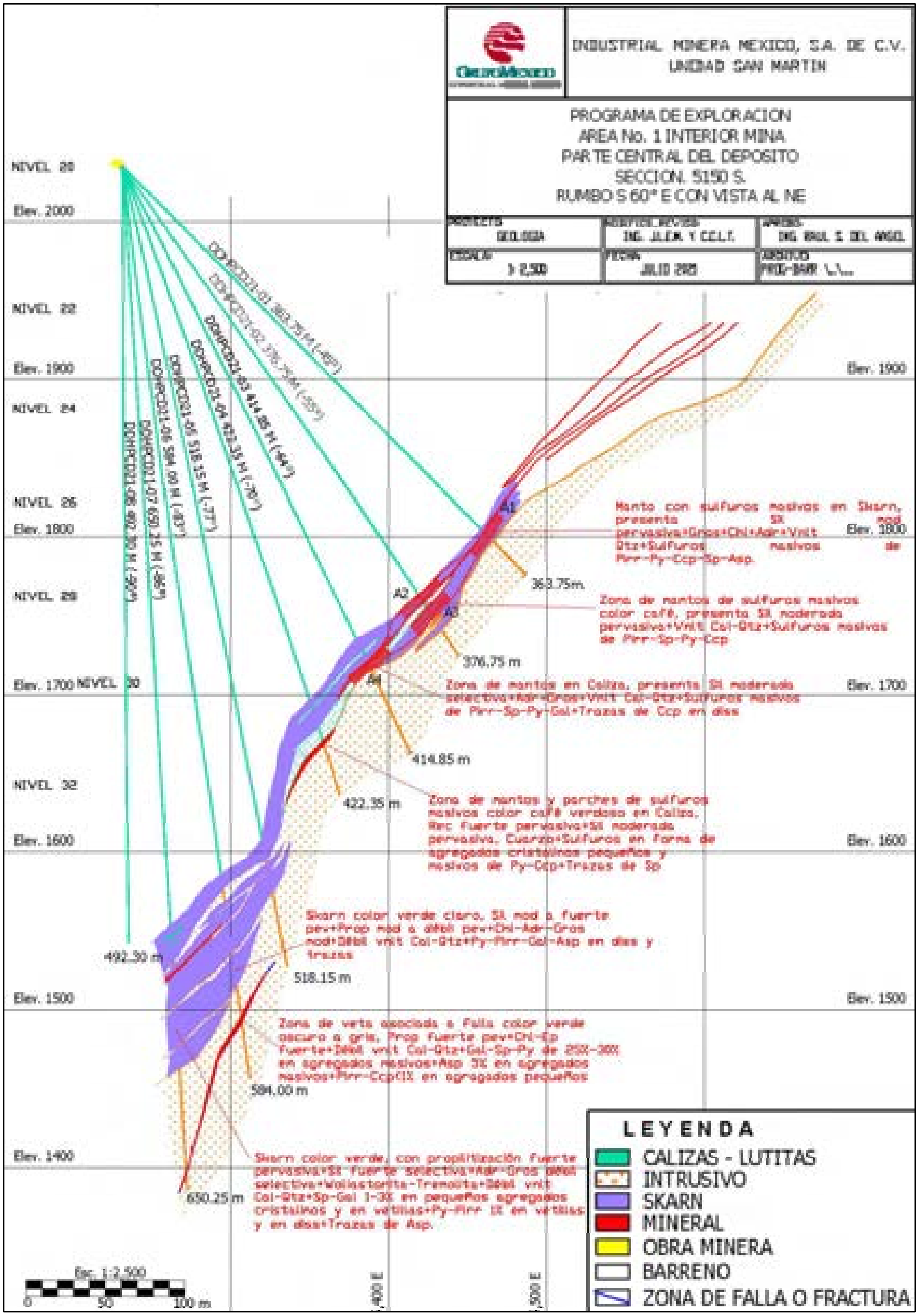
The lack of downhole surveys in underground drillholes represents a moderate risk associated to location and extent of mineralization in areas unsupported by underground workings. Recent drilling completed by the exploration team have downhole surveys every 50 m.

Core recovery is not an issue according to the information provided by San Martín. Recent drilling has shown core recovery average above 97% and locally low recoveries associated to weathering zone and faulting. Poor recoveries associated with historical drilling may be due to drilling practices and equipment from that period.

Historical and recent drilling campaigns have been carried out by the operation with core recovery in diameters from NQ to BQ and TT46, which are considered reasonable for the operation, and in 2023 IMMSA started the implementation of NQ in all the drilling completed by the mine geology department. HQ, NQ drilling diameters are being used for the exploration drillholes completed by Tecmin.

The operation drillholes have been drilled from underground drilling chambers by both mine operations staff and contractors. This drilling is typically completed using fan drilling from the existing drives.

Drillholes are orientated as perpendicular to the mineralization controls (stratigraphy and veins) as possible. It is the QP’s opinion based on the sections reviewed that overall, the drilling intersects the mineralization at acceptable angles to model the geological contacts. In some cases, the angle of the intersection to the mineralization can be shallow, due to the irregularity of the mineralization, but San Martín tries to minimize this. Figure 7-13 shows the intersection angles relative to the interpreted geology in a vertical section, including the completed drilling. The geology of San Martín and distribution of mineralization is irregular, and the variable drilling inclination is acceptable considering the geology and mineralization of the deposit.



Source: IMMSA, 2021

Figure 7-13: Example of a Geology Interpretation in a Vertical Section, Including Completed Fan Drilling

The core is logged and transcribed in the hole books.

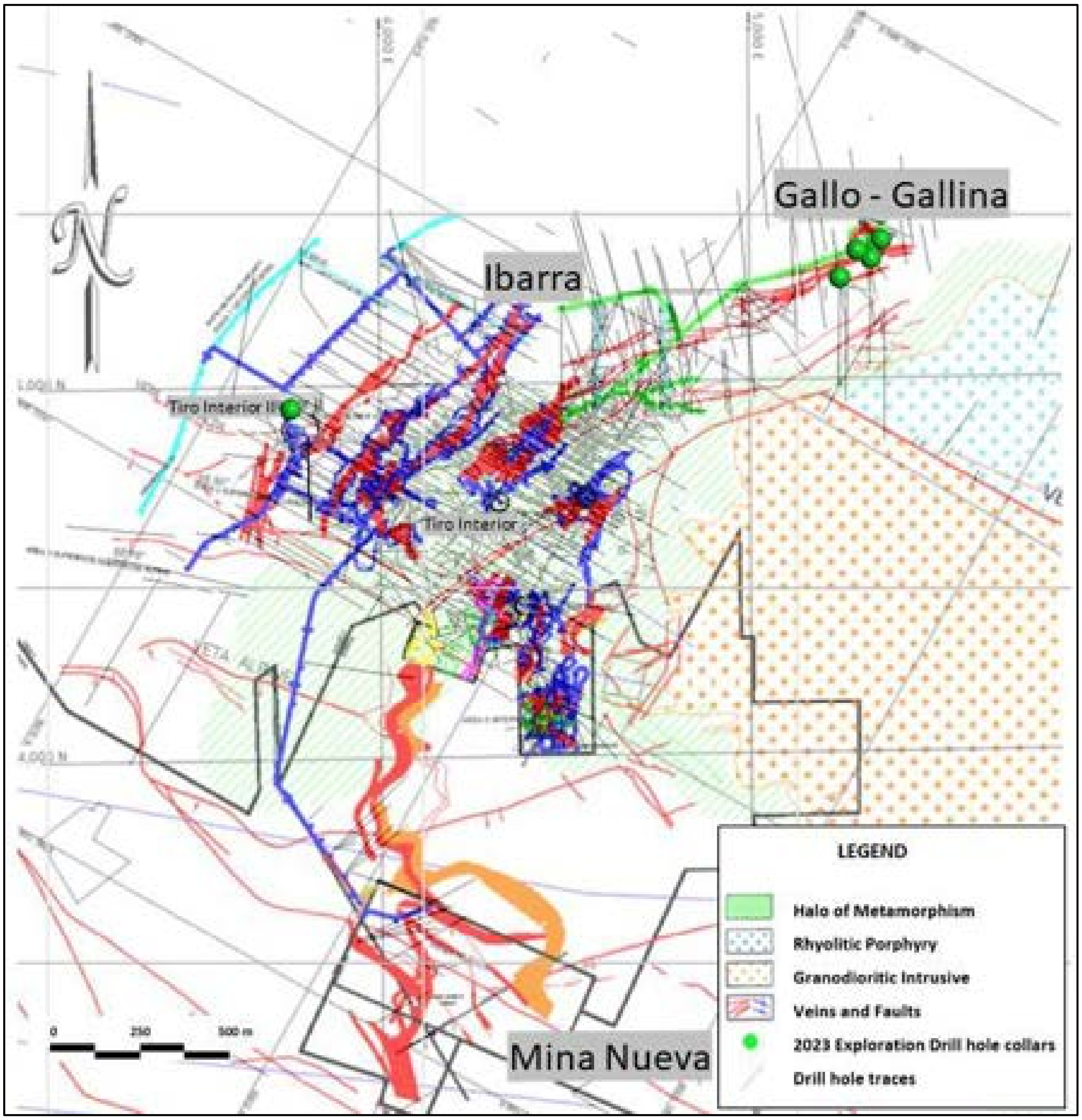
This data is combined with channel sampling and geological interpretations based on underground workings to update plans and vertical sections on either paper maps or in AutoCAD.

The variability of the mineralization that characterizes the skarn and veins deposit of San Martín is appropriately interpreted using the different sources of information. SRK relied upon reconciliation of the planned vs. actual grades and tonnes mined at San Martín to evaluate the quality of drilling data. Based on the reconciliation and the long history of mining at San Martín, it is SRK's opinion that the drilling and sampling is acceptable for use in the current mineral resource estimate.

Recent Drilling – Exploration

Recent exploration within the San Martín mining district, in the vicinity of the San Martín Mining Unit, specifically towards the South - West portion, Gallo Gallina and the deep Central zone.

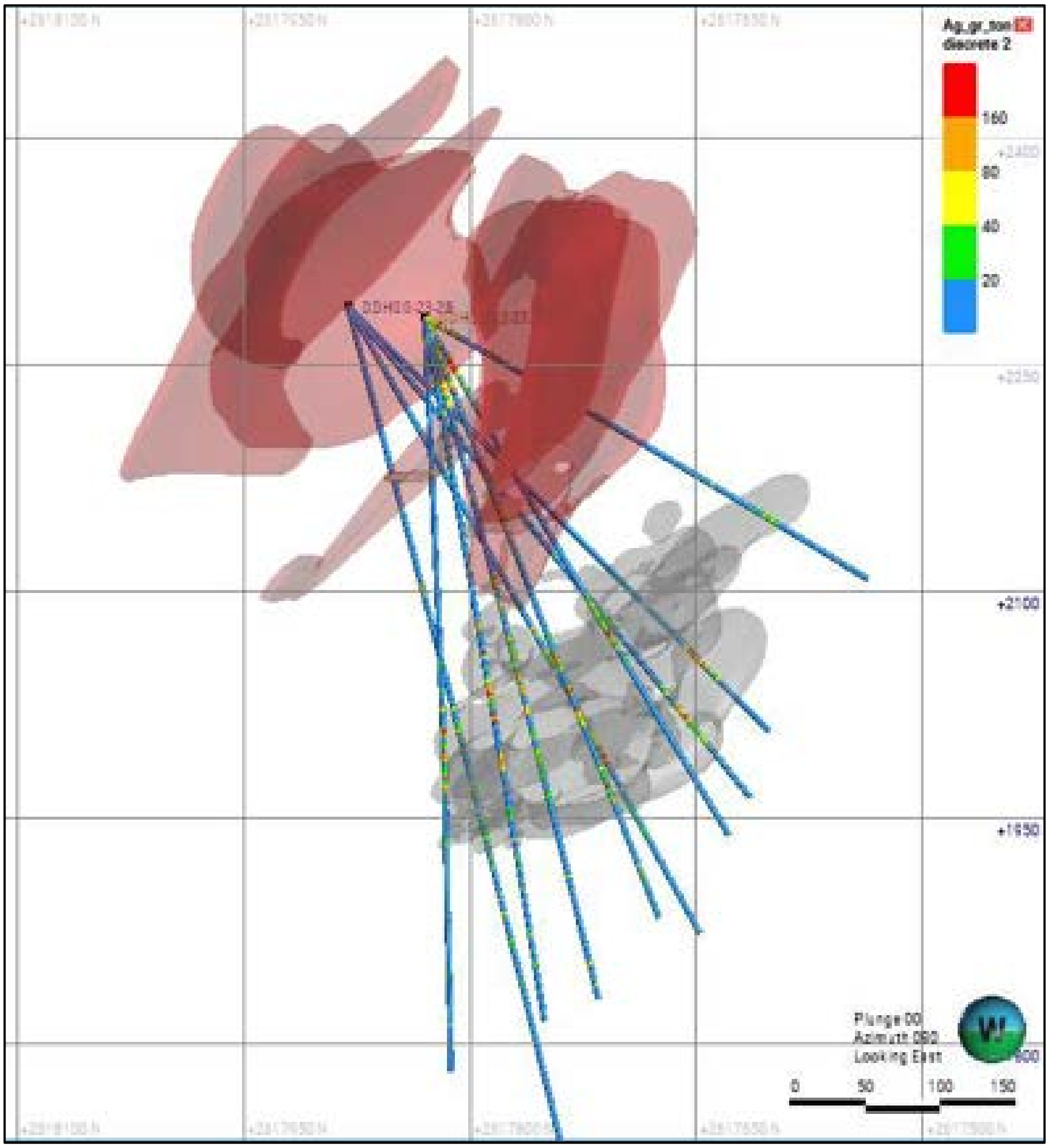
In 2023, from January to October, the exploration department completed 34 drillholes totaling 14,300 m in Gallo-Gallina. Figure 7-14 shows the location of the drillhole collars of the exploration drilling.



Source: IMMSA, 2023

Figure 7-14: Location of 2023 Drillhole Collars – Exploration Fan Drilling

The exploration diamond drilling completed by the contractor in Gallo Gallina was focused on the definition of the already identified veins, mantos and the disseminated mineralization. Figure 7-15 and Table 7-2 present the 3D view of the drilling and the core interval results obtained, that intercepted the mineralized structures, including the disseminated mineralization at depth.



Source: IMMSA, 2023

Figure 7-15: N-S Vertical Section, 2023 Exploration Drilling in Gallo Gallina (Looking to East)

Table 7-2: Summary of Relevant Results of 2023 Exploration Drilling Campaign

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-17	332119	31.3	32.3	1	104.00	0.01	0.82	0.02
DDHGG23-17	332120	32.3	33.1	0.8	236.00	0.13	1.17	0.02
DDHGG23-17	332121	33.1	34.55	1.45	277.00	1.00	0.99	4.08
DDHGG23-17	332123	34.55	35.7	1.15	171.00	0.04	1.13	0.03
DDHGG23-17	332124	35.7	36.6	0.9	102.00	0.48	0.46	1.33
DDHGG23-17	332125	36.6	37.5	0.9	153.00	0.41	0.72	1.93
DDHGG23-17	332127	37.5	38.5	1	337.00	0.09	3.09	0.10
DDHGG23-17	332128	38.5	39.35	0.85	279.00	0.04	2.97	0.05
DDHGG23-17	332129	39.35	40.5	1.15	110.00	0.01	0.58	0.03
DDHGG23-17	332131	40.5	41.5	1	231.00	0.01	1.52	0.02
DDHGG23-18	332290	45.6	46.6	1	154.00	0.01	1.60	0.06
DDHGG23-18	332291	46.6	47.3	0.7	64.00	0.01	0.64	0.10
DDHGG23-18	332292	47.3	48.1	0.8	14.00	0.00	0.17	0.01
DDHGG23-18	332293	48.1	49.4	1.3	44.00	0.00	0.49	0.01
DDHGG23-18	332294	49.4	50.9	1.5	104.00	0.00	1.06	0.01
DDHGG23-18	332295	50.9	52.1	1.2	552.00	0.01	4.01	0.02
DDHGG23-18	332297	52.1	53.3	1.2	17.00	0.00	0.11	0.01
DDHGG23-18	332298	53.3	53.9	0.6	110.00	0.00	0.92	0.01
DDHGG23-18	332299	53.9	55.3	1.4	318.00	0.02	1.51	0.04
DDHGG23-18	332353	137.35	138.6	1.25	34.00	0.40	0.06	0.91
DDHGG23-18	332354	138.6	139.6	1	236.00	10.03	0.24	11.81
DDHGG23-18	332355	139.6	140.6	1	128.00	4.19	0.17	11.32
DDHGG23-18	332357	140.6	141.6	1	58.00	0.36	0.03	0.96
DDHGG23-18	332358	141.6	142.6	1	38.00	0.15	0.02	0.32
DDHGG23-18	332359	142.6	144	1.4	212.00	0.27	0.01	0.19
DDHGG23-18	332360	144	144.9	0.9	175.00	1.08	0.02	0.31
DDHGG23-18	332361	144.9	145.8	0.9	100.00	1.85	0.13	2.34
DDHGG23-18	332399	239	240	1	79.00	0.09	0.04	0.04
DDHGG23-18	332400	240	241	1	614.00	1.04	0.05	0.19
DDHGG23-18	332401	241	242	1	98.00	0.10	0.09	0.01
DDHGG23-18	332402	242	243.1	1.1	290.00	0.10	1.23	0.02
DDHGG23-18	332403	243.1	244.05	0.95	63.00	0.06	0.09	0.02
DDHGG23-18	332405	244.05	245.3	1.25	159.00	0.07	0.04	0.01
DDHGG23-19	332485	45.05	45.6	0.55	173.00	0.10	0.97	0.06
DDHGG23-19	332486	45.6	47.1	1.5	49.00	0.01	0.46	0.01
DDHGG23-19	332487	47.1	48.6	1.5	66.00	0.00	1.08	0.01
DDHGG23-19	332488	48.6	50.1	1.5	149.00	0.00	1.68	0.01
DDHGG23-19	332489	50.1	51.6	1.5	140.00	0.00	1.41	0.01
DDHGG23-19	332490	51.6	53	1.4	54.00	0.01	0.53	0.01
DDHGG23-19	332491	53	54.5	1.5	29.00	0.01	0.34	0.01
DDHGG23-19	332493	54.5	55	0.5	424.00	0.01	3.61	0.01
DDHGG23-19	332494	55	55.75	0.75	13.00	0.01	0.03	0.03
DDHGG23-19	332495	55.75	56.2	0.45	144.00	0.23	0.57	0.16
DDHGG23-19	332496	56.2	57.6	1.4	38.00	0.01	0.49	0.01
DDHGG23-19	332497	57.6	59.1	1.5	71.00	0.03	1.00	0.01
DDHGG23-19	332498	59.1	60.6	1.5	47.00	0.01	0.90	0.03
DDHGG23-19	332572	243.2	244.35	1.15	112.00	0.08	0.15	0.11
DDHGG23-19	332575	244.35	245.85	1.5	86.00	0.22	0.14	1.83
DDHGG23-19	332576	245.85	246.5	0.65	13.00	0.02	0.05	0.35
DDHGG23-19	332578	246.5	248	1.5	97.00	0.18	0.36	0.04
DDHGG23-19	332579	248	249.5	1.5	205.00	0.50	0.35	0.35
DDHGG23-19	332585	254.2	255.2	1	141.00	0.18	0.04	0.02
DDHGG23-19	332586	255.2	256.7	1.5	180.00	0.49	0.05	0.16
DDHGG23-19	332587	256.7	257.7	1	267.00	1.50	0.03	0.35

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-19	332588	257.7	258.9	1.2	21.00	0.03	0.01	0.04
DDHGG23-19	332590	266.1	267.2	1.1	76.00	0.09	0.01	0.01
DDHGG23-19	332591	267.2	268.5	1.3	168.00	0.32	0.01	0.01
DDHGG23-20	332816	246.8	247.8	1	117.00	0.31	0.07	0.21
DDHGG23-20	332817	247.8	248.8	1	106.00	0.14	0.06	0.06
DDHGG23-20	332818	248.8	250.3	1.5	150.00	0.27	0.02	0.06
DDHGG23-20	332819	250.3	251.8	1.5	115.00	0.31	0.06	0.77
DDHGG23-20	332821	251.8	252.8	1	124.00	0.28	0.10	0.99
DDHGG23-20	332822	252.8	254.3	1.5	208.00	0.35	0.06	0.18
DDHGG23-20	332823	254.3	255.8	1.5	98.00	0.11	0.04	0.08
DDHGG23-20	332824	255.8	257.3	1.5	26.00	0.02	0.01	0.01
DDHGG23-20	332825	257.3	258.8	1.5	127.00	0.18	0.02	0.16
DDHGG23-20	332826	258.8	260.3	1.5	125.00	0.18	0.07	0.19
DDHGG23-20	332833	266.85	267.85	1	265.00	0.37	0.04	0.49
DDHGG23-22	333196	9.8	11	1.2	193.00	0.02	3.62	0.02
DDHGG23-22	333198	11	12.1	1.1	69.00	0.19	1.23	0.20
DDHGG23-22	333199	12.1	13	0.9	13.00	0.05	0.08	0.05
DDHGG23-22	333200	13	13.9	0.9	77.00	0.08	0.53	0.08
DDHGG23-22	333201	13.9	14.3	0.4	52.00	0.16	0.43	0.12
DDHGG23-22	333202	14.3	14.8	0.5	142.00	0.01	1.20	0.02
DDHGG23-22	333207	18.9	20	1.1	320.00	0.03	2.80	0.04
DDHGG23-22	333208	20	21	1	139.00	0.13	2.19	0.14
DDHGG23-22	333209	21	22	1	12.00	0.02	0.07	0.04
DDHGG23-22	333210	22	23.2	1.2	137.00	0.01	1.44	0.02
DDHGG23-23	333438	320.8	321.9	1.1	347.00	0.22	2.20	0.12
DDHGG23-23	333439	321.9	323.4	1.5	22.00	0.03	0.10	0.04
DDHGG23-23	333440	323.4	324.4	1	176.00	0.05	1.07	0.07
DDHGG23-23	333441	324.4	325.4	1	131.00	0.04	0.84	0.05
DDHGG23-23	333442	325.4	326.6	1.2	320.00	0.03	3.07	0.07
DDHGG23-23	333444	326.6	327.6	1	80.00	0.01	0.84	0.02
DDHGG23-23	333445	327.6	328.6	1	231.00	0.08	2.04	0.08
DDHGG23-23	333446	328.6	329.85	1.25	91.00	0.06	0.63	0.04
DDHGG23-23	333447	329.85	331.1	1.25	146.00	0.04	1.29	0.06
DDHGG23-23	333448	331.1	332.25	1.15	45.00	0.17	0.41	0.24
DDHGG23-23	333449	332.25	333.25	1	71.00	0.88	0.46	0.32
DDHGG23-23	333452	333.25	334.1	0.85	202.00	4.41	1.33	3.96
DDHGG23-23	333454	334.1	334.95	0.85	267.00	5.58	1.49	2.25
DDHGG23-23	333456	334.95	335.95	1	45.00	0.48	0.11	0.21
DDHGG23-23	333457	335.95	337	1.05	100.00	0.64	0.17	0.62
DDHGG23-24	333586	340.2	341.6	1.4	33.00	0.01	0.32	0.03
DDHGG23-24	333587	341.6	343	1.4	56.00	0.09	0.35	0.23
DDHGG23-24	333588	343	344.5	1.5	119.00	0.04	0.94	0.03
DDHGG23-24	333590	344.5	346	1.5	80.00	0.07	0.73	0.06
DDHGG23-24	333591	346	347.5	1.5	70.00	0.10	0.64	0.27
DDHGG23-24	333592	347.5	349	1.5	51.00	0.06	0.38	0.07
DDHGG23-24	333593	349	350.5	1.5	131.00	0.05	0.98	0.05
DDHGG23-24	333594	350.5	352	1.5	128.00	0.14	0.54	0.03
DDHGG23-24	333595	352	353.4	1.4	255.00	0.28	0.75	0.08
DDHGG23-24	333596	353.4	354.9	1.5	134.00	0.11	0.81	0.04
DDHGG23-25	333690	318.9	320.4	1.5	163.00	0.23	1.01	0.14
DDHGG23-25	333691	320.4	321.9	1.5	377.00	0.10	3.36	0.18
DDHGG23-25	333692	321.9	323.4	1.5	77.00	0.09	0.49	0.12
DDHGG23-25	333693	323.4	324.9	1.5	87.00	0.08	0.56	0.08
DDHGG23-25	333694	324.9	326.4	1.5	77.00	0.08	0.52	0.13
DDHGG23-25	333701	333.75	335.25	1.5	133.00	0.16	0.88	0.11
DDHGG23-25	333702	335.25	336.2	0.95	79.00	0.79	0.24	0.45

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-25	333703	336.2	337.7	1.5	217.00	0.23	1.14	0.27
DDHGG23-25	333705	337.7	338.85	1.15	150.00	0.72	0.80	0.73
DDHGG23-25	333706	338.85	339.9	1.05	113.00	0.06	1.02	0.06
DDHGG23-25	333707	339.9	341.4	1.5	84.00	0.04	0.64	0.03
DDHGG23-25	333708	341.4	342.9	1.5	204.00	0.34	1.35	0.08
DDHGG23-25	333709	342.9	344.4	1.5	200.00	0.01	1.83	0.04
DDHGG23-25	333710	344.4	345.9	1.5	95.00	0.00	2.46	0.01
DDHGG23-25	333711	345.9	347.4	1.5	81.00	0.01	1.29	0.01
DDHGG23-25	333713	347.4	348.9	1.5	244.00	0.02	2.69	0.04
DDHGG23-25	333714	348.9	350	1.1	232.00	0.06	2.34	0.05
DDHGG23-25	333715	350	351	1	113.00	0.01	1.82	0.02
DDHGG23-27	334090	307.5	309	1.5	46.00	0.00	0.96	0.01
DDHGG23-27	334091	309	310	1	154.00	0.00	1.57	0.00
DDHGG23-27	334094	310	311	1	353.00	0.00	2.56	0.01
DDHGG23-27	334095	311	312.3	1.3	31.00	0.00	0.72	0.01
DDHGG23-27	334096	312.3	313.55	1.25	215.00	0.00	2.94	0.00
DDHGG23-27	334098	313.55	314.55	1	76.00	0.00	1.50	0.01
DDHGG23-27	334099	314.55	315.7	1.15	113.00	0.00	1.62	0.01
DDHGG23-27	334100	315.7	316.8	1.1	17.00	0.00	0.36	0.01
DDHGG23-27	334101	316.8	318.3	1.5	30.00	0.00	0.51	0.01
DDHGG23-27	334102	318.3	319.5	1.2	34.00	0.00	1.15	0.01
DDHGG23-27	334103	319.5	320.6	1.1	94.00	0.00	1.23	0.00
DDHGG23-27	334104	320.6	321.85	1.25	42.00	0.00	1.45	0.01
DDHGG23-27	334105	321.85	323.35	1.5	101.00	0.00	2.09	0.01
DDHGG23-27	334106	323.35	324.85	1.5	281.00	0.00	3.48	0.01
DDHGG23-27	334108	324.85	326.35	1.5	93.00	0.00	1.46	0.01
DDHGG23-27	334109	326.35	327.5	1.15	140.00	0.01	2.57	0.02
DDHGG23-27	334110	327.5	329	1.5	76.00	0.00	1.39	0.01
DDHGG23-27	334111	329	330.1	1.1	67.00	0.00	1.17	0.01
DDHGG23-27	334113	330.1	331.55	1.45	24.00	0.00	0.39	0.01
DDHGG23-27	334114	331.55	333.05	1.5	50.00	0.00	0.64	0.00
DDHGG23-27	334115	333.05	334.5	1.45	96.00	0.00	1.46	0.01
DDHGG23-27	334116	334.5	336	1.5	119.00	0.04	1.51	0.10
DDHGG23-27	334117	336	337.5	1.5	241.00	0.04	2.65	0.04
DDHGG23-27	334118	337.5	339	1.5	113.00	0.02	1.33	0.03
DDHGG23-27	334119	339	340.1	1.1	174.00	0.01	3.61	0.01
DDHGG23-27	334120	340.1	341	0.9	333.00	0.03	6.74	0.02
DDHGG23-27	334122	341	342	1	240.00	0.09	2.82	0.08
DDHGG23-27	334123	342	343.5	1.5	103.00	0.08	1.16	0.12
DDHGG23-27	334124	343.5	344.5	1	111.00	0.07	1.13	0.10
DDHGG23-27	334216	489.25	490.75	1.5	52.00	3.61	0.05	0.82
DDHGG23-27	334217	490.75	492.25	1.5	81.00	5.11	0.12	2.47
DDHGG23-27	334218	492.25	493.75	1.5	49.00	2.70	0.17	0.76
DDHGG23-27	334219	493.75	495	1.25	54.00	3.30	0.14	0.51
DDHGG23-27	334220	495	496.5	1.5	63.00	3.24	0.11	2.92
DDHGG23-27	334221	496.5	498	1.5	73.00	4.63	0.09	2.50
DDHGG23-27	334222	498	499.5	1.5	43.00	1.57	0.34	0.57
DDHGG23-27	334224	499.5	501	1.5	58.00	2.24	0.53	1.43
DDHGG23-27	334225	501	502.5	1.5	99.00	5.80	0.66	2.27
DDHGG23-27	334226	502.5	504	1.5	150.00	10.72	0.84	4.23
DDHGG23-27	334227	504	504.85	0.85	66.00	4.28	0.03	1.48
DDHGG23-28	334267	244.2	245.55	1.35	61.00	0.01	1.56	0.06
DDHGG23-28	334269	245.55	247.1	1.55	175.00	0.16	3.02	0.73
DDHGG23-28	334270	247.1	248	0.9	113.00	0.06	1.00	0.04
DDHGG23-28	334271	248	249.5	1.5	20.00	0.00	0.88	0.02

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-28	334273	285.5	286.4	0.9	270.00	0.00	5.06	0.06
DDHGG23-28	334274	286.4	287.9	1.5	247.00	0.00	1.88	0.01
DDHGG23-28	334275	287.9	289	1.1	25.00	0.00	0.38	0.01
DDHGG23-28	334277	289	290	1	149.00	0.00	1.88	0.00
DDHGG23-28	334278	290	291.5	1.5	104.00	0.00	1.33	0.01
DDHGG23-28	334279	291.5	293	1.5	52.00	0.00	0.74	0.01
DDHGG23-28	334280	293	294.5	1.5	60.00	0.00	1.08	0.00
DDHGG23-28	334281	294.5	296	1.5	18.00	0.00	1.33	0.00
DDHGG23-28	334282	296	297.5	1.5	58.00	0.00	2.16	0.00
DDHGG23-28	334283	297.5	299	1.5	65.00	0.00	0.97	0.01
DDHGG23-28	334341	430.7	431.8	1.1	58.00	1.20	0.10	1.23
DDHGG23-28	334344	431.8	433	1.2	54.00	1.46	0.20	2.36
DDHGG23-28	334345	433	434.5	1.5	82.00	2.90	0.35	4.36
DDHGG23-28	334346	434.5	435.9	1.4	75.00	2.57	0.43	6.13
DDHGG23-28	334347	435.9	436.45	0.55	98.00	3.56	0.65	0.88
DDHGG23-28	334349	436.45	437.5	1.05	31.00	0.60	0.15	2.74
DDHGG23-28	334350	437.5	438.8	1.3	57.00	1.46	0.65	2.72
DDHGG23-28	334351	438.8	439.8	1	31.00	1.60	0.13	2.46
DDHGG23-28	334352	439.8	440.65	0.85	45.00	1.42	0.47	3.71
DDHGG23-28	334354	440.65	441.2	0.55	96.00	4.43	0.43	5.07
DDHGG23-28	334355	441.2	442.55	1.35	32.00	0.74	0.23	1.75
DDHGG23-28	334356	442.55	443.8	1.25	24.00	0.68	0.13	1.83
DDHGG23-28	334358	443.8	444.85	1.05	38.00	1.31	0.17	1.90
DDHGG23-30	334503	329.95	330.85	0.9	41.00	1.10	0.39	3.85
DDHGG23-30	334504	330.85	331.7	0.85	50.00	1.21	0.30	4.01
DDHGG23-30	334506	331.7	332.85	1.15	35.00	0.96	0.22	1.20
DDHGG23-30	334507	332.85	333.85	1	279.00	6.87	1.33	0.82
DDHGG23-30	334509	333.85	334.5	0.65	104.00	2.52	0.56	2.69
DDHGG23-31	334549	313.95	314.5	0.55	1201.00	32.95	1.68	7.86
DDHGG23-31	334551	314.5	315.6	1.1	136.00	4.21	0.52	4.89
DDHGG23-31	334552	315.6	316.5	0.9	43.00	1.63	0.16	2.11
DDHGG23-31	334553	316.5	317.5	1	19.00	0.66	0.05	0.95
DDHGG23-31	334554	317.5	319	1.5	64.00	3.07	0.26	3.70
DDHGG23-31	334555	319	320	1	23.00	0.90	0.07	1.31
DDHGG23-31	334556	320	321	1	13.00	0.40	0.04	0.70
DDHGG23-31	334559	321	321.75	0.75	98.00	2.25	0.36	3.67
DDHGG23-31	334560	321.75	322.6	0.85	83.00	2.57	0.37	4.18
DDHGG23-31	334561	322.6	324.1	1.5	169.00	5.57	0.66	10.40
DDHGG23-31	334562	324.1	324.8	0.7	70.00	2.16	0.28	3.05
DDHGG23-31	334564	324.8	325.65	0.85	568.00	23.62	0.95	9.14
DDHGG23-31	334565	325.65	326.6	0.95	181.00	6.23	0.50	5.55
DDHGG23-31	334566	326.6	327.7	1.1	178.00	7.49	0.49	2.39
DDHGG23-33	334708	290.8	291.75	0.95	96.00	0.33	1.16	0.09
DDHGG23-33	334709	291.75	293.05	1.3	69.00	0.21	0.59	0.09
DDHGG23-33	334710	293.05	294.3	1.25	66.00	0.21	0.53	0.23
DDHGG23-33	334711	294.3	295.45	1.15	108.00	0.18	1.12	0.23
DDHGG23-33	334713	295.45	296.7	1.25	82.00	0.12	0.69	0.20
DDHGG23-33	334714	296.7	297.8	1.1	26.00	0.03	0.26	0.10
DDHGG23-33	334715	297.8	298.85	1.05	181.00	0.33	0.91	0.15
DDHGG23-33	334716	298.85	299.85	1	122.00	0.09	0.98	0.18
DDHGG23-34	334794	292.6	293.5	0.9	117.00	0.26	1.49	0.39
DDHGG23-34	334795	293.5	294.5	1	32.00	0.02	0.35	0.05
DDHGG23-34	334796	294.5	295.35	0.85	180.00	0.05	1.49	0.02
DDHGG23-34	334799	295.35	296.75	1.4	277.00	0.06	2.62	0.09
DDHGG23-34	334800	296.75	297.3	0.55	14.00	0.02	0.09	0.04

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-34	334801	297.3	298.05	0.75	118.00	0.39	1.03	0.32
DDHGG23-34	334802	298.05	299.35	1.3	79.00	0.22	0.63	0.37
DDHGG23-34	334803	299.35	300.6	1.25	241.00	0.09	1.80	0.10
DDHGG23-34	334804	300.6	301.55	0.95	128.00	0.05	0.99	0.03
DDHGG23-34	334805	301.55	302.8	1.25	244.00	0.28	1.34	0.68
DDHGG23-34	334807	302.8	304	1.2	146.00	0.12	0.75	0.21
DDHGG23-34	334808	304	305.1	1.1	84.00	0.05	0.61	0.08
DDHGG23-34	334824	319.85	320.4	0.55	38.00	1.09	0.07	2.05
DDHGG23-34	334825	320.4	321.4	1	74.00	0.88	0.14	1.44
DDHGG23-34	334826	321.4	322.75	1.35	61.00	0.57	0.07	1.22
DDHGG23-34	334827	322.75	324.15	1.4	35.00	0.21	0.01	0.28
DDHGG23-34	334828	324.15	324.75	0.6	287.00	1.68	0.23	1.88
DDHGG23-34	334829	324.75	325.8	1.05	305.00	1.24	0.03	0.31
DDHGG23-34	334830	325.8	327.2	1.4	58.00	0.20	0.00	0.13
DDHGG23-34	334831	327.2	327.65	0.45	123.00	1.54	0.23	1.19
DDHGG23-34	334833	327.65	328.25	0.6	248.00	1.90	0.04	0.28
DDHGG23-34	334834	328.25	329.75	1.5	48.00	0.20	0.01	0.09
DDHGG23-34	334835	329.75	331	1.25	84.00	0.39	0.03	1.31
DDHGG23-35	334915	243.5	244.7	1.2	83.00	0.03	0.62	0.09
DDHGG23-35	334916	244.7	245.9	1.2	38.00	0.01	0.37	0.01
DDHGG23-35	334917	245.9	247.3	1.4	92.00	0.11	0.54	0.32
DDHGG23-35	334918	247.3	248.45	1.15	265.00	0.07	2.34	0.09
DDHGG23-35	334919	248.45	249.2	0.75	139.00	0.09	1.24	0.11
DDHGG23-35	334920	249.2	250.7	1.5	195.00	0.04	1.34	0.07
DDHGG23-35	334921	250.7	252.1	1.4	335.00	0.05	2.03	0.07
DDHGG23-35	334922	252.1	253	0.9	991.00	0.12	4.28	0.20
DDHGG23-35	334924	253	253.8	0.8	177.00	0.03	1.72	0.04
DDHGG23-35	334925	253.8	255.2	1.4	198.00	0.22	1.34	0.27
DDHGG23-35	334926	255.2	256.7	1.5	107.00	0.03	0.98	0.03
DDHGG23-35	334927	256.7	258	1.3	21.00	0.00	0.33	0.02
DDHGG23-35	334928	258	258.65	0.65	99.00	0.00	1.63	0.01
DDHGG23-35	334929	258.65	259.9	1.25	12.00	0.00	0.19	0.01
DDHGG23-35	334930	259.9	260.3	0.4	547.00	0.01	2.79	0.06
DDHGG23-35	334932	260.3	261.25	0.95	39.00	0.00	0.62	0.01
DDHGG23-35	334933	261.25	262.3	1.05	89.00	0.03	0.76	0.03
DDHGG23-35	334934	262.3	263.4	1.1	178.00	0.06	1.37	0.06
DDHGG23-35	334935	263.4	264.9	1.5	20.00	0.00	0.22	0.02
DDHGG23-35	334936	264.9	266.15	1.25	60.00	0.00	0.94	0.02
DDHGG23-35	334943	273.2	274.7	1.5	81.00	0.01	0.90	0.02
DDHGG23-35	334944	274.7	275.9	1.2	81.00	0.01	1.08	0.01
DDHGG23-35	334945	275.9	276.9	1	82.00	0.02	0.72	0.02
DDHGG23-35	334946	276.9	277.65	0.75	236.00	0.10	1.60	0.03
DDHGG23-35	334947	277.65	278.7	1.05	122.00	0.10	0.72	0.08
DDHGG23-35	334949	278.7	280.15	1.45	398.00	0.14	2.66	0.10
DDHGG23-35	334950	280.15	281.3	1.15	273.00	0.05	2.32	0.09
DDHGG23-35	334951	281.3	282.3	1	32.00	0.00	0.61	0.01
DDHGG23-35	334952	282.3	283	0.7	62.00	0.00	1.35	0.01
DDHGG23-35	334953	283	284.5	1.5	18.00	0.00	0.37	0.00
DDHGG23-35	334954	284.5	285.85	1.35	78.00	0.01	1.47	0.02
DDHGG23-35	334955	285.85	287	1.15	33.00	0.00	0.70	0.01
DDHGG23-35	334957	287	288	1	68.00	0.04	0.68	0.04
DDHGG23-35	334958	288	288.8	0.8	32.00	0.01	0.22	0.01
DDHGG23-35	334959	288.8	289.9	1.1	130.00	0.03	1.09	0.01
DDHGG23-37	335157	416.9	417.4	0.5	66.00	1.24	0.47	1.13
DDHGG23-37	335158	417.4	417.8	0.4	618.00	27.06	2.90	2.77

Drillhole Name	Sample #	From	To	Width	Ag	Pb	Cu	Zn
		m	m	m	ppm	%	%	%
DDHGG23-37	335160	417.8	418.3	0.5	579.00	37.83	0.79	0.98
DDHGG23-37	335161	418.3	419.45	1.15	9.00	0.16	0.07	0.11
DDHGG23-37	335162	419.45	419.75	0.3	455.00	32.26	0.77	0.86
DDHGG23-37	335163	419.75	420.35	0.6	99.00	3.07	0.87	3.47
DDHGG23-39	335427	291.75	293	1.25	73.00	0.04	0.86	0.03
DDHGG23-39	335430	293	294.15	1.15	148.00	0.15	1.43	0.26
DDHGG23-39	335431	294.15	295.2	1.05	105.00	0.39	0.93	0.68
DDHGG23-39	335433	295.2	295.6	0.4	11.00	0.03	0.07	0.15
DDHGG23-39	335434	295.6	296.9	1.3	90.00	0.41	0.17	0.51
DDHGG23-39	335435	296.9	298.15	1.25	76.00	0.32	0.37	0.58
DDHGG23-39	335436	298.15	298.8	0.65	88.00	0.45	0.46	1.15
DDHGG23-41	335632	312.7	313.6	0.9	73.00	0.06	0.93	0.03
DDHGG23-41	335634	313.6	314.65	1.05	45.00	0.06	0.44	0.11
DDHGG23-41	335635	314.65	315.5	0.85	170.00	0.30	2.11	0.24
DDHGG23-41	335636	315.5	316.4	0.9	52.00	0.11	0.64	0.05
DDHGG23-41	335637	316.4	317.5	1.1	146.00	0.37	0.70	0.12
DDHGG23-41	335638	317.5	318.6	1.1	109.00	0.16	0.98	0.43
DDHGG23-41	335639	318.6	319.6	1	82.00	0.06	0.56	0.10
DDHGG23-41	335640	319.6	320.95	1.35	105.00	0.17	0.16	0.20
DDHGG23-42	335750	349.7	350.6	0.9	77.00	2.87	0.34	6.97
DDHGG23-42	335752	350.6	351.6	1	59.00	1.55	0.42	3.91
DDHGG23-42	335753	351.6	352.15	0.55	18.00	0.24	0.11	0.75
DDHGG23-42	335754	352.15	353.05	0.9	52.00	1.22	0.27	1.38
DDHGG23-42	335755	353.05	353.95	0.9	71.00	2.18	0.37	1.03
DDHGG23-42	335756	353.95	355	1.05	226.00	3.94	0.98	1.19
DDHGG23-42	335758	355	356.2	1.2	98.00	1.61	0.62	1.58

7.3 Hydrogeology

There are not hydrogeological studies and documented groundwater flow parameters available for San Martín.

The rocks that outcrop in the San Martín area are generally found to be impermeable preventing infiltration and promoting surface runoff. The granodioritic intrusive is impermeable due to its texture and composition, although some secondary porosity can be found. The Cuesta del Cura and Indidura formations (limestones and shales), do not have primary porosity, but have secondary porosity due to fracturing. The porosity in general decreases at depth where calcite cementing is found. The existence of levels of shales and fine grain rock create natural barriers to the vertical groundwater flow which reduces importantly the water infiltration.

It is probable that the ground water is very deep, and its circulation is through microfractures. The direction of the flow is not known.

According to INEGI in the Geographical Synthesis of the state of Zacatecas, the area is classified as rock without water.

7.4 Geotechnical Data, Testing and Analysis

During 2023, SRK has conducted three geotechnical site visits to San Martin to support the underground geotechnical assessment for reserves certification and to provide operational support. The following sections contains a summary relevant information and recommendations for geotechnical mine stability that are largely based on SRK's site visits and previous work done by Itasca in 1998.

7.4.1 Geotechnical Mapping and Laboratory Testing

Geotechnical Data

San Martin needs a mine scale, three-dimensional geotechnical domain model. Additionally, there is need of initiating and expanding a testing program to correlate laboratory testing with geotechnical domaining work. Existing mapping data collected at different mine levels should be assessed to correct or eliminate inconsistencies in historical geotechnical databases.

Characterization of minor structure patterns could be improved, leading to the establishment of structural domains.

There is a lack of in-situ stress data that describes the magnitude and orientation of principal stresses.

Geotechnical data compiled by Itasca (1998) is provided in Table 7-3 to Table 7-7. Table 7-3 shows RMR values obtained using the Bieniawski's method for the areas mapped on Levels 16, 18, and 20 at San Martín.

Table 7-3: Summary of RMR Values Determined Using Bieniawski's Method

Rock Type	Min	Max	Average
Level 16			
Limestone	74	82	77
Mineralized Skarn	69	74	71
Skarn	74	82	77
Granite	71	87	78
Level 18			
Limestone	69	79	74
Mineralized Skarn	-	-	-
Skarn	79	82	80
Granite	64	82	71
Level 20			
Limestone	74	74	74
Mineralized Skarn	-	-	-
Skarn	79	82	80
Granite	69	79	74
Totals			
Limestone	69	82	76
Mineralized Skarn	69	74	71
Skarn	66	82	77
Granite	64	87	75

Source: Itasca, 1998

The rock mass parameters determined using the Hoek-Brown method are summarized in Table 7-4.

Table 7-4: Summary of Hoek-Brown Parameters Determined from Mapping

Rock Type	mb/mi	s	a	E/Ei	v	GSI
Limestone	0.29	0.021	0.5	0.37	0.25	59 to 72
Mineralized Skarn	0.29	0.021	0.5	0.37	0.25	59 to 72
Skarn	0.22	0.012	0.5	0.3	0.25	51 to 62
Granite	0.4	0.062	0.5	0.46	0.2	68 to 79

Source: Itasca, 1998

Table 7-5 shows the summary of the point load strength parameters for intact rock, and presents the uniaxial compressive strengths determined for the rock units of San Martín.

Table 7-5: Summary of Point Load Strengths by Rock Type

Rock Type	I_s (Mpa)	Uniaxial Compressive Strength (Mpa)
Granite	8.6	173.67
Contact Zone	7.35	148.31
Limestone	4.55	91.94
Granite Skarn	5.59	113.06
Mineralized Skarn	5.75	116.25

Source: Itasca, 1998

Table 7-6 shows a summary of Hoek-Brown parameters obtained from laboratory testing.

Table 7-6: Summary of Intact Rock Strength Parameters from Laboratory Testing Program

Rock Type	σ_c	M_i	GSI	E_m (Gpa)	m_b	s	v
Limestone	86.8	7.79	65	24	2.23	0.02047	0.25
Mineralized Skarn	171.3	19.99	65	24	5.44	0.02047	0.25
Skarn	222.8	15.95	56	16.5	3.31	0.00753	0.25
Granite	207.2	26.21	75	40	10.73	0.06218	0.2

Source: Itasca, 1998

The uniaxial compressive strength values obtained from laboratory testing and point load testing are compared in Table 7-7.

Table 7-7: Comparison of Uniaxial Compressive Strength Test Results

Rock Type	Uniaxial Point Load Tests	Compressive Strength (Mpa) Lab Tests
Granite	174	207
Contact Zone	148	-
Limestone	92	87
Granite Skarn	113	223
Mineralized Skarn	116	171

Source: Itasca, 1998

<u>Geotechnical Data Recommendations</u>

Structural domains should be established to understand spatial variation in minor structure patterns. This task should be followed by completion of a kinematic assessment to identify critical wedges for each domain and a sensitivity analysis for large span stability. Results should be used to assess maximum potential wedge size and height to verify ground support designs.

A 3D major fault model should be developed, including a structural matrix describing known orientations, characteristics, and confidence data.

Significant additional laboratory testing is required to understand the deposit conditions (Uniaxial compressive testing, modulus, triaxial testing, Brazilian tensile tests and direct shear). This should include:

- A review of the validity of current testing results and expansion of testing to understand weak areas
- QA/QC on PLT databases and calibration of intact rock strength using PLT and UCS test results
- Testing targeting the altered rock mass to confirm current testing/characterization

San Martin should undertake work to build 3D geotechnical domain model and extrapolate the domains at depth. The domaining exercise should include an assessment of a potential transition depth between ground conditions in the upper (weathered rock of lower quality) and lower mines, including the following:

- QA/QC on geotechnical databases
- Validation of current domaining with drillhole information, sampling, and testing
- Drill new GT drillholes, sampling, and testing
- Perform statistical analysis of existing mapping data
- Reconcile domains with previous rock mass testing work done by Itasca (1998)

7.4.2 Ground Support Practices

Support Practice

Ground support procedures cannot keep up with mining and the resulting unsupported area can be a source of falls of ground. Additionally, large wedge type failures cannot be prevented due to the relatively short length of reinforcement in the back, particularly in tunnel intersections or in wide spans. The present reinforcement system of the back does not adequately support the hanging wall.

Stress conditions in the lowest parts of the decline (Rampa 28) were observed to be sufficiently high to induce stress fracturing and strain bursting in the granite. Current support systems at depth are inadequate to control strain bursting and SRK believes that this condition presents a significant risk.

There is a lack of ground support standards for each domain, addressing rock mass quality variations, excavation span, excavation service life and use, and stress levels over lifespan.

QA/QC needs to be performed on ground support during and after installation.

Recommendations for Support

Due to the essentially random orientations of structures in the rock mass, a standard roof reinforcement pattern is suggested throughout the mine. This pattern should be maintained to the face.

It would be beneficial to mechanize the installation of bolts to keep up with the mining rate. The economics of automatic rock bolting machines versus improvements to the present bolting practice should be investigated in more detail.

Checks on the ground support performance should be completed and documented. Quality control of ground support by post installation measurement (pull tests) on friction rock stabilizer or grouted bolts should be completed.

A proactive approach to plan ground support based on anticipated ground conditions should be put into place. This should include assessment ground support strategies for upper parts of the mine at lower stress (static conditions) and deeper parts of the mine at higher stress. Consideration should be given to ground support with dynamic bolts and mesh in regions of high stress levels.

7.4.3 Mining Method and Operational Considerations

The post pillar cut and fill mining method currently in use is well suited to wider parts of the orebody. Narrow-vein mining areas employ overhand cut and fill.

The direction of mining along the hanging wall needs to be evaluated. It is generally preferable to mine perpendicular to the hanging wall between post pillars, reinforce the back and hanging wall, then slash the pillars and complete the mining.

The potential hazard associated with working under and along the hanging wall can be reduced by utilizing a remote scoop to load trucks parked under stable ground. This is standard practice in most Canadian mines.

7.4.4 Mine Scale Stability

An important consideration for mine stability is the state of a mine scale collapse that occurred in the mid 1990's. This section is the summary of the San Martín Geotechnical Study prepared by Itasca (1998).

The main purpose of the geotechnical study of the San Martín Unit was to determine the cause(s) of the collapses that have occurred in the upper levels and to assess whether they are part of the development of a mine-scale instability. Additional issues addressed included operational aspects of the mining method, ground support requirements, and geotechnical monitoring.

Causes of Collapses in the Upper Levels of the Mine

The collapses in the upper levels resulted from stress relief and loosening, which is primarily caused by the mining geometry. The collapses occurred due to fallout along existing geological structures in the loosened region of the rock mass. Undercutting of 6 level by 8 level mining was seen to be the main cause triggering the collapses, whose progression was made possible by this loosening mechanism.

Future Growth of the Collapse Zone

Both the nature of the collapse sequence and the numerical modeling results indicate that the collapses are not a result of an inevitable mine-scale instability process. They were triggered at specific locations due to a combination of local geological conditions, mining geometry, and the stress field resulting from the mining geometry. However, if nothing is done to halt the collapses. The collapse zone could expand into a mine-scale instability that would be difficult or impossible to halt.

Stabilization of Historic Collapses

It should be possible to stabilize the collapse zone by tight backfilling of the upper-level stopes. Contact of backfill with the stope hanging wall and overlying sill pillar is essential for the stabilizing effect of backfill to be realized.

Future Mining

Mining to 20 level should not have any adverse effect on stability of the upper-level stopes provided the upper levels are tightly backfilled. With completion of mining to 20 level, the zone of stress relief (loosening) currently surrounding the upper-level stopes will expand to include 20 level. This could lead to renewed caving in the upper levels if they are not tightly backfilled.

Seismic events and rock bursts are expected to increase in frequency as mining depth increases. Rock bursts are expected to be more pronounced in granite than in limestone.

Mining below level 20 will be associated with increased fracturing of rock due to high stress levels. Improved hanging wall and back support are considered necessary and continued use of post pillars is recommended.

Support Measures to Ensure Mine-Scale Stability

Tight backfilling of scopes is essential to mine-scale stability. Contact of the backfill with the underside of sill pillars is required. Tight backfill has several functions: it prevents fallout of loose material from the hanging wall and the underside of sill pillars, it preserves the integrity of sill pillars, and it enables the sills to carry load even when they are in a "yielded" or fractured state. By itself, it does not provide much support pressure to the hanging wall, but by preserving the integrity of sill pillars it enables effective hanging wall support to be maintained.

Analyses indicated that sill pillars become fractured at a relatively early stage of mining. Accordingly, IMMSA concluded there was no reason to change their size from the current 12 m width. As noted, use of tight backfill to preserve their integrity is essential.

Post pillars are also a highly effective means of stiffening sill pillars and their continued use is strongly recommended. Bolting of the sides of sill pillars should be carried out if they are cut by continuous geological structures. Backfill will also maintain the integrity of post pillars.

7.4.5 Geotechnical Monitoring Program

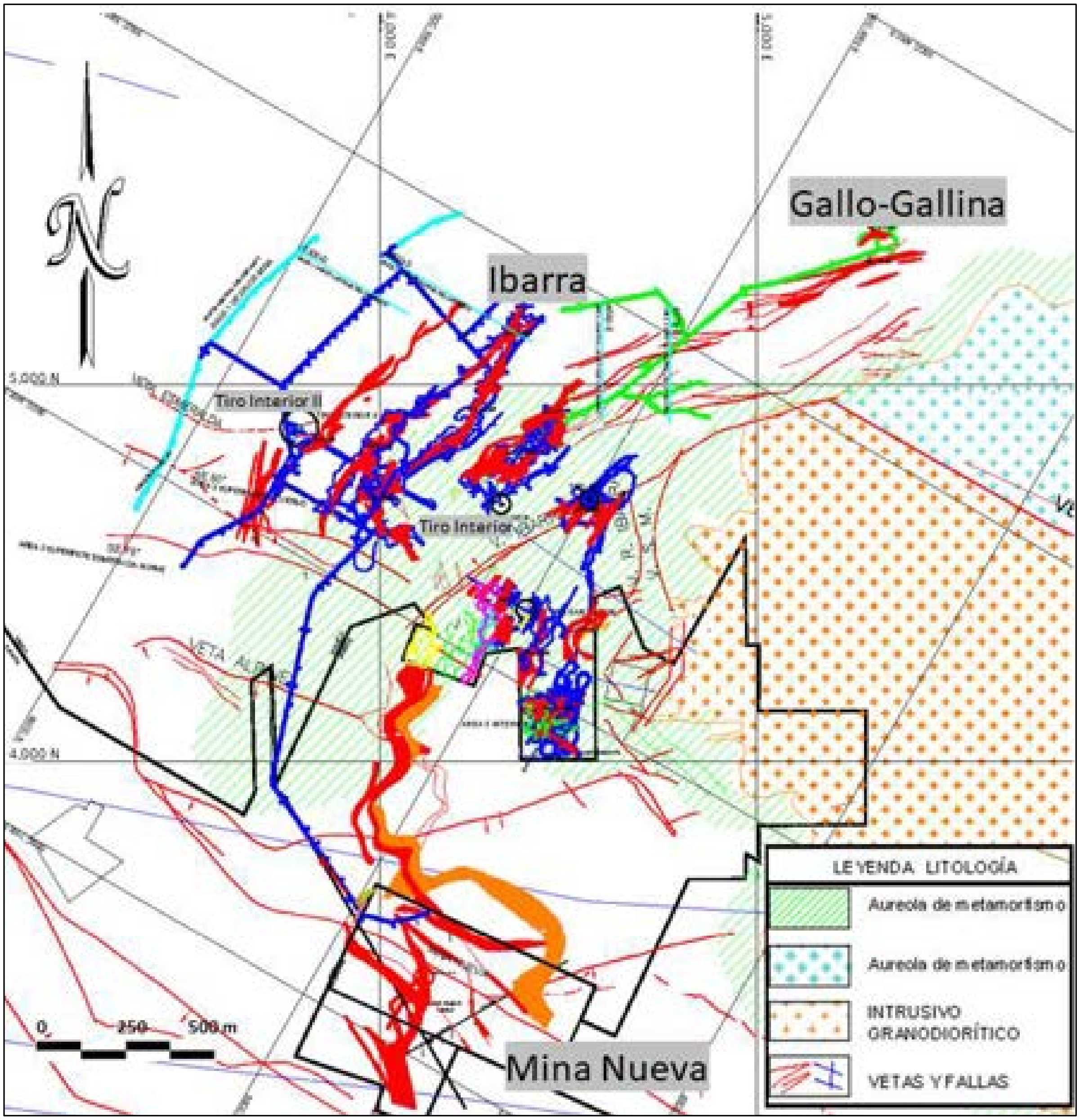
A geotechnical monitoring program is recommended to verify that rock mass behavior is reasonably in accordance with expected behavior and that no major instabilities are developing.

Critical targets for the monitoring program have been specified and suggestions for types of in-struments to use in each case have been made. Details of instrument locations will depend on availability of access. Critical targets to monitor are:

- Cavities in the upper collapse zone.
- Sill pillars.
- Shaft pillars.
- Tiro Cero and hoist room.
- Hanging wall in upper and lower pans of the orebody.
- Micro seismicity of the lower levels.

7.5 Property Plan View

The Figure 7-16 presents the map with the main locations in the San Martín Operation including the projection of the underground workings from where the channel sampling is being collected in all levels.



Source: IMMSA, 2022

Figure 7-16: Map of the Areas for Exploration

7.6 Exploration Target

San Martín plans for 2024 to continue the exploration in the areas of Gallo-Gallina and deep Central zone (Figure 7-16). The objective of the drilling in these areas include the definition of the horizontal and vertical extension of the mineralization and close the drilling grid.

8 Sample Preparation, Analysis, and Security

8.1 Sample Preparation Methods and Quality Control Measures

Trained staff were involved at all stages of the sampling, sample packaging and sample transportation process. After geological logging and sample selection, the core is split in half longitudinally using an electric core cutter. Core pieces are placed in the cutter machine and cut following the cut line marked by the geologist. The core splitter was used historically. Half of the core will be assayed, and the other half will be stored in the core box to be available for future assaying or relogging of core.

The sample is placed in plastic bags with its corresponding sample tag and sent to the laboratory using defined laboratory submission sheets to track the number of samples and batch numbers.

8.2 Sample Preparation, Assaying and Analytical Procedures

8.2.1 Density Analysis

San Martín doesn't have the historical density data and the supporting documentation for the density used in the mineral resource estimate. The plant and the mine have been using a unique density value of 3.3 t/m^3 for decades.

The exploration department have collected density measurements and has the following process for the density analysis:

Specific gravity (SG) measurement method is based on the Archimedes principle and consist of measuring the weight of the rock sample P in air and subsequently the weight of the sample in water P (water). We can determine the specific weight using the formula: SG= P / (P - Pwater)

The steps carried out to obtain the specific gravity of the samples collected from drill core are described below:

1. Sample location and cut:
   - Draw hole trajectory.
   - Write down Nomenclature in the core:
     - Hole ID
     - Depth
   - The sample's size will be at the discretion of the personnel who select it, and depending on the capacity of the scale used, the sample data collected should be noted in the core box. Sample fragment sizes vary between 5 and 10 cm.
2. Washing the sample with water to remove residues
3. Dry the sample in an electric oven or in sunlight if this is not available
4. Level the balance until the bubble is centered using the help of the position adjustments of each leg of the balance, then calibrate the balance before starting to measure the samples and make sure that it reads zero (in case of a precision digital scale)
5. Weight the dry sample (P)
6. Waterproofing sealing of the sample with and appropriate the material (consider the density of this material to consider it in the calculations of the sample density). Seal at least three times. Wait for a period of time for optimal drying of the samples
7. Weight the sample in purified water preferably and take the data (P_Agua)

8. Wash the sample and reincorporate it to the core bx from where it was collected
9. Determine the specific gravity with the data obtained and fill in the hole density format

Photographs and brief descriptions were taken and the corrections to obtain the density data are applied. Then, the density data is recorded in the main database of Exploration.

Photographs and brief descriptions were taken and the corrections to obtain the density data are applied. Then, the density data is recorded in the Tecmin database. The QP considers these procedures to follow industry standards and recommends that the process be expanded to include all material (host rocks and mineralization) and be completed at regular intervals within the core. Increasing the size of the density database to confirm the current density values used should be considered a priority for 2022 by the Company. Table 8-1 presents the specific gravity test results completed by the exploration team in 2022 in mineralized zones in Gallo-Galina. Additional tests are required to characterize all the rock types and locations of the deposit.

Table 8-1: Specific Gravity Measurements (2022 drilling campaign)

# of Tests	Average S.G. (g/cm^3)	Rock Type
4	2.94	Limestone
34	3.22	Skarn
11	3.00	Granodiorite
2	3.29	Granite
7	3.45	Breccia
10	3.75	Vein
68	**3.27**	**Total**

Source: IMMSA, 2022

8.2.2 Sample Preparation – Internal Laboratory

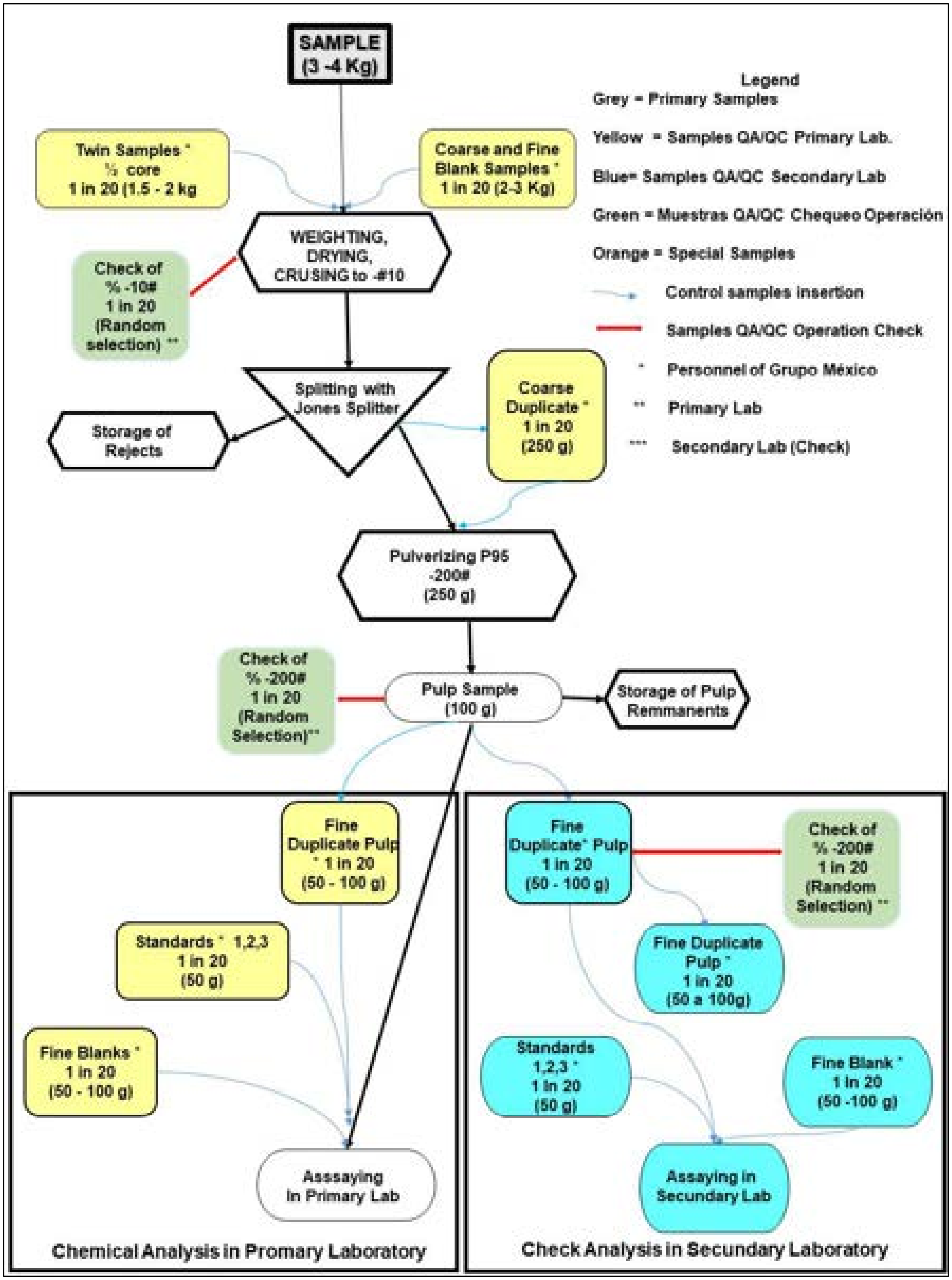
The internal laboratory prepares the core and the channel samples and performs the chemical analysis of all the samples collected by the mine geology department (drilling and rock sampling).

The laboratory follows internal QA/QC protocols which include continuous maintenance and calibration of equipment, monitors sample contamination, and uses certified standard reference materials, which in the opinion of SRK are considered in line with the industry standards.

Sample preparation in the internal laboratory includes:

- Sample drying
- Crushing, 75% passing 10 mesh
- Subsampling (Riffle sample splitter), to obtain a sample of 250 g
- Pulverizing, 85% passing 200 mesh
- Subsampling to obtain pulp samples of 50 g

Figure 8-1 shows the flow chart of the preparation process and QA/QC controls using during the process in the internal laboratory of San Martín. No certification has been completed on the current mine laboratory which in the QP's opinion does not meet the required standards for reporting under international best practice. More detailed validation and external checks should be completed if the laboratory is not certified given the lack of independence presented. The QP recommends that IMMSA undertake a program to certify the laboratory as is completed at their other operation Charcas.



Source: IMMSA, 2021

Figure 8-1: Flow Chart of Sample Preparation (Internal Laboratory)

8.2.3 Chemical Analysis – Internal Laboratory

The following chemical analysis are used at the internal laboratory of San Martín, using 100-g pulp samples:

- **ICP:** Multielement (Ag, Au, Pb, Zn, Cu, Fe, Cd, As, Bi, Sb) Plasma analytic method (ICP AVIO 500). ICP-OES: Inductively Coupled Plasma Atomic Emission Spectrophotometer:
  Detection Limits
  Au 0.1 g/t – 10 g/t
  Ag 0.1 g/t – 50 g/t
  Zn 0.002% - 6%
  Cu 0.002% - 6%
  Pb 0.002% - 6%
- **Fire Assay (Gravimetric method):** Determination of Au and Ag by fire assay and gravimetric termination (Detection Limits: Au: 10 g/t to NA; Ag: 50 g/t – NA)
- **Volumetric determination of Zinc:** For high zinc concentrations, the volumetric analysis is performed (Detection Limits: 5.1% to 60%)
- **Volumetric determination of Copper:** For high copper concentrations, the volumetric analysis is performed (Detection Limits: 5.1% to 30%)
- **Volumetric determination of Lead:** For high lead concentrations, the volumetric analysis is performed (Detection Limits: 5.1% to 60%).

In 2022, 965 core samples and 20,629 rock samples (underground workings) were analyzed in the internal laboratory.

8.2.4 Sample Preparation – SGS Laboratory

The core samples collected by the exploration department of San Martín are sent to the SGS Laboratory in Durango where the following activities are completed:

The core samples collected by the exploration department of San Martín are sent to the SGS Laboratory in Durango (SGS). The SGS laboratory is independent of IMMSA and holds accreditation under ISO/IEC 17025:2017 under the Standards Council of Canada, which indicates the laboratory is accredited under the general requirements for the competence of testing and calibration laboratories

The sample preparation procedures at the SGS laboratory in Durango facility, comprised drying the sample, crushing the entire sample in two stages to - 6 mm and - 2 mm by jaw crusher (more than 95% passing), riffle splitting the sample to 250 to 500 g, and pulverizing the split to more than 95% passing -140 mesh in 800 cubic centimeters (cm^3) chrome steel bowls in a Labtech LM2 pulverizing ring mill.

8.2.5 Chemical Analysis – SGS Laboratory

The following chemical analysis packages are used at SGS Lab by the exploration department of San Martín:

- **GE_ICP14B**: Multielement (34 Elements) analysis by aqua regia digestions and Inductively Coupled Plasma Optical Emission Spectrometry [ICP-OES; Ag, Al, As, Ba, Be, Bi, Ca, Cd, Cr, Co, Cu, Fe, Hg, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Ti, V, W, Y, Zn, Zr;

HNO3; HCL]. Multielement assay (34 elements), using digestion with two acids (Combination of HNO3 and HCL) in a ration 3:1 (HCL:HNO3). (Figure 8-2.

- **GE_FAA515 Au: :** Au analysis by 50 g Fire Assay with Atomic Absorption Spectrometry AAS finish [AAS; Au; 30g; 50g; HNO_3; HCl]. (Detection limits 5 – 10,000 ppb Au).
- **GO_FAG515 Ag:** Used For the determination of over limits of Ag by fire and gravimetric termination using a sample of 50 g (Detection limits 10 – 100,000 ppm Ag).
- **GO_ICP90Q:** Analysis of Ore Grade Samples (Pb, Cu, Zn, Fe and As) by Sodium Peroxide Fusion and Inductively Coupled Plasma Optical Emission Spectrometry [ICP-OES, As, Fe, Cu, Ni, Pb, Sb, Zn; Na2O2]. (Detection limits 0.01% - 30% for each element).
- **GC_CON12V Zn:** Used for the determination of zinc using a volumetric and gravimetric concentration for samples with zinc > 32% (Detection limits 5 – 65% Zn). Process involves preparation and determination of Zn in Ores, concentrates and metallurgical products by separation, precipitation and titration of acid solubles, fusion with inductively coupled plasma optical emission atomic absorption spectrometry of acid insolubles [Zn, AAS, ICP-OES]

TWO ACID / AQUA REGIA DIGESTION / ICP-AES PACKAGE (34 ELEMENTS)

GE ICP12B or GE ICP14B

ELEMENTS AND LIMIT(S)

Ag	2 - 100 ppm*	Hg	1 - 10000 ppm	Sb	5 - 10000 ppm
Al	0.01 - 15%	K	0.01 - 15%	Sc	0.5 - 10000 ppm
As	3 - 10000 ppm	La	0.5 - 10000 ppm	Sn	10 - 10000 ppm
Ba	5 - 10000 ppm	Li	1 - 10000 ppm	Sr	0.5 - 10000 ppm
Be	0.5 - 2500 ppm	Mg	0.01 - 15%	Ti	0.01 - 15%
Bi	5 - 10000 ppm	Mn	2 - 10000 ppm	V	1 - 10000 ppm
Ca	0.01 - 15%	Mo	1 - 10000 ppm	W	10 - 10000 ppm
Cd	1 - 10000 ppm	Na	0.01 - 15%	Y	0.5 - 10000 ppm
Co	1 - 10000 ppm	Ni	1 - 10000 ppm	Zn	1 - 10000 ppm
Cr	1 - 10000 ppm	P	0.01 - 15%	Zr	0.5 - 10000 ppm
Cu	0.5 - 10000 ppm	Pb	2 - 10000 ppm		
Fe	0.01 - 15%	S	0.01 - 5%		

Source: SGS, 2018

Figure 8-2: Detection Limits – Methods GE-ICP14B

In 2022, 1,767 core samples and 283 quality control samples were analyzed in SGS Durango.

8.3 Quality Control Procedures/Quality Assurance

8.3.1 Security Measures – Chain of Custody

The mine geology and exploration departments have control and supervision on all the process of collection of samples from drilling and channel sampling, maintaining the custody chain for the samples until the delivery of the samples to the laboratory.

At the drill rig, the contractor is responsible for removing the core from the core barrel (using manual methods) and placing the core in prepared core boxes. The core is initially cleaned in the boxes and once the box is full of core, it is closed and transported by the authorized personnel to the logging facility where the San Martín geologists take possession. On receipt at the core shed, geologists follow the logging and sampling procedures. The samples are transported to the laboratory (Internal and SGS Lab) by authorized personnel.

The boxes with the remanent core are stored in areas under continuous vigilance. The core is stored in the exploration department location (Figure 7-12) and in the mine geology logging area inside the San Martin Operation.

In the opinion of the QP there is sufficient protocols in place to ensure the quality and integrity of the samples from exploration to the laboratory are acceptable. Storage of data using a central repository system is recommended to ensure data security is maintained.

8.3.2 Mine Geology Department

Historically and currently, the mine geology department has not implemented QA/QC protocols for the drilling and rock sampling activities, which is not in line with the best industry practices.

The core of the historical drilling was discarded after some years. Then, when the mine was closed due to labor unrest in the late 2000’s, a significant portion the historical drilling core was lost. There is not a core storage facility, and there is limited space in the mine geology logging area. At present, the internal laboratory conserves the pulps for 1 month after assaying and then discards the samples.

In 2023, IMMSA started to implement the use of NQ for all the drilling completed by the mine geology department. The QP recommends start designing and implementing a protocol for the core and rock sampling which include the insertion of fine and coarse duplicates, field duplicates, fine and coarse blanks, low medium and high grade certified reference materials and second laboratory checks (Umpire lab), in a reasonable insertion rate to evaluate all the aspects associated to the sample preparation and chemical analysis. This is a task that IMMSA is working on and expects its implementation in 2024.

8.3.3 Exploration Department

The protocol designed for core sampling includes the use of 8 types of control samples which are inserted into every 10 to 15 core samples to detect possible contamination problems of the samples and to determine the accuracy and precision of the laboratory in the analyzed samples. These controls are performed as a confidence measure of the preparation and analysis procedures in the external laboratory.

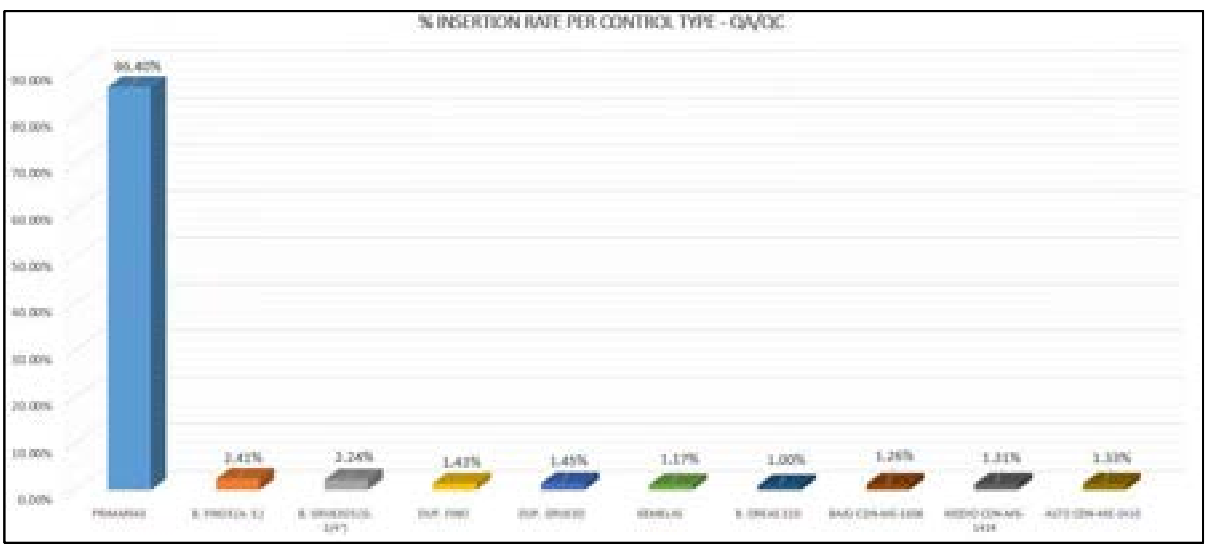
The QA/QC protocol of the exploration department in charge of the exploration at San Martín includes the following controls:

- Core duplicates, to control systematic errors of sampling.
- Coarse and fine blank controls to detect possible contamination during crushing and pulverization. This material should be barren of the elements of economic interest. In this case, a silica sand was used for pulp blanks and volcanic gravel material - ¼” silica for the coarse blanks.
- Coarse and fine duplicate controls to evaluate precision of the procedure (subsampling)
- Certified Standard Reference Materials – CSRM - (low, medium, and high grade) to measure accuracy

Control samples were inserted under the following criteria:

- Before and after each mineralized zone or with high mineralization in either Zn, Pb, Cu or Ag, control samples of the fine and coarse blanks type are inserted.
- Inside or outside mineralized zones and in areas with or without economic values, CSRM controls were inserted with high, medium and low values in Zn mainly, depending on the case.
- Fine and coarse duplicate samples in mineralized areas and in zones with or without economic values at the discretion of the geologist.
- Twin Samples (Core duplicates) in mineralized zones and in zones with or without economic values at the discretion of the geologist.

In total, 4,199 samples were collected in 30 drillholes, of which 3,628 were core samples, 195 control samples of the coarse or fine blank type, 206 reference samples, 121 samples of fine or coarse duplicate, and 49 core duplicates in the QA/QC program applied to the core of those holes. 571 control samples were inserted, representing a 13.6% rate of insertion. Figure 8-3 presents the insertion rate of each control type used by the exploration department of San Martín in 2023.



Source: IMMSA, 2022

Figure 8-3: Insertion Rates of Each Control Type

One hundred one (101) fine blanks (silica sand) and 94 coarse blanks (gravel material and $^{1}/_{4}$-inch massive quartz) were used. The CSRM controls include 42 Oreas 22D, 59 CDN-ME-1606, 55 CDN-ME-1414 (medium Zn), and 56 CDN-ME-1410. Figure 8-4 shows the recommended values of the CDN-ME CRMs.

Sixty (60) fine and 61 coarse duplicates were inserted; in addition, 49 twin samples were collected, of which half of the core was sent as the original sample and the remaining half as the twin sample. Later, when the rejection of the twin sample was recovered, it was placed in the box marked with the depth where it corresponds.

REFERENCE MATERIAL: CDN-ME-1410 (ALTO Zn)

Recommended values and the "Between Lab" Two Standard Deviations

Gold	*0.542 g/t*	±	*0.048 g/t*	*Certified value*
Silver	*69.0 g/t*	±	*3.8 g/t*	*Certified value*
Copper	*3.80 %*	±	*0.17 %*	*Certified value*
Lead	*0.248 %*	±	*0.012 %*	*Certified value*
Zinc	*3.682 %*	±	*0.084 %*	*Certified value*

REFERENCE MATERIAL: CDN-ME-1414 (MEDIO Zn)

Recommended values and the "Between Lab" Two Standard Deviations

Gold	*0.284 g/t*	±	*0.026 g/t*	*Certified value*
Silver	*18.2 g/t*	±	*1.2 g/t*	*Certified value*
Copper	*0.219 %*	±	*0.010 %*	*Certified value*
Lead	*0.105 %*	±	*0.006 %*	*Certified value*
Zinc	*0.732 %*	±	*0.024%*	*Certified value*

REFERENCE MATERIAL: CDN-ME-1606 (BAJO Zn)

Recommended values and the "Between Lab" Two Standard Deviations

Gold	1.069 g/t	±	0.092 g/t	30 g FA, instrumental	Certified value
Silver	114 ppm	±	7 ppm	30 g FA, gravimetric	Certified value
Silver	116 ppm	±	5 ppm	4-Acid / ICP	Certified value
Copper	0.197 %	±	0.008 %	4 Acid / ICP	Certified value
Lead	1.76 %	±	0.06 %	4 Acid / ICP	Certified value
Zinc	0.60 %	±	0.02 %	4 Acid / ICP	Certified value

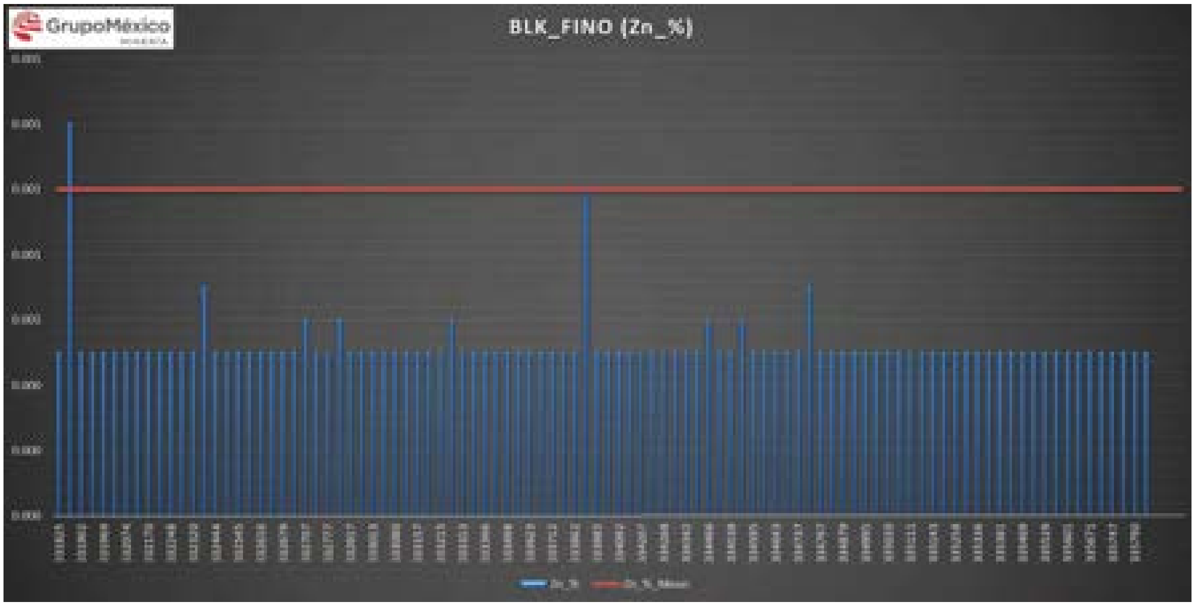
Source: IMMSA, 2022

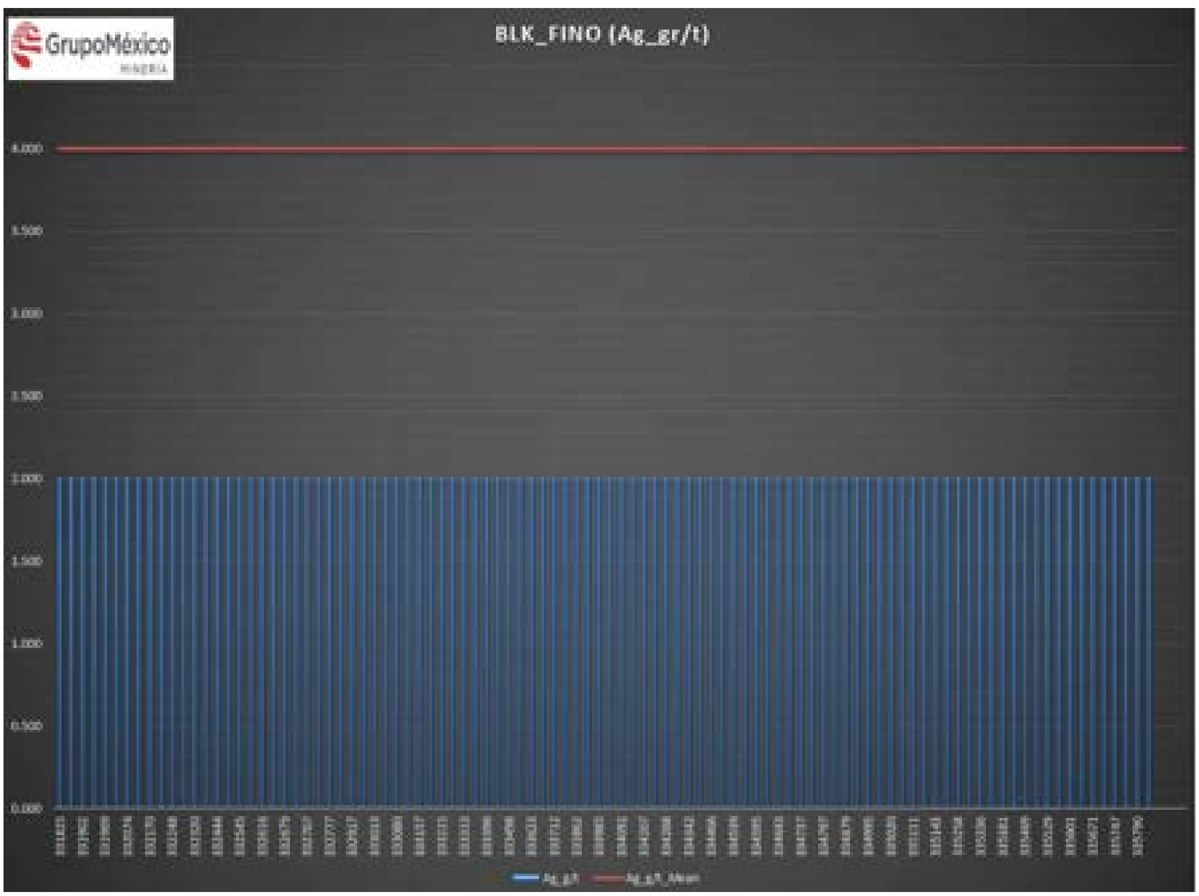
Figure 8-4: Values of the Certified Standard Reference Materials (CDN) used by Exploration in San Martín

The results of the different controls are registered and tables and evaluated using scatter plots for the duplicates and second laboratory checks, and graphics to represent the results of the controls.

San Martín has established limits of acceptability for the different controls including:

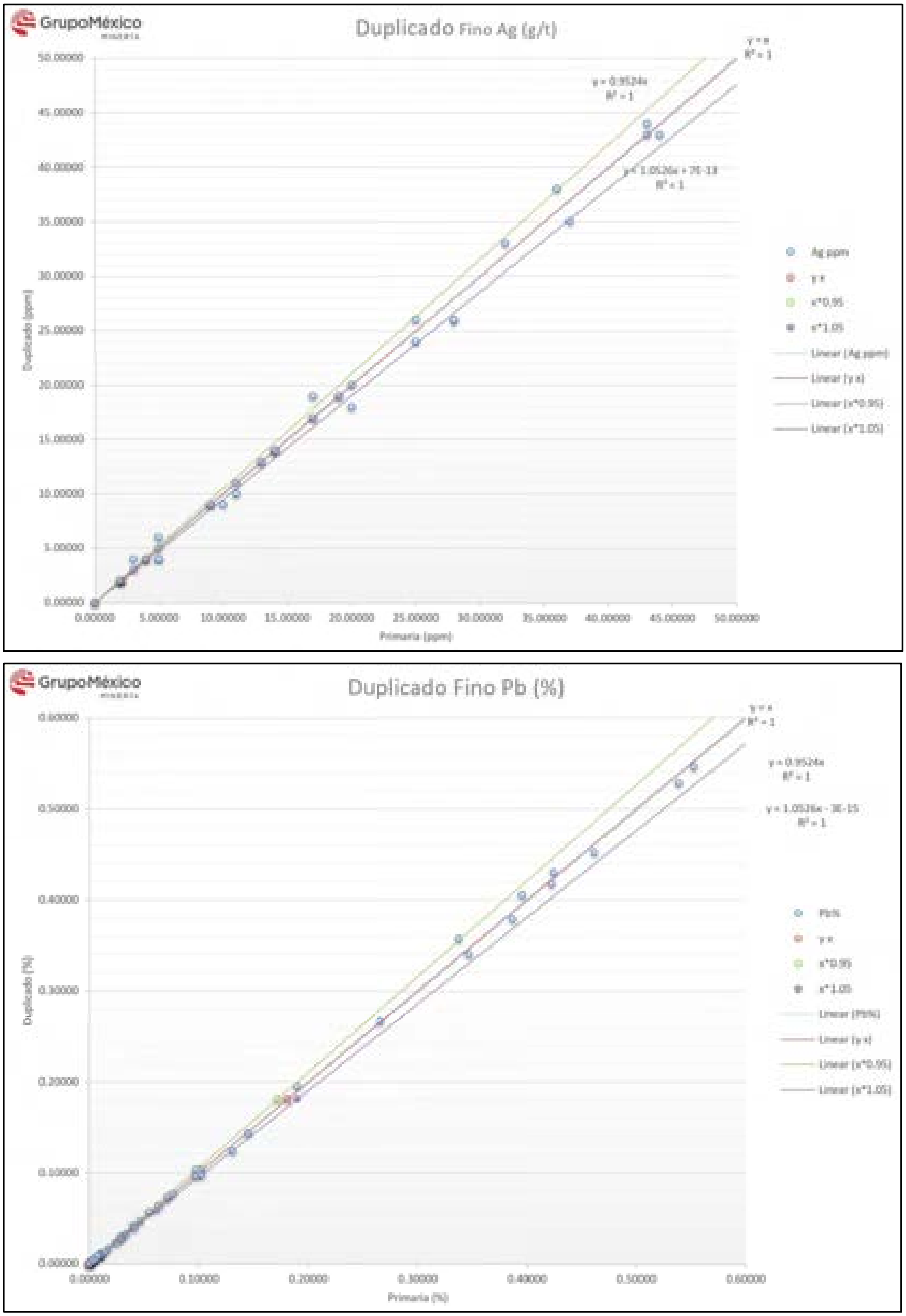
- Blanks: There is contamination when the assay results are above 5 x detection limit for a specific element evaluated. When contamination occurs, San Martín informs to the laboratory to check the internal protocols and if necessary, repeat the assaying of a specific batch if the contamination is considered repetitive and continuous. Figure 8-5 shows the results of the fine blank. All the blanks are inside the acceptability limit for silver, but there are many failures observed in the Cu% graph, which is an aspect that San Martín is reviewing, including the type of blank that is being used.
- Duplicates: San Martín uses an acceptability level of ±5% relative error range from the 45-degree line (scatter plot) for coarse and fine duplicates. The ranges are very strict and can be reviewed and adjusted according to the duplicate type. Pairs outside of these acceptability ranges are considered failures, and if in a certain period (failures are more than 10% of the total control samples), San Martín contacts the laboratory to review their procedures of preparation. SRK recommends using an acceptability range of ±10% and 20% relative error for the fine and coarse duplicates, respectively (Figure 8-6).
- Check assays (Second Laboratory): San Martín is not using check assays (Tercerías). SRK recommends sending pulps of part of the assayed samples to a third commercial laboratory as part of the QA/QC protocol.
- Certified Reference Materials (CRM): The CRM are bought from commercial laboratories (CDN and Oreas), which are selected (grades and mineralization type) consistent with the mineralization and rock types of San Martín. The performance of this check is evaluated using graphs where the two standard deviation and three standard deviation reference lines are drawn in conjunction with the assay results obtained. A failure is considered when a specific CRM assay result is outside of the three standard deviation reference line or when two contiguous CRMs are outside of the two standard deviation reference line. In these cases, San Martín request the re-analysis of the samples above and below of the failure in a specific batch of samples included in the laboratory assay certificate. Figure 8-7 shows the examples of the results of the CRM (CDN-ME-1606), where no failures are observed.





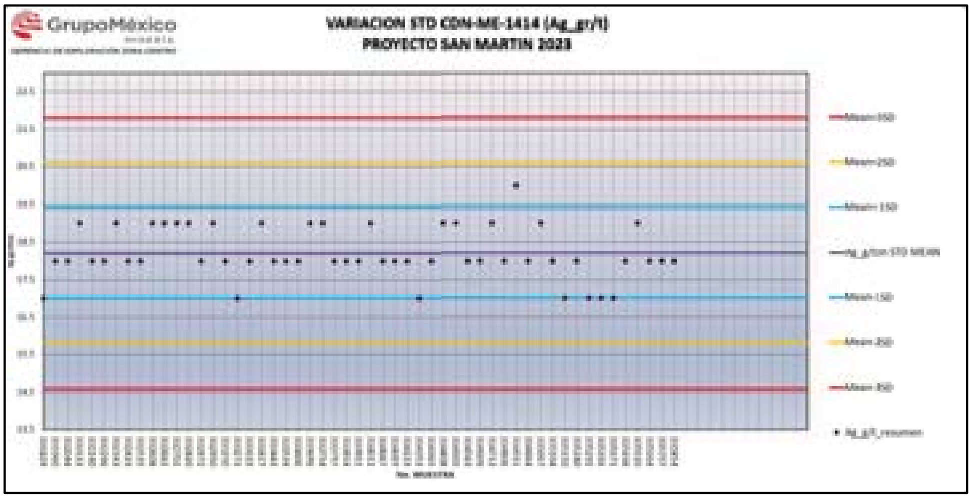
Source: IMMSA, 2023

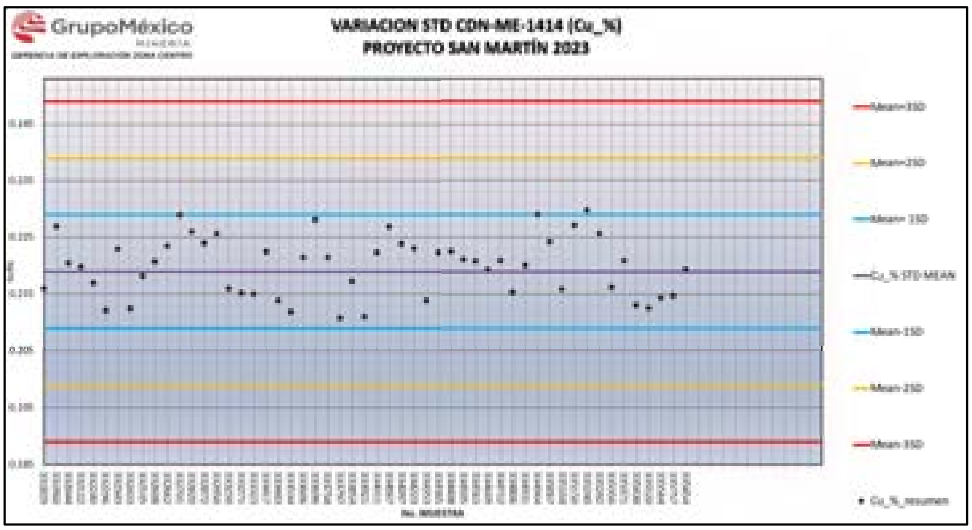
Figure 8-5: Examples of Results of Fine Blanks Controls

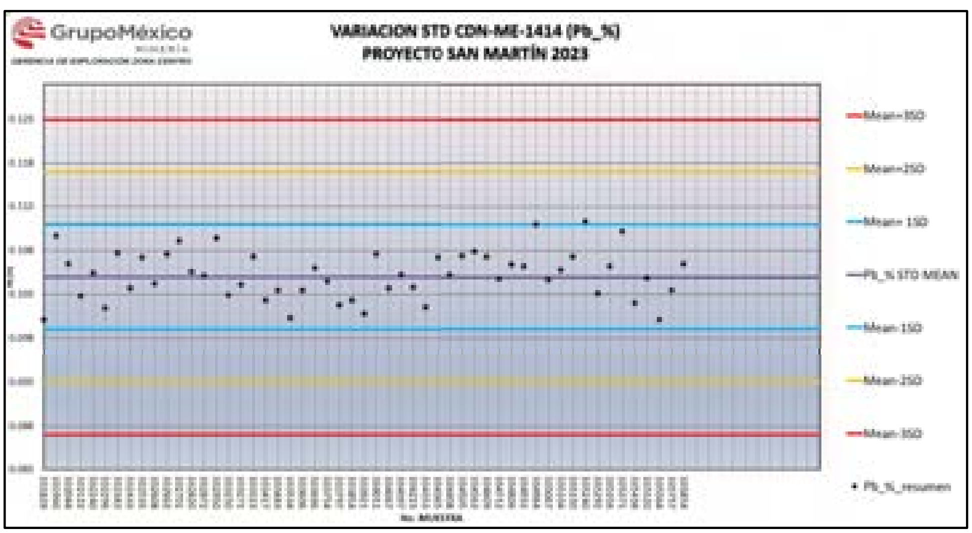


Source: IMMSA, 2023

Figure 8-6: Examples of Results of Fine Duplicates (Acceptability Range ±5 %)







Source: IMMSA, 2023

Figure 8-7: Example of Results of CSRM (CDN-ME-1414)

8.4 Opinion on Adequacy

The security of the drilling and channel sampling is considered adequate for the mine geology and exploration departments of San Martín.

The mine geology department has not implemented quality controls for the samples collected from drilling and rock sampling from underground workings, which SRK considers that is not in line with the industry best practices and represents a source of uncertainty for the data collected by the mine geology department.

The exploration department has procedures for drilling and core sampling which SRK considers in line with the industry best practices. Review of the QA/QC information in Section 8.3.3 of this report shows acceptable correlations in the duplicate samples (which is testing precision of the laboratory), and no bias is observed in the CRM data (which is testing accuracy). It is the QP's opinion that these figures are acceptable. SRK recommends the inclusion of check assays (second laboratory controls (Tercerías)) periodically (e.g., quarterly), and the review of the acceptability ranges for fine and coarse duplicates (10% and 20% relative error).

The procedures of chemical analysis and protocols of the internal laboratory of San Martín and the SGS laboratory are in line with the industry standards. At the internal laboratory no certification has been completed, which in the QP's opinion does not meet the required standards for reporting under international best practice. More detailed validation and external checks should be completed if the laboratory is not certified given the lack of independence presented. The QP recommends that IMMSA undertake a program to certify the laboratory as is completed at their other operation San Martín.

8.5 Non-Conventional Industry Practice

The procedures of sampling and QA/QC of the mine geology department of San Martín are not in line with the best practices. The quantity of data (Drilling and rock channel sampling) collected during the history of the operation supports most of the Mineral Resources of the project. The long history of the mining operations, which started almost 70 years ago, provides support to the historical data, based on the recognized performance of the San Martín operation for decades. The uncertainty sources for Mineral Resources are considered and evaluated in the following sections.

9 Data Verification

9.1 Data Verification Procedures

A detailed verification process was completed by SRK in 2021, which included the following activities:

- Mr. Giovanny Ortiz of SRK visited the San Martín project three times between June and December 2021. The purpose of the site visits was to:
  - Complete an underground site inspection and recognize the geology and the mineralization controls.
  - Review the exploration procedures, including the sampling methods and sampling quality, drilling procedures, core sampling and management of data.
  - Review of the historical data supporting the reserve calculations.
- The core of historical drilling doesn't exist, no samples could be collected. The validation sampling included 24 samples collected from recent drillholes and underground workings.

In 2022 and 2023, additional site visits have been done and are included the review of the exploration protocols, drilling, rock sampling, data management and mineral resource estimation, as part of the verification processes.

9.1.1 Results of the Validation Samples

San Martín lost all the core of historical drilling during the period that the company was absent from the project after the strike of 2007. The internal laboratory discarded the pulps and rejects of all the historical samples.

16 samples from underground workings were collected in areas of strong mineralization. Table 9-1 presents the names of the underground workings, the elevation and the assay results (SGS Laboratory). The results of the samples show the different levels of mineralization shown in the locations of the stopes distributed at different elevations of the deposit.

Eight mineralized intercepts from the exploration drilling were selected as part of the validation sampling. Table 9-2 presents the results of the core samples sent to the SGS Laboratory in Durango.

Coarse and fine blanks, coarse duplicates and a certified reference material were inserted in the samples sent to SGS for control. The results of the controls passed the acceptability criteria.

Table 9-1: Validation Rock Samples from Underground Workings

Folio	Sample #	Place (Underground)	Elevation (masl)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
7004	297598	2-250 CORTE CALLE 4	2,578.30	0.01	11	0.082	0.021	0.28	7.5
6073	297597	0-1030 CORTE FTE # 2	2,697.28	0.01	160	0.636	0.003	2.91	7.5
6492	297596	12-385 XRO IZQUIERDA	,2287.07	0.01	48	0.016	0.980	0.82	11.7
6641	297595	8-800 ZONA NORTE CORTE LADO DERECHO	2,411.23	0.03	52	0.393	0.010	2.94	9.7
4957	297594	10-387 CORTE FRENTE	2,365.53	0.03	179	1.140	0.195	2.60	11.2
6617	297593	0-1030 CALLE 1 CORTE	2,691.63	0.01	157	1.010	0.062	2.06	5.7
6406	297591	8-800 ZONA SUR	2,409.42	0.01	91	0.879	0.053	0.13	10.2
4686	297590	2-550 CONTRA CALLE 1 POR LABRADO	2,570.18	0.05	33	0.141	0.009	3.22	9.0
6449	297589	14-350 CALLE 2 SEMIVERTI	2,237.78	0.15	309	0.124	0.927	1.12	10.9
6442	297588	14-350 SEMI VERTICAL CALLE 1	2,238.37	0.01	48	0.055	0.279	2.26	12.7
6476	297587	28-800 XO EXPLO TOPE	1,795.50	0.01	56	0.104	2.930	2.64	11.3
4971	297586	26-800 TOPE	1,853.96	0.01	91	0.765	0.102	0.50	10.8
6068	297585	26-800 LADO DERECHO	1,853.04	<0.005	53	0.661	0.041	1.19	9.8
6484	297584	18-350 RAMPA POSITIVA	2,137.28	0.01	38	0.049	1.990	1.59	5.1
6444	297583	22550 RAMPA (+) XRO 1	2,003.61	0.03	19	0.441	0.235	2.33	33.4
6490	297582	22-550 RAMPA NEGATIVA	1,955.86	0.01	34	0.096	1.360	1.37	5.3

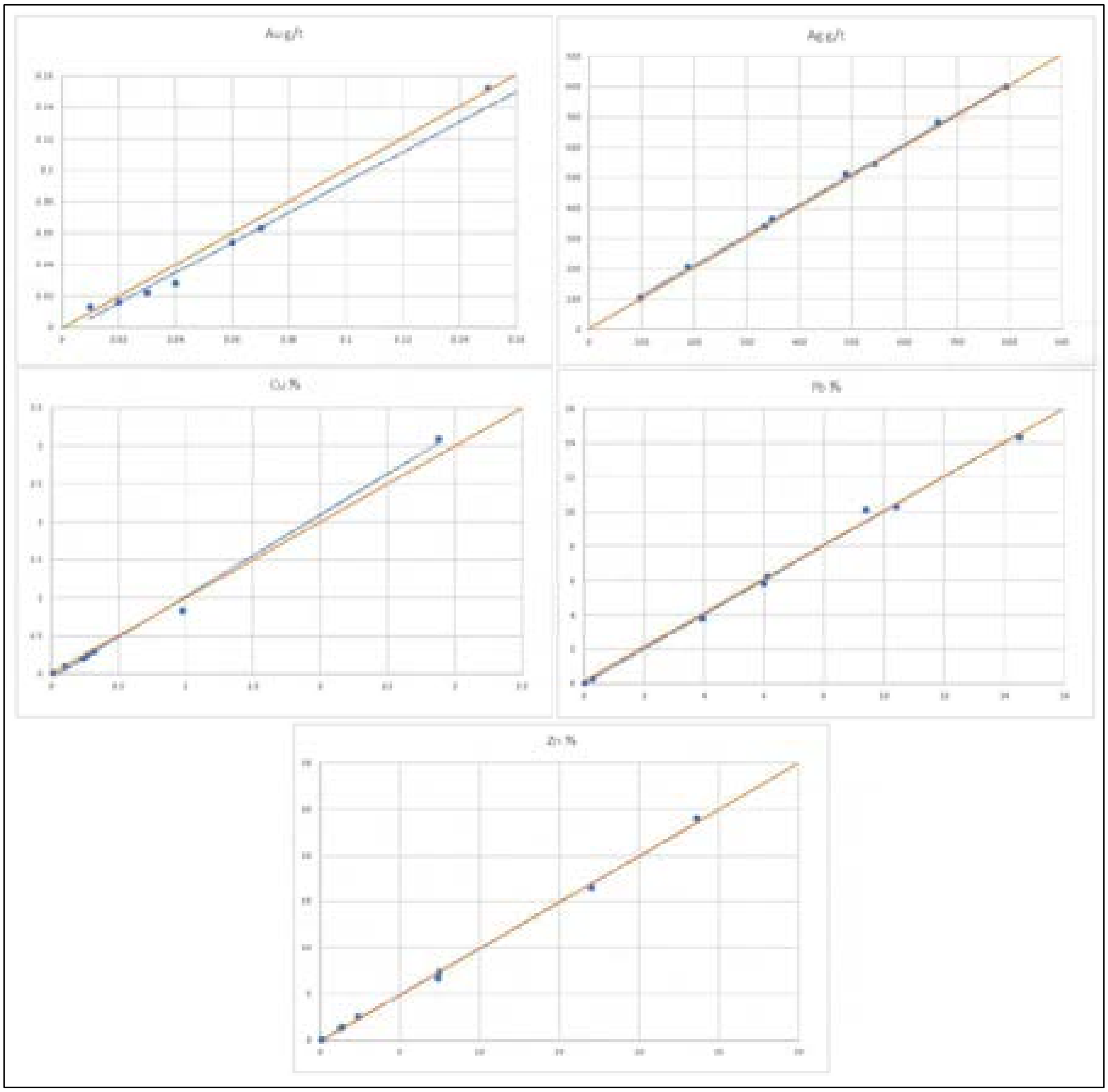
Source: SRK, 2021

Table 9-2: Results of the Validation Core Samples (Pulps) and the Original Data - Exploration Drilling

Drillhole #	Sample #	From	To	Length (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Fe (%)
					Validation Samples (Pulps) – SGS Lab.						Original Assays – SGS Lab.					
DDHMN20-02	297547	183.45	184.05	0.6	0.06	334	0.317	10.40	17.00	4	0.05	340	0.293	10.30	16.50	4
DDHMN20-05	297548	271.05	272.3	1.25	0.04	664	0.266	3.95	7.40	24	0.03	682	0.241	3.81	6.71	24
DDHMN21-07	297550	177.35	177.8	0.45	0.03	489	0.105	6.12	2.40	7	0.02	511	0.098	6.26	2.48	6
DDHMN21-13	297549	278.55	279.1	0.55	0.17	794	0.240	5.99	1.40	23	0.15	799	0.207	5.83	1.43	25
DDHPCD21-01	297552	325.5	325.95	0.45	0.07	188	2.880	0.03	1.30	27	0.06	206	3.090	0.02	1.28	29
DDHPCD21-03	297551	352.6	353.2	0.6	0.02	544	0.268	14.50	7.50	27	0.02	545	0.246	14.30	7.40	28
DDHPCD21-07	297553	501.9	503.4	1.5	0.01	98	0.013	0.29	0.10	6	0.01	104	0.012	0.28	0.05	5
DDHPCD21-06	297554	546.9	547.55	0.65	0.15	349	0.976	9.39	23.60	12	0.15	363	0.831	10.10	24.00	11

Source: SRK, 2021

Figure 9-1 shows the results scatter plots of the SGS results of the pulps selected for validation and the original data of the exploration drillholes as shown in Table 9-2. Good comparison and correlation between the data is observed in the scatter plots



Source: SRK, 2021

Figure 9-1: Scatter plots: X Axis: Validation Samples (Pulps); Y Axis: Original data

9.2 Limitations

San Martín lost all the core of historical drilling after the strike of 2007. Before this event, the core completed by the mine geology department was stored for some years and then discarded. The internal laboratory of San Martín discards the rejects and pulps after the chemical analysis.

The historical data could not be independently verified due to the non-existence of the core, and lack of the original assay certificates. The QP considers there to be limited risk in the use of the historical data as this information has been supporting the exploitation of San Martín, but except for the work completed the QP cannot confirm the level of uncertainty.

9.3 Opinion on Data Adequacy

Based on the validation work completed, The QP thinks data supporting the resources is adequate to support the mineral resource estimate. The lack of QA/QC data remains a concern, but the historical mining and production for over 60 years provides additional verification of the historical data supporting the resources. Given the uncertainty related to the lack of QA/QC the in the QP’s opinion assigning the highest level of confidence (Measured) to the estimated stopes until procedures are improved to ensure no bias exists (positive or negative) for the level of accuracy considered within this category. Revised procedures should include a robust QA/QC program for mine and external laboratories and routine third-party checks.

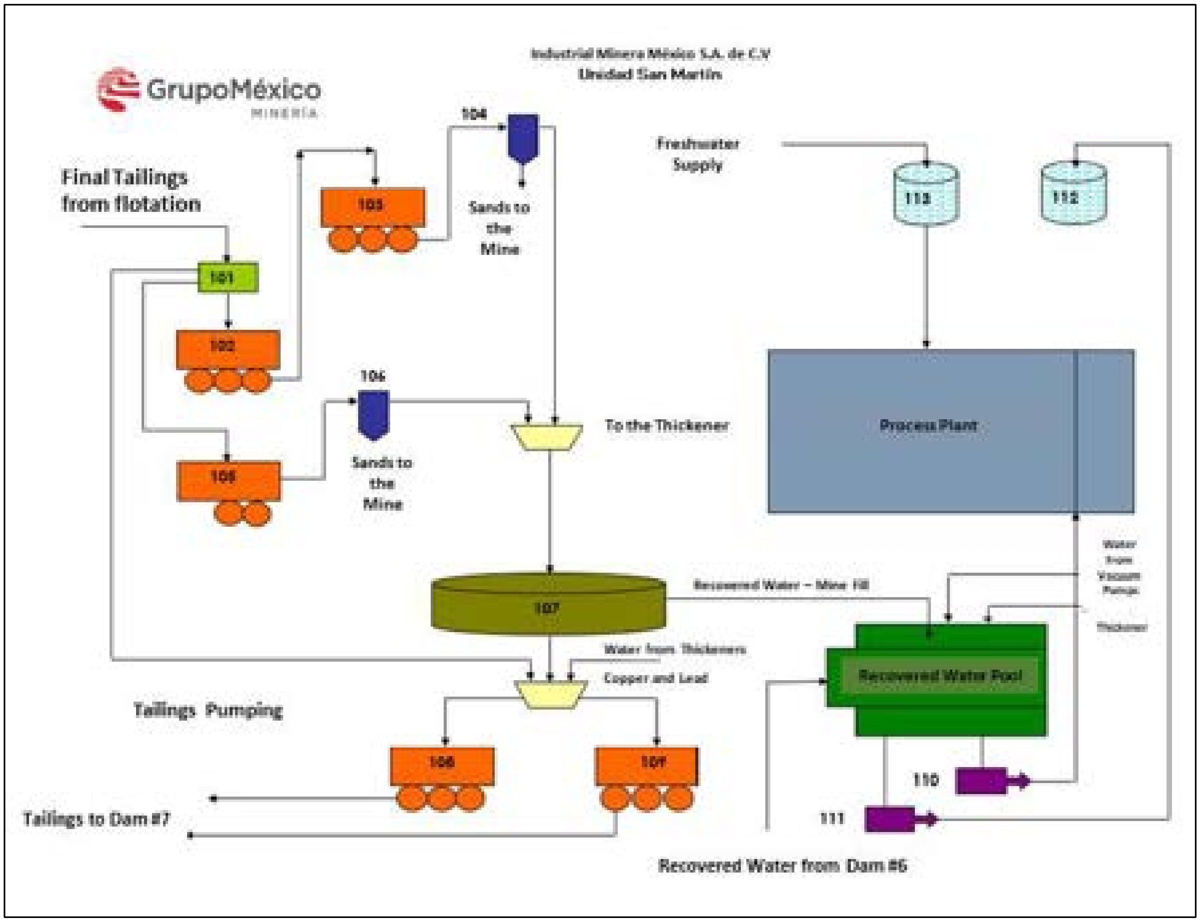
10 Mineral Processing and Metallurgical Testing

10.1 Testing and Procedures

Mineral Processing is completed via conventional flotation processes, including crushing, milling, flotation, filtration, thickening and conduction and disposal of tailings. The Minera San Martín unit has two processing plants or concentrators, one with an operating capacity of 2,400 tons/day (plant 2-400) and another with a capacity of 4,400 tons/day (plant 4-400). Three concentrates are produced:

- Zinc Concentrate
- Copper Concentrate
- Lead Concentrate

Figure 10-1 shows the general flow chart of the mineral processing at San Martín.



Source: IMMSA, 2021

Figure 10-1: General Flow Chart of Process and Tailings

10.2 Sample Representativeness

It is assumed by the QP that the current material is representative of the future mining areas with no known changes in the mineralization styles expected over the short term. Should the mine conduct further exploration on potential exploration targets then additional metallurgical test work will be required. At minimum this should include a sensitivity study for potential recoveries using the current operating setup to estimate potential recoveries.

10.3 Laboratories

Currently all sampling for the San Martín mill is conducted onsite at the mine laboratory. The mine laboratory is directly owned by IMMSA.

10.4 Relevant Results

(iv) The relevant results include the basis for any assumptions or predictions about recovery estimates. Discuss any processing factors or deleterious elements that could have a significant effect on potential economic extraction.

A summary of the metallurgical performance from the operation is shown in Table 10-1. It is QP's opinion that using a three-year trailing average for the recoveries would therefore not be appropriate and would likely result in over stating the recovery of zinc and lower recoveries for lead in the system.

The QP has therefore elected to use the 2023 production information and recoveries for the assessment of the cut-off grade as disclosed in Section 11.12 of this report.

Table 10-1: Metallurgical Performance 2020 to June 2023

Component	Year	Tonnage (t)	Assay Grade						Recovery (%)					
			Au (g/t)	Ag (g/t)	Pb (%)	Cu (%)	Zn (%)	Fe (%)	Au (%)	Ag %	Pb %	Cu %	Zn %	Fe %
Head Grade	2020	1,355,065	0.01	107.7	0.3	0.5	1.7	5.4	100	100	100	100	100	100
	2021	1,217,334	-	74.8	0.2	0.5	1.9	5.7	100	100	100	100	100	100
	2022	1,413,207	-	66.5	0.3	0.4	1.6	6.1	100	100	100	100	100	100
	2023*	707,553	0.01	52.0	0.2	0.4	1.5	5.8	100	100	100	100	100	100
Concentrate Lead (Pb%)	2020	4,882	0.72	3,679.3	29.2	10.6	6.4	3.2	10.4	12.3	30.8	7.7	1.4	0.2
	2021	3,659	0.50	3,444.6	26.1	11.6	5.3	12.1	10.9	13.8	32.2	7.5	0.8	0.6
	2022	3,540	0.40	3,587.3	31.7	9.5	3.7	12.0	12.1	13.5	31.6	5.5	0.6	0.5
	2023*	1,371	0.50	3,045.0	29.7	8.5	4.1	10.7	13.0	11.3	29.2	3.9	0.5	0.4
Concentrate Copper (Cu%)	2020	20,077	0.18	2,959.0	6.6	17.9	13.0	18.9	19.3	40.7	28.8	53.3	11.4	5.2
	2021	16,134	0.20	2,562.3	5.5	19.1	10.0	18.4	25.0	45.4	30.0	54.1	7.1	4.2
	2022	19,091	0.30	2,365.3	7.5	19.9	8.0	23.0	50.2	48.1	40.2	62.1	6.7	5.1
	2023*	9,752	0.30	2,188.0	7.1	20.6	9.2	20.7	57.6	57.6	49.5	67.1	8.4	5.0
Concentrate Zinc (Zn%)	2020	31,577	0.09	322.8	0.9	2.0	46.3	10.8	14.4	7.0	6.1	9.4	64.3	4.7
	2021	39,335	0.10	222.2	0.6	1.5	43.5	11.6	22.3	9.6	8.2	10.6	75.1	6.6
	2022	41,320	0.10	212.5	0.6	1.6	41.6	14.4	55.9	9.3	6.4	10.8	75.1	6.9
	2023*	17,552	0.20	172.0	0.4	1.6	43.7	12.9	58.7	8.2	5.1	9.2	71.9	5.6
Tails	2020	1,298,529	0.01	44.9	0.1	0.2	0.4	5.1	55.9	40.0	34.3	29.6	23.0	89.9
	2021	1,158,206	-	24.5	0.1	0.1	0.3	5.3	41.9	31.1	29.7	27.9	16.9	88.6
	2022	1,349,256	-	18.5	0.1	0.1	0.3	5.1	(18.2)	29.1	21.8	21.6	17.6	87.5
	2023*	678,878	-	12.0	0.0	0.1	0.3	5.4	(29.3)	22.9	16.2	19.8	19.2	89.1

(*) January – June 2023
Source: IMMSA, 2023

Using the information provided in Table 10-1, and a trailing average of 2.5 years (2021 to June 2023), and by calculating the total recovery for the key elements the following cumulative recoveries have been used for the purpose of the cut-off grade analysis, and are based on the recovered metal payable in concentrate (Table 10-2):

Table 10-2: Cumulative Recovery used for Cut-Off Grade Analysis

Element	Recovery 2022(%)	Recovery 2023(%)
Ag	70.9	71.1
Pb	31.6	31.4
Cu	67.7	66.0
Zn	72.1	74.5

Source: SRK, 2023

10.5 Adequacy of Data and Non-Conventional Industry Practice

In SRK's opinion, the results to date are sufficient for the definition of a mineral resource with the potential for economic extraction of the three concentrate products produced. SRK is not aware of non-conventional industry practice utilized.

11 Mineral Resource Estimates

The Mineral Resource Estimate presented herein represents the more recent resource evaluation prepared for San Martín project in accordance with the disclosure standards for mineral resources under §§229.1300 through 229.1305 (subpart 229.1300 of Regulation S-K)

11.1 Key Assumptions, Parameters, and Methods Used

This section describes the key assumptions, parameters, and methods used to estimate mineral resources. The technical report summary includes the mineral resource estimates, effective December 31, 2023. Mineral Resources are reported in situ with no dilution factors applied.

IMMSA finalized the process of digitizing the historical database for the San Martín project during 2023 which has been supplied to SRK for use in the generation of the current estimates. Previously in 2021 and 2022, SRK did a detailed and manual validation of those previous Mineral Resources, which we generated using classical 2D polygonal methods. For 2023, IMMSA finalized the digitization for all the rock sampling and drilling information available, and prepared the geological model and mineral resource estimation, based on all the digitized data, including the geological interpretations in horizontal and vertical sections.

SRK considers the procedures used by IMMSA to be reasonable and line with Industry standards and recommends implementing a data capture and data storage system to improve the data management and security.

11.1.1 Mineral Titles and Surface Rights

The MRE stated herein is done so on 100% terms of the resources contained within mineral title and surface leases which are currently held by IMMSA as of the effective date of this report. All conceptual considerations to constrain mineral resource statement have been limited to within these boundaries too. Current and future status of the access, agreements, or ownership of these titles and rights is described in Section 3 of this report.

11.1.2 Database

Table 11-1 and Table 11-2 present the summary of drilling and rock sampling (captured digitally) included in the database prepared by IMMSA for the 2023 Mineral Resource. SRK notes that the digitization of the rock chip sampling is dated back to 2020 but highlights that this covers the areas of active mining. Figure 11-1 and Figure 11-2 present the location of the drillholes and rock samples that were digitalized.

Table 11-1: Summary of Drillholes by Year

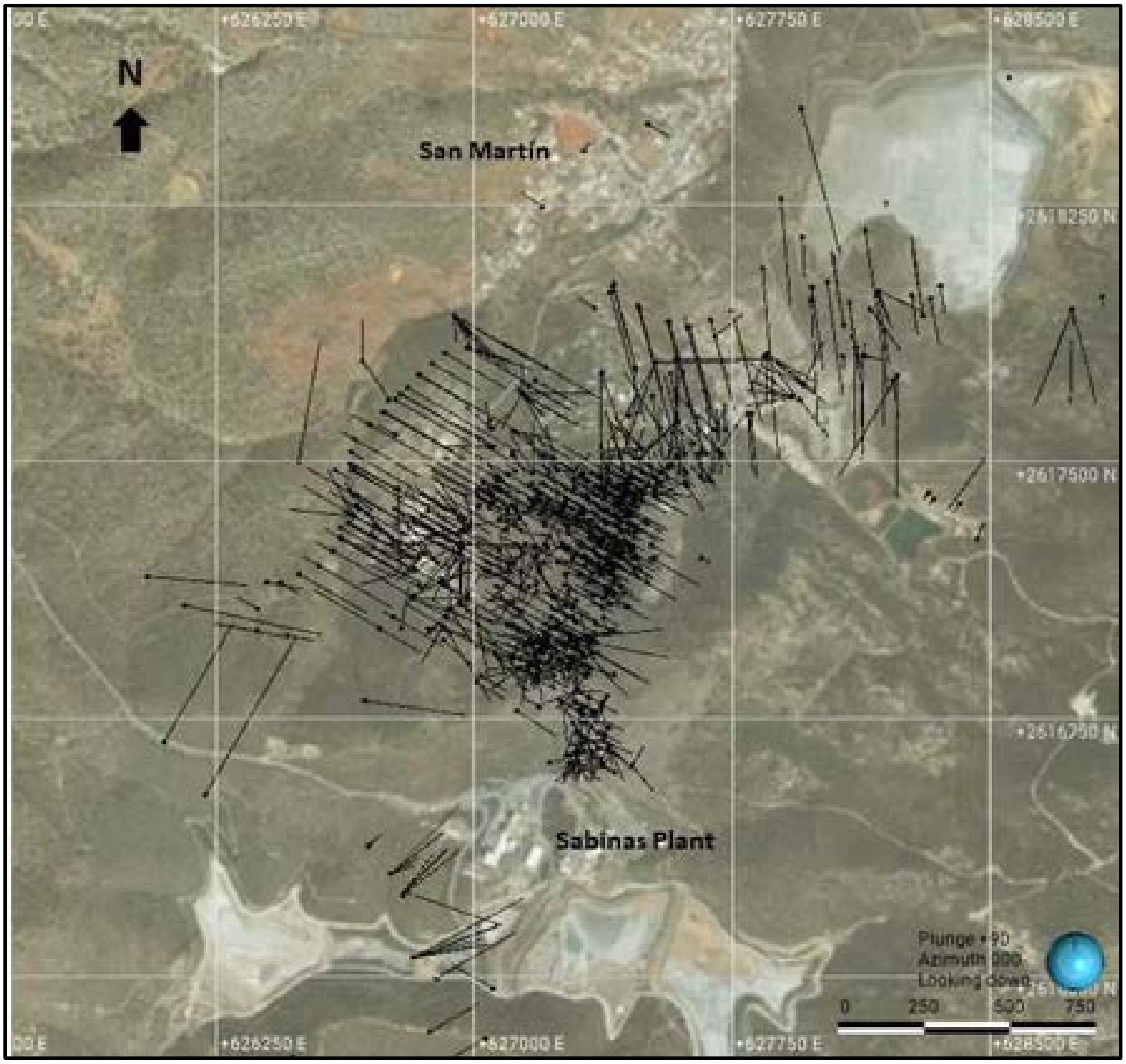
Year	Count	Meters
1958	2	122.9
1960	1	79.8
1961	4	337.7
1962	25	1,829.2
1963	10	916.2
1964	22	2,135.8
1965	22	1,927.1
1966	25	1,912.4
1967	23	2,137.3
1968	15	1,036.2
1969	1	16.9
1976	6	476.7
1978	4	392.2
1979	70	6,033.1
1980	33	3,950.4
1981	21	1,873.9
1982	57	5,774.7
1983	91	8,192.4
1984	56	4,881.9
1985	35	4,312.3
1986	30	3,181.8
1987	33	2,912.4
1988	44	5,687.8
1989	39	4,676.3
1990	14	2,928.1
1991	8	2,685.6
1992	73	5,789.4
1993	83	5,208.6
1994	52	5,994.6
1995	44	4,587.8
1996	69	16,039.8
1997	54	9,858.0
1998	77	13,318.7
1999	60	19,952.9
2000	146	37,202.9
2001	58	9,196.7
2002	35	6,817.1
2003	8	1,598.1
2004	17	3,765.5
2005	6	1,441.7
2006	26	6,015.0
2007	30	8,126.3
2020	12	2,725.7
2021	28	10,075.0
2023	14	2,081.2
ND	213	43,990.3
Total	**1,796**	**284,196**

Source: SRK, 2023

Table 11-2: Summary of Underground Rock Samples by Year

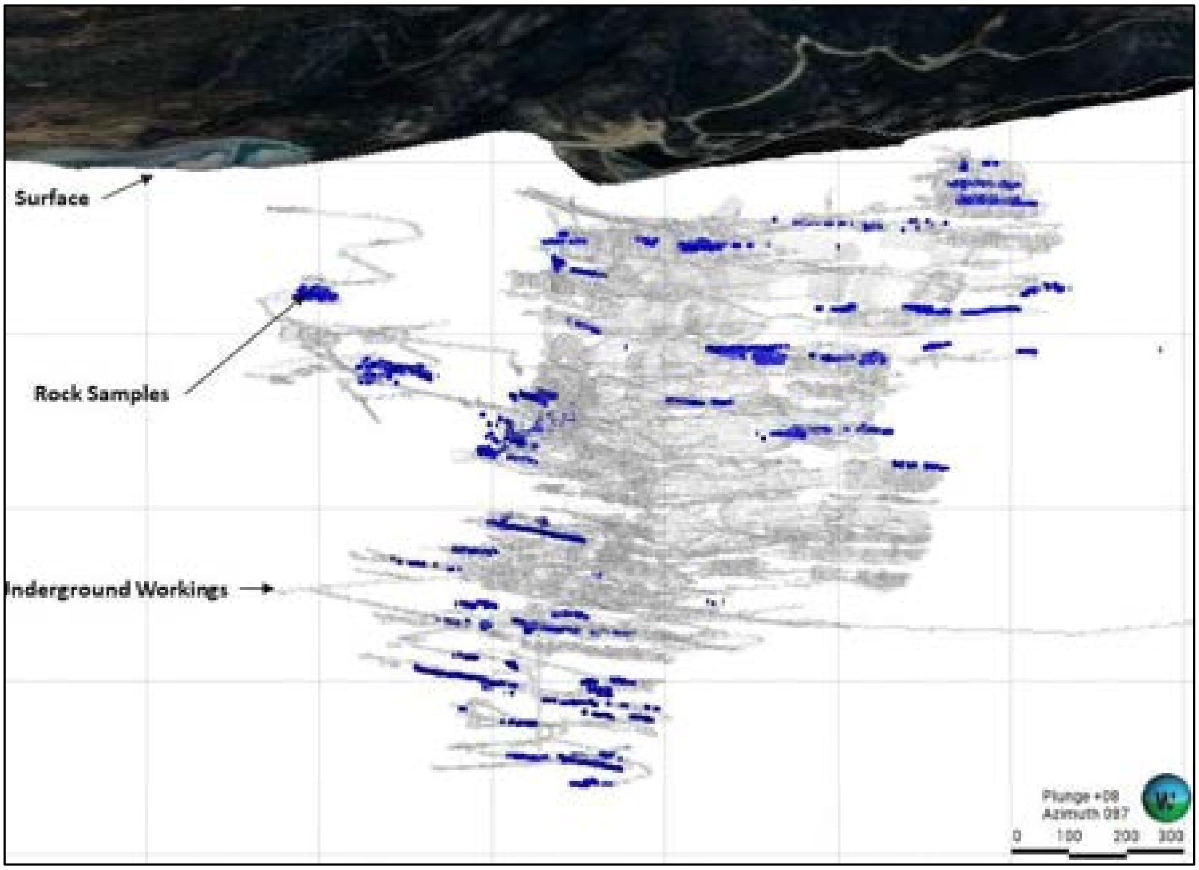
Year	Count	Meters
2020	3,287	4,580.8
2021	1,313	1,783.0
2022	2,461	3,025.1
2023	1,588	1,624.8
Total	**8,649**	**11,013.7**

Source: SRK, 2023



Source: IMMSA, 2023

Figure 11-1: Location of Drillholes



Source: IMMSA, 2023

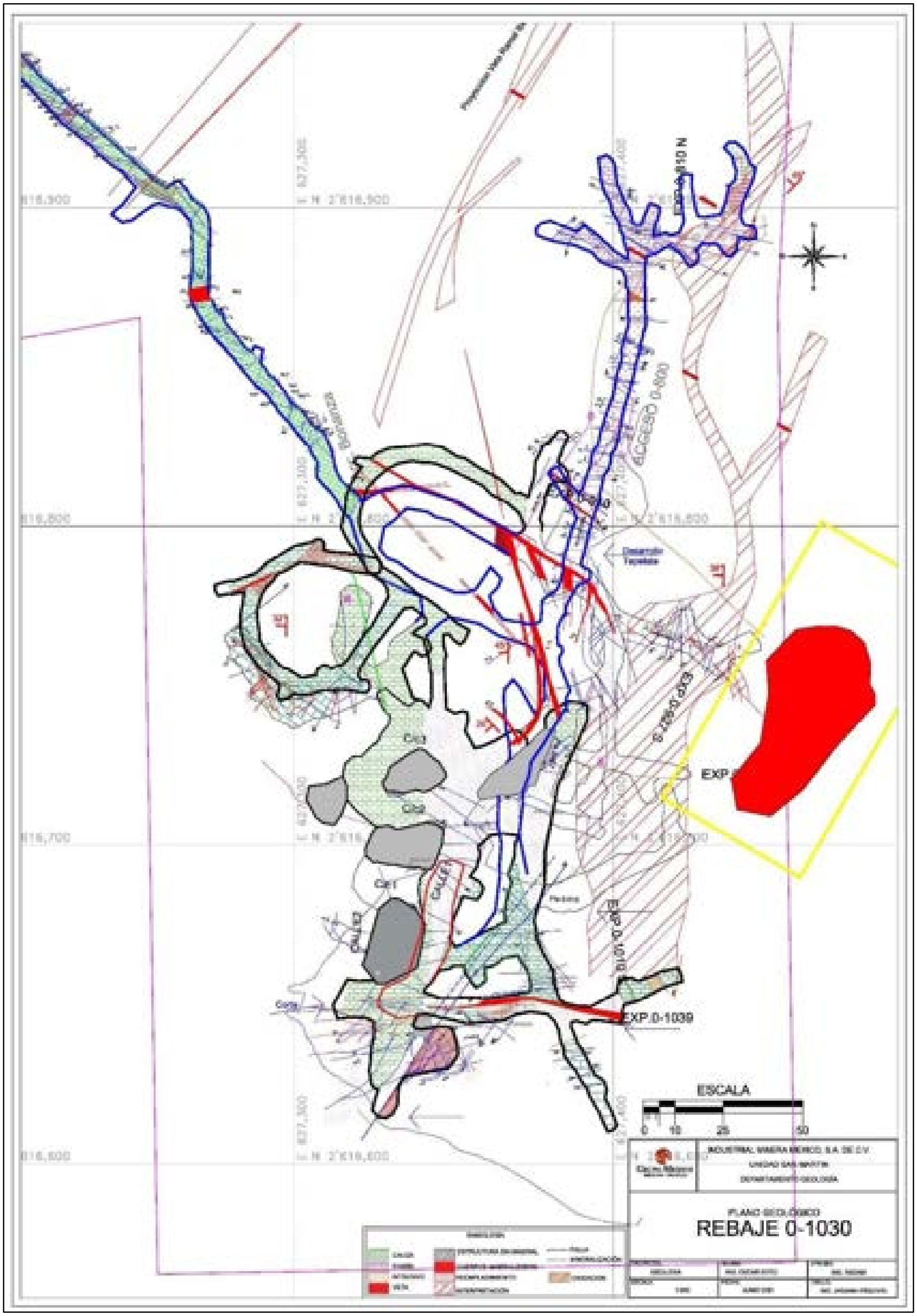
Figure 11-2: Rock Samples Location (3D view)

All drilling and sampling completed by the Company are logged for a variety of geological parameters including rock types, mineralogy, and structure. Historical drilling featured cross sections and maps have locally been used for modeling purposes for the mineralization contacts. IMMSA digitalized all the data in Excel spreadsheets but hasn't implemented a unique digital database using commercial software. This information has been imported into Leapfrog Software for geological modeling and resource estimation. SRK recommends implementing unique digital database using commercial software, which should include a strict management protocol. This will result in additional improvements in quality and security of the information.

11.2 Geological Model

San Martin prepared a geological model of the main lithological units. The mineralized mantos at San Martin are in the QP´s opinion sufficiently understood. IMMSA prepared the geological model based on the horizontal and vertical sections, using the lithological descriptions in the drillhole and rock samples database.

The mineralization of Zn, Ag, Pb and Cu in replacements is very irregular and the distribution of the intrusive is very complex. Based on the geological interpretation in plan and vertical sections, the geological model was constructed in Leapfrog. The intrusive solids were constructed using the coded drilling data and interpretations made by the IMMSA geologists in georeferenced sections. Figure 11-3 presents an example of a plan section including the lithological interpretations.

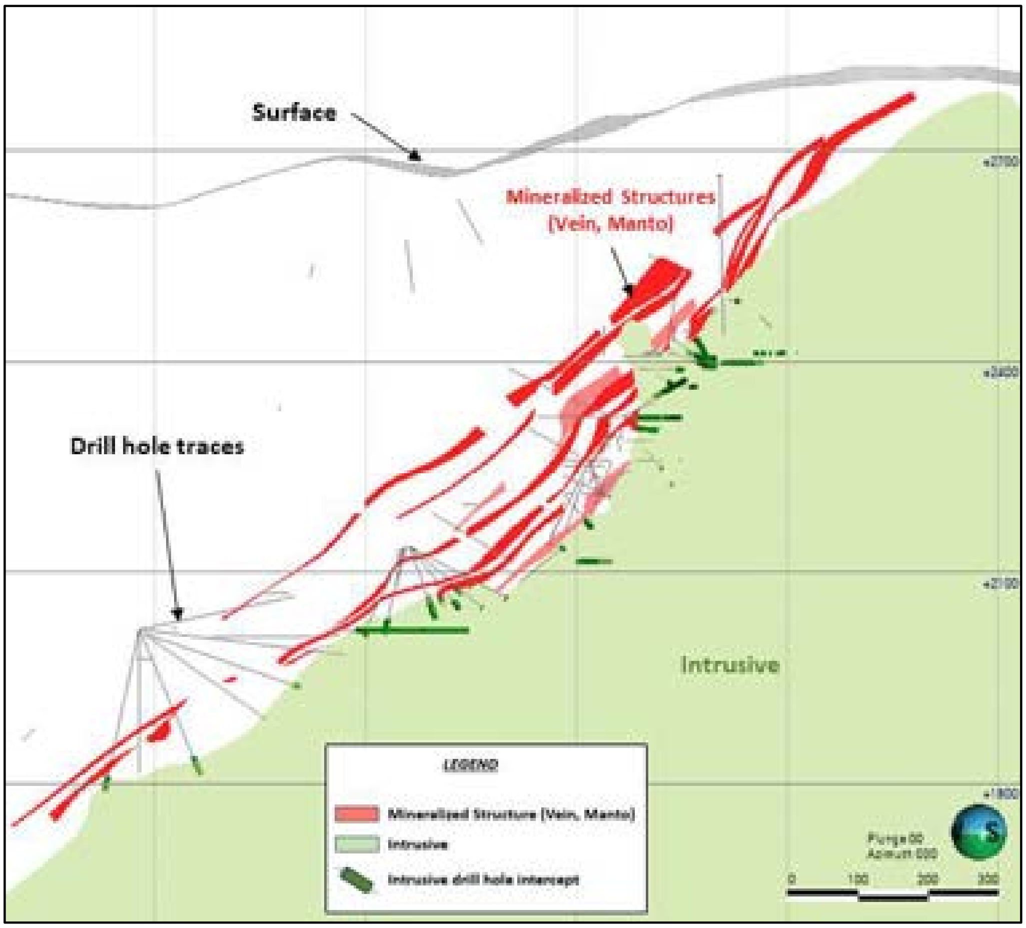


Source: IMMSA, 2021

Figure 11-3: Example of Plan View of Underground Workings and Geological Interpretation

There are some surrounding materials that are less understood and therefore considered lower confidence in the geological interpretation due to limited drilling. These areas are not known to host mineralization in quantities that meet economic cutoffs, so the IMMSA decided not to model at this stage.

IMMSA used Seequent Leapfrog Geo and Leapfrog Edge to create mineralized mantos solids and perform the estimations, respectively. The previous interpretations guided the construction of the solids and volumes when implicit modeling algorithms were employed. Figure 11-4 presents an example of a vertical section showing the geological model in vertical section, showing the Mantos and the Intrusive.



Source: IMMSA, 2023

Figure 11-4: Example of 3D view of a vertical section of the geological model (Green: Intrusive; Red: Mineralized Mantos)

As part of the process to define the mineralized structures (mantos and veins), IMMSA used a calculation of ZnEq value to orientate the delineation and construction of the mineralized mantos solids. The following is the formula uses to calculate the ZnEq:

ZnEq_% = [Ag_g/t] * 0.41 + [Pb_%] * 0.643 + [Zn_%] + [Cu_%] * 2.143

This formula is based only on historical metal prices, which IMMSA considers that is an approach that works appropriately when defining the mineralized intervals. The prices used are US$1.4/lb Zn, US$18/oz Ag, US$0.9/lb Pb and US$3/lb Cu.

For the construction of the mineralized domains a combination of using a cut-off of approximately 5% ZnEq, which is based on the typical concentrations observed in the mantos and veins, combined with the visual analysis of the continuity of the mineralized structures observed in horizontal and vertical views and geological interpretations and underground mapping.. The process of creation of the mantos solids can include material below the determined economic intercepts, which has been done to supports the continuity of the mineralized zones. In areas where the grades are consistently below economic values which display continuity over multiple sections IMMSA identified zones of waste material from the drilling data and the interpretation sections, and generated solids to superimpose them over the mantos.

The QP considers that the use of ZnEq% value combined with geological aspects including geological continuity interpretations from horizontal and vertical section and using the Leapfrog visualization tools are reasonable to define the mineralized solids is appropriate.

11.3 Estimation Domain Analysis

The solids of the mineralized structures (Mantos, veins, dissemination) were used independently for estimation with all contacts being treat as hard boundaries. Table 11-3 shows the summary statistics by domain for the San Martin model. The populations of zinc, silver, lead and copper were used as reference for estimation accuracy. Some domains present high Coefficient of Variation (CoV), indicating high variability of the populations. CoV between 1 and 1.5 are considered reasonable for estimation, which is an aspect considered during the statistical analysis, including capping (Section 11.5), which reasonably reduced the variability. Additionally, the subsequent compositing helps obtain less variable populations before the grade estimation.

Table 11-3: Summary Statistics of Raw Sampling per Domain

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min	Max
Central & Deep Area									
Manto 1	Ag g/t	3,506	4,746.1	107.5	263.1	2.45	69,237	0.00	6,656.0
	Cu %	3,507	4,747.4	0.98	2.24	2.29	5.04	0.00	32.90
	Pb %	3,507	4,747.4	0.13	0.83	6.55	0.69	0.00	41.00
	Zn %	3,507	4,747.4	2.70	4.64	1.72	21.54	0.00	45.30
Manto 2	Ag g/t	2,625	3,508.2	101.7	307.5	3.02	94,544	-	12,978.0
	Cu %	2,625	3,508.2	0.77	1.89	2.46	3.55	0.00	27.80
	Pb %	2,625	3,508.2	0.08	0.42	5.38	0.18	0.00	11.70
	Zn %	2,625	3,508.2	2.06	3.91	1.90	15.30	0.00	53.00
Manto 3	Ag g/t	2,461	3,097.9	109.3	241.6	2.21	58,391	-	4,980.0
	Cu %	2,461	3,097.9	0.73	1.60	2.20	2.55	0.00	36.40
	Pb %	2,461	3,097.9	0.07	0.34	4.89	0.11	0.00	6.60
	Zn %	2,461	3,097.9	1.57	3.25	2.07	10.55	0.00	39.00
Manto 4	Ag g/t	2,597	3,465.9	79.3	212.5	2.68	45,154	-	3,700.0
	Cu %	2,597	3,465.9	0.34	1.01	2.95	1.02	0.00	26.80
	Pb %	2,596	3,464.6	0.39	1.36	3.52	1.84	0.00	20.30
	Zn %	2,597	3,465.9	2.98	4.25	1.42	18.03	0.00	49.40
Manto 5	Ag g/t	1,051	1,448.6	59.7	220.3	3.69	48,554	0.00	4,780.0
	Cu %	1,051	1,448.6	0.28	0.98	3.49	0.96	0.00	21.50
	Pb %	1,051	1,448.6	0.17	0.60	3.48	0.36	0.00	11.80
	Zn %	1,051	1,448.6	1.60	2.82	1.76	7.94	0.00	21.50
Manto 6	Ag g/t	163	217.3	65.1	140.2	2.16	19,656	0.00	1,046.0
	Cu %	163	217.3	0.26	0.70	2.65	0.49	0.00	6.00
	Pb %	163	217.3	0.39	1.46	3.73	2.14	0.00	16.30
	Zn %	163	217.3	0.76	1.54	2.03	2.37	0.00	14.00
Manto 7	Ag g/t	104	155.4	72.4	180.6	2.50	32,630	0.00	1,428.0
	Cu %	104	155.4	0.15	0.23	1.50	0.05	0.00	1.40
	Pb %	104	155.4	0.21	0.47	2.20	0.22	0.00	3.27
	Zn %	104	155.4	0.86	1.25	1.46	1.57	0.00	7.30
Manto 8	Ag g/t	320	449.9	75.9	189.7	2.50	35,979	0.00	2,550.0
	Cu %	320	449.9	0.51	1.64	3.20	2.69	0.00	30.00
	Pb %	320	449.9	0.08	0.32	3.91	0.10	0.00	6.60
	Zn %	320	449.9	0.49	1.51	3.08	2.27	0.00	17.17
Manto A	Ag g/t	8,077	8,886.7	78.0	200.1	2.56	40,042	-	6,990.0
	Cu %	8,077	8,886.7	0.53	1.40	2.67	1.97	0.00	29.60
	Pb %	8,077	8,886.7	0.50	1.29	2.59	1.65	0.00	20.90
	Zn %	8,077	8,886.7	2.42	3.59	1.48	12.87	0.00	32.10
Manto B	Ag g/t	5,499	6,308.1	73.7	147.8	2.00	21,848	-	4,820.0
	Cu %	5,499	6,308.1	0.55	1.60	2.93	2.57	0.00	30.00
	Pb %	5,499	6,308.1	0.52	1.47	2.80	2.15	0.00	29.20
	Zn %	5,499	6,308.1	2.76	3.92	1.42	15.33	0.00	43.20
Manto C	Ag g/t	4,371	5,431.9	76.3	169.7	2.22	28,802	-	6,258.0
	Cu %	4,371	5,431.9	0.61	1.58	2.59	2.49	0.00	31.90
	Pb %	4,371	5,431.9	0.52	1.37	2.65	1.88	0.00	18.90
	Zn %	4,371	5,431.9	3.47	4.50	1.30	20.24	0.00	56.00
Manto Inferior 1	Ag g/t	1,279	1,481.0	105.4	285.9	2.71	81,767	0.00	4,365.0
	Cu %	1,279	1,481.0	0.78	2.08	2.65	4.31	0.00	28.90
	Pb %	1,279	1,481.0	0.42	3.76	8.92	14.10	0.00	97.00
	Zn %	1,279	1,481.0	3.46	4.89	1.41	23.94	0.00	35.20
Gallo Gallina Area									
G1	Ag g/t	325	396.2	60.4	75.4	1.25	5,684	0.00	604.0
	Cu %	325	396.2	0.05	0.12	2.37	0.02	0.00	1.54
	Pb %	325	396.2	0.33	0.72	2.18	0.51	0.00	8.43
	Zn %	325	396.2	0.76	1.40	1.84	1.96	0.00	11.60

Domain	Variable	Count	Length	Mean	SD	CoV	Variance	Min	Max
G1-2	Ag g/t	62	60.1	110.8	142.3	1.28	20,249	2.00	579.0
	Cu %	62	60.1	0.17	0.24	1.38	0.06	0.00	1.26
	Pb %	62	60.1	1.64	2.20	1.34	4.85	0.00	8.57
	Zn %	62	60.1	1.62	1.99	1.22	3.95	0.01	10.16
G2	Ag g/t	301	376.7	83.7	118.9	1.42	14,135	0.00	753.0
	Cu %	301	376.7	0.16	0.45	2.80	0.20	0.00	6.80
	Pb %	301	376.7	1.13	1.83	1.62	3.33	0.00	14.40
	Zn %	301	376.7	1.14	1.37	1.20	1.89	0.00	10.20
G3	Ag g/t	88	107.2	69.1	79.7	1.15	6,344	4.00	351.0
	Cu %	88	107.2	0.23	0.94	4.09	0.89	0.00	8.00
	Pb %	88	107.2	0.91	1.42	1.56	2.03	0.01	7.20
	Zn %	88	107.2	1.02	1.48	1.45	2.18	0.02	7.60
GC	Ag g/t	74	62.4	57.7	74.3	1.29	5,525	2.00	447.0
	Cu %	74	62.4	0.39	0.76	1.94	0.58	0.00	5.60
	Pb %	74	62.4	0.24	0.59	2.44	0.35	0.00	3.20
	Zn %	74	62.4	0.28	0.57	2.04	0.33	0.01	2.83
GGM2	Ag g/t	198	244.4	78.6	108.5	1.38	11,768	4.00	1,300.0
	Cu %	198	244.4	0.77	0.91	1.18	0.83	0.01	6.30
	Pb %	198	244.4	0.11	0.73	6.54	0.54	0.00	12.20
	Zn %	198	244.4	0.88	1.91	2.18	3.64	0.00	14.87
GGM1	Ag g/t	205	225.1	62.0	72.1	1.16	5,197	1.00	558.0
	Cu %	205	225.1	0.33	0.73	2.21	0.53	0.01	5.51
	Pb %	205	225.1	0.17	0.24	1.37	0.06	0.00	1.79
	Zn %	205	225.1	0.70	2.07	2.96	4.28	0.01	18.40
GMM3	Ag g/t	229	288.1	80.0	170.2	2.13	28,972	3.00	2,480.0
	Cu %	229	288.1	0.57	0.81	1.42	0.66	0.01	7.46
	Pb %	229	288.1	0.13	0.84	6.39	0.71	0.00	16.00
	Zn %	229	288.1	1.38	2.99	2.17	8.93	0.01	22.10
DISS	Ag g/t	774	779.6	80.2	144.2	1.80	20,800	2.00	3,064.6
	Cu %	774	779.6	0.21	0.42	1.99	0.18	0.00	3.36
	Pb %	774	779.6	0.32	0.94	2.92	0.88	0.00	14.20
	Zn %	774	779.6	0.36	1.19	3.27	1.41	0.00	16.30

Source: IMMSA, 2023
CoV: Coefficient of variability
g/t: grams per tonnes
SD: Standard deviation
Min: Minimum
Max: Maximum

11.4 Estimation Methodology

The individual mantos solids of the geological models prepared by IMMSA and reviewed by SRK were used as hard boundaries for the MRE process. The methodology of estimation included the following procedures:

- Database review
- Definition of Domains
- Capping and Compositing for statistical and geostatistical analysis
- Variography
- Block model construction
- Grades Interpolation (Zn, Ag, Pb, Cu)
- Resource Classification
- Depletion of Block Model

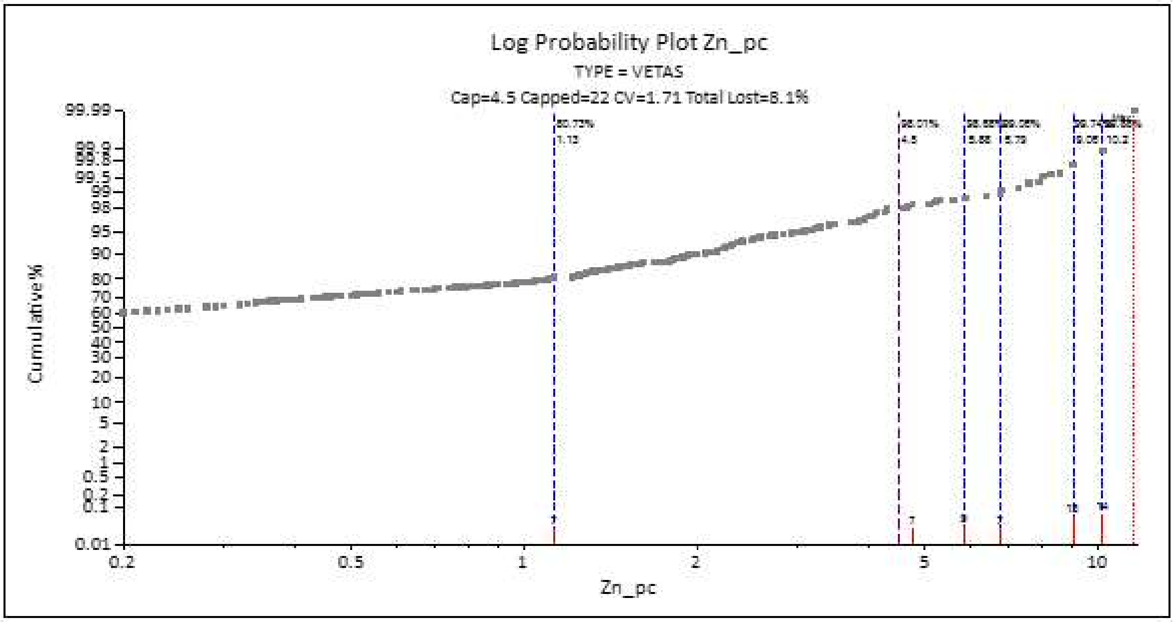
- Assessment of "reasonable prospects for economic extraction" and selection of appropriate reporting cut-off grades (CoG)
- Mineral Resource Statement

11.5 Assay Capping and Compositing

High grade capping is typically performed where data is not anymore perceived to be part of the main population. Capping is considered an adequate technique for dealing with the high-grade outlier values.

The capping was applied to the raw data independently for each domain and for each variable. The analysis and definition of the appropriate capping levels are based on the analysis of the grade distributions using log probability plots and raw and log histograms to evaluate graphically the grades at which samples have significant impacts on the local estimation and whose effect is considered extreme.

For this analysis IMMSA grouped domains according to the characteristics and aptitude of the structures. Figure 11-5 shows an example of the zinc probability plot and the capping level selected in the grouped domains called Vetas in Gallo Gallina, and the comparative statistics table using different levels of capping and its impact.



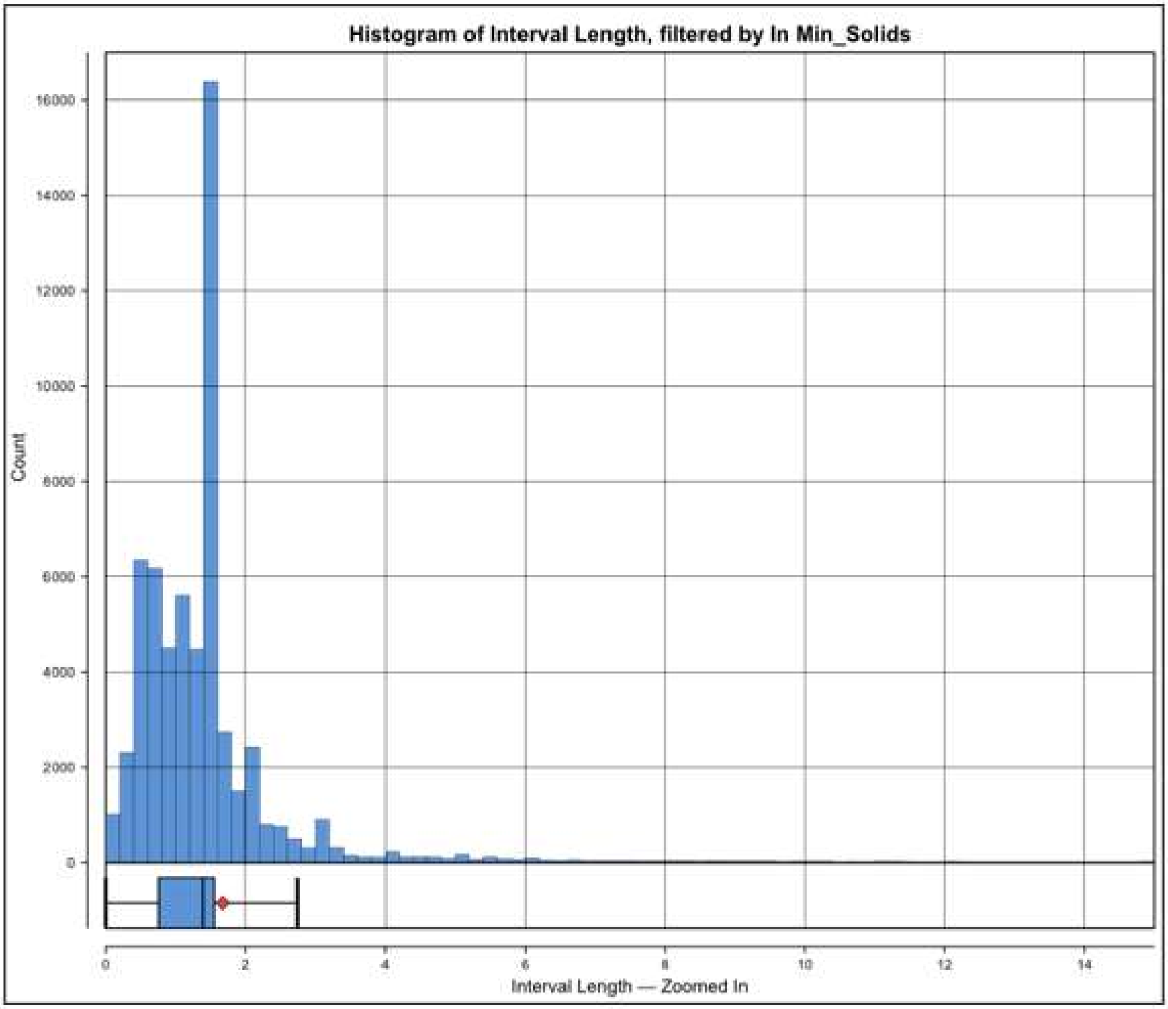
Column	Cap	# Values Capped	Percentile	Values Capped %	Metal Lost Total%	Count	Min	Max	Mean	Variance	CV
Zn_%						663	0.001	11.6	0.656	1.7	1.98
Zn_%	4.500	22	99%	3.30%	8.10%	663	0.001	4.5	0.603	1.07	1.71
Zn_%	3.929	31	97%	4.70%	10%	663	0.001	3.929	0.59	0.97	1.67
Zn_%	3.337	39	96%	5.90%	14%	663	0.001	3.337	0.568	0.83	1.61
Zn_%	3.044	45	95%	6.80%	16%	663	0.001	3.044	0.554	0.76	1.58
Zn_%	2.586	56	94%	8.40%	19%	663	0.001	2.586	0.529	0.65	1.52
Zn_%	2.381	62	93%	9.40%	22%	663	0.001	2.381	0.515	0.59	1.5
Zn_%	2.28	67	92%	10.10%	23%	663	0.001	2.28	0.508	0.57	1.48
Zn_%	2.174	75	91%	11.30%	24%	663	0.001	2.174	0.498	0.53	1.47
Zn_%	2.067	85	90%	12.80%	26%	663	0.001	2.067	0.488	0.5	1.45

Source: IMMSA, 2023

Figure 11-5: Example 0f Zinc Capping Analysis using Probability Plots and Comparative Statistics using Various Capping Levels (Gallo Gallina, domain group: Vetas)

Composites were generated to manage the impact of the data variability and to prepare the data for estimation within each domain. In instances where assay data was absent, a value of 0.001 g/t for Ag and 0.001% for Pb, Cu and Zn were assigned for all the variables, and composites of 2.5 m were established. Figure 11-6 presents the length histogram and statistics of the raw samples contained in the domains. The sample length was evaluated in each domain and different composite lengths were analyzed to obtain the composite size that reduces reasonably the variability of the raw samples which makes the statistical analysis (Variography) more robust. Additionally, the composite is consistent with the block size selected and avoids excessive splitting samples after compositing.

The data was composited after capping, truncated at domain boundaries, and using a minimum capping size of 0.25 to capture zones where structures are narrow. When resulting composites are less than 1.5 m, they are distributed equally.



Statistics	
Count	60,068
Mean	1.67
SD	3.20
CV	1.91
Variance	10.25
Minimum	0.00001
Maximum	181.366

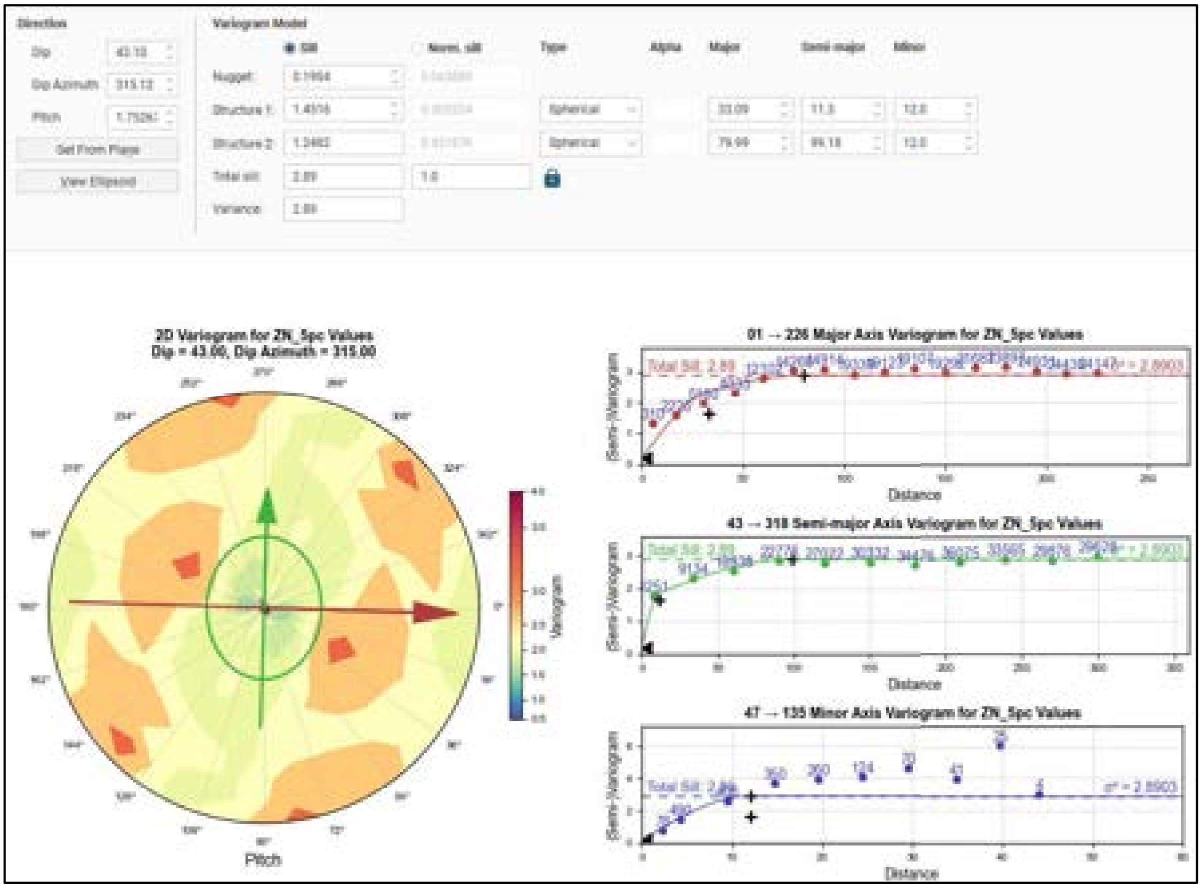
Source: IMMSA, 2023

Figure 11-6: Length Histogram

11.6 Variogram Analysis

SRK assessed the geostatistical characteristics of the domains using the Leapfrog variogram analysis tool. This evaluation included the review of the variogram map to define the main orientation, followed by the definition of the major, semi-major, and minor axis variograms. The variogram of the mineralized structure with more data was used in mantos or veins with low quantity of data and similar orientation. For mineralized structures with enough data, their own variogram for each variable was used for OK estimation.

The variography of some structures with elevated coefficient of variations (CVs) were unsatisfactory. illustrates an example variogram zinc of the Manto A.



Source: IMMSA, 2023

Figure 11-7: Semi Variograms and Model of Zinc – Manto A

For some domains there are low sample populations, wide spacing between samples or short ranges in the variograms, which IMMSA and SRK managed using a combination of ordinary kriging (OK) for the first search and inverse distance (ID) for second and third searches. Figure 11-8 presents the variogram models used in Central and Gallo Gallina areas.

Element	Area	Domain	Nugget	Structure 1								Structure 2							
				Sill	Structure	Major	Semi-major	Minor	Dip	Dip Azi.	Pitch	Sill	Structure	Major	Semi-major	Minor	Dip	Dip Azi.	Pitch
AG	CENTRAL	Manto 1	773.65	2,320.95	Spherical	60	70	35	43.69	318.77	75.98	289.56	Spherical	90	150	70	44	318.8	76.0
AG	CENTRAL	Manto 2	982.79	2,027.49	Spherical	35	40	20	43.69	318.77	45.01	188.41	Spherical	150	100	30	44	318.8	45.0
AG	CENTRAL	Manto 3	626.43	2,484.20	Spherical	120	70	15	43.69	318.77	174.48	303.53	Spherical	170	250	50	44	318.8	174.5
AG	CENTRAL	Manto 4	567.14	1,566.15	Spherical	100	35	30	43.69	318.77	77.10	208.16	Spherical	300	101	40	44	318.8	77.1
AG	CENTRAL	Manto 8	235.28	1,997.35	Spherical	30	50	15	43.69	318.77	164.88	217.86	Spherical	100	250	20	44	318.8	164.9
AG	CENTRAL	Manto A	434.55	1,511.23	Spherical	100	60	10	43.10	315.12	16.03	537.83	Spherical	200	150	30	43	315.1	16.0
AG	CENTRAL	Manto B	720.60	1,568.74	Spherical	50	40	10	43.69	318.77	(289.64)	279.79	Spherical	100	200	40	44	318.8	(289.6)
AG	CENTRAL	Manto C	759.03	1,595.55	Spherical	75	20	10	43.69	318.77	136.80	229.76	Spherical	200	100	20	44	318.8	136.8
AG	GALLO GALLINA	DISS	377.23	1,311.43	Spherical	7	20	5	72.00	329.00	66.93	615.07	Spherical	48	34	10	72	329.0	66.9
AG	GALLO GALLINA	G1, G1-2, G2, G3	1,040.75	7,344.68	Spherical	10	20	5	72.00	329.00	28.92	230.64	Spherical	25	60	10	72	329.0	28.9
AG	GALLO GALLINA	GGM1, GGM2, GGM3	287.66	927.45	Spherical	40	50	10	54.00	316.71	111.02	136.86	Spherical	80	180	15	54	316.7	111.0
CU	CENTRAL	Manto 1	0.36	0.65	Spherical	50	40	15	43.69	318.77	64.74	0.15	Spherical	200	100	65	44	318.8	64.7
CU	CENTRAL	Manto 2	0.12	0.31	Spherical	25	40	20	43.69	318.76	160.91	0.03	Spherical	200	100	40	44	318.8	160.9
CU	CENTRAL	Manto 3	0.09	0.18	Spherical	50	50	25	43.69	318.76	160.01	0.02	Spherical	180	400	40	44	318.8	160.0
CU	CENTRAL	Manto 4	0.04	0.07	Spherical	50	50	20	43.69	318.76	119.75	0.02	Spherical	300	180	25	44	318.8	119.7
CU	CENTRAL	Manto 8	0.06	0.11	Spherical	20	20	15	43.69	318.76	155.00	0.01	Spherical	60	60	30	44	318.8	155.0
CU	CENTRAL	Manto A	0.18	0.23	Spherical	100	40	20	43.10	315.12	(309.91)	0.13	Spherical	225	100	45	43	315.1	(309.9)
CU	CENTRAL	Manto B	0.03	0.10	Spherical	100	120	15	43.69	318.76	(231.65)	0.03	Spherical	225	300	30	44	318.8	(231.6)
CU	CENTRAL	Manto C	0.04	0.17	Spherical	100	50	35	43.69	318.76	157.16	0.03	Spherical	300	180	70	44	318.8	157.2
CU	GALLO GALLINA	DISS	0.00	0.08	Spherical	66	21	6	58.41	295.72	(266.10)	0.00	Spherical	100	80	15	58	295.7	(266.1)
CU	GALLO GALLINA	G1, G1-2, G2, G3	0.01	0.16	Spherical	25	15	6	72.00	329.00	37.22	0.02	Spherical	100	80	15	72	329.0	37.2
CU	GALLO GALLINA	GGM1, GGM2, GGM3	0.04	0.15	Spherical	35	20	5	45.00	300.00	39.17	0.04	Spherical	70	130	8	45	300.0	39.2
PB	CENTRAL	Manto 1	1.68	11.52	Spherical	45	35	10	43.69	318.77	61.69	1.79	Spherical	195	185	35	44	318.8	61.7
PB	CENTRAL	Manto 2	0.01	0.01	Spherical	25	45	25	43.69	318.76	124.40	0.00	Spherical	150	200	55	44	318.8	124.4
PB	CENTRAL	Manto 3	0.00	0.01	Spherical	20	30	25	43.69	318.76	159.54	0.00	Spherical	150	200	40	44	318.8	159.5
PB	CENTRAL	Manto 4	0.01	0.02	Spherical	40	40	15	43.69	318.76	22.71	0.00	Spherical	150	200	40	44	318.8	22.7
PB	CENTRAL	Manto 8	0.00	0.01	Spherical	30	20	10	43.69	318.76	110.45	0.00	Spherical	140	100	50	44	318.8	110.5
PB	CENTRAL	Manto A	0.01	0.02	Spherical	70	100	15	43.10	315.12	113.78	0.01	Spherical	300	400	35	43	315.1	113.8
PB	CENTRAL	Manto B	0.01	0.02	Spherical	35	70	20	43.69	318.76	141.81	0.01	Spherical	150	300	40	44	318.8	141.8
PB	CENTRAL	Manto C	0.01	0.02	Spherical	40	50	25	43.69	318.76	129.07	0.00	Spherical	150	200	40	44	318.8	129.1
PB	GALLO GALLINA	DISS	0.01	0.11	Spherical	56	18	7	58.41	295.72	92.52								
PB	GALLO GALLINA	G1, G1-2, G2, G3	0.35	0.66	Spherical	15	8	5	72.00	329.00	142.44	0.15	Spherical	60	25	6	72	329.0	142.4
PB	GALLO GALLINA	GGM1, GGM2, GGM3	0.00	0.03	Spherical	15	45	3	54.00	316.71	70.16	0.01	Spherical	60	200	7	54	316.7	70.2
ZN	CENTRAL	Manto 1	1.68	11.52	Spherical	45	35	10	43.69	318.77	61.69	1.79	Spherical	195	185	35	44	318.8	61.7
ZN	CENTRAL	Manto 2	0.94	3.80	Spherical	70	40	20	43.69	318.77	11.55	0.81	Spherical	250	100	25	44	318.8	11.6
ZN	CENTRAL	Manto 3	0.30	1.69	Spherical	50	150	60	43.69	318.77	144.41	0.12	Spherical	100	300	100	44	318.8	144.4
ZN	CENTRAL	Manto 4	1.30	4.77	Spherical	80	50	30	43.69	318.77	132.02	0.65	Spherical	300	200	50	44	318.8	132.0
ZN	CENTRAL	Manto 8	0.17	0.53	Spherical	30	40	25	43.69	318.77	142.13	0.04	Spherical	60	200	50	44	318.8	142.1
ZN	CENTRAL	Manto A	0.70	3.58	Spherical	100	75	15	43.10	315.12	91.00	0.41	Spherical	250	250	30	43	315.1	91.0
ZN	CENTRAL	Manto B	1.31	4.12	Spherical	40	40	10	43.69	318.77	77.75	0.86	Spherical	140	150	20	44	318.8	77.7
ZN	CENTRAL	Manto C	0.87	5.99	Spherical	50	50	30	43.69	318.77	81.48	0.73	Spherical	300	200	50	44	318.8	81.5
ZN	GALLO GALLINA	DISS	0.01	0.15	Spherical	45	25	5	58.41	295.72	52.67	0.14	Spherical	90	50	10	58	295.7	52.7
ZN	GALLO GALLINA	G1, G1-2, G2, G3	0.64	1.23	Spherical	25	25	5	72.00	329.00	110.81	0.21	Spherical	60	140	10	72	329.0	110.8
ZN	GALLO GALLINA	GGM1, GGM2, GGM3	0.18	0.60	Spherical	15	15	7	54.00	316.71	157.97	0.07	Spherical	45	100	10	54	316.7	158.0

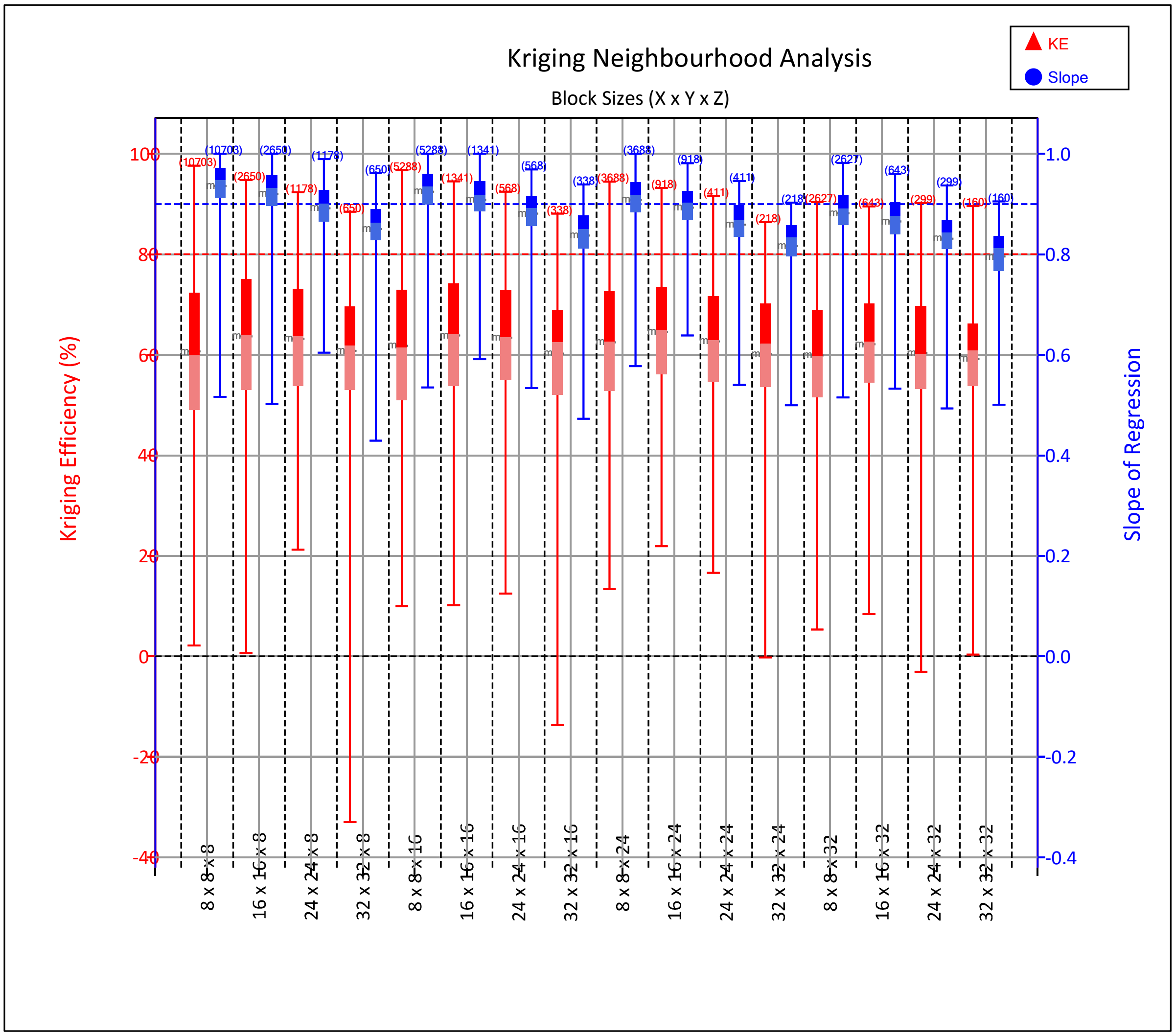
Source: SRK, 2023

Figure 11-8: Table of Summary of Variogram Models

11.7 Block Model

Two block models were prepared for Gallo Gallina and the Central zone of San Martin. Leapfrog Edge was used to construct them and to estimate silver, lead, zinc, and copper into blocks of each domain that were coded accordingly.

Kriging neighborhood analysis (KNA) was completed to optimize the size of the parent blocks, minimum and maximum samples for estimation, ellipsoid size, and discretization, using Snowden Supervisor software. The Manto A, that has a high number of intercepts, were used, and the results are used in Gallo Gallina and Central zones. Figure 11-9 presents the results of the KNA for the block size, where 8mx8mx8m that is consistent with the mining unit size at San Martin shows appropriate kriging efficiency and slope of regression.



Source: IMMSA, 2023

Figure 11-9: Block Size KNA Analysis Result

Parent blocks of 8 m x 8 m x 8 m were used, based on the KNA and to reflect the size variation for any underground smallest mining units (SMU). The sub-blocks accurately reflect the limits of the mineralized solids/domains. Models extends and Parent and sub-blocking characteristics are presented in Table 11-4.

Table 11-4: Block Models Origin, Extents, and Block Sizes

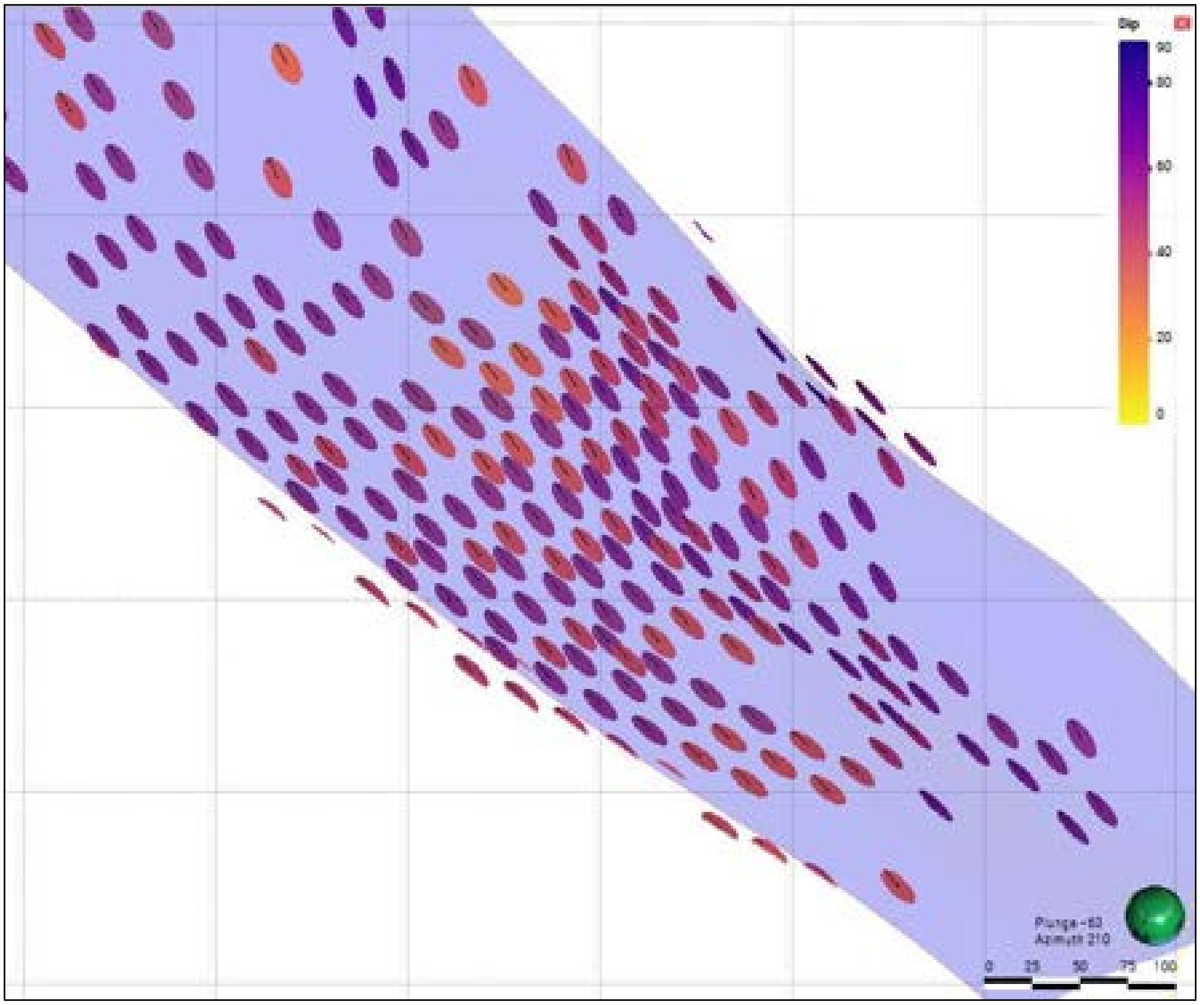
	Easing (X)	Northing (Y)	Elevation (Z)
Central Zone			
Base Point	647,750 m	2,617,650 m	2,590 m
Boundary size	640 m	736 m	456 m
Parent Block Dimensions	8 m	8 m	8 m
Sub-Cell Size	1 m	1 m	1 m
Rotation: Azimuth, Dip	329°, 72°		
Gallo Gallina			
Base Point	627,020 m	2,616,400 m	3,130 m
Extension	1,584 m	2,104 m	592 m
Parent Block Dimensions	8 m	8 m	8 m
Sub-Cell Size	1 m	1 m	1 m
Rotation: Azimuth, Dip	318°,43°		

Source: SRK, 2023

11.8 Grade Estimation

The estimation of silver, zinc, copper, and lead was completed using Ordinary Kriging and Inverse Distance (ID2) methodologies. A combination of OK in the first search and ID2 in second and third estimation search was used in all the domains and grades. Variable orientation of search ellipses was used in all the domains to follow the changes of orientation of the mineralized structures, that was implemented using the reference surfaces of each domain inside the estimation tool of Leapfrog (Figure 11-10). Using a variable orientation makes it possible to re-orient the search and variogram according to local characteristics, which results in improved local value estimates. The

Table 11-5 presents the search parameters used for estimation in all domains.



Source: IMMSA, 2023

Figure 11-10: Example of Variable Orientations – Manto A Reference Surface

Table 11-5: Search Parameters

Domain	Ellipsoid Ranges			Variable Orientation	Number of Samples		Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)		Minimum	Maximum	Max Samples per Hole
All Domains 1st Pass	30	30	15	yes	8	14	4
All Domains 2nd Pass	60	60	30	yes	8	14	4
All Domains 3rd Pass	120	120	65	yes	2	14	4

Source: SRK, 2023

11.9 Density

The density used by San Martín is 3.3 t/m^3. This number was provided by the mine. The plant and the mine have been using this density value for decades which provides confidence. The determination method was, not clear and documentation related to this is not available.

A level of risk exists when using unsupported values in the estimation process, and as the density value is directly applied to the calculated volumes to determine the tonnage, the risk has a direct link to the total tonnage declared in the current mineral resource.

The density being used is consistent with the average density (which has been used by the mine through its operation), which provides a reasonable level of confidence that the value is not materially wrong; however, SRK recommends continue the testwork, not only on the exploration core drilling, but as well use the core obtained by the Geology Mine department to confirm the current density values and to assess any potential variability. Different rock types and the characteristics of the mineralization have variable densities, which is an aspect to investigate to obtain a more robust and density calculation.

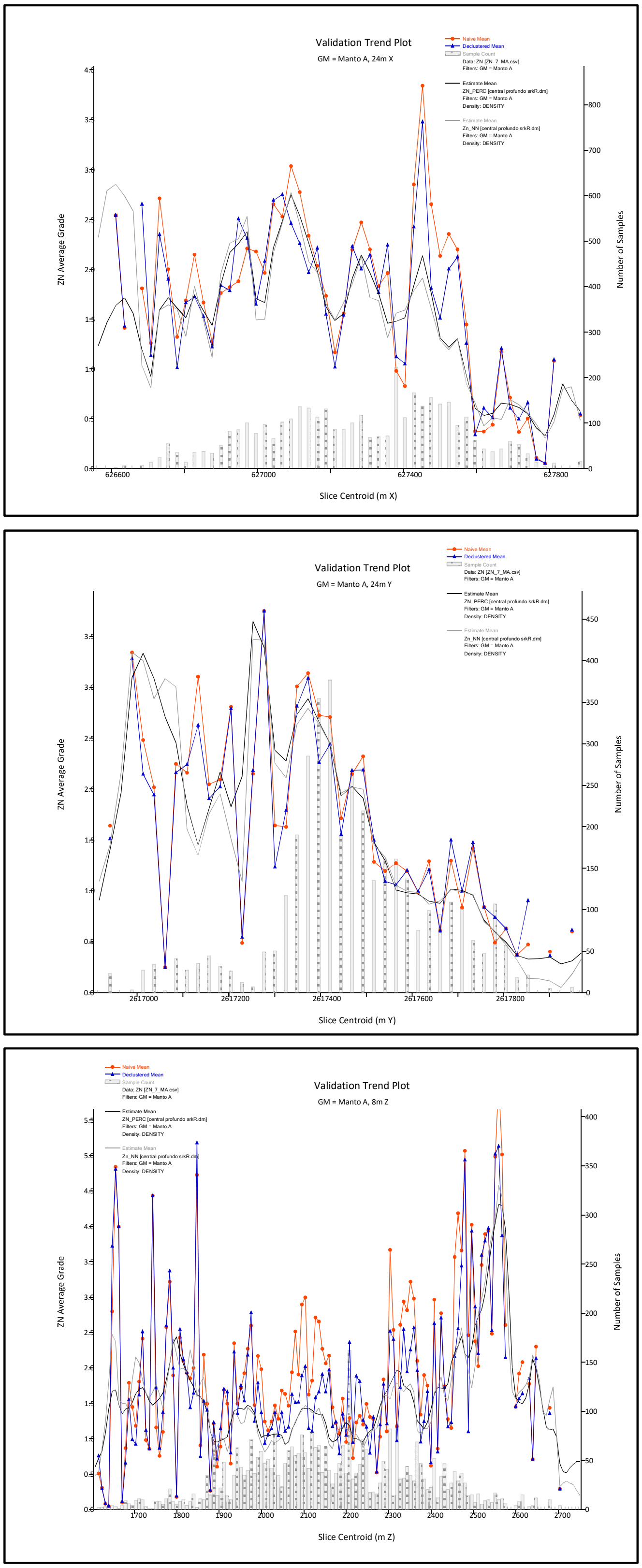
SRK has reviewed the available information and has assigned the density in the final block model by assigning a default value to all blocks of 3.3 t/m^3.

11.10 Model Validation

The visual validation was completed in three ways, visual validation, comparative statistics, and swath plots. The statistics of the estimated elements using OK, ID, NN algorithms were compared, and including the declustered composites.

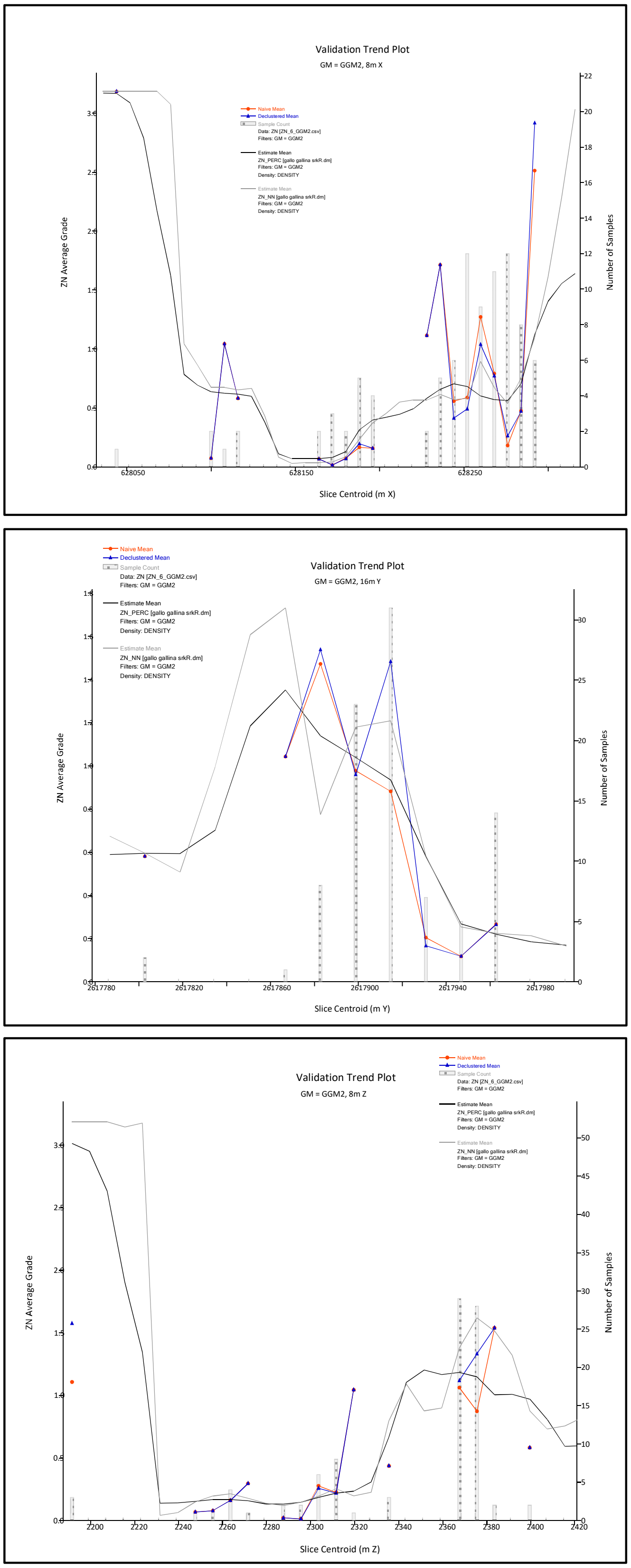
Table 11-6 presents the comparative statistics for all elements in Central and Gallo Gallina Zones. In general, the differences between grade interpolates with OK/ID2 and the NN estimates are considered reasonable, and some differences are observed in some few mineralized structures, which were reviewed using the other validation methods.

Figure 11-11 and Figure 11-12 present examples of swath plots prepared for the validation of domains Manto and GGM2, which shows the curves of the estimated ZN grades in comparison to the input values (raw and declustered)Cp, in the three dimensions. The curves have good correlation in the three dimensions, and some differences in zones of low quantity of data, which is considered reasonable. Figure 11-13 presents the example of the visual validation completed in long sections of Manto A and Manto 2, where the resulting block estimates reflect appropriately the composite grades.



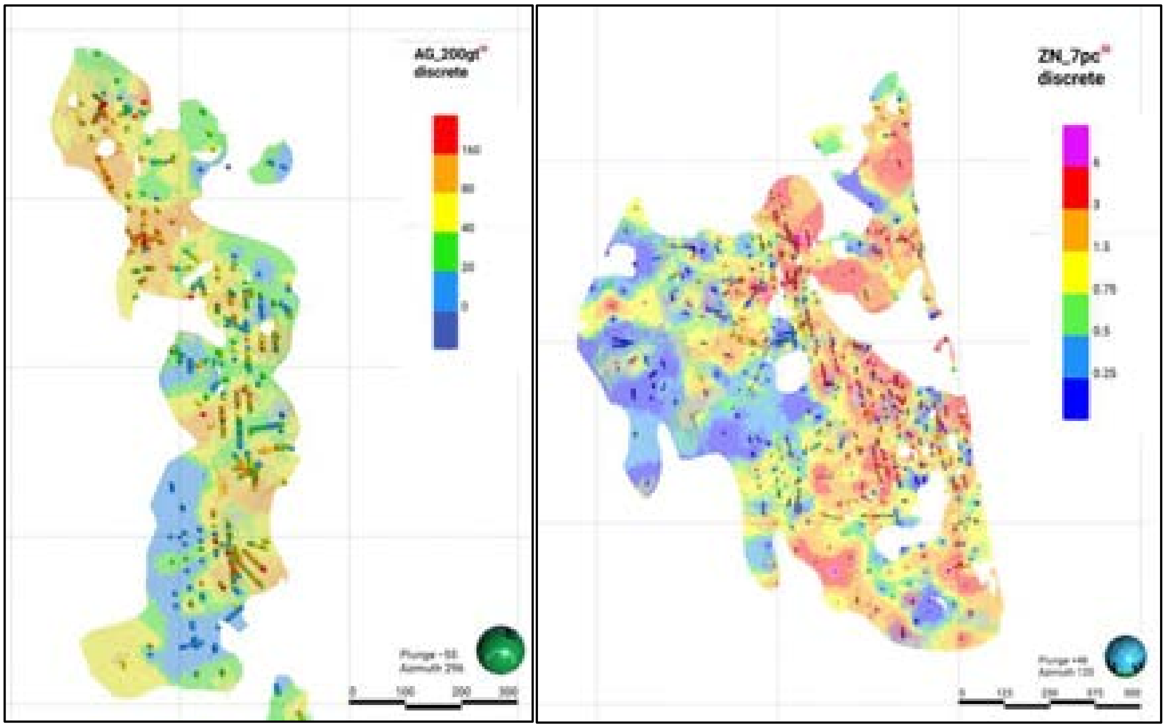
Source: SRK, 2023

Figure 11-11: Example of Swath Plots – Manto A, Central Zone



Source: SRK, 2023

Figure 11-12: Example of Swath Plots – GGM2, Gallo Gallina Zone



Source: SRK, 2023

Figure 11-13: Example of Visual Validation – Manto A and Manto 2- Central Zone

Table 11-6: Comparative Statistics – OK/ID2 Grade Estimates vs. NN Estimates

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
Central Zone								
Manto 1	AG	4,987,551	62.7	33.18	0.53	1,101.1	0.12	199.0
Manto 1	AG_NN	4,990,578	60.4	55.39	0.92	3,068.6	0.00	200.0
Difference (OK/ID Est. vs. NN Est.)			3.8%					
Manto 1	CU	4,987,551	0.669	0.56	0.83	0.31	-	2.500
Manto 1	CU_NN	4,990,580	0.635	0.80	1.26	0.64	0.001	2.500
Difference (OK/ID Est. vs. NN Est.)			5.4%					
Manto 1	PB	4,981,015	0.092	0.11	1.17	0.01	0.000	0.978
Manto 1	PB_NN	4,990,580	0.094	0.19	2.02	0.04	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			-1.9%					
Manto 1	ZN	4,987,551	2.071	1.97	0.95	3.88	-	9.000
Manto 1	ZN_NN	4,990,580	2.044	2.69	1.32	7.25	0.001	9.000
Difference (OK/ID Est. vs. NN Est.)			1.3%					
Manto 2	AG	3,031,235	61.4	37.05	0.60	1,372.49	0.14	199.6
Manto 2	AG_NN	3,031,235	60.0	53.88	0.90	2,903.32	0.00	200.0
Difference (OK/ID Est. vs. NN Est.)			2.3%					
Manto 2	CU	3,031,235	0.545	0.48	0.88	0.23	0.001	2.495
Manto 2	CU_NN	3,031,235	0.558	0.69	1.24	0.48	0.001	2.500
Difference (OK/ID Est. vs. NN Est.)			-2.4%					
Manto 2	PB	3,029,529	0.075	0.11	1.52	0.01	0.000	1.108
Manto 2	PB_NN	3,031,235	0.074	0.18	2.48	0.03	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			2.3%					
Manto 2	ZN	3,031,235	1.665	1.83	1.10	3.34	-	9.000
Manto 2	ZN_NN	3,031,235	1.657	2.36	1.42	5.57	0.001	9.000
Difference (OK/ID Est. vs. NN Est.)			0.5%					
Manto 3	AG	2,874,858	65.1	37.79	0.58	1,428.42	0.21	199.4
Manto 3	AG_NN	2,875,593	64.9	55.17	0.85	3,043.35	0.00	200.0
Difference (OK/ID Est. vs. NN Est.)			0.3%					
Manto 3	CU	2,874,858	0.473	0.37	0.77	0.13	0.002	1.969
Manto 3	CU_NN	2,875,593	0.456	0.53	1.16	0.28	0.001	2.000
Difference (OK/ID Est. vs. NN Est.)			3.7%					
Manto 3	PB	2,871,026	0.065	0.08	1.24	0.01	0.000	0.803
Manto 3	PB_NN	2,875,593	0.065	0.13	1.98	0.02	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			-0.4%					
Manto 3	ZN	2,874,858	1.022	1.00	0.97	0.99	-	5.000
Manto 3	ZN_NN	2,875,593	1.033	1.41	1.36	1.98	0.001	5.000
Difference (OK/ID Est. vs. NN Est.)			-1.1%					

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
Manto 4	AG	6,356,776	49.8	28.19	0.57	794.63	0.02	146.4
Manto 4	AG_NN	6,361,378	49.5	45.60	0.92	2,079.72	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			0.7%					
Manto 4	CU	6,356,776	0.257	0.22	0.85	0.05	-	1.494
Manto 4	CU_NN	6,361,378	0.267	0.37	1.38	0.14	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			-4.0%					
Manto 4	PB	6,364,605	0.191	0.21	1.09	0.04	0.001	1.000
Manto 4	PB_NN	6,361,378	0.194	0.30	1.56	0.09	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			-1.6%					
Manto 4	ZN	6,356,776	2.094	1.63	0.78	2.66	-	9.000
Manto 4	ZN_NN	6,361,378	2.125	2.50	1.18	6.27	0.001	9.000
Difference (OK/ID Est. vs. NN Est.)			-1.4%					
Manto 5	AG	3,809,268	48.6	25.42	0.52	646.07	0.21	147.5
Manto 5	AG_NN	3,820,826	46.7	37.96	0.81	1,440.88	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			4.1%					
Manto 5	CU	3,809,268	0.276	0.24	0.86	0.06	0.002	1.432
Manto 5	CU_NN	3,819,422	0.248	0.32	1.30	0.10	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			11.4%					
Manto 5	PB	3,810,123	0.159	0.20	1.26	0.04	0.000	1.000
Manto 5	PB_NN	3,819,422	0.164	0.27	1.66	0.07	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			-3.0%					
Manto 5	ZN	3,809,268	1.444	1.25	0.87	1.56	0.006	6.968
Manto 5	ZN_NN	3,819,422	1.389	1.70	1.23	2.91	0.001	7.000
Difference (OK/ID Est. vs. NN Est.)			4.0%					
Manto 6	AG	261,258	41.3	18.55	0.45	344.26	2.45	130.6
Manto 6	AG_NN	261,258	40.5	31.04	0.77	963.57	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			2.0%					
Manto 6	CU	261,258	0.177	0.18	1.02	0.03	0.007	0.938
Manto 6	CU_NN	261,258	0.181	0.27	1.48	0.07	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			-2.5%					
Manto 6	PB	260,548	0.244	0.24	0.97	0.06	0.002	0.994
Manto 6	PB_NN	261,258	0.239	0.28	1.17	0.08	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			2.0%					
Manto 6	ZN	261,258	0.769	0.56	0.73	0.31	0.030	4.051
Manto 6	ZN_NN	261,258	0.787	0.77	0.98	0.60	0.001	4.353
Difference (OK/ID Est. vs. NN Est.)			-2.3%					
Manto 7	AG	611,769	34.8	24.11	0.69	581.21	4.07	146.9
Manto 7	AG_NN	611,769	40.6	40.20	0.99	1,616.06	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			-14.1%					

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
Manto 7	CU	611,769	0.166	0.10	0.62	0.01	0.011	0.988
Manto 7	CU_NN	611,769	0.211	0.22	1.05	0.05	0.001	1.132
Difference (OK/ID Est. vs. NN Est.)			-21.1%					
Manto 7	PB	611,672	0.128	0.20	1.54	0.04	0.003	0.922
Manto 7	PB_NN	611,769	0.131	0.28	2.10	0.08	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			-2.3%					
Manto 7	ZN	611,769	0.778	0.39	0.51	0.15	0.030	3.854
Manto 7	ZN_NN	611,769	0.715	0.73	1.02	0.53	0.001	5.596
Difference (OK/ID Est. vs. NN Est.)			8.8%					
Manto 8	AG	460,071	53.0	27.05	0.51	731.60	0.09	161.5
Manto 8	AG_NN	475,572	48.5	42.89	0.88	1,839.51	0.00	200.0
Difference (OK/ID Est. vs. NN Est.)			9.2%					
Manto 8	CU	460,071	0.357	0.22	0.61	0.05	0.001	1.347
Manto 8	CU_NN	475,572	0.322	0.32	1.00	0.10	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			10.9%					
Manto 8	PB	459,343	0.068	0.07	1.10	0.01	0.001	0.747
Manto 8	PB_NN	475,572	0.053	0.13	2.50	0.02	0.001	1.000
Difference (OK/ID Est. vs. NN Est.)			28.2%					
Manto 8	ZN	460,071	0.469	0.69	1.47	0.48	0.001	3.781
Manto 8	ZN_NN	475,572	0.397	0.89	2.24	0.79	0.001	6.182
Difference (OK/ID Est. vs. NN Est.)			18.1%					
Manto A	AG	13,998,174	49.4	28.41	0.57	807.41	0.00	150.0
Manto A	AG_NN	13,999,147	49.2	43.86	0.89	1,923.66	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			0.5%					
Manto A	CU	13,998,174	0.282	0.29	1.03	0.08	0.001	1.500
Manto A	CU_NN	13,999,147	0.281	0.41	1.45	0.17	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			0.5%					
Manto A	PB	14,015,687	0.284	0.28	1.00	0.08	0.000	1.502
Manto A	PB_NN	13,999,147	0.274	0.40	1.48	0.16	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			3.6%					
Manto A	ZN	13,998,174	1.423	1.40	0.98	1.96	-	7.176
Manto A	ZN_NN	13,999,147	1.397	1.90	1.36	3.60	0.001	7.000
Difference (OK/ID Est. vs. NN Est.)			1.9%					
Manto B	AG	10,229,166	52.5	32.95	0.63	1,085.67	0.01	199.2
Manto B	AG_NN	10,230,350	49.9	48.25	0.97	2,328.53	0.00	200.0
Difference (OK/ID Est. vs. NN Est.)			5.1%					
Manto B	CU	10,229,166	0.267	0.28	1.04	0.08	0.001	1.498
Manto B	CU_NN	10,230,350	0.261	0.36	1.39	0.13	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			2.4%					

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
Manto B	PB	10,201,140	0.330	0.33	1.00	0.11	0.000	1.541
Manto B	PB_NN	10,230,350	0.316	0.44	1.40	0.20	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			4.6%					
Manto B	ZN	10,229,166	1.909	1.63	0.85	2.64	-	8.955
Manto B	ZN_NN	10,230,350	1.813	2.25	1.24	5.05	0.001	9.000
Difference (OK/ID Est. vs. NN Est.)			5.3%					
Manto C	AG	7,179,142	52.3	30.36	0.58	921.64	0.00	149.9
Manto C	AG_NN	7,180,658	50.9	45.29	0.89	2,051.12	0.00	150.0
Difference (OK/ID Est. vs. NN Est.)			2.9%					
Manto C	CU	7,179,142	0.312	0.31	1.00	0.10	0.001	1.995
Manto C	CU_NN	7,180,658	0.309	0.44	1.42	0.19	0.001	2.000
Difference (OK/ID Est. vs. NN Est.)			1.0%					
Manto C	PB	7,173,620	0.310	0.29	0.93	0.08	0.000	1.526
Manto C	PB_NN	7,180,658	0.292	0.42	1.44	0.18	0.001	1.500
Difference (OK/ID Est. vs. NN Est.)			6.4%					
Manto C	ZN	7,179,142	2.539	1.94	0.77	3.78	0.001	8.914
Manto C	ZN_NN	7,180,658	2.403	2.64	1.10	6.95	0.001	9.000
Difference (OK/ID Est. vs. NN Est.)			5.7%					
Gallo Gallina								
DISS	AG	1,008,720	74.1	29.38	0.40	863.33	14.04	205.8
DISS	AG_NN	1,008,720	76.5	49.49	0.65	2,449.69	8.40	261.3
Difference (OK/ID Est. vs. NN Est.)			-3.2%					
DISS	CU	1,008,720	0.259	0.27	1.03	0.07	0.003	1.379
DISS	CU_NN	1,008,720	0.278	0.34	1.23	0.12	0.001	1.491
Difference (OK/ID Est. vs. NN Est.)			-6.8%					
DISS	PB	1,008,720	0.213	0.19	0.91	0.04	0.002	2.109
DISS	PB_NN	1,008,720	0.212	0.35	1.65	0.12	0.001	2.881
Difference (OK/ID Est. vs. NN Est.)			0.8%					
DISS	ZN	1,008,720	0.218	0.24	1.09	0.06	0.008	3.125
DISS	ZN_NN	1,008,720	0.200	0.39	1.93	0.15	0.002	4.824
Difference (OK/ID Est. vs. NN Est.)			8.9%					
G1	AG	596,755	71.6	40.41	0.56	1,632.66	5.59	196.6
G1	AG_NN	596,755	75.1	63.62	0.85	4,046.94	3.77	255.5
Difference (OK/ID Est. vs. NN Est.)			-4.7%					
G1	CU	596,755	0.049	0.07	1.36	0.00	0.010	0.706
G1	CU_NN	596,755	0.059	0.16	2.78	0.03	0.010	1.350
Difference (OK/ID Est. vs. NN Est.)			-16.9%					
G1	PB	596,755	0.325	0.28	0.86	0.08	0.013	2.475
G1	PB_NN	596,755	0.355	0.51	1.42	0.26	0.010	2.669
Difference (OK/ID Est. vs. NN Est.)			-8.6%					

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
G1	ZN	596,755	0.456	0.57	1.25	0.33	0.021	3.834
G1	ZN_NN	596,755	0.477	0.84	1.77	0.71	0.008	4.704
Difference (OK/ID Est. vs. NN Est.)			-4.3%					
G1-2	AG	14,293	90.0	15.22	0.17	231.62	45.45	146.6
G1-2	AG_NN	14,293	83.9	56.92	0.68	3,239.63	3.19	296.0
Difference (OK/ID Est. vs. NN Est.)			7.3%					
G1-2	CU	14,293	0.115	0.06	0.51	0.00	0.038	0.398
G1-2	CU_NN	14,293	0.081	0.08	0.94	0.01	0.001	0.587
Difference (OK/ID Est. vs. NN Est.)			41.6%					
G1-2	PB	14,293	1.124	0.20	0.18	0.04	0.688	1.541
G1-2	PB_NN	14,293	1.015	0.63	0.62	0.39	0.028	3.000
Difference (OK/ID Est. vs. NN Est.)			10.8%					
G1-2	ZN	14,293	1.625	0.27	0.16	0.07	0.933	2.456
G1-2	ZN_NN	14,293	1.744	1.20	0.69	1.45	0.029	4.994
Difference (OK/ID Est. vs. NN Est.)			-6.8%					
G2	AG	242,426	70.1	32.32	0.46	1,044.46	8.47	199.0
G2	AG_NN	242,426	70.1	64.20	0.92	4,121.70	0.00	296.0
Difference (OK/ID Est. vs. NN Est.)			-0.1%					
G2	CU	242,426	0.166	0.10	0.60	0.01	0.016	0.541
G2	CU_NN	242,426	0.155	0.17	1.08	0.03	0.001	0.974
Difference (OK/ID Est. vs. NN Est.)			7.3%					
G2	PB	242,426	0.754	0.54	0.71	0.29	0.011	2.278
G2	PB_NN	242,426	0.782	0.88	1.13	0.78	0.001	3.000
Difference (OK/ID Est. vs. NN Est.)			-3.7%					
G2	ZN	242,426	0.989	0.65	0.66	0.43	0.049	3.253
G2	ZN_NN	242,426	1.067	1.33	1.24	1.76	0.001	5.403
Difference (OK/ID Est. vs. NN Est.)			-7.3%					
G3	AG	137,531	64.9	33.96	0.52	1,153.19	7.58	160.1
G3	AG_NN	137,531	64.9	53.80	0.83	2,893.96	4.53	233.0
Difference (OK/ID Est. vs. NN Est.)			0.0%					
G3	CU	137,531	0.152	0.10	0.67	0.01	0.014	0.639
G3	CU_NN	137,531	0.158	0.18	1.11	0.03	0.011	0.744
Difference (OK/ID Est. vs. NN Est.)			-3.6%					
G3	PB	137,531	0.721	0.46	0.64	0.21	0.086	1.815
G3	PB_NN	137,531	0.717	0.68	0.95	0.47	0.031	2.580
Difference (OK/ID Est. vs. NN Est.)			0.5%					
G3	ZN	137,531	0.916	0.61	0.67	0.37	0.032	3.535
G3	ZN_NN	137,531	0.717	0.68	0.95	0.47	0.031	2.580
Difference (OK/ID Est. vs. NN Est.)			-27.8%					

Name	Variable	Volume	Mean	Standard Deviation	Coefficient of Variation	Variance	Minimum	Maximum
GGM_1	AG	442,399	53.6	21.04	0.39	442.87	3.95	121.5
GGM_1	AG_NN	442,399	53.8	38.61	0.72	1,490.63	2.00	154.7
Difference (OK/ID Est. vs. NN Est.)			-0.3%					
GGM_1	CU	442,399	0.258	0.24	0.91	0.06	0.013	1.631
GGM_1	CU_NN	442,399	0.215	0.39	1.80	0.15	0.010	2.170
Difference (OK/ID Est. vs. NN Est.)			20.1%					
GGM_1	PB	442,399	0.158	0.10	0.62	0.01	0.012	0.534
GGM_1	PB_NN	442,399	0.163	0.16	0.95	0.02	0.003	1.351
Difference (OK/ID Est. vs. NN Est.)			-3.1%					
GGM_1	ZN	442,399	0.675	0.60	0.88	0.36	0.043	5.695
GGM_1	ZN_NN	442,399	0.624	0.97	1.55	0.94	0.008	6.000
Difference (OK/ID Est. vs. NN Est.)			8.2%					
GGM2	AG	288,353	71.5	29.85	0.42	891.06	5.12	179.5
GGM2	AG_NN	288,353	74.6	53.76	0.72	2,890.31	5.00	200.0
Difference (OK/ID Est. vs. NN Est.)			-4.1%					
GGM2	CU	288,353	0.652	0.40	0.62	0.16	0.013	2.230
GGM2	CU_NN	288,353	0.659	0.68	1.04	0.47	0.010	2.820
Difference (OK/ID Est. vs. NN Est.)			-1.1%					
GGM2	PB	288,353	0.148	0.29	1.95	0.08	0.010	1.559
GGM2	PB_NN	288,353	0.168	0.36	2.17	0.13	0.002	1.561
Difference (OK/ID Est. vs. NN Est.)			-12.0%					
GGM2	ZN	288,353	0.545	0.58	1.06	0.34	0.016	3.181
GGM2	ZN_NN	288,353	0.611	0.90	1.47	0.80	0.001	5.177
Difference (OK/ID Est. vs. NN Est.)			-10.8%					
GMM3	AG	270,271	78.5	29.90	0.38	893.95	15.60	169.9
GMM3	AG_NN	270,271	80.8	46.11	0.57	2,125.78	5.03	200.0
Difference (OK/ID Est. vs. NN Est.)			-2.8%					
GMM3	CU	270,271	0.415	0.37	0.88	0.13	0.035	1.693
GMM3	CU_NN	270,271	0.397	0.52	1.32	0.27	0.025	2.249
Difference (OK/ID Est. vs. NN Est.)			4.5%					
GMM3	PB	270,271	0.275	0.30	1.09	0.09	0.010	0.920
GMM3	PB_NN	270,271	0.274	0.35	1.28	0.12	0.003	0.964
Difference (OK/ID Est. vs. NN Est.)			0.4%					
GMM3	ZN	270,271	0.765	0.62	0.81	0.38	0.025	3.984
GMM3	ZN_NN	270,271	0.696	0.81	1.16	0.65	0.010	6.000
Difference (OK/ID Est. vs. NN Est.)			9.9%					

Source: SRK, 2023

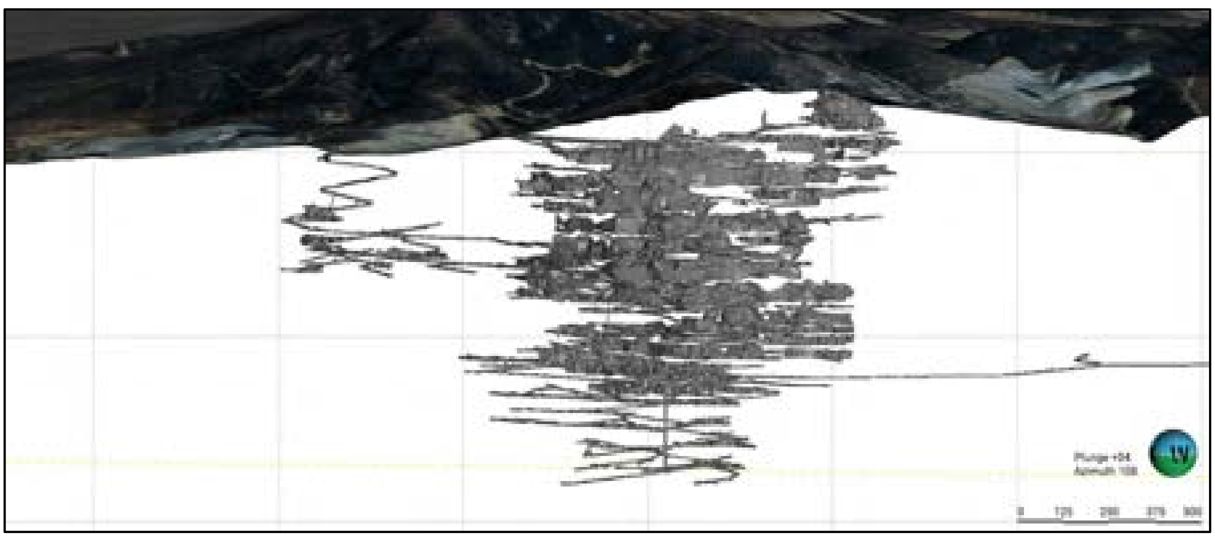
11.11 Depletion

IMMSA used the updated underground surveying information produced by the Mine Department, consisting in solids that were previously validated by the mining team. The solids of the underground workings were used in Leapfrog to flag the block model and identify the mined material from San Martin (Figure 11-14).

At the operation the responsibility of the engineering department, with the purpose of this is to keep updated the topography of the mining works (digitally, and physically in plans). The current system involves capture of survey points directly into a digital copy of the underground workings, which is validated in the field by the survey. The survey data points are used to update the AutoCAD definition of the depleted areas.

The historical information is incomplete in zones of the upper portion of the Central zone. IMMSA considers that the historical surveying of underground workings and exploited zones is an aspect that introduces some level inaccuracy when stablishing the volumes has considered that that part of the resource can't be considered Indicated or Measured and used the limit of 2,135 masl as the lower limit of this zone. Future verification work is required to define appropriately the historically mined areas.

The QP comments that the final depletion shapes have been surveyed at the end of October 2023 with the additional depletion based for November and December based on the planned depletions. It is the QP's opinion that this will not have a material impact on the final Mineral Resources.



Source: IMMSA, 2023

Figure 11-14: 3D View of the Surveyed Underground Works

11.12 Resource Classification and Criteria

SRK has classified the mineral resources in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K), and in a manner consistent with industry guidelines and definitions as defined by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO). The mineral resources are classified as Indicated and Inferred, according to the following definitions and criteria:

The mineral resources are classified as Indicated and Inferred, according to the following definitions and criteria:

11.12.1 Measured Resources

No Measured resources are stated, as insufficient overall confidence exists to *confirm* geological and grade continuity between points of observation, to the level needed to support detailed mine planning and final evaluation studies. Other limitations in the opinion of the QP are a lack of density measurements and insufficient QA/QC protocols in the mine samplings protocols.

11.12.2 Indicated Resources

The definition of the Indicated resources has changed in this new resource estimation. The criteria now is based on the geostatistical analysis and the historical knowledge of the San Martin deposit.

The declaration of Indicated Mineral Resources is based on the density data, and drill spacing appropriate to grade variance. Drill spacing varies from 30 to 100 m and is variable for some of the mineralized structures. Based on variography, the variation of the grades shows ranges between 80 and 120 m. Variability of zinc over short distances is based on the rock sample data, which involve certain level of uncertainty due to the quality of the information (No QA/QC, data quality and deficient historical sampling methods), and variography shows variable nugget effect for the different mineralized structures and elements.

The criteria to define the Indicated material is as follows:

- Blocks informed by at least two drillholes (rock and channel sampling)
- Zones with a drill spacing of 40 m.
- Continuous delineated zones (defined by hand) that accomplish the previous conditions.

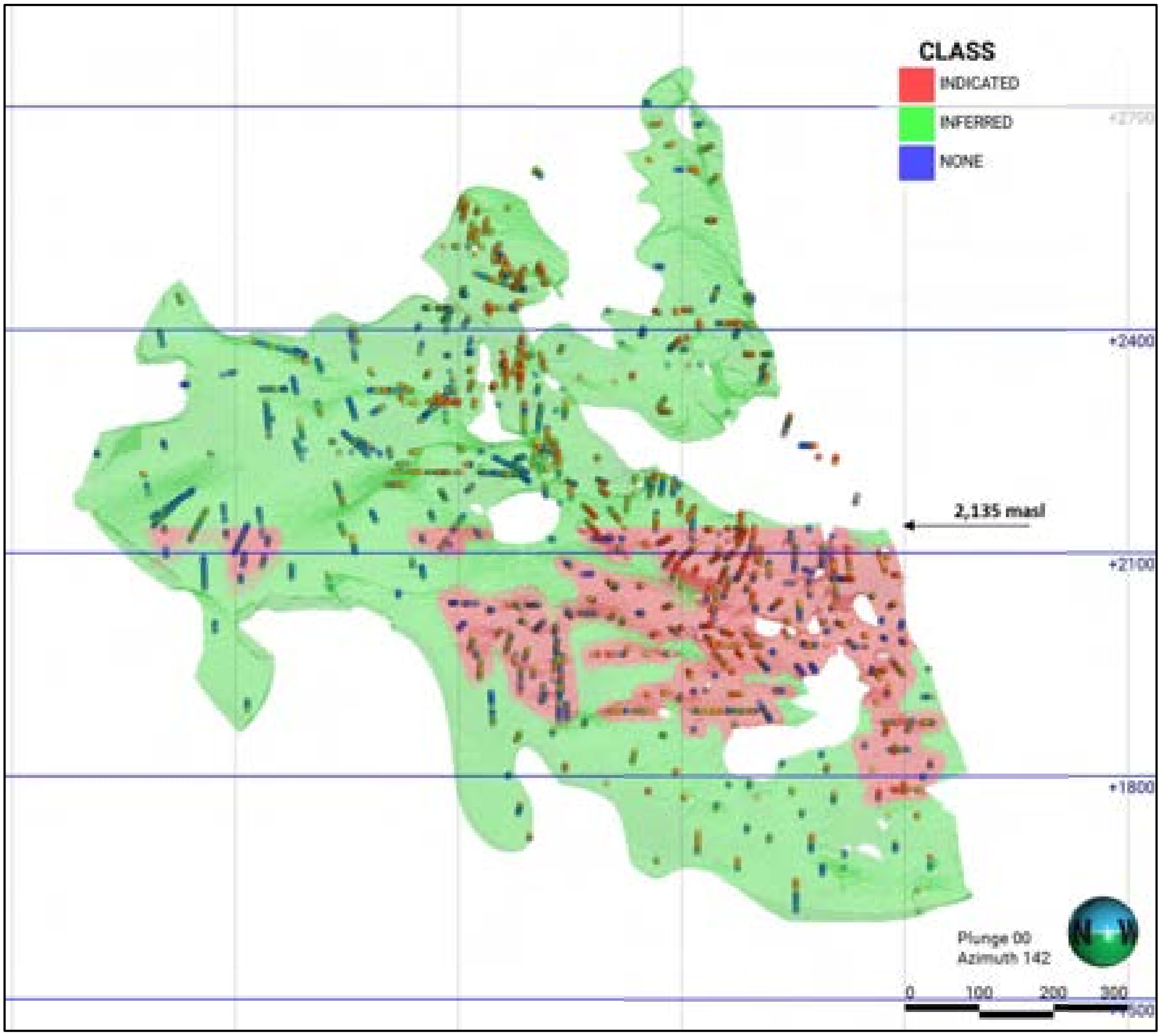
11.12.3 Inferred Resources

The Inferred resources can be established in areas with sufficient geological confidence, and the following requirements are met:

- Material located 80 m of the closest single hole in each mineralized structure
- Material with reasonable geological continuity of the mineralized structures interpreted by IMMSA
- Material located above the 2,135 masl in the Central zone accomplishing the previous conditions

Due to the lack of QA/QC protocols for the historical drilling and channel sampling, deficiencies in the channel sampling procedures and the lack of measurements of downhole surveys, SRK stablished that there are not measured resources in San Martín.

Figure 11-15 shows an example of the resource blocks in Manto A (Long Section).



Source: IMMSA, 2023

Figure 11-15: Long Section of Manto A – Block Model Classification

11.13 Uncertainty

Indicated Resources: Is the opinion of SRK that the indicated resources are estimated based on adequate geological evidence and sampling. The distances of influence from underground sampling and distances between drilling which are the controlling aspects on the uncertainty. The criteria and uncertainty correspond to the Medium Degree of Uncertainty column in Table 11-7.

Inferred Resources. The inferred category is limited to the resources that are in areas where the quantity and grade are estimated based on limited sampling and moderated to limited geological evidence. This category is considered to have the highest levels of uncertainty, which corresponds to the High Degree of Uncertainty column in Table 11-7. These areas of the project represent the areas with the lowest drilling density and influence distances to channel sampling of up to 60 m. SRK considers these areas of the Mineral Resource will need additional drilling and underground workings prior to mining.

Table 11-7: Sources and Degree of Uncertainty

Source	Degree of Uncertainty		
	Low	Medium	High
Drilling	Recent drilling completed by the exploration team is fulfilling the industry standards. This drilling is focused in new areas discovered as extensions of the main deposit.	Protocols of historical drilling supporting mineral resources do not fulfill the industry standards. Including the lack of down hole deviation measurements.	
Sampling		Protocols of sampling don't fully fulfill the industry standards. Density of samples supporting the Mineral Resources is adequate.	
Geological Knowledge/Geological Model	There is an extensive knowledge of the geology and mineralization of the San Martín deposit. This aspect and the experience of the management team provides confidence to the geological assumptions during the geological interpretations.		
QA/QC	Sample preparation, chemical analysis and the QA/QC procedures implemented by the exploration team in the recent years meet the current industry standards. These works are focused in new areas in exploration.	Lower precision of historical data recognized. Drilling and channel sampling completed by the Mine Geology Department supporting the mineral resources have not been fully supported by a QA/QC protocol.	
Data Verification	The extensive historical production information and knowledge of the geology and mineralization. provides support to the historical data collected since the last century.	The lack of the core of historical drilling supporting the mineral resources limited the verification activities.	
Database	Original geology, structural and mineralization maps, drill core logging formats (including the assay results), interpretation plan and vertical sections supporting the Mineral Resources are stored in the operation in paper format and a small portion in digital format. Georeferenced data was digitalized in excel files and imported to Leapfrog for the geological model creation.	Most of the data supporting the mineral resources is stored in paper and the georeferenced data was digitalized in digital formats to support the new geological model and resource estimation. Local errors related to handwritten supporting data are expected.	
Bulk Density		A unique value is used for all the rock types and doesn't consider the mineralization changes. This introduces local inaccuracies. Plant and mine have been using this value for decades which provides confidence to the density value used but don't consider the changes in lithology and mineralization.	
Variography	Variography analysis was completed using the digitalized data of rock and drilling data and continuity assumptions of mineralization have been based on this analysis and the extensive geological knowledge of the deposit.		
Grade Estimation		Grades and volume calculations are based on historical data digitalized in digital format, providing some inaccuracy. Part of the calculations were completed using digitalized handmade drawings which introduce inaccuracies.	
Prices,* NSR Values	Prices and costs based on Sa Martín mining and production information (not exceeding 12-month averages) with 15% as premium applied for resources.		
Drill and Sample Spacing		Minimum 2 drillholes within a drill spacing of 40 m.	Minimum of 1 hole at distance <80m
Depletion		The resource blocks are defined considering the updated topography of the mine. The adequacy and precision of the historical surveying information of the underground workings and exploited areas introduces some level of inaccuracy to the limits of the resource blocks.	
Criteria of Classification	Distances of influence of samples supported on the good knowledge of the geology and mineralization. These distances are considered reasonable which mitigates in some extend the risk associated to over-estimation of the continuity of mineralization.		

Source: SRK, 2022
*Changes in metal prices will likely result in significant changes in the values derived from the NSR equation. Currently the stopes defined only limited stopes fall below the operating costs of US$ 60.8/t.

11.14 Cut-Off Grades Estimates

Definitions for Mineral Resource categories used in this Technical Report Summary are those defined by SEC in S-K 1300. Mineral Resources are classified into Indicated, and Inferred categories. Mineral Resources are reported in total as currently no Mineral Reserves are reported in accordance with S-K 1300 requirements.

Geologists uses diamond drilling information, channel sampling and development information to identify mineralized areas. The mineralized areas are then divided into smaller blocks based on the vein. Information on each block, such as classification, dimensions, thickness, sampled grades are entered into an Excel spreadsheet to compile the final Mineral Resources.

The Mineral Resources for the San Martín are considered to be amenable to underground mining methodologies as has been established at the mine to date. Mining is completed using a mechanized Cut and Fill mining method with rockfill and with tailings (hydraulic) and dry tailings. Ramps and levels are developed to provide access to the ore. Attack ramps are then driven to access each cut. The ramps and level development are performed using jumbos. San Martín has been testing the long hole stopping mining methodology after the operation resuming. Processing is completed at the current operating plant using a floatation flow sheet into three separate concentrates (zinc concentrate, copper concentrate, and lead concentrate).

Given that process recoveries and costs in the resource model are grade and/or domain dependent, the resources are reported with respect to a block Net Smelter Return (NSR) value which is calculated on a stope block (panel) basis. The cut-off value used for the Resource estimate is based on an NSR value, in units of US$/t, which can be directly compared to operating unit costs. The NSR formula is:

$$NSR = \frac{\text{Gross Revenue – Offsite Charges}}{\text{Tonnes Processed}}$$

The calculation of the NSR is effectively a calculation of unit values for the individual metals, which results in a value for a block based on the contained metal.

IMMSA reviewed supply and demand projections for zinc, lead, silver, gold and copper, and consensus long-term (ten year) metal price forecasts. The QP has been supplied with IMMSA’s internal selected metal prices for mine planning for the Project. The prices are considered in line with independent forecasts from banks and other lenders. The IMMSA selected metal has been adjusted by the QP to the selected Mineral Resource estimation prices using a factor of 15% higher, which is in line with typical industry practice.

NSR cut-off values for the Mineral Resources were established using a zinc price of US$1.32/lb Zn, a lead price of US$1.08/lb Pb, a silver price of US$23.0/oz Ag, and a copper price of US$3.80/lb Cu. While minor amounts of gold exist at the project (0.1 g/t head grade) gold has not been used as a revenue driver within the NSR calculation.

Table 11-8: Price Assumptions

Factors	Value	Unit
Ag	23.00	US$/oz
Pb	1.09	US$/lb
Cu	3.80	US$/lb
Zn	1.32	US$/lb
Exchange Rate (MXN:US$)	18.2109	

Source: SRK, 2023

It is the QP's opinion that the metal prices used for mineral resources are reasonable based on independent checks using consensus, long term forecasts from banks, financial institutions, and other sources.

The metallurgical recovery factors assumed for San Martín are based on historic performance of the processing plants and are shown in Table 11-9. The recoveries used in the calculation are based on the recoveries for payable material within the concentrates, for example the combined recovery for Cu, within the Pb Concentrate + Cu Concentrate. The basis for these factors is discussed in Section 10.4 of this report. The QP chose to use the trailing average from 2021 to June 2023 recoveries for the year-end Mineral Resources.

Table 11-9: Metallurgical Recovery Assumptions (Recovery in Payable concentrates)

Element	Value	Unit
Ag	71.1	%
Pb	31.4	%
Cu	66.0	%
Zn	74.5	%

Source: SRK, 2023

In addition to the price and metallurgical recovery, IMMSA has applied additional NSR factors in the metal equivalency calculation to account for other aspects of the mineralization. These additional factors include but are not limited to:

- Smelter recoveries
- Smelter penalties (Arsenic and Bismuth)
- Fleet/transport costs

The NSR factors can there be expressed as a further percentage and are averaged out over the annual production. The Additional percentages applied to the recoverable metal (in situ metal x recovery), using the recovery metal (payable), are shown in Table 11-10.

Table 11-10: NSR Adjustment Factors

Element	Value 2022 (%)	Value 2023 (%)	Unit
Ag	87.6	88.4	%
Pb	80.6	89.6	%
Cu	95.9	90.4	%
Zn	80.4	81.3	%

Source: SRK, 2023

In summary using the above prices, recovery and NSR adjustments for the smelter terms the QP has applied the following equation to define the stope values on a stope-by-stope basis. The following criteria should be considered inclusive of the average metallurgical recovery.

NSR = Ag (g/t)*0.464+Pb(%)*6.776+Cu(%) *51.067+Zn(%)*17.656

The operating unit cost used to determine the potential for economic extraction has been taken by reviewing the costs over the past three years. Based on current market conditions the QP has elected to use the 2023 costs as the basis for the assessment, which in their opinion is a reasonable basis for the declaration of Mineral Resources (Table 11-11). The economic value of each stope is then calculated in an Excel spreadsheet using the NSR equation above, and the QP has assigned a flag for all stopes based on an assessment of their economic value where the NSR values is “above/below” a cut-off grade the operating unit cost of US$63.09/t which is a marginal increase from a cost of US$60.80/t used in 2022.

Table 11-11: Operating Unit Cost

Factor	Value	Unit
Mine	19.63	US$/t
Mill	13.55	US$/t
Indirect (Mine)	11.37	US$/t
Indirect (Plant)	3.63	US$/t
Subtotal	**48.18**	**US$/t**
Smelting, Refining and Transportation	13.78	US$/t
Administrative	1.13	US$/t
Total Operating	**63.09**	**US$/t**

Source: IMMSA, 2023

11.15 Summary Mineral Resources

San Martín Mineral Resources are in compliance with the S-K 1300 resource definition requirement of “reasonable prospects for economic extraction”. Depletions have been accounted for within each panel using the latest survey information for most of the panels and only few panels that were exploited in the last month of 2023 were adjusted according to the planned exploitation. SRK thinks the differences with the real exploited material are not material.

In the QP’s opinion, the assumptions, parameters, and methodology used for the San Martín underground Mineral Resource estimates are appropriate for the style of mineralization and mining methods.

Table 11-12 summarizes the mineral resources for the San Martín underground operation as of December 31, 2023, which are reported on an in-situ basis. Mineral resources have been reported in total, as currently no mineral reserves (which in effect are exclusive of reserves) are declared for the project in compliance with the new S-K 1300 standards.

Table 11-12: San Martín Summary Mineral Resources at End of Fiscal Year Ended December 31, 2023 – SRK Consulting (U.S.), Inc.[1]

IMMSA Underground – San Martín							Cut-Off [2]		NSR[3] US$63.1	
Category	Tonnage Quantity (kt)	Grade					Metal			
		Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	NSR[3] (US$)	Ag (koz)	Zn (t)	Pb (t)	Cu (t)
Measured										
Indicated	12,978	77	1.97	0.34	0.65	106	32,236	256,307	43,909	84,753
M+I	12,978	77	1.97	0.34	0.65	106	32,236	256,307	43,909	84,753
Inferred	52,330	72	2.66	0.32	0.48	107	121,500	1,393,758	167,526	251,323

Source: SRK, 2024
(1)Mineral resources are reported exclusive of mineral reserves. Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. Silver, lead, zinc, and copper assays were capped where appropriate. Given historical production, it is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
(2)Mineral resources are reported at metal equivalent CoGs based on metal price assumptions,* variable metallurgical recovery assumptions,** mining costs, processing costs, general and administrative (G&A) costs, and variable NSR factors. Mining, processing, and G&A costs total US$63.1/t.
*Metal price assumptions considered for the calculation of metal equivalent grades are: gold (US$1,725.00/oz), silver (US$23.0/oz), lead (US$1.09/lb), zinc (US$1.32/lb), and copper (US$3.80/lb).
**CoG calculations and metal equivalencies assume variable metallurgical recoveries as a function of grade and relative metal distribution. Average metallurgical recoveries are: silver (71%), lead (31%), zinc (75%), and copper (67%), assuming recovery of payable metal in concentrate.
(3) Cut-off grade calculations and metal equivalencies assume variable NSR factors as a function of smelting and transportation costs. The NSR Values (inclusive of recovery) are calculated using the following calculation NSR = Ag*0.465+Pb*6.776+Cu*51.067+Zn*17.656
The mineral resources were estimated by SRK Consulting (U.S.), Inc, a third-party QP under the definitions defined by S-K 1300.
koz: Thousand troy ounces
kt: Thousand tonnes
M+I: Measured + Indicated

11.16 Opinion on Influence for Economic Extraction

It is the SRK's opinion that the geology and mineralization controls of the San Martín Deposit are very well understood based on the extensive knowledge of the deposit from decades of exploitation.

The mineral resources stated herein are appropriate for public disclosure and meet the definitions of indicated, and inferred resources established by SEC guidelines and industry standards. Based on the analysis described in this report, the SRK's understanding of resources that production has occurred at the mine since the project's status of operating since 1950, in the QP's opinion, there is reasonable potential for economic extraction of the resource.

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

11.17 Comparison to Previous Estimates

As part of the annual year-end reporting requirements, SRK completed a comparison of the mineral resources between December 31, 2022, and December 31, 2023, for the Project; Table 11-13 shows the results of the comparison. It is the QP's opinion that while differences exist, they are typically within the levels of error expected and that no material differences are noted.

Table 11-13: Comparison IMMSA December 31, 2022, versus December 31, 2023 Mineral Resources Statement for San Martín Mine, SRK Consulting (U.S.), Inc.

IMMSA Underground - San Martín							NSR 2023: US$63.1			
Category	**Tonnage Quantity (kt)**	**Ag (g/t)**	**Zn (%)**	**Pb (%)**	**Cu (%)**	**NSR (US$)**	**Ag (koz)**	**Zn (t)**	**Pb (t)**	**Cu (t)**
Indicated 2022	11,542	92	2.48	0.49	0.61	119	34,311	285,945	56,576	70,168
Indicated 2023	12,978	77	1.97	0.34	0.65	106	32,236	256,307	43,909	84,753
Difference (net)	1,436	(15)	(1)	(0)	0	(13)	(2,075)	(29,638)	(12,667)	14,585
Difference (%)	12%	-16%	-20%	-31%	7%	-11%	-6%	-10%	-22%	21%
Inferred 2022	9,176	112	2.05	0.62	0.49	115	32,894	187,756	56,443	45,381
Inferred 2023	52,330	72	2.66	0.32	0.48	107	121,500	1,393,758	167,526	251,323
Difference (net)	43,154	(39)	1	(0)	(0)	(8)	88,606	1,206,002	111,083	205,942
Difference (%)	470%	-35%	30%	-48%	-3%	-7%	269%	642%	197%	454%

Source: SRK, 2023

SRK reviewed the changes and does not consider there to be any material change in the estimates between the two time periods. Where differences exist, they can be attributed to the following factors:

- Mining depletion during 2023 (based on 11 months of actuals and including planned depletion for the last 1 month)
- Change in the CoG on an NSR basis of +US$2.3/t (or +3.7%), resulting in a minor drop in the tonnage. The change in the CoG accounts for:
  - Minor changes in the recovery factors used between 2022 and 2023, including the slight improvement in the copper recovery performance seen during 2022.
  - Slight increase in the cost, including +US$0.12/t mining, +US$1.24/t processing, but an decrease in the indirect costs of -US$0.58, and the refining and administrative costs of +US$1.51 on a per tonnage basis, resulting in an overall cost increase of US$2.3/t (after accounting for refining and G&A increases)
- Additional exploration and mine sampling to increase confidence in the mineral resources prior to mining
- Minor changes were made to the price assumptions for lead during the period to declare mineral resources, while all other elements remained the same.
- The methodology of geological modeling and mineral resource estimation changed from 2D, completed primarily on paper to the 3D implicit geological modeling, geostatistical analysis, block model construction and mineral resource estimation using Leapfrog Geo software.
- The new methodology included changes in the method of evaluating capping, using statistical tools to assess each element by domain or group of domains, and evaluating grade continuity through variography analysis.
- The inferred continuity of the mineralized structures was based on the variography analysis and the geological evidence that resulted in a significant increase in inferred resources. Previous estimates defined inferred resources solely based on fixed distances to data.

12 Mineral Reserve Estimates

Section 12 Mineral Reserve Estimates is not applicable for the current level of study and has not been included in this report.

13 Mining Methods

Section 13 Mining Methods is not applicable for the current level of study and has not been included in this report.

Mining is completed using a mechanized Cut and Fill mining method with rockfill and with tailings (hydraulic) and dry tailings. Ramps and levels are developed to provide access to the ore. Attack ramps are then driven to access each cut. The ramps and level development are performed using jumbos. San Martín has been testing the long hole stopping mining methodology after the operation resuming.

14 Processing and Recovery Methods

Section 14 Processing and Recovery Methods is not applicable for the current level of study and has not been included in this report.

Mineral Processing is completed via conventional flotation processes, including crushing, milling, flotation, filtration, thickening and conduction and disposal of tailings. The Minera San Martín unit has two processing plants or concentrators, one with an operating capacity of 2,400 tons/day (plant 2-400) and another with a capacity of 4,400 tons/day (plant 4-400). Three concentrates are produced:

- Zinc Concentrate
- Copper Concentrate
- Lead Concentrate

Figure 10-1 shows the general flow chart of the mineral processing at San Martín.

15 Infrastructure

The project does have some existing infrastructure which support the current operation. However, the QP has not inspected the infrastructure to sufficient levels to support the declaration of Mineral Reserves at this stage.

16 Market Studies

Section 16 Market Studies is not applicable for the current level of study and has not been included in this report. SRK has used costs, pricing and criteria as supplied by the operation which were reviewed and considered to be reasonable to support the current level of studies. To support the declaration of Mineral Resources at minimum a pre-market study of the various concentrates will need to be completed.

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

Section 17 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups is not applicable for the current level of study and has not been included in this report.

18 Capital and Operating Costs

Section 18 Capital and Operating Costs is not applicable for the current level of study and has not been included in this report.

19 Economic Analysis

Section 19 Economic Analysis is not applicable for the current level of study (Mineral Resource) and has not been included in this report.

20 Adjacent Properties

The most important operation located 1 km to the south of Sabinas, which is an old mine that Peñoles acquired in 1994. The following is the public information of Sabinas:

(https://www.penoles.com.mx/nuestras-operaciones/unidades-mineras/sabinas.html):

In 2006, the installation of a lead-copper separation circuit was completed. Likewise, important investments in exploration have confirmed additional reserves and justified subsequent increases in its milling capacity, from 150,000 tons per year to 1.3 million in 2020.

- Relevant information
  - Location: Sombrerete, Zacatecas
  - Ownership: 100% Peñoles
  - In operation (under Peñoles control): 1995-present
  - Facilities: Underground mine and two beneficiation plants
  - Production: Polymetallic (silver, zinc, lead, copper) in three types of concentrates: lead, zinc and copper
  - Deposit type: Underground with massive bodies and veins
  - Installed capacity: 1.3 million tons / year of ground ore
  - Reserves: 22.7 million tons of mineral (2020)
  - Years of life: 17 (2020)
  - Employees: 659 (2020)

The QP has done insufficient work to confirm the basis for these numbers and has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report summary.

21 Other Relevant Data and Information

The San Martín Mine is currently in production and has previously disclosed Mineral Resources under S-K 1300. This update replaces the previous estimates.

22 Interpretation and Conclusions

SRK is of the opinion that the data and analysis presented herein is of sufficient quality and completeness to support the estimation of mineral resources. The skarn and vein deposits at San Martín have been mine historically and are currently in production, processing three concentrates (Zinc, Copper and Lead) via underground mining operations.

The drilling and analytical work is supported by surveys and limited quality control measures to support confidence in the accuracy and precision of the data. The mine geology department has not implemented quality controls for the samples collected from drilling and rock sampling from underground workings, which SRK considers that is not in line with the industry best practices and represents a source of uncertainty for the data collected by the mine geology department.

The exploration department have procedures for drilling and core sampling which the QP considers in line with the industry best practices. The QP notes the following key conclusions:

22.1 Geology and Mineralization

- The geology and mineralization controls of the San Martín project are very well known, supported by the more than 60 years of the mining operation. Geological information supporting mineral resources is available in paper documents and partially in digital format.
- No certification has been completed in the current mine laboratory which in the QP's opinion does not meet the required standards for reporting under international best practice. More detailed validation and external checks should be completed if the laboratory is not certified given the lack of independence presented. The QP recommends that IMMSA undertake a program to certify the laboratory.
- There is not a QA/QC protocol implemented for drilling and sampling (core and channel sampling) completed by the mine geology department for the historical and recent information and those activities are not in line with the industry standards.
- The estimate was categorized in a manner consistent with industry standards. Mineral resources have been categorized based on relative confidence in the modeling, estimation or reporting of the tonnage and grades from the model. There are no Measured mineral resources, primarily due to a lack of density measurements and insufficient QA/QC protocols in the mine samplings protocols. The Indicated mineral resources disclosed herein have significant evidence in the QP's opinion to support the interpolation of both the geological and grade continuity in these areas.
- The latest drilling and core sampling completed by the exploration department are in line with the industry standards, including the QA/QC protocols.

22.2 Mineral Resource and Mineral Reserve Estimates

- The estimate was categorized in a manner consistent with industry standards. Mineral resources have been reported using economic and mining assumptions to support the reasonable potential for eventual economic extraction of the resource. A cut-off grade has been derived from these economic parameters, and the resource has been reported above this cut-off. The mineral resource is reported exclusive of mineral reserves, as no reserves have been declared in line with the S-K 1300 guidelines.

- In SRK's is of the opinion, that the mineral resources stated herein are appropriate for public disclosure and meet the definitions of Indicated and Inferred resources established by SEC guidelines and industry standards.
- The methodology of geological modeling and mineral resource estimation changed from 2D, completed primarily on paper to the 3D implicit geological modeling, geostatistical analysis, block model construction and mineral resource estimation using Leapfrog Geo software.
- The reduction in grades compared to 2022 is due to some smoothing due to the use of statistical methods to define different levels of capping and the use of estimation algorithms based on variography and statistical parameters that reduce the estimation error.
- The new methodology included changes in the method of evaluating capping, using statistical tools to assess each element by domain or group of domains, and evaluating grade continuity through variography analysis.
- The inferred continuity of the mineralized structures was based on the variography analysis and the geological evidence that resulted in a significant increase in inferred resources. Previous estimates defined inferred resources solely based on fixed distances to data.
- The inferred areas are now more continuous and will represent a target for future work to upgrade the classification to Indicated material.
- Indicated 2D panels around mined areas that are not appropriately defined or unknown historical mining zones, that represent a moderate to high level of uncertainty were downgraded to inferred.

23 Recommendations

It is the QP's opinion the following measures should be taken to mitigate the uncertainty include but are not limited to:

- Continual infill drilling in the most critical areas of the deposit, locally to spacing of less than 50 m x 50 m.
- The inferred areas and the 3D geological model will define new targets for future works to upgrade the classification to Indicated material.
- SRK recommends reviewing the procedures of drilling and sampling and design and implement a complete QA/QC protocol for the drilling and rock sampling activities performed by the mine geology department of San Martín.
- QA/QC protocol of the Exploration Department: Implement the use of an umpire laboratory (commercial laboratory) to send the second laboratory check samples periodically (e.g., quarterly), and the review of the acceptability ranges for duplicates (10% and 20% relative error).
- Obtain certification for the internal mine laboratory to international standards.
- Digitization of all geological information and storage of data into a commercial secure database.
- Detailed geological modeling methods using the new digital database which integrates all relevant geological data into defining the model and achieving the most accurate model possible at the current level of study.
- Extensive QA/QC analysis and monitoring to understand relative impacts to local inherent variability within resource domains.
- Introduction of more routine density sampling within the mineralization in all the areas of the deposit to confirm level of fluctuation from the current uniform assignment of a single 3.3 t/m^3 value.

23.1 Mineral Resource and Mineral Reserve Estimates

- SRK recommends digitizing all the existing information in paper related to geological interpretations and new results of drilling and rock sampling.
- Continue updating the 3D geological model with the new collected data. This will serve as a basis for the future Mineral Resource and Reserve Estimations.

23.2 Recommended Work Programs

The recommended work program includes the following activities:

- Continue the new collected data digitalization and update the geological model, block model and mineral resource estimate.

23.3 Recommended Work Program Costs

Table 23-1 shows the approximate budget of the work program for 2022.

Table 23-1: Recommended Work Program Costs

Discipline	Program Description	Cost (US$M)
Geology and Exploration	Ongoing exploration and grade-control drilling	1.9
Updated MREs	Generation of geological model and mineral resource estimates	0.1
Mining Methods/Mineral Reserve Estimates	Development of mine plan and optimization of mining methodology	0.4
Total US$		**2.4**

Source: SRK, 2023

24 References

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25 Reliance on Information Provided by the Registrant

SRK was provided legal documentation by IMMSA and has relied on that information for the purposes of this section. SRK has relied on this information and disclaims responsibility for its accuracy or any errors or omissions in that information.

The Consultant's opinion contained herein is based on information provided to the Consultants by IMMSA throughout the course of the investigations. Table 25 1 of this section of the Technical Report Summary will:

(i) Identify the categories of information provided by the registrant;

(ii) Identify the particular portions of the Technical Report Summary that were prepared in reliance on information provided by the registrant pursuant to Subpart 1302 (f)(1), and the extent of that reliance; and

(iii) Disclose why the qualified person considers it reasonable to rely upon the registrant for any of the information specified in Subpart 1302 (f)(1).

Table 25-1: Reliance on Information Provided by the Registrant

Category	Report Item/ Portion	Portion of Technical Report Summary	Disclose Why the QP Considers it Reasonable to Rely Upon the Registrant
Legal Opinion	Sub-sections 3.3, 3.4, 3.5, 3.6, and 3.7	Section 3	IMMSA has provided a document summarizing the legal access and rights associated with leased surface and mineral rights. This documentation was reviewed by IMMSA's legal representatives. The QP is not qualified to offer a legal perspective on IMMSA's surface and title rights but has summarized this document and had IMMSA personnel review and confirm statements contained therein.

Signature Page

This report titled "SEC Technical Report Summary, Initial Assessment on Mineral Resources, San Martín, Zacatecas, México" with an effective date of December 31, 2023, was prepared and signed by:

SRK Consulting (U.S.) Inc.

(Signed) **SRK Consulting (U.S.) Inc.**

Dated at Denver, Colorado
February 5, 2024

SRK Consulting (U.S.), Inc.
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February 5, 2024

Southern Copper Corporation
7310 North 16th Street, Suite 135
Phoenix, Arizona 85020
USA

Attention: Oscar Gonzalez Rocha
President and Chief Executive Officer

Subject Consent Letter – San Martín Technical Report Summary

Dear Mr. Rocha,

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendments thereto (collectively the, "Form 10-K") to be filed by Southern Copper Corporation (the "Company") with the U.S. Securities and Exchange Commission ("SEC"), SRK Consulting (U.S.), Inc. ("SRK"), hereby consents to:

(1) the filing and/or incorporation by reference by the Company and use of the Technical Report Summary titled "SEC Technical Report Summary Initial Assessment on Mineral Resources San Martín Zacatecas, México" with an effective date of December 31, 2023, and a report date of February 5, 2024 (the "Technical Report Summary"), that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, as an exhibit to and referenced in the Form 10-K;

(2) the use of and references to SRK's name as a "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form 10-K and any such Technical Report Summary;

(3) the use of any quotation from, or summarization of, the particular section or sections of the Technical Report Summary in the Form 10-K, to the extent it was prepared by SRK, that SRK supervised its preparation of and/or that was reviewed and approved by SRK, that is included or incorporated by reference to the Form 10-K; and

(4) to the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-203237) and Registration Statements on Form S-8 and any amendments thereto (Registration No. 333-150982).

SRK is responsible for authoring the Technical Report. SRK certifies that it has read the Form 10- K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

Dated at Denver, Colorado this 5th of February 2024.

/S/ Ben Parsons

Ben Parsons, Practice Leader/Principal Consultant
SRK Consulting (U.S.), Inc.

Exhibit 97

SouthernCopper

POLICY FOR THE RECOVERY OF ERRONEOUS COMPENSATION

A. OVERVIEW

In accordance with the applicable rules of The New York Stock Exchange Listed Company Manual (the "NYSE Rules"), Section 10D and Rule 10D-1 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") ("Rule 10D-1"), the Board of Directors (the "Board") of Southern Copper Corporation (the "Company") has adopted this Policy (the "Policy") to provide for the recovery of erroneously awarded Incentive-based Compensation from Executive Officers. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in the "Definitions" section.

B. RECOVERY OF ERRONEOUS COMPENSATION

1. In the event of an Accounting Restatement, the Company will reasonably promptly recover the Erroneous Compensation Received in accordance with NYSE Rules and Rule 10D-1 as follows:

(i) After an Accounting Restatement, a Committee composed by a majority of independent directors serving on the Board (the "Committee") shall determine the amount of any Erroneous Compensation Received by each Executive Officer and shall promptly notify each Executive Officer with a written notice containing the amount of any Erroneous Compensation and a demand for repayment or return of such compensation, as applicable.

(a) For Incentive-based Compensation based on (or derived from) the Company's stock price or total shareholder return, where the amount of Erroneous Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement:

i. The amount to be repaid or returned shall be determined by the Committee based on a reasonable estimate of the effect of the Accounting Restatement on the Company's stock price or total shareholder return upon which the Incentive-based Compensation was Received; and

ii. The Company shall maintain documentation of the determination of such reasonable estimate and provide the relevant documentation as required to the NYSE.

(ii) The Committee shall have discretion to determine the appropriate means of recovering the Erroneous Compensation based on the particular facts and circumstances. Notwithstanding the foregoing, except as set forth in Section B (2) below, in no event may the Company accept an amount that is less than the amount of Erroneous Compensation in satisfaction of an Executive Officer's obligations hereunder.

(iii) To the extent that the Executive Officer has already reimbursed the Company for any Erroneous Compensation Received under any duplicative recovery obligations established by the Company or applicable law, it shall be appropriate for any such reimbursed amount to be credited to the amount of Erroneous Compensation that is subject to recovery under this Policy.

(iv) To the extent that an Executive Officer fails to repay all Erroneous Compensation to the Company when due, the Company shall take all actions reasonable and appropriate to recover such Erroneous Compensation from the applicable Executive Officer. The applicable Executive Officer shall be required to reimburse the Company for any and all expenses reasonably incurred (including legal fees) by the Company in recovering such Erroneous Compensation in accordance with the immediately preceding sentence.

2. Notwithstanding anything herein to the contrary, the Company shall not be required to take the actions contemplated by Section B(1) above if the Committee determines that recovery would be impracticable and any of the following conditions are met:

i. The Committee has determined that the direct expenses paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered. Before making this determination, the Company must make a reasonable attempt to recover the Erroneous Compensation, documented such attempt(s) and provided such documentation to the NYSE;

ii. Recovery would violate home country law where that law was adopted prior to November 28, 2022, provided that, before determining that it would be impracticable to recover any amount of Erroneous Compensation based on violation of home country law, the Company has obtained an opinion of home country counsel, acceptable to the NYSE, that recovery would result in such a violation and a copy of the opinion is provided to NYSE; or

iii. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of Section 401(a)(13) or Section 411(a) of the Internal Revenue Code of 1986, as amended, and regulations thereunder.

C. DISCLOSURE REQUIREMENTS

The Company shall file all disclosures with respect to this Policy required by applicable U.S. Securities and Exchange Commission ("SEC") filings and rules.

D. PROHIBITION OF INDEMNIFICATION

The Company shall not be permitted to insure or indemnify any Executive Officer against (i) the loss of any Erroneous Compensation that is repaid, returned or recovered pursuant to the terms of this Policy, or (ii) any claims relating to the Company's enforcement of its rights under this Policy. Further, the Company shall not enter into any agreement that exempts any Incentive-based Compensation that is granted, paid or awarded to an Executive Officer from the application of this Policy or that waives the Company's right to recovery of any Erroneous Compensation, and this Policy shall supersede any such agreement (whether entered into before, on or after the Effective Date of this Policy).

E. ADMINISTRATION AND INTERPRETATION

This Policy shall be administered by the Committee, and any determinations made by the Committee shall be final and binding on all affected individuals.

The Committee is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy and for the Company's compliance with NYSE Rules, Section 10D, Rule 10D-1 and any other applicable law, regulation, rule or interpretation of the SEC or NYSE promulgated or issued in connection therewith.

F. AMENDMENT; TERMINATION

The Committee may amend this Policy from time to time in its discretion and shall amend this Policy as it deems necessary. Notwithstanding anything in this Section F to the contrary, no amendment or termination of this Policy shall be effective if such amendment or termination would (after taking into account any actions taken by the Company contemporaneously with such amendment or termination) cause the Company to violate any federal securities laws, SEC rule or NYSE rule.

G. OTHER RECOVERY RIGHTS

This Policy shall be binding and enforceable against all Executive Officers and, to the extent required by applicable law or guidance from the SEC or NYSE, their beneficiaries, heirs, executors, administrators or other legal representatives. The Committee intends that this Policy will be applied to the fullest extent required by applicable law. Any employment agreement, equity award agreement, compensatory plan or any other agreement or arrangement with an Executive Officer shall be deemed to include, as a condition to the grant of any benefit thereunder, an agreement by the Executive Officer to abide by the terms of this Policy. Any right of recovery under this Policy is in addition to, and not in lieu of, any other remedies or rights of recovery that may be available to the Company under applicable law, regulation or rule or pursuant to the terms of any policy of the Company or any provision in any employment agreement, equity award agreement, compensatory plan, agreement or other arrangement.

Effective as of November 30, 2023

DEFINITIONS

For purposes of this Policy, the following capitalized terms shall have the meanings set forth below.

a. "Accounting Restatement" means an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (a "Big R" restatement), or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (a "little r" restatement).

b. "Clawback Eligible Incentive Compensation" means all Incentive-based Compensation Received by an Executive Officer (i) on or after the effective date of the applicable NYSE rules, (ii) after beginning service as an Executive Officer, (iii) who served as an Executive Officer at any time during the applicable performance period relating to any Incentive-based Compensation (whether or not such Executive Officer is serving at the time the Erroneous Compensation is required to be repaid to the Company), (iv) while the Company has a class of securities listed on a national securities exchange or a national securities association, and (v) during the applicable Clawback Period (as defined below).

c. "Clawback Period" means, with respect to any Accounting Restatement, the three completed fiscal years of the Company immediately preceding the Restatement Date (as defined below), and if the Company changes its fiscal year, any transition period of less than nine months within or immediately following those three completed fiscal years.

d. "Erroneous Compensation" means, with respect to each Executive Officer in connection with an Accounting Restatement, the amount of Clawback Eligible Incentive Compensation that exceeds the amount of Incentive-based Compensation that otherwise would have been Received had it been determined based on the restated amounts, computed without regard to any taxes paid.

e. "Executive Officer" means each individual who is currently or was previously designated as an "officer" of the Company as defined in Rule 16a-1(f) under the Exchange Act. For the avoidance of doubt, the identification of an executive officer for purposes of this Policy shall include each executive officer who is or was identified pursuant to Item 401(b) of Regulation S-K , as well as the principal financial officer and principal accounting officer (or, if there is no principal accounting officer, the controller).

f. "Financial Reporting Measures" means measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and all other measures that are derived wholly or in part from such measures. Stock price and total shareholder return (and any measures that are derived wholly or in part from stock price or total shareholder return) shall, for purposes of this Policy, be considered Financial Reporting Measures. For the avoidance of doubt, a Financial Reporting Measure need not be presented in the Company's financial statements or included in a filing with the SEC.

g. "Incentive-based Compensation" means any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

h. "NYSE" means the New York Stock Exchange.

i. "Received" means, with respect to any Incentive-based Compensation, actual or deemed receipt, and Incentive-based Compensation shall be deemed received in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-based Compensation award is attained, even if the payment or grant of the Incentive-based Compensation to the Executive Officer occurs after the end of that period.

j. "Restatement Date" means the earlier to occur of (i) the date the Board, a committee of the Board or the officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.