NI 43-101 Technical Report

on the

Quebrada Blanca Operations

Región de Tarapacá, Chile

Prepared For:

Teck Resources Limited

Prepared By:

Mr. Rodrigo Marinho, P.Geo.
Ms. Claudia Velasquez, CMC.
Mr. Eldwin Huls, P.Eng.
Ms. Jacquelyn Vanos, P.Eng.
Mr. Paul Kolisnyk, P.Eng.

Effective Date:

December 31, 2023

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CERTIFICATE OF QUALIFIED PERSON

I, Claudia Velasquez, CMC, am employed as a Senior Metallurgy Specialist in Strategic Planning South America, with Teck Resources Chile Limitada ("TRCL") at the Teck office situated at Alonso de Córdova 4580, Edificio Vista 360 Piso 10, Las Condes, Santiago, Chile.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Quebrada Blanca Operations, Región de Tarapacá, Chile" which has an effective date of 31 December 2023 (the "technical report").

I am a Procesos Minero-Metalúrgico engineer of the Comisión Minera Calificadora de Competencias en Recursos y Reservas; with registration number 0273.

I graduated from the Universidad de Santiago de Chile, with a Master's in Engineering Sciences with a mention in Extractive Metallurgy in 2004, and a Bachelor of Civil Engineer in Metallurgy in 2003.

I have practiced my profession for 20 years since graduation. I have been directly involved in technical analysis and reports related to metallurgical testwork to support geometallurgy modeling, as definition of design criteria parameters for to concentrator process and the evaluation of these through the copper operation as well as the related co-products.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Quebrada Blanca Operations from 29 January to 1 February 2024.

I am responsible for Sections 1.1, 1.2, 1.10, 1.14; Sections 2.1, 2.2, 2.3, 2.4; Section 3; Section 12.3.2; Section 13; Section 17; Sections 25.1, 25.8, 25.12; and Section 27 of the technical report.

I am not independent of Teck as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Quebrada Blanca Operations since 2021 in my previous role as Metallurgy Specialist (Technical Services, TRCL) and my current role as Senior Metallurgy Specialist (Strategy Planning South America, TRCL).

Teck

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 23 February 2024

"signed"

Claudia Velasquez, CMC.

CERTIFICATE OF QUALIFIED PERSON

I, Eldwin Huls, P.Eng., am employed as a field engineering manager with Teck Resources Limited, with an office address at Suite 3300 550 Burrard St, Vancouver, BC Canada V6C B3.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Quebrada Blanca Operations, Región de Tarapacá, Chile" that has an effective date of 31 December, 2023 (the "technical report").

I am a Professional Engineer registered with Engineers and Geoscientists BC, #59472. I graduated in 2004 from Queens University with a Bachelor of Science in Mechanical Engineering with Professional Internship.

I have practiced my profession for 19 years since graduation. I have been directly involved in the design development and execution of the QB2 project from 2011 until 2023.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I last visited the Quebrada Blanca property from 8–9 August, 2023, a duration of two days.

I am responsible for Sections 1.1, 1.2, 1.3, 1.9, 1.15, 1.18, 1.19; Sections 2.1, 2.2, 2.3, 2.4; Section 3; Sections 5.2, 5.3, 5.4, 5.6; Section 12.3.3; Section 18; Section 21; Sections 25.1, 25.7, 25.13, 25.16, 25.17, and Section 27 of the technical report.

I am not independent of Teck as independence is described by Section 1.5 of NI 43–101.

I have previously co-authored the following technical report on the Quebrada Blanca property:

- Marinho, R., Rairdan, B., Huls, E., and Kolisnyk, P., 2019: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Región de Tarapacá, Chile: report prepared for Teck Resources Limited, effective date 1 January, 2019.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 23 February 2024

“signed and sealed”

Eldwin Huls, P.Eng.

Teck Resources Limited
Suite 3300 550 Burrard St
Vancouver, B.C. Canada, V6C 0B3

CERTIFICATE OF QUALIFIED PERSON

I, Paul Kolisnyk, P.Eng, am employed as the Director, Technical Marketing and Material Stewardship with Teck Resources Limited ("Teck"), at the Teck Marketing and Logistics office situated at 100 Wellington St. West Suite 600, Toronto, Ontario, M5K 1H1, Canada.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Quebrada Blanca Operations, Región de Tarapacá, Chile" that has an effective date of 31 December, 2023 (the "technical report").

I am a professional engineer with Professional Engineers Ontario, #24358509. I graduated from the University of Toronto, with a Bachelor of Applied Science (B.A.Sc.) in Metallurgy and Materials Science in 1981.

I have practiced my profession for 42 years since graduation.

I have been directly involved in technical marketing, market research and downstream product technologies for copper, zinc, lead as well as the related coproducts in this tenure at Teck. This includes direct engagement with metallurgical facilities that purchase and treat copper and molybdenum concentrates.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I have not visited the Quebrada Blanca Operations.

I am responsible for Sections 1.1, 1.2, 1.9, 1.16; Sections 2.1, 2.2, 2.3, 2.4; Section 3; Section 12.3.5; Section 19.1, 19.2, 19.4. 19.5.1; Sections 25.1, 25.7, 25.14; and Section 27 of the technical report.

I am not independent of Teck as independence is described by Section 1.5 of NI 43–101.

I have previously co-authored the following technical report on the Quebrada Blanca Operations:

- Marinho, R., Rairdan, B., Huls, E., and Kolisnyk, P., 2019: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Región de Tarapacá, Chile: report prepared for Teck Resources Limited, effective date 1 January, 2019.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 23 February 2024

“signed and sealed”

Paul Kolisnyk, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Rodrigo Marinho, P.Geo., am employed as the Technical Director, Reserve Evaluation, with Teck Resources Limited (“Teck”), with an office address at Suite 3300 550 Burrard St, Vancouver, B.C. Canada, V6C 083.

This certificate applies to the technical report titled “NI 43-101 Technical Report on the Quebrada Blanca Operations, Región de Tarapacá, Chile” that has an effective date of 31 December, 2023 (the “technical report”).

I am a Professional Geoscientist (P.Geo.) with Engineers and Geoscientists BC #39505. I graduated from the University of São Paulo State with a Bachelor of Sciences degree in Geology in 1993.

I have practiced my profession for 30 years. I have been directly involved in mining operations, mineral resource and mineral reserve estimation, and analysis at open-pit and underground mines worldwide. I have experience in exploration, drilling program definition, geological mapping, interpretation and modeling, grade estimation and grade control, mine planning, pit optimization and mine design.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Quebrada Blanca property from October 11–12, 2022, a duration of two days.

I am responsible for Sections 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.11, 1.12, 1.13, 1.17, 1.20, 1.21, 1.22, 1.23; Section 2; Section 3; Section 4; Sections 5.1, 5.3, 5.5, 5.6; 5.7 Section 6; Section 7; Section 8; Section 9; Section 10; Section 11; Sections 12.1, 12.2, 12.3.1; Section 14, Section 15, Section 16, Sections 19.3, 19.5.2; Section 20, Section 22; Section 23; Section 24; Sections 25.1, 25.2, 25.3, 25.4, 25.5, 25.6, 25.7, 25.9, 25.10, 25.11, 25.15, 25.18, 25.19, 25.20; Section 26; and Section 27 of the technical report.

I am not independent of Teck as independence is described by Section 1.5 of NI 43–101.

I have previously co-authored the following technical reports on the Quebrada Blanca property:

- Marinho, R., Rairdan, B., Huls, E., and Kolisnyk, P., 2019: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Región de Tarapacá, Chile: report prepared for Teck Resources Limited, effective date 1 January, 2019;

- Marinho, R., and Nelson M., 2016: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Feasibility Study 2016, Región de Tarapacá, Chile: report prepared for Teck Resources Inc., effective date 3 February 2017;

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 23 February 2024

“signed and sealed”

Rodrigo Marinho, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

I, Jacquelyn Vanos, P.Eng., am employed as the Manager, Business Planning and Evaluations Manager with Teck Resources Limited, with an office address at Suite 3300 550 Burrard St, Vancouver, BC Canada V6C B3.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Quebrada Blanca Operations, Región de Tarapacá, Chile" that has an effective date of 31 December, 2023 (the "technical report").

I am a Professional Engineer with Engineers and Geoscientists BC, # 55970. I graduated from Queen's University with a Bachelor of Applied Sciences in 2007, and INSEAD with a Masters in Business Administration in 2017.

I have 17 years of professional experiences with a combined background of engineering and finance. I have been directly involved in various elements of the Quebrada Blanca Operations since 2017, specifically in cost estimation, financial analysis, and business planning.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Quebrada Blanca property from 20–22 November, 2023, a duration of three days.

I am responsible for Sections 1.1, 1.2, 1.9, 1.19; Sections 2.1, 2.2, 2.3, 2.4; Section 3; Sections 5.2, 5.3, 5.4, 5.6; Section 12.3.4; Section 21; Sections 25.1, 25.7, 25.16, 25.17, and Section 27 of the technical report.

I am not independent of Teck as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Quebrada Blanca Operations in various roles involving financial analysis since 2017.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 23 February 2024

“signed and sealed”

Jacquelyn Vanos, P.Eng.

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1 SUMMARY

1.1 Introduction

Mr. Rodrigo Marinho, P.Geo., Ms. Claudia Velasquez, CMC., Mr. Eldwin Huls, P.Eng., Ms. Jacquelyn Vanos, P.Eng., and Mr. Paul Kolisnyk, P.Eng., prepared this technical report (the Report) for Teck Resources Limited (Teck) on the Quebrada Blanca mining operation (Quebrada Blanca Operations or the Project), located in Chile's Región de Tarapacá.

The Project owner is Compañia Minera Teck Quebrada Blanca S.A. (CMTQB), which is organized as a Chilean closed corporation (sociedad anónima cerrada) with two series of shares: Series A (common) and Series B (preferred). Teck's 60% indirect interest in Quebrada Blanca is held by Quebrada Blanca Holdings S.p.A (QBH), which is held 66.67% by Teck and 33.33% by Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation collectively (Sumitomo). QBH holds a 90% direct interest in CMTQB (100% of the Series A shares) and Empresa Nacional de Minería (ENAMI), a Chilean government entity, holds a 10% carried interest in CMTQB (100% of the Series B shares), which does not require ENAMI to fund capital spending.

The initial open pit mine at Quebrada Blanca (the Quebrada Blanca Phase 1 operation or QB1) commenced operation in 1994, exploiting supergene copper mineralization. Processing used a combination of heap leach and dump leach and solvent extraction/electrowinning (SX/EW). Supergene mining operations were completed in 2018, and processing was completed in 2023.

Quebrada Blanca Phase 2 (QB2), which commenced copper production in 2023, exploits the sulphide deposit through the addition of a large pit pushback, major concentrator expansion, a tailings facility and required supporting infrastructure. The Quebrada Blanca concentrator achieved first production in the first half of 2023. By the end of 2023, the concentrator was operating near design throughput capacity. Construction of the molybdenum plant was substantially complete at the end of 2023. Shiploader construction is ongoing and expected to be completed in the first half of 2024. Alternative third-party port facilities are available and will be used until the shiploader is complete.

1.2 Terms of Reference

The Report was prepared to support disclosures in Teck's 2023 Annual Information Form. The Report presents updated Mineral Resource and Mineral Reserve estimates, and updates to the mine plan, commodity pricing, and capital and operating cost assumptions.

Mineral Resources and Mineral Reserves are reported using the confidence categories in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014; the 2014 CIM Definition Standards). The Mineral Reserve estimates are forward-looking information and actual results may vary. The risks regarding Mineral Reserves are summarized in the Report (see Section 15 and Section 25). The assumptions used in the Mineral Reserve estimates are summarized in the footnotes of the Mineral Reserve table and outlined in Section 15 and Section 16 of the Report.

Currency is expressed in US (US$) unless otherwise noted in the text. The local currency is the Chilean peso (CLP). Units presented are typically metric units, such as metric tonnes, unless otherwise noted. The Report uses Canadian English. Total copper is expressed as CuT, meaning total copper. Soluble copper is expressed as CuS, and consists of acid-soluble copper (CuSH) and cyanide-soluble copper (CuCN). Residual copper is expressed as CuRes.

1.3 Project Setting

The Quebrada Blanca mine and its proposed copper concentrator are located in Chile's Región de Tarapacá, approximately 165 km directly and 240 km by road southeast of the regional capital city of Iquique and near the Bolivian border on the western flank of northern Chile's Andes Mountains.

Iquique, the region's capital, is mainly accessed by a coastal highway, Chile's Ruta 1. From Iquique, the Project can be accessed by taking the Iquique–Alto Hospicio road, continuing east on Ruta 16 to Pozo Almonte, then taking Ruta 5 south to Camino Pintados, a surfaced road approximately 130 km long, which intersects Ruta 5 at kilometre marker 1775 and continues to the Project area. The total distance to the mine by road is approximately 240 km. An alternative route from Iquique through Pozo Almonte, then taking Ruta A-65 to the Collahuasi mine and passing through Collahuasi to the Quebrada Blanca mine, is approximately 254 km by road.

There is an international airport in the region, which is situated on the coast approximately 40 km south of Iquique and is accessed via Ruta 1.

There are three major ports in the Región de Tarapacá: one at Iquique and two others south of Iquique at Caleta Patillos and Punta Patache. The port of Iquique is a multi-use commercial port that handles break bulk cargo in the Región de Tarapacá, while Caleta Patillos (salt) and Punta Patache (copper concentrates and coal) are both bulk handling private ports.

The climate varies across the Project area, from the mine site to the port and desalination plant areas. Temperatures are typically mild to cold throughout the year, and rainfall is typically limited. Quebrada Blanca is a year-round operation.

The closest major population centre to the mining operation is Iquique, which provides services for a number of large mining operations in the region.

The Quebrada Blanca mine is situated in the Chilean Altiplano at an average elevation of about 4,400 masl. The terrain is rugged, with the mountains being intersected by many steep canyons or ravines (quebradas).

A species of desert plant, the Llareta, occurs in close proximity to the mine and planned supporting mining facilities. Animal life in the area consists primarily of llama, vicuña, viscacha, and foxes. The planned tailings management facility (TMF) would be located southwest of the mine site at an average elevation of approximately 3,900 masl. The TMF area does not contain any significant archeological sites; however, there is some vegetation in close proximity to drainage areas. The sea coast has limited vegetation, which is typical of the west coast of South America. The planned port area is rocky, with moderate cliffs descending to the ocean, and is subject to strong breezes.

The Project is within the zone of seismic intensity caused by the subduction of the Nazca Plate under the South American Plate. Plate seismic ratings, as defined in Chilean norm NCh 433, range from 2 for the proposed plant site to 3 nearer the ocean and planned port facilities. Earthquakes with an energy release of over seven on the Richter scale have a history of occurrence in the area. From the same Chilean norm, NCh 433, the maximum ground acceleration is 0.3*g* in the planned process plant area and 0.4*g* for the proposed port area.

1.4 Mineral Tenure, Surface Rights, Water Rights, and Royalties

The Project consists of 366 mining concessions of which 254 are exploitation-stage concessions, and 112 are exploration concessions. These mining concessions cover a total of 122,141 ha, and are primarily located in the I Región, Comunas de Pica e Iquique. A group of 81 concessions are situated in the II Región, Comuna de Ollague, sector Alconcha. The concessions are divided into seven subareas: mine, access road, Ramucho–Hundida, Pampa, Alconcha, Coposa Road and Punta Patache Norte. Exploitation concessions have no expiry date. All required payments to keep the concessions current had been made at the Report effective date.

About 99% of the surface lands where Project facilities are, or will be, located belongs to the State. Teck has obtained 100% of the surface rights for operations through judicial easements and State lease agreements. A land acquisition study identified several third-party mining rights concession holders within some of the areas that were required to support operations. Agreements have been concluded with those third-parties to support operations.

Teck holds a maritime concession. Teck also holds highland (altiplano) water rights; however, a coastal desalination plant will support the operations envisaged in this Report.

Taxes payable in Chile that affect the operation include the Chilean Specific Mining Tax, which applies to operating margin based on a progressive sliding scale from 5% to 14% until 2037, when the tax stability agreement that protects CMTQB against changes in mining taxes will expire. After 2037, the new Chilean mining royalty regime that was enacted in 2023 will apply to CMTQB, which consists of a flat 1% ad-valorem component applicable to copper revenues and a profit-based component based on rates ranging from 8% to 26% applicable to progressive levels of adjusted operating profits, as that term is prescribed. The amount of the profit-based royalty is capped so that the overall effective tax rate does not exceed 46.5% as computed in reference to the sum of the ad-valorem and profit-based components of the royalty, corporate income tax and imputed dividend withholding tax in relation to adjusted operating profits. CMTQB is also subject to Chilean federal corporate income tax at 27%. There is no provision in the current mining tax code nor in the new mining royalty law for carrying mining tax losses forward.

1.5 Geology and Mineralization

The porphyry-style mineralization at Quebrada Blanca is considered to be typical of an Andean porphyry copper–molybdenum deposit. The deposit is hosted in the middle Eocene to early Oligocene metallogenic belt of northern Chile. Quebrada Blanca is part of a set of porphyry systems that includes the Ujina, Rosario and Copaquire (La Profunda) porphyry deposits. The complexes lie along a northwest-trending lineament that has developed in the Collahuasi Formation.

Quebrada Blanca has an intricate magmatic and hydrothermal history that includes a polyphase intrusive complex, multiple cross-cutting breccia facies, and at least two separate hydrothermal stages.

The primary structural control on lithology, grade and early-stage alteration corresponds to east–northeast-trending faults dipping either to the south (in the west) and to the north (in the east). The northwest-oriented faults controlled a late-stage alteration, pre-supergene enrichment as well as horizontal and vertical structural block displacements.

Alteration zoning patterns are typical of those documented for porphyry copper deposits. Three main structural trends, to the east–northeast, north–northeast–north–northwest, and northwest, control aspects of the mineralization and intrusive emplacement.

Mineralization consists of supergene (chalcocite and, to a lesser degree, copper oxides such as atacamite, cuprite, and locally brochantite) and hypogene (chalcopyrite, bornite, molybdenite, and, to a lesser degree, silver, and gold) mineralization. Mineralization in the hypogene porphyry environment consists of disseminated and veinlet chalcopyrite with molybdenite in an east–northeast-trending area of approximately 2 x 5 km that is hosted within Eocene intrusions, hydrothermal breccias, and porphyritic dikes. Drill holes have intersected mineralization to an approximately 800 m vertical depth in the hypogene zone. The hypogene mineralization remains open to the northeast, east, southeast, and at depth.

1.6 History

Prior to Teck acquiring its interest in Quebrada Blanca, exploration had been conducted by a number of entities and companies, including the Chile Exploration Company, Chilean Geological Survey, Codelco's Chuquicamata Division, the Superior Oil-Falconbridge Group through its Chilean subsidiary Compañía Exploradora Doña Inés Limitada, ENAMI, Compañía Minera Quebrada Blanca S.A., and Aur Resources Inc. These companies collectively undertook surface geological mapping, geochemical and mineralogical investigations, ground and airborne geophysical surveys, tunnelling, metallurgical test work, and mining studies.

Teck obtained its Project interest in 2007. Since that date, work completed included surface geological mapping; pit mapping; geochemical sampling; ground magnetic and induced polarization (IP)/resistivity geophysical surveys, airborne magnetic geophysical surveys; reverse circulation (RC), core, and blast hole drilling; metallurgical test work; and mining studies, including scoping, pre-feasibility, and feasibility studies.

QB1 mining operations commenced in 1994 and ceased in late 2018; however, the SX/EW plant continued to produce cathodes until December 2023. The QB2 mine plan was developed to mine and process hypogene ore below the supergene mineralization. A new mine plan was developed in 2023, the 2024 reserves plan, and forms the basis for this Report.

1.7 Drilling

Drilling completed to December 31, 2023, on the Quebrada Blanca Project includes 951 core drill holes (318,382 m) and 1,512 reverse circulation (RC) drill holes (204,960 m) for a total of 2,463 drill holes (523,341 m). The Mineral Resource estimate is supported by 869 core holes (282,495 m). Drilling that does not support estimation was either completed after the database cut-off date, had assay results pending as of the cut-off date, or were completed for purposes other than estimation support, such as geotechnical facilities drilling. A total of 1,333 RC drill holes (136,236 m) were used to support the estimation of supergene mineralization.

A number of core diameters have been employed over the history of the operations, including BX (36.6 mm core diameter), NX (54.9 mm), HX (76.2 mm), NQ3 (47.6 mm), HQ3 (63.5 mm) and PQ core (85 mm) sizes. HQ3 core represents around 70% and NQ3 core represents around 10% of the total core drilling programs.

Core drill holes have been geologically logged for lithology, structure, alteration, and copper–iron mineralization. Geological logging of RC chips records similar information to that described for the core programs. Percentage core recovery, rock quality designation (RQD), fracture frequency, and hardness were recorded for all drill cores to establish a geotechnical database. Drill core recovery at Quebrada Blanca has been acceptable, averaging 95% or higher.

Collar surveys have been performed using a combination of theodolite and total station instruments. Down hole survey instrumentation has included single-shot and gyroscopic instruments, depending on the drill campaign.

The central portion of the Quebrada Blanca deposit has been delineated along 100 m spaced north–south-oriented sections, with drill holes spaced approximately 60–80 m along the sections. Outside this central portion of the deposit, drilling grid spacing increases to about 100–150 m. In general, most drill holes intersect mineralized zones at an angle, and the drill hole intercept widths reported for the Project are typically greater than the true widths of the mineralization at the drill intercept point. Drill holes are not drilled exactly perpendicular to the orientation of the mineralization (northwest), because this is the direction of the predominant northwesterly-trending structures.

1.8 Sampling, Sample Preparation, Analysis, and Quality Assurance and Quality Control

RC samples were typically taken on 1 m or 2 m intervals; whereas core was primarily sampled on fixed 2 m intervals.

Density samples were taken approximately every 20 m to provide representative data for all of the geological units. The database contains 6,869 specific gravity measurements within the deposit area, all obtained from post-2007 drill programs.

Sample preparation and analytical laboratories used included the following independent laboratories: Centro de Estudios de Medición y Certificación de Calidad S.A, Iquique, Chile (accreditations unknown); Union Assay, Salt Lake City, USA (accreditations unknown); Assayers Canada, Vancouver, Canada (accreditations unknown); Actlabs, Chile (accreditations unknown); Geoanalitica Laboratories (ISO 9001:2008); Andes Analytical Laboratories, Santiago (ISO 9001:2000 from 2006); (Acme Laboratories, Santiago, Chile (ISO 9001:2000); Acme, Copiapó, Chile (ISO 9001:2000 from 2010); and ALS laboratories in Patagonia, Chile (ISO 9001:2015) and Lima (ISO 17025). During the early campaigns, the onsite mine laboratory prepared exploration samples. The mine laboratory prepared and analysed the RC and blast hole samples. It is not accredited, and is not independent of Teck.

Sample preparation methods have included crushing and pulverizing; however, the crush and pulverization sizing has slightly changed over time. Currently, the protocol is crush to 70% passing -10 mesh, pulverize to 85% passing 200 mesh. Analytical methods have been primarily by atomic absorption spectroscopy (AAS) for copper and molybdenum. Multi-element suites have been determined for selected samples; these are reported using inductively-coupled plasma (ICP) methods.

Core drilling prior to 2007 was not subject to an onsite quality assurance and quality control (QA/QC) program; however, the laboratories selected during this period used internal quality control programs that conformed to international norms for the time. QA/QC measures adopted for the drilling after 2008 included submission of blank, standard reference materials (standards) and field duplicates. The QA/QC insertion rates consisted of 5% coarse blanks, 5% standard reference materials, and 5% half-core duplicates; these insertion rates are in line with industry norms. Review of the QA/QC data indicates that although there were batches that indicated QA/QC failures, after re-submission of the outlier samples to the laboratory, the resulting re-assay data were acceptable.

A number of check assay and re-assay programs were completed in 2002, 2007, 2011, and 2019 in support of verification of selected drill and analytical data.

Although drill programs prior to 2007 were not routinely subject to an onsite QA/QC program, the laboratories selected during this period included internal quality control programs that conformed to international norms for the time. All submissions of core drilling, post-2008, have included QA/QC samples. From 2008–2013, the QA/QC insertion rates consisted of 5% coarse blanks, 5% standard reference materials (standards), and 5% half-core duplicates. After 2015, this rate was changed to an insertion rate of 4% coarse blanks, 2% fine blanks, 6% standards, 4% field duplicates, 2% crush duplicates and 2% pulp duplicates. QA/QC for the RC drilling completed prior to 2008 included submission of rig duplicates, coarse reject duplicates, and pulp checks. Post-2008, the same QA/QC protocols as used for core were applied to the RC programs. At the Report effective date, sample preparation and analytical precision were acceptable for the RC programs. The current QA/QC protocol for blast hole sampling was initiated in 2011, and includes submission of field duplicates, standards (high, medium, and low grade), field blank samples, crusher reject duplicates, pulp duplicates and check samples that are sent to an umpire (check) laboratory. Results to date indicate the sample preparation and analysis are acceptable.

1.9 Data Verification

Teck prepares an annual resource and reserve report for its operations. Each report provides a review of the data used to support that year’s estimates. No issues that would materially affect the Mineral Resource estimates were noted during these annual reviews, which have been conducted from 2009 to 2023.

Two external data verification reviews were performed on the database that supported the FS2016. In each review, the quality and completeness of the database at the time was found sufficient to support a Mineral Resource estimate.

Site visits were completed. The QPs individually reviewed the information in their areas of expertise, and concluded that the information supported Mineral Resource and Mineral Reserve estimation, and could be used in mine planning and in the economic analysis that supports the Mineral Reserve estimates.

1.10 Metallurgical Testwork

To the Report effective date, the independent consultants performing and overseeing or reviewing the testwork have included: Aminpro, Garibaldi Highlands, B, Canada; DJB Consultants Inc. (DJB), North Vancouver, British Columbia (BC), Canada; G&T Metallurgical Services Ltd. (G&T), Kamloops, BC, Canada; Inspectorate PRA Group (PRA), Richmond, BC, Canada; Phillips Enterprises (Phillips), Golden, Colorado, USA; SGS Canada, Lakefield and Vancouver, Canada; SGS Santiago, Chile; JKTech Pty. Ltd (JKTech), Brisbane, Australia; SimSAGe Pty. Ltd. (SimSAGe), Brisbane, Australia; Bear Rock Solutions Pty. Ltd. (Bear Rock), Melville, Australia; Castro Ingeniería, Santiago, Chile; Woodgrove Technologies, Toronto, Canada; and Keramos UFG, Perth, Australia. Some mineralogical studies were performed at Teck's Trail Technical Services mineralogy laboratory.

Major work programs were completed in support of the 2010 pre-feasibility and 2012 feasibility studies. Additional testwork was completed in 2012–2013 and in 2017–2019 to support design criteria. Work completed included: mineralogical examination; comminution testwork (Bond work index (BWi), drop weight index tests (DWi) and the SMC test for semi-autogenous grinding (SAG) mill and ball mill comminution analysis); flotation testwork (rougher, open cycle, locked cycle) that included flowsheet development, pilot plant campaigns, variability testing, and copper–molybdenum separation testwork; pilot plant testing; and variability testwork. Supplemental work conducted during these programs included testwork by vendors on process materials produced during pilot plant operation, to establish and validate equipment sizing criteria (concentrate regrind; bulk concentrate and copper concentrate thickening; concentrate filtration; transportable moisture limit; tailings thickening).

Mineralogical studies indicated that pyrite and chalcopyrite were the dominant sulfide species, with minor levels of molybdenite and other copper sulfides present. The major non-sulphide gangue minerals were quartz, feldspar, plagioclase, and sericite/muscovite.

Comminution test results indicated the samples tested were median hard for breakage parameters, had a medium to hard resistance to impact breakage and a medium hardness in terms of ball milling.

Flowsheet development focused on establishing the flotation circuit and baseline conditions, and on developing design criteria. A pilot plant campaign was undertaken to generate bulk products for additional testing and to demonstrate flowsheet stability. Variability testing was used to assess variation in metallurgical performance across the orebody under baseline conditions, and to support development of the geometallurgical units and metallurgical performance projections. Subsequent flotation chemistry optimization was completed based on selected variability samples, leading to the development of flotation driver groups that further refined the metallurgical projections. The results from the flotation test programs supported the development of metallurgical projections for concentrate grades and metal recoveries.

Results from copper–molybdenum separation locked-cycle tests were used as the basis for the selective stage factor applied in the recovery models to determine the global molybdenum recovery. Locked-cycle flotation testwork was completed on selected variability samples to evaluate the effect of high and low pH and to determine the optimum pH. The samples with low pyrite and sericite–muscovite content were found to have better flotation performance at low pH, while other samples were found to have better performance with elevated cleaner pH.

A series of ancillary tests to support process equipment selection were completed, and used to validate the thickening and filtration design criteria.

Throughput, recovery and concentrate grade models were constructed. A concentrator throughput rate of 135,000–140,000 t/d was considered to be achievable with the selected grinding circuit configuration supported by third-party comminution circuit modelling, and simulations. Recovery projections assume a constant grade of 50% Mo to the molybdenum concentrate and a copper–molybdenum separation efficiency of 95%. The copper and silver concentrate grade models were based on 153 locked cycle tests. Three copper concentrate grade domains were defined based on copper and sulphur head grades and geological criteria, and two domains were defined based on the silver head grades.

The metallurgical testwork completed at the Report effective date is based on 412 samples that adequately represent the variability within the proposed mine plan.

The copper and molybdenum concentrates generated in the copper–molybdenum separation program were submitted for detailed concentrate quality analysis. No elements are present at penalty levels in the copper concentrates. Credits may be obtained for silver; however, the average value (47.8 g/t Ag) is considered to be only marginally above the payable value. Current information indicates that gold is not present at payable levels. The average copper grade in the molybdenum concentrates is 1.4% Cu. Copper grades >1% Cu are expected to impact the molybdenum concentrate payment structure. No additional penalty elements are expected. The rhenium content of the molybdenum concentrate would, at minimum, make the molybdenum concentrate more marketable, and is also considered to be a Project upside opportunity.

1.11 Mineral Resource Estimation

1.11.1 Estimation Method

The database supporting the estimate was closed as at September 7, 2023. Software used in estimation included Leapfrog Geo, Supervisor, and Vulcan. A parent block size of 20 x 20 x 15 m was used, sub-blocked to a minimum 5 x 5 x 5 m to better honour the variability of the geological models.

Models constructed included lithology, alteration, and oxidation domains or mineral zones. Copper, molybdenum, silver, gold, and sulphur values were analyzed for grade trends, domain correlations, and contact relationships to establish the final estimation domains. Contact analysis showed that most boundaries were considered to be hard. Soft boundaries could be used where the contact analysis warranted.

The assignment of SG to the block model was conducted through two methods. The initial phase involved a SG interpolation process using an estimation plan for estimation domains specifically prepared for this variable. The second stage consisted of assigning of SG vales to non-interpolated blocks using the average value calculating within each geological domain.

A 4 m composite length was selected. No direct grade capping was done; the extended influence of the high-grade outlier composites was restricted in the kriging plans where necessary using an “influence area” methodology.

Semi-variograms were calculated for total copper, sequential copper, molybdenum, silver, gold, and sulphur. For a few domains, it was not possible to find an adequate continuity model due to the limited number of available composites. In these domains, an inverse distance weighting method was used as the interpolation method, because that estimation method does not require a variogram model.

Total copper, molybdenum, silver, gold, and sulphur were estimated into the model using ordinary kriging (OK). Estimation was undertaken into parent cells and applied to the sub-cells in order to maintain uniform discretization and volume representativity for each estimate. A four-or five-pass estimation approach was used for the metal estimates. Where estimates could not be made within the first three OK pass criteria, values were interpolated using simple kriging.

Model validation steps included visual validation, statistical comparisons, and swath plot analysis (drift analysis).

The confidence classifications used for hypogene mineralization were based on core drill holes only. Classifications used for supergene material were based on a combination of RC and core drilling. Classification was based on a required number of drill holes within defined distances established from a drill hole spacing analysis. Measured, Indicated and Inferred Mineral Resources were classified.

Mineral Resources were considered amenable to open pit mining, and constrained within a pit shell. The ultimate pit was created based on the same parameters (costs, prices, metallurgical recoveries, and pit slope angles) that were used for defining Mineral Reserves; however, the pit outline selected for Mineral Resources represents the revenue factor (RF) 1 pit. The mine plan uses a variable cut-off net smelter return (NSR) variable, to maximize the net present value (NPV). Cut-offs vary by year, and low-grade stockpiled material is deferred to later in the mine life. The NSR cut-off for mineralization is US$10.01/t milled.

1.11.2 Mineral Resource Statement

The Mineral Resource estimate is reported exclusive of those Mineral Resources that have been converted to Mineral Reserves, and uses the 2014 CIM Definition Standards. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee.

Mineral Resources have an effective date of December 31, 2023, and are reported insitu, or in stockpiles, on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

Table 1-1 summarizes the estimated Measured, Indicated and Inferred Mineral Resources for the Project.

Factors that may affect the Mineral Resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the NSR cut-off; changes in local interpretations of mineralization geometry and continuity of mineralized zones; density and domain assignments; changes to geotechnical, mining and metallurgical recovery assumptions; changes to input and design parameter assumptions that pertain to the conceptual Whittle pit design constraining the estimate; and assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environmental and other regulatory permits, and maintain the social licence to operate.

1.12 Mineral Reserve Estimation

1.12.1 Estimation Method

Mineral Reserves were modified from Measured and Indicated Mineral Resources based on open pit mining. Inferred Mineral Resources were set to waste. Pit shell 46 was determined to be suitable to provide the Mineral Reserves that most closely matched the available TMF capacity. The pit designs focused on initial mining phases with low mining rates that allowed rapid access to higher value mineral material. Successive mine pit expansions occupy successively new areas, and the corresponding mining ratios gradually increase, allowing sufficient time to increase the mining fleet to meet increasing production demands while keeping the mill feed head grade as constant as possible.

The TMF has a finite tailings capacity of about 1,400 Mt, due to site constraints. This capacity determined the low-grade stockpile cut-off grade, as the direct feed ore plus the low- and high-grade material in the stockpiles had to match the limited throughput of the LOM concentrator. The NSR cut-off value for determining Mineral Reserves to meet stockpile capacity corresponds to an NSR of US$20.00/t milled. The remaining mineralized rock is segregated into marginal stockpiles, where the NSR cut-off is US$11.74/t, and waste.

Optimization data includes metal prices and smelter contracts, operating cost forecasts and production cost estimates. The deposit topography used for the estimation of the final reserve pit was projected to December 31, 2023. The estimated Mineral Reserves are reported using metal prices of $3.25/lb Cu and $9.90/lb Mo, and a variable grade cut-off approach based on NSR values that average US$23.8/t milled over the planned LOM. Any potential impacts to ore feed that might arise due to ore loss or dilution were not considered material, and no provisions for ore loss or dilution were included in the mine plan.

Table 1-1: Mineral Resource Summary Table

Category	Tonnage (Mt)	Grade			Contained Metal		
		Cu (%)	Mo (%)	Ag (g/t)	Cu (Mt)	Mo (Mt)	Ag (Moz)
Measured	954	0.37	0.013	1.0	3.50	0.13	32.18
Indicated	3,413	0.36	0.018	1.1	12.44	0.61	123.70
Measured and Indicated	***4,367***	***0.36***	***0.017***	***1.1***	***15.93***	***0.74***	***155.88***
Inferred	4,260	0.34	0.015	1.1	14.44	0.64	148.89

Notes to Accompany Mineral Resource Table:

1. Mineral Resources are reported insitu or in stockpiles, using the 2014 CIM Definition Standards, and have an effective date of December 31, 2023. The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee.
2. Mineral Resources are reported exclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are reported on a 100% basis. Teck has an indirect 60% ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.
4. Mineral Resources are reported using a net smelter return cut-off of US$10.10/t, which assumes metal prices of US$3.25/lb Cu and US$9.90/lb Mo.
5. Mineral Resources are contained within a conceptual pit shell that is generated using the same economic and technical parameters as used for Mineral Reserves but at a selected revenue factor of 1. Direct mining costs are estimated at US$2.37/t of mineralized material mined; direct waste costs are estimated at US$1.87/t mined. Processing costs include concentrator costs of US$5.24/t milled; desalination costs of US$0.33/t milled; water recovery costs of US$0.41/t milled; mill sustaining capital allocations of US$0.67/t milled, and general and administrative costs of US$1.64/t milled, for a total process marginal cost of US$10.10/t milled. Metallurgical recoveries are variable over the life of mine. Pit slope angles are variable, based on geotechnical domains.
6. Mineral Resources also include mineralization that is within the Mineral Reserves pit between NSR values of US$10.10/t and US$21.92/t that has been classified as Measured and Indicated Mineral Resources, as well as all material classified as Inferred Mineral Resources that is within the Mineral Reserves pit. Mineral Resource estimates include 23.8 Mt of hypogene material grading 0.54% Cu that was extracted and stored during the previous QB1 operation.
7. Tonnage and contained copper and molybdenum tonnes are reported in metric units and grades are reported as percentages.
8. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

1.12.2 Mineral Reserve Statement

Proven and Probable Mineral Reserves are reported using the 2014 CIM Definition Standards.

Mineral Reserves have an effective date of December 31, 2023, and are reported at the point of delivery to the process plant. Mineral Reserves are reported on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee. Mineral Reserves are summarized in Table 1-2.

Table 1-2: Mineral Reserve Summary Table

Category	Tonnage (Mt)	Grade			Contained Metal		
		Cu (%)	Mo (%)	Ag (g/t)	Cu (Mt)	Mo (Mt)	Ag (Moz)
Proven	1,082	0.53	0.020	1.4	5.75	0.22	48.25
Probable	335	0.50	0.023	1.2	1.68	0.08	13.33
Proven and Probable	***1,417***	***0.52***	***0.021***	***1.4***	***7.42***	***0.29***	***61.58***

Notes to Accompany Mineral Reserves Table:

1. Mineral Reserves are reported effective December 31, 2023. The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee.
2. Mineral Reserves are reported on a 100% basis. Teck has an indirect 60% ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.
3. Mineral Reserves are reported using a net smelter return cut-off of US$21.92/t, which assumes metal prices of US$3.25/lb Cu and US$9.90/lb Mo.
4. Mineral Reserves are contained within operational phases defined with an optimized pit shell sequence. Mining is performed using conventional open pit methods and equipment, and use a stockpiling strategy. Direct mining costs are estimated at US$2.36/t of ore mined; direct waste costs are estimated at US$1.87/t mined. Processing costs include concentrator costs of US$6.04/t milled; desalination costs of US$0.38/t milled; water recovery costs of US$0.47/t milled; mill sustaining capital allocations of US$0.67/t milled, and general and administrative costs of US$2.10/t milled, for a total process marginal cost of US$11.74/t milled.
5. Tonnage and contained copper and molybdenum tonnes are reported in metric units and grades are reported as percentages.
6. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

Factors which may affect the Mineral Reserve estimates include: commodity price assumptions; changes to the input parameters to the NSR cut-off grade; changes to the input parameters to the constraining pit shell, and the mine plan that is based on that pit shell; changes to metallurgical recovery assumptions; changes to the assumed permitting and regulatory environment under which the mine plan was developed; ability to maintain mining permits and/or surface rights; and ability to maintain social and environmental license to operate.

1.13 Mining Methods

The mining operations use conventional open pit mining methods and conventional equipment, including an autonomous haulage fleet.

Geotechnical domains were established by a third-party consultant. To generate the required slope designs, the pit was subdivided into geotechnical zones, each with different design inter-ramp slope angles. Designs incorporated single and double bench considerations.

A total of 20 pumping wells, each extracting 1–2 L/s, will need to be implemented over the course of about five years to manage pit dewatering. After this period, wells will be replaced on an as-needed basis to ensure suitable dewatering capacity meets the requirements of the dynamic pit development. A horizontal drill hole campaign would be required on a two-yearly basis for specific pit wall pore depressurization purposes.

The detailed phased mine designs used the same geological, geotechnical, and metallurgical models as used in the pit shell development process. A systematic process was followed to determine the optimum mining rate, NSR cut-offs, and stockpile capacities, while using a range of mining constraints to ensure the mine plan was viable and achievable given the Project constraints. The tailings storage restriction causes cut-off grade optimization and stockpile capacity to become two of the key drivers of the value generated in mine planning. The marginal stockpile NSR cut-off value is $11.74/t.

Any remaining mineralized rock below the marginal stockpile cut-off grade is sent to the waste rock storage facilities (WRSFs). The low-grade stockpile NSR value ranges from $11.74–$20.00/t, and provides an appropriate mill feed profile for the LOM. The NSR cut-off for the high-grade stockpile is $23.00/t, and cut-offs for the low-grade stockpile vary from $20–23/t. The NSRs used ensure that the tailings production does not exceed the TMF capacity.

The location of the primary crusher at the western edge of the pit will generally allow for dual access on both the northern and southern pit walls. The inclusion of dual accesses enables greater operational flexibility and reduce the risk of any operational disruption that could arise in the unlikely event of an access point becoming inaccessible. The stockpiles and WRSFs are located to the southeast and southwest of the pit.

Two WRSFs and three stockpiles are required for the LOM plan. The available TMF capacity is sufficient for treatment of higher-grade material from the mine and the high-grade stockpile, but cannot accommodate all of the lower-grade stockpiled material.

The mine has a planned 27-year mine life, to 2050, and assumes seven pit phases will be mined. The first seven years have the highest copper production, due to the higher copper grade material that is planned to be processed in those years. A total of 1,215 Mt of ore is planned to feed the mill from the mine, 294 Mt of ore will be sent to the low- and high-grade stockpiles, 323 Mt of material will be sent to the marginal stockpile, and 594 Mt of waste rock will be mined as part of the production plan. The average stripping ratio is expected to be 0.61.

At the peak of operations, support equipment requirements will be eight bulldozers, seven wheeled dozers, nine graders, five water trucks, one tracked excavator, two cable reelers, one mobile generator, and six sets of lighting equipment.

1.14 Recovery Methods

The process plant design is based on metallurgical testwork and operating experience gained with QB1.

The process consists of crushing, milling, bulk flotation, copper–molybdenum separation, copper concentrate thickening, tailings thickening, concentrate and tailings transport systems, tailings disposal, filtering, and port facilities. The process will operate at a production capacity of 140,000 t/d.

The primary crushing facility contains a single primary crusher with a double-sided dump pocket for the mine haulage trucks. The coarse ore conveyor facility consists of two overland conveyors to transport the crushed ore from the primary crusher to the coarse ore stockpile. The coarse ore stockpile has a live capacity of 80,000 t.

The concentrator facility contains two semi-autogenous grinding (SAG) mills and four ball mills, cyclone feed pumps, and cyclone clusters. The pebble crushing area includes pebble transfer conveyors, storage bins, feeders, and crushers. The flotation system includes bulk rougher flotation cells, bulk rougher regrind cyclone clusters, high-intensity grinding (HIG) regrind mills, and cleaner/scavenger units. The concentrator thickener area includes bulk concentrate and copper concentrate thickeners.

The molybdenum plant will consist of the molybdenum rougher, first cleaner, second cleaner, and third cleaner flotation and regrind equipment, as well as the molybdenum concentrate thickener, filter, dryer, and packaging equipment.

The reagent facility includes equipment and systems for mixing, storing, and distributing the various reagents to their points of use.

Two tailings thickeners and their associated equipment make up the tailings thickening area.

A concentrate pipeline, with a pressure and flow to be determined by operations, transports the copper concentrate from the process plant to the Punta Patache Norte port, a distance of about 164 km.

Power for the process plant is sourced from the Chilean grid. Process make-up water is from desalinated water with reclaim water sourced from the TMF.

1.15 Project Infrastructure

The major facilities are located at three principal sites:

- Mine and concentrator at an elevation of approximately 4,400 masl;
- TMF at an elevation of approximately 3,900 masl and located approximately 7 km south of the concentrator site; and
- Port and desalination plant at the coast.

A new (additional) access road bypassing Collahuasi, known as the A-97 Bypass road, was constructed from the A65 highway to the mine, and internal roads were constructed to act as haul roads, to connect the tailings site with the mine site, and to provide access to the pipelines for maintenance activities. In addition, there is a new overhead high voltage electric power transmission line, a concentrate pipeline system to the port, a tailings transport system to the TMF, a reclaim water pipeline system from the TMF, and a desalinated makeup water pipeline system to supply water from the port to the mine for use in the process plant.

Support buildings include an accommodation camp, administration building, shop and warehouse, laboratory, change house and dining facility, and main gatehouse. The permanent camp has 1,300 beds.

The TMF site is located in the Quebrada Blanca valley, approximately 7 km south of the process plant. The TMF has an approximate capacity of 1,407 Mt. The TMF is a rockfill cofferdam, with a 120 m high rockfill starter dam. By the end of the LOM, it is expected that this will have developed into a 310 m high tailings cyclone sand dam, and wing dam. A pumping system has been installed in the TMF to recover water from the pond that will form during tailings deposition.

Water management includes a number of diversion channels and ponds. A 4.8 km long mine diversion channel has been constructed around the eastern sector of the Quebrada Blanca basin. The water discharges into Quebrada Llareta. A TMF diversion channel starts in Quebrada Llareta, and has an approximate length of 5 km to its discharge point into Quebrada Jovita. A contact water control pond collects contact water downstream of the sulphide leach WRSF emergency pond, and on the upstream side of the leakage pond. It also captures water leaching from the south WRSF.

Water entering the open pit is primarily a combination of direct seasonal rains, run-off, and infiltration water. A water collection and pumping system sends excess water to the tailings pond. The system includes pit dewatering pumps constructed in a series configuration.

1.16 Markets and Contracts

Teck reviewed market studies by two third-party consultants, Wood Mackenzie (copper) and CRU Group (molybdenum):

- In Wood Mackenzie's view, there is a reasonable expectation that copper demand will continue to increase, driven by demand in the electrical network, transportation, consumer goods, and general areas. Due to increasing costs associated with finding, developing, producing, and delivering copper to the market, coupled with steadily rising demand, Wood Mackenzie believes that the medium to long-term outlook for the copper price is robust. In the long-term, new smelting capacity will need to come on-stream to meet rising demand.
- In the CRU Group's view, there is a reasonable expectation that copper demand will continue to increase, driven by demand for molybdenum-containing steels. Higher molybdenum prices tend bring high-cost primary mine production to the market and in the past has changed the amount of molybdenum that China will consume/import or export to global markets. Teck currently sells its concentrate production in the custom roasting market as molybdenum concentrates. The market for custom molybdenum concentrates outside of China is split almost equally between three major players, with some smaller players that operate roasting facilities outside of China.

The operation is expected to produce an average of 930,204 dmt of copper concentrates annually with expected peak production of 1,173,906 dmt in 2026. The copper concentrate is expected to have an average copper grade of 24–29% with 45–75 g/dmt of silver and 0.4-0.7 g/dmt of gold. The concentrate is not expected to have any notable impurities with low levels of arsenic, zinc, lead, bismuth, mercury, and fluorine. Given the location of the mine, the copper concentrates have unincumbered access to all major custom copper concentrate markets.

CMTQB entered into long-term sales contracts with smelters in Asia and Europe to secure capital for development of the Quebrada Blanca Operations. These contracts will expire at the end of 2032 and account for approximately 25% of the average annual production. About 10–15% of the average annual production will be sold to smelters in Chile. The contracts with local Chilean smelters have a duration of 3–5 years but are expected to be renewed after they expire. The remaining 60–65% of the annual copper concentrate production will be sold to Sumitomo Metal Mining Co. Ltd. and Teck Metals Ltd. (a wholly-owned Teck subsidiary) under a concentrate sales offtake contract. The tonnes purchased by Sumitomo Metal Mining Co. Ltd. will be processed at Sumitomo's smelters in Japan and China and the tonnes purchased by Teck Metals Ltd will be resold in the custom concentrate market. Given the quality of the concentrates, all contracts have market terms or better than market terms inclusive of treatment and refining charges, metal payables and freight.

Over the LOM, the operations will produce an average of 18 Mlb/a of molybdenum as molybdenum concentrate with 1.5–2.0% copper which is higher than the typical grade of 0.5%. The concentrate will contain about 350–400 g/t Rh. At these levels, the rhenium is not payable, but in certain market conditions can help make the concentrate more marketable by partially offsetting the negative impact of the high copper content. The marketing strategy is to have 50% of the molybdenum sold as molybdenum concentrates and the remaining 50% toll converted to molybdenum oxide and ferro molybdenum at molybdenum roasters in Chile, with the resulting molybdenum oxide and ferro molybdenum sold to the end-use market.

The Punta Patache Norte port facility will be a dedicated and modern, high- speed loading terminal capable of berthing and loading Handymax and up to Panamax- sized vessels. It is expected to attract highly-competitive rate levels versus other concentrate producers in the region. At Project start-up, Teck expects to arrange for spot vessels to handle the initial shipments to the marketplace, followed by multi-year contracts of affreightment (COAs) to lock in shipping terms, provide some protection from shipping cost fluctuations, and ensure the availability of quality vessels to carry the Project's product. Facilities to enable domestic shipments, either to Chilean smelters or to alternative ports for temporary storage prior to vessel loading were installed. This ensured access to market for product from the mine, while the port infrastructure is constructed, tested, and commissioned in H1 2024.

Teck has multiple major contracts in place or under negotiation that support operations. These include contracts relating to fuel, transport, contractor mining, mine and plant maintenance, consumables and bulk commodity supply, operational and technical services, and administrative services. Contracts are negotiated and renewed as needed. Contract terms are considered to be in line with typical such contracts in Chile.

1.17 Environmental, Permitting and Social Considerations

1.17.1 Environmental Considerations

A number of baseline and monitoring studies were performed in support of the Project "Estudio de Impacto Ambiental Proyecto Minero Quebrada Blanca Fase 2" report (the 2016 EIA), and included the following key areas: climate and meteorology; air quality; noise; geology, geomorphology, and geological risks; soil; vibrations; hydrology; hydrogeology; water quality; marine water resources; terrestrial ecosystems; continental aquatic ecosystems; marine ecosystems; cultural heritage; landscape; protected areas and priority conservation sites; natural and cultural attractions; land use and relationship with planning; and the human environment.

The 2016 EIA was submitted to Chilean environmental authorities on September 26, 2016, and approved in August 2018.

Teck has implemented monitoring, contingency and emergency plans in support of mining operations. Teck has proposed measures to address unplanned situations deemed as environmental risks to the environment and communities within the areas of Project influence.

1.17.2 Permitting Considerations

The number of permits required was defined based on the project description included in the 2016 EIA, and the subsequent modifications of the project during construction phase. The permitting strategy followed was always dependent on Project needs, and was governed by the application preparation and processing times in relation to the development schedule.

Currently Teck has applied for 2,191 permits (96.9% of the total number of permits) and has obtained 2,125 of those. The remaining 69 permits are related to the end of construction activities, operation of the facilities that are still under construction, and some permits required for the port operations.

Closure is subject to separate sectorial regulatory requirements, and approval of the closure plan must be obtained from Sernageomin. Closure planning covers the mine area, TMF, linear works, and the port. Post-closure activities would be focused on maintenance, inspections, monitoring, and operation of water management systems following closure. Closure costs are established based on a methodology approved by the government. Under that methodology, a bank guarantee needs to be provided to assure those costs over a 15-year period. The monetary amount in the guarantee can be reduced during closure, based on implementation of the closure plan. The monetary value can also be reduced if partial closure activities are undertaken during the mine life.

Closure costs were estimated by a third-party consultant at $268 M based on a detailed analysis of the closure plan and commitments. A post-closure cost estimate was developed using current regulatory requirements. The post-closure costs were calculated as $138 M over a period of 350 years following closure. This estimate includes value-added tax as per the current regulations.

1.17.3 Social Considerations

Teck has corporate policies and guidelines in place that address corporate sustainability. These define corporate expectations for sustainable conduct and sustainable development for all projects with which Teck or its subsidiaries become involved.

1.18 Capital Cost Estimates

Capital cost information is based on the 2024 LOM plan. Costs have been calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates (internal and third party); there is currently little operating performance data on the Quebrada Blanca Operations, and costs may change in future by an estimated ±15%. Costs reflect productivity and resourcing assumptions for the site.

Capital cost estimates include upfront development capital for remaining spend of the initial concentrator build in 2024, as well as ongoing sustaining capital costs over the LOM until 2049. Go-forward development capital costs as of 2024 are estimated to be between US$500 and US$700 million to complete the construction of the Quebrada Blanca Operations.

Sustaining capital estimates include mine equipment, ongoing tailings facility spend, and other sustaining capital (e.g. plant and infrastructure), as well as capital leases (start-up mine equipment, transmission line).

A summary of sustaining capital costs is provided in Table 1-3.

Table 1-3: Sustaining Capital Costs and Leases

Cost Area	LOM Average (US$M/a)
Mine equipment	20
Tailings	5
Concentrator	80
Total	***105***

Note: Numbers have been rounded to the nearest US$5 M, and are provided on a go-forward basis. The averages are based on full years only.

1.19 Operating Cost Estimates

Operating cost information is based on the 2024 LOM plan. Costs have been calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; there is currently little operating performance data on QB, and costs may change in future by an estimated ±15%. Costs reflect productivity and resourcing assumptions for the site.

The operating cost estimate includes all operational activities required for the mining and processing of hypogene ore through the concentrator facilities and production of copper and molybdenum concentrates, including all services required to support these operations. The battery limits of the estimate are in-situ ore through to dewatered concentrate, loaded either onto a ship (in the case of copper concentrate) or bagged and waiting at the port (in the case of molybdenum concentrate).

Operating costs are based on a nameplate throughput rate of 143 kt/d, although throughput can go beyond this rate depending on the hardness of the material. Planned LOM rates are up to 55 Mt/a of processed ore and up to 130 Mt/a of mined tonnes. Operating cost estimates are provided in **Error! Reference source not found.**.

Table 1-4: Operating Cost Summary

Area	LOM Average (US$/t processed)	LOM Average (US$M/a)
Mine	3.65	200
Concentrator	6.20	330
TMF	1.20	60
Port	1.05	60
Pipeline	1.00	50
G&A	4.10	220
Total Operating Cost	***17.20***	***920***

Note: Numbers have been rounded to the nearest US$5 M, and are provided on a go-forward basis. The averages are based on full years only.

1.20 Economic Analysis

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Mineral Reserve declaration is supported by overall site positive cash flows and net present value assessments.

1.21 Risks and Opportunities

1.21.1 Risks

Risks that may affect the Mineral Resource and Mineral Reserve estimates are provided in Section 14.15 and Section 15.9, respectively.

The capital and operating cost estimates were calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; however, there is currently little operating performance data for the operation, and costs may change in future by an estimated ±15%. This may affect the capital and operating cost estimates as presented in this Report, and the underlying cashflow that supports the Mineral Reserve estimates.

1.21.2 Opportunities

There is upside potential for the Project if the mineralization currently classified as Inferred can be upgraded with additional drilling and mining study support.

Metallurgical tests showed commercially substantial levels of rhenium in the molybdenum concentrate; however, there is no established basis for a rhenium payment structure in molybdenum concentrate. Therefore, rhenium is considered only as an opportunity. Rhenium would, at minimum, make the molybdenum concentrate more marketable.

1.22 Interpretation and Conclusions

Under the assumptions in this Report, the Mineral Reserve declaration is supported by overall site positive cash flows and net present value assessments, which supports Mineral Reserves. The mine plan is achievable under the set of assumptions and parameters used.

1.23 Recommendations

Recommendations are provided as a single-phase work program. All recommendations can be conducted concurrently and are not dependent on the outcomes of another recommendation. The recommended budget to complete the work is approximately C$25 M.

The QPs make the following recommendations in their areas of expertise:

- Complete the implementation of orebody knowledge technologies to equip the operation for optimizing operational decision making;
- Implement a reconciliation system that will support the tracking of the long- and medium-term resource model forecasts;
- Execute an advanced infill drilling program to support medium-term production forecasting capabilities;
- Execute long range infill drilling to gather technical information to support potential expansions and permitting requirements. This is likely to require about 14,000 m/a of drilling, to gather sufficient material to allow metallurgical testwork, collection of geotechnical data, additional data for waste rock facility characterization, and to support geotechnical data for potential pit expansions;
- Complete supporting mining studies in support of potential mine life extension and throughput expansion scenarios.
- Re-evaluate estimated operating and capital costs on an ongoing basis, as operational information becomes available.

2 INTRODUCTION

2.1 Introduction

Mr. Rodrigo Marinho, P.Geo., Ms. Claudia Velasquez, CMC., Mr. Eldwin Huls, P.Eng., Ms. Jacquelyn Vanos, P.Eng., and Mr. Paul Kolisnyk, P.Eng., prepared this technical report (the Report) for Teck Resources Limited (Teck) on the Quebrada Blanca mining operation (Quebrada Blanca Operations or the Project), located in Chile's Región de Tarapacá (Figure 2-1).

The Project owner is Compañia Minera Teck Quebrada Blanca S.A. (CMTQB), which is organized as a Chilean closed corporation (sociedad anónima cerrada) with two series of shares: Series A (common) and Series B (preferred). Teck's 60% indirect interest in Quebrada Blanca is held by Quebrada Blanca Holdings S.p.A (QBH), which is held 66.67% by Teck and 33.33% by Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation collectively (Sumitomo). QBH holds a 90% direct interest in CMTQB (100% of the Series A shares) and Empresa Nacional de Minería (ENAMI), a Chilean government entity, holds a 10% carried interest in CMTQB (100% of the Series B shares), which does not require ENAMI to fund capital spending.

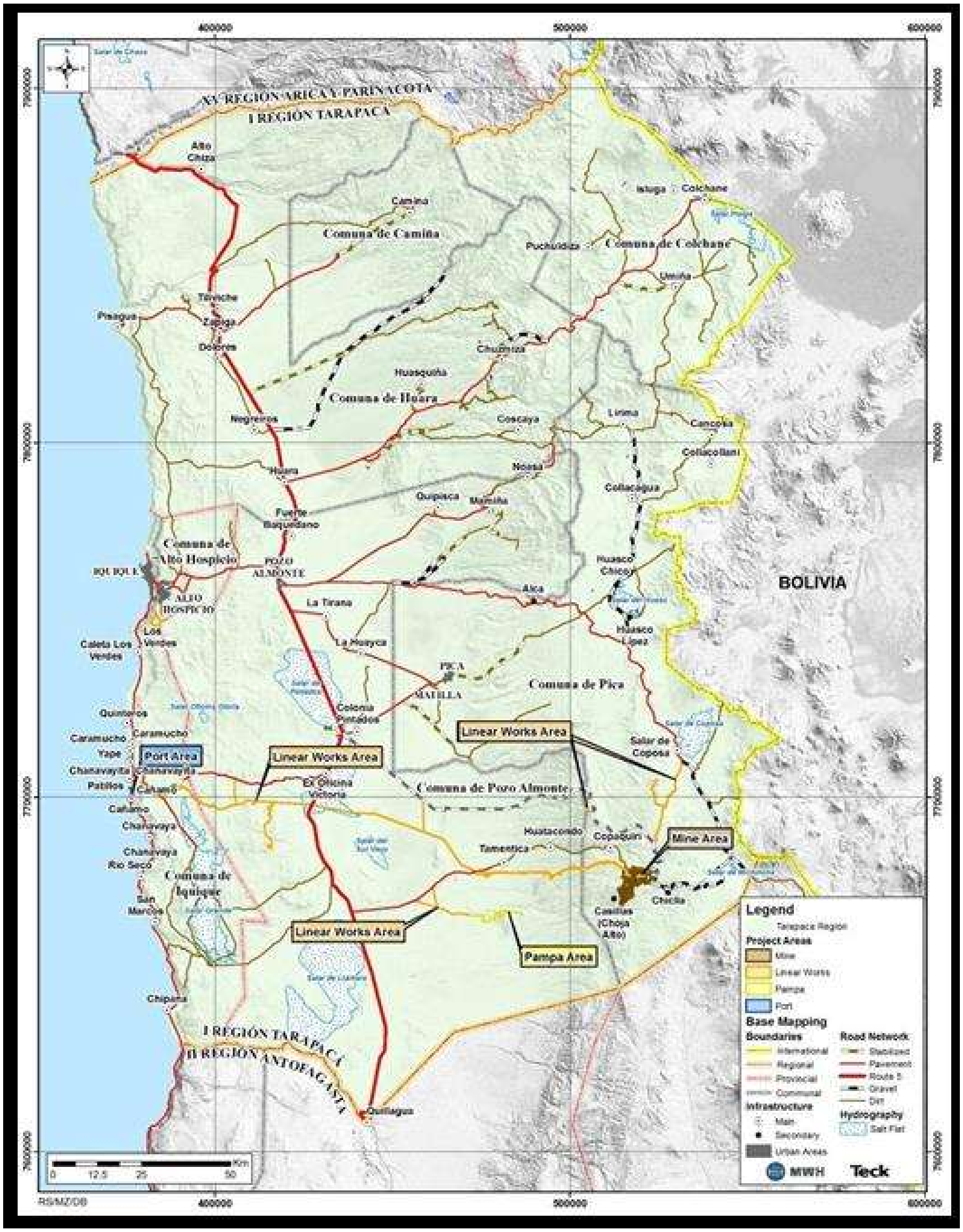
The initial open pit mine at Quebrada Blanca (the Quebrada Blanca Phase 1 operation or QB1) commenced operation in 1994, exploiting supergene copper mineralization. Processing used a combination of heap leach and dump leach and solvent extraction/electrowinning (SX/EW). Supergene mining operations were completed in 2018, and processing was completed in 2023.

Quebrada Blanca Phase 2 (QB2), which commenced copper production in 2023, exploits the sulphide deposit through the addition of a large pit pushback, major concentrator expansion, a tailings facility and required supporting infrastructure. The Quebrada Blanca concentrator achieved first production in the first half of 2023. By the end of 2023, the concentrator was operating near design throughput capacity. Construction of the molybdenum plant was substantially complete at the end of 2023. Shiploader construction is ongoing, and expected to be completed in the first half of 2024. Alternative third-party port facilities are available and will be used until the shiploader is complete.

2.2 Terms of Reference

The Report was prepared to support disclosures in Teck's 2023 Annual Information Form. The Report presents updated Mineral Resource and Mineral Reserve estimates, and updates to the mine plan, commodity pricing, and capital and operating cost assumptions.

Mineral Resources and Mineral Reserves are reported using the confidence categories in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014; the 2014 CIM Definition Standards).



Note: Figure prepared by MHW and Teck, 2016

Figure 2-1: Project Location Plan

The Mineral Resource and Mineral Reserve estimates are forward-looking information and actual results may vary. The risks regarding Mineral Resources are summarized in the Report (see Section 14). The assumptions used in the Mineral Resource estimates are summarized in the footnotes of the Mineral Resource table and outlined in Section 14. The risks regarding Mineral Reserves are summarized in the Report (see Section 15 and Section 25). The assumptions used in the Mineral Reserve estimates are summarized in the footnotes of the Mineral Reserve table and outlined in Section 15 and Section 16 of the Report.

Currency is expressed in US (US$) unless otherwise noted in the text. The local currency is the Chilean peso (CLP). Units presented are typically metric units, such as metric tonnes, unless otherwise noted.

The Report uses Canadian English.

Total copper is expressed as Cu, meaning total copper. Soluble copper is expressed as CuS, and consists of acid-soluble copper (CuSH) and cyanide-soluble copper (CuCN). Residual copper is expressed as CuRes.

2.3 Qualified Persons

This Report has been prepared by the following Qualified Persons (QPs):

- Mr. Rodrigo Marinho, P.Geo, Technical Director, Reserve Evaluation, Teck;
- Ms. Claudia Velasquez, CMC, Senior Metallurgical Specialist, Teck;
- Mr. Eldwin Huls, P.Eng., Manager Field Engineering, Teck;
- Ms. Jacquelyn Vanos, P.Eng., Manager, Business Planning and Evaluations, Teck;
- Mr. Paul Kolisnyk, P.Eng., Director, Technical Marketing and Material Stewardship, Teck.

2.4 Site Visits and Scope of Personal Inspection

Mr. Rodrigo Marinho has visited the Project on a regular basis since December 2012. During his most recent visit from October 11–12, 2022, Mr. Marinho visited the mine site and reviewed drilling operations, core retrieval and shipping practices, geotechnical and quick logging. He also reviewed drill hole core stored in the facilities of the town of Alto Hospicio and discussed all sampling and logging processed and geological interpretations with the geology group.

Ms. Claudia Velasquez visited the Quebrada Blanca mine from January 29 to February 1, 2024. During the visit, she inspected the concentrator site (crusher, grinding, flotation, and thickening areas), the tailings management facility (TMF), and the Port area. Ms. Velasquez visited various facilities that have similar design concepts as those used for the Quebrada Blanca Operations, such as Confluencia Los Bronces (for grinding facilities, 2016–2017) and Collahuasi (concentrator site, 2007–2009),

Mr. Eldwin Huls has visited the Project site numerous times since 2011. His most recent site visit to the Quebrada Blanca mine was from August 8–9, 2023. During those visits he inspected the facility sites, including the port area, pipeline routes, access roads, concentrator site, and the TMF. Mr. Huls visited various facilities that had similar design concepts to those planned for the Project, including the Escondida Water Supply Project on March 7, 2016 to observe construction procedures for the pipeline and associated port facility; the Pelambres concentrator, tailings management, and port facilities in April 2018, the Carlsbad desalination plant in July 2018, and the Quellaveco concentrator in August 2022, to gain insights into maintenance and operational issues.

Ms. Jacquelyn Vanos has visited the Project site and the Santiago project offices in Chile on a number of occasions. Her most recent site visit was from November 20–22, 2023, and as part of the same visit, spent time in the project office. She also participated in a cost review in Santiago in July 2023. During her site visits and office discussions, she reviewed life-of-mine (LOM) and five-year plans with operations teams.

2.5 Information Sources and References

There are a number of effective dates pertinent to the Report, as follows:

- Effective date of the Mineral Resource estimates: December 31, 2023;
- Effective date of the Mineral Reserve estimates: December 31, 2023.

The overall Report effective date is taken to be December 31, 2023, and is based on the effective date of the Mineral Reserve estimates.

2.6 Previous Technical Reports

Teck has previously filed the following technical reports on the Quebrada Blanca deposit on SEDAR:

- Marinho, R., Rairdan, B., Huls, E., and Kolisnyk, P., 2019: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Región de Tarapacá, Chile: report prepared for Teck Resources Limited, effective date January 1, 2019;
- Marinho, R., and Nelson M., 2016: NI 43-101 Technical Report on Quebrada Blanca Phase 2 Feasibility Study 2016, Región de Tarapacá, Chile: report prepared for Teck Resources Limited, effective date February 3, 2017;
- Allan, M.J., Yuhasz, C., Witt, P., and Baxter, C., 2012: National Instrument 43-101 Technical Report, Quebrada Blanca Phase 2 Project, Region I, Chile: report prepared for Teck Resources Limited., effective date April 24, 2012;
- Barr, N.C., 2008: NI 43-101 Technical Report on Hypogene Mineral Resource Estimate, at Dec 31, 2007, Quebrada Blanca Region I, Chile: report prepared for Teck Cominco Limited and Compañía Minera Quebrada Blanca S.A, filing date March 31, 2008.

Prior to Teck’s interest in the Project, Aur Resources Inc. (Aur Resources) filed the following technical report:

- Barr, N.C. and Reyes, R., 2004: Report on Mineral Resources and Mineral Reserve Estimates at Dec. 31, 2003, Quebrada Blanca Copper Mine, Region I, Chile: report prepared for Aur Resources and Compañía Minera Quebrada Blanca S.A, filing date March 31, 2004.

3 RELIANCE ON OTHER EXPERTS

This section is not relevant to this Report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The Quebrada Blanca Operations are located in Chile's Región de Tarapacá, approximately 165 km directly and 240 km by road southeast of the regional capital city of Iquique and near the Bolivian border on the western flank of northern Chile's Andes Mountains.

The open pit operation is located at approximately 21°00'08"S and 68°48'30"W.

The site for the Project's tailings management facility (TMF) is located approximately 7 km from the concentrator site at 20°59'33.46"S and 68°50'07.46"W.

The port facilities are located at Punta Patache Norte, which is approximately 145 km west of the mine and 60 km south of Iquique, at a location of 20°48'36.47"S and 70°12'01.49"W.

4.2 Property and Title in Chile

4.2.1 Mineral Tenure

The state owns all mineral resources, but exploration and exploitation of these resources by private parties is permitted through mining concessions, which are granted by the courts. The concessions grant both rights and obligations, as defined by the Ley Orgánica Constitucional Sobre Concesiones Mineras 1982 (COM) and Código de Minería 1983 (MC), and by other general and special regulations. The Chilean National Geology and Mining Service (Sernageomin in the Spanish acronym) administers and regulates the mining industry in Chile.

Concessions can be mortgaged or transferred and the holder has full ownership rights. An owner is also entitled to obtain rights-of-way. In addition, a concession holder has the right to defend concession ownership against the state and third parties. A concession is obtained by filing a claim and includes all minerals that may exist within its area. Mining rights in Chile are acquired in the following stages:

- An exploration mining concession is granted for a two-year period, and can be extended for a maximum of two additional years upon waiver of half of the area allocated. An exploration mining concession holder is entitled to conduct all exploration activities. While an exploration concession is in force, only the concession holder can file exploitation claims;
- Exploitation mining concessions are granted indefinitely, and give the holder the right to explore and to exploit the entire mineral resource found within their boundaries.

4.2.2 Surface Rights

Ownership rights to the subsoil are governed separately from surface ownership rights. Articles 120–125 of the Mining Code regulate mining easements. The Mining Code grants full rights to use the surface land to any owner of a mining exploitation or exploration concession, provided that reasonable compensation is paid to the surface land owner.

4.3 Ownership

The Project owner is CMTQB, which is organized as a Chilean closed corporation (sociedad anónima cerrada) with two series of shares: Series A (common) and Series B (preferred). Teck's 60% indirect interest in Quebrada Blanca is held by Quebrada Blanca Holdings S.p.A (QBH), which is held 66.67% by Teck and 33.33% by Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation collectively (Sumitomo). QBH holds a 90% direct interest in CMTQB (100% of the Series A shares) and ENAMI holds a 10% carried interest in CMTQB (100% of the Series B shares), which does not require ENAMI to fund capital spending.

4.4 Agreements

There are no material agreements other than the contracts discussed in Section 19.3.

4.5 Mineral Tenure

The Project consists of 366 mining concessions of which 254 are exploitation-stage concessions, and 112 are exploration concessions. These mining concessions cover a total of 122,141 ha, and are primarily located in the I Región, Comunas de Pica e Iquique. A group of 81 concessions are situated in the II Región, Comuna de Ollague, sector Alconcha.

The concessions are divided into seven subareas: mine, access road, Ramucho–Hundida, Pampa, Alconcha, Coposa Road and Punta Patache Norte (Table 4-1).

A general concession layout plan is shown in Figure 4-1. Concession location plans are provided by area in Figure 4-2 to Figure 4-8. Table 4-2 is a summary of the mineral tenure, and Table 4-3 to Table 4-9 provide detailed lists of the concessions.

Exploitation concessions have no expiry date. All required payments to keep the concessions current had been made at the Report effective date.

4.6 Surface Rights

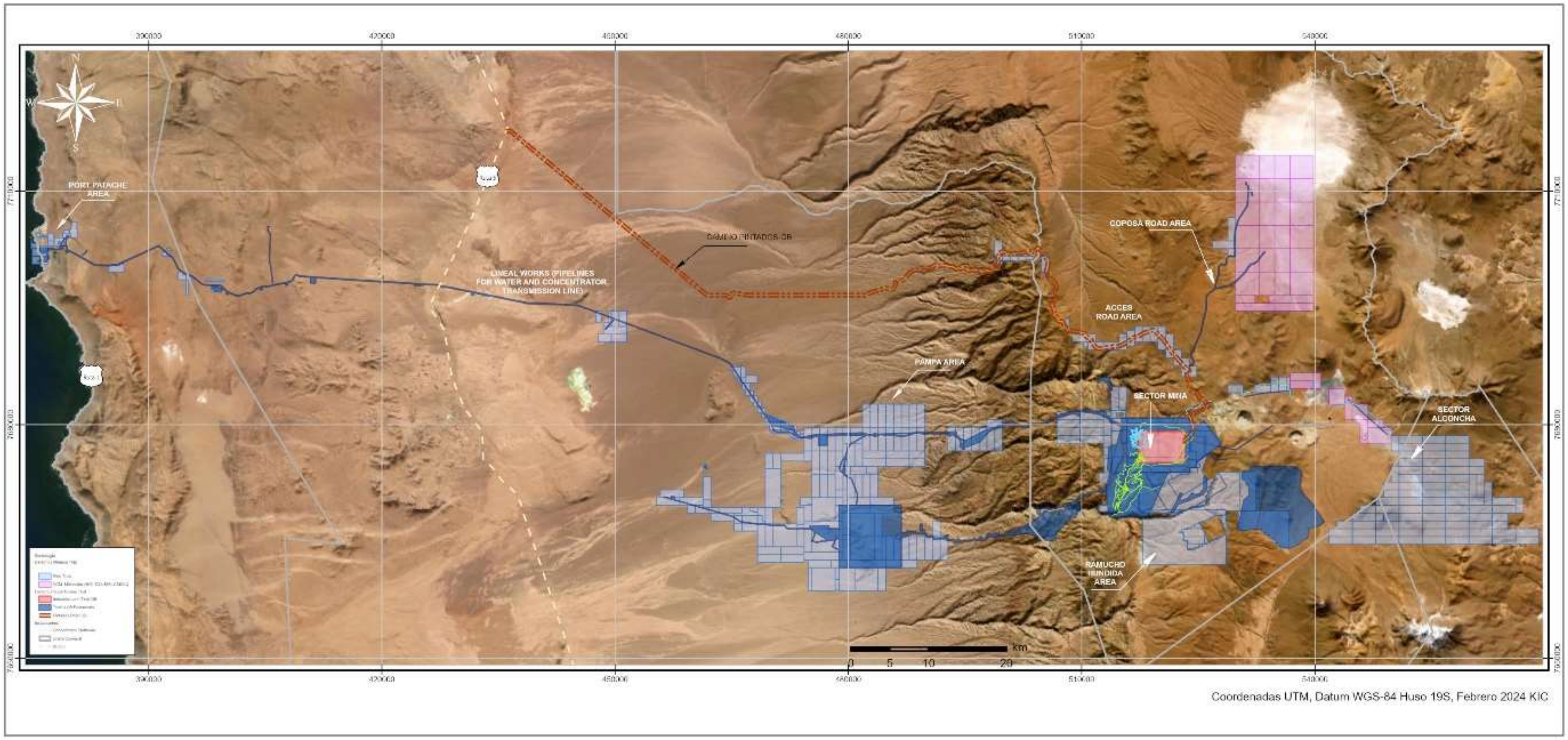
About 99% of the surface lands where Project facilities are, or will be, located belongs to the State. Teck has obtained 100% of the surface rights for operations through judicial easements and State lease agreements. A summary of the surface rights at the Report effective date is included in Table 4-10.

A land acquisition study identified several third-party mining rights concession holders within some of the areas that were required to support operations. Agreements have been concluded with those third-parties to support operations.

Figure 4-9 is a layout plan showing the surface rights in relation to the mineral tenure.

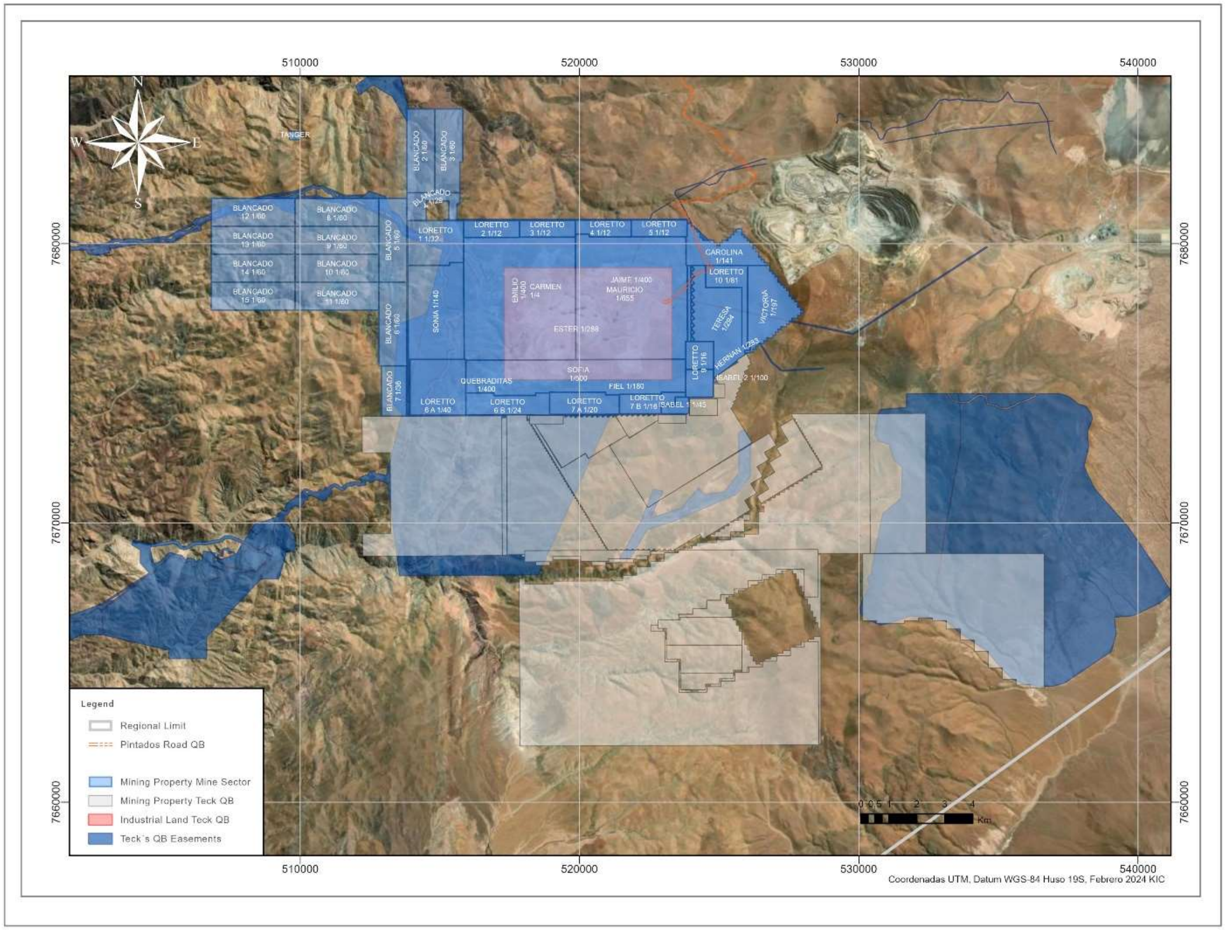
Table 4-1: Concession Location Summary Table

Area	Comment
Mine area	Industrial land (Terreno Industrial, see Section 4.6), concentrator plant, tailings transport system, and the TMF. The mine area covers the existing open pit and all related infrastructure. Concessions consist of 40 exploitation concessions (23,108 ha), and one exploration concession (100 ha).
Roads	Covered by 26 exploitation concessions (4,586 ha) and consists of the road from Colonia Pintados (main A-5 road).
Ramucho–Hundida area	Situated to the south of the mine area. It is covered by 19 exploitation concessions (24,576 ha).
Pampa area	Covers part of the facilities and infrastructure of the lineal works, such as desalinated water and concentrate pipelines, power transmission lines, and pump stations. t is covered by 146 exploitation concessions (35,733 ha), and 37 exploration concession (9,100 ha).
Alconcha area	Covered by 10 exploitation concessions (9,600 ha), and 71 exploration concessions (19,900 ha).
Coposa Salar area	Includes the A-97 Bypass access road and part of the projected road from the main A-97 road into the Quebrada Blanca mine site. The area consists of one exploitation concession (300 ha), and two exploration concessions (400 ha).
Punta Patache Norte area	Includes port facilities and related infrastructure, water desalination plant, and concentrate handling and shipping area. Concessions covering these facilities consists of 12 exploitation concessions (1,140 ha) and one exploration concession (200 ha).



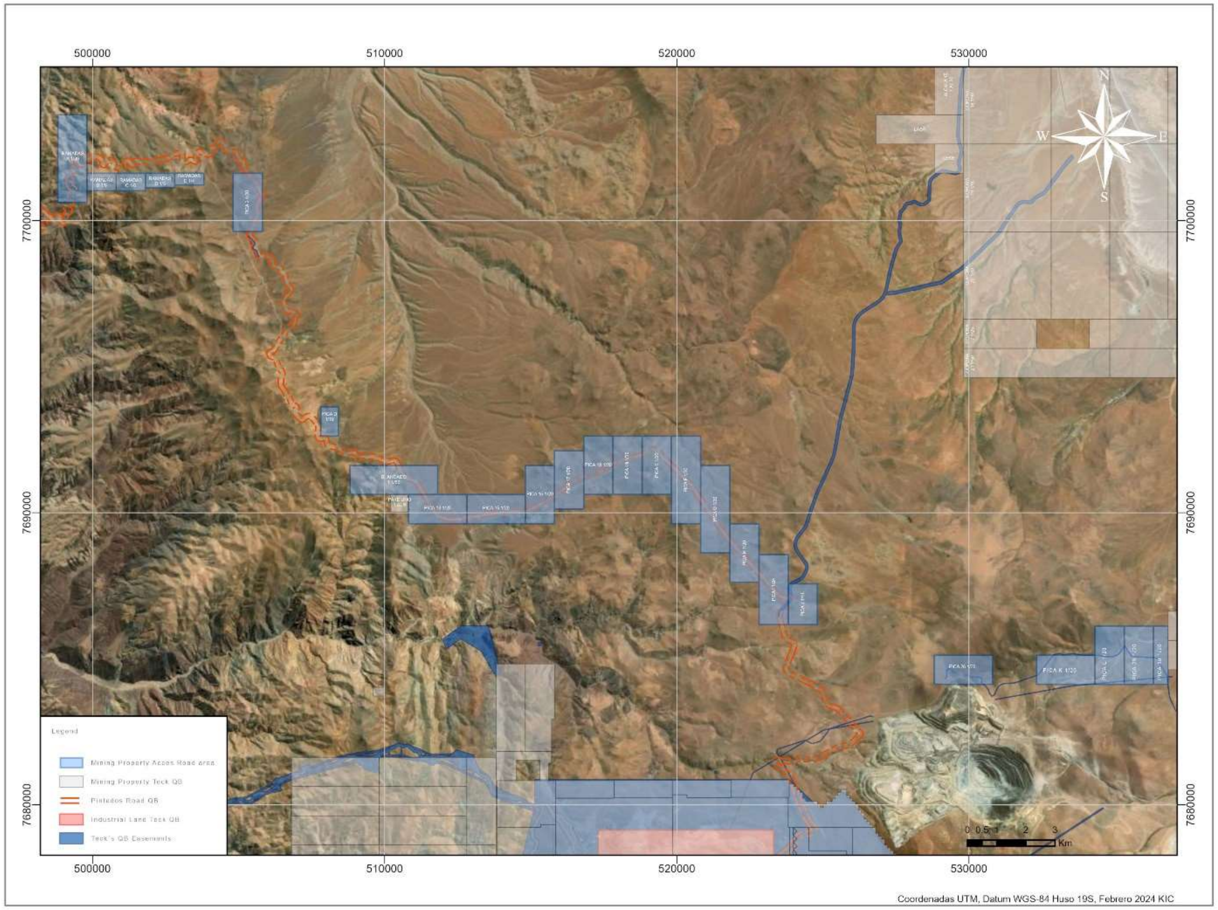
Note: Figure prepared by Teck, 2024.

Figure 4-1: Mineral Tenure Location Map



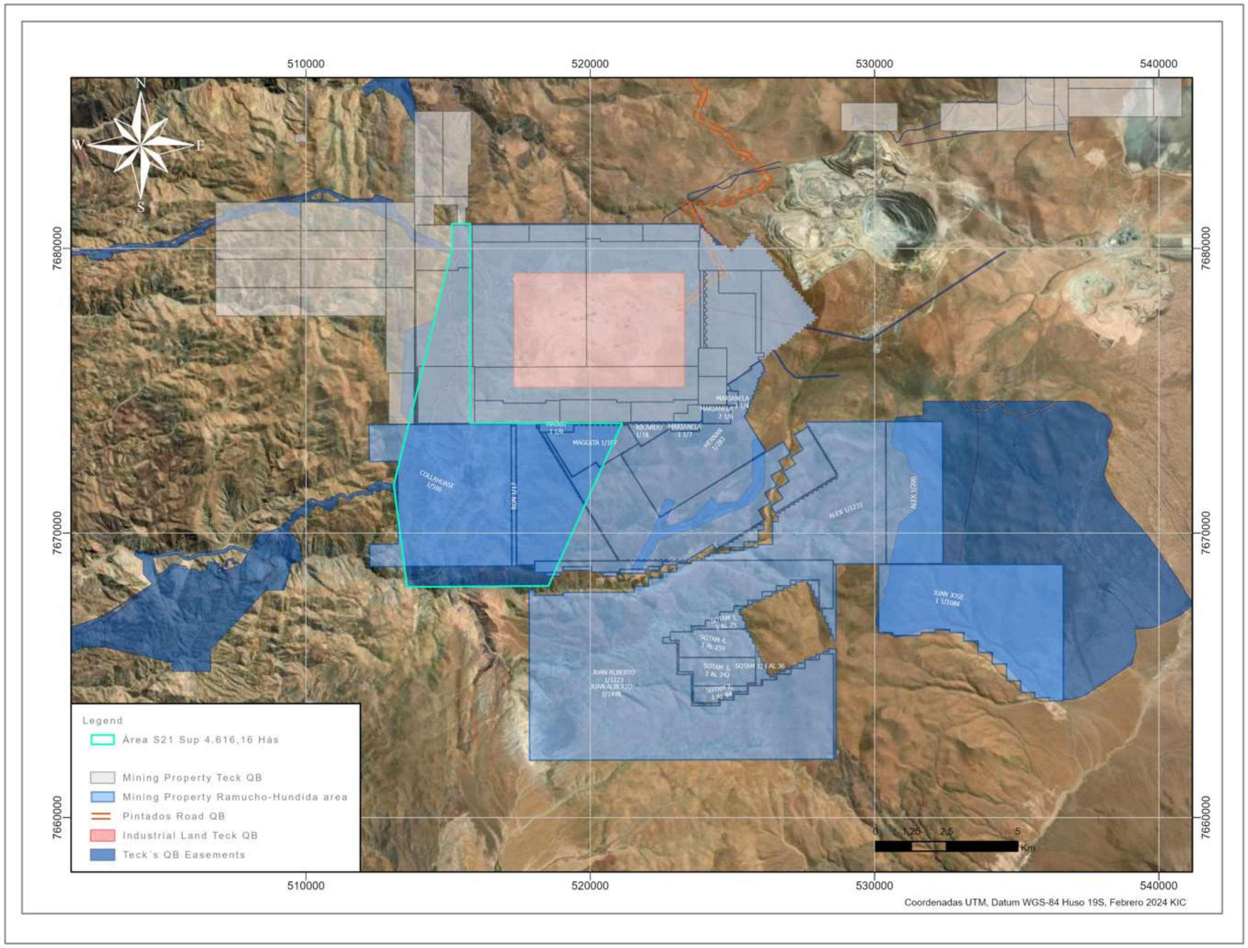
Note: Figure prepared by Teck, 2024.

Figure 4-2: CMTQB Mine Area Mineral Concessions



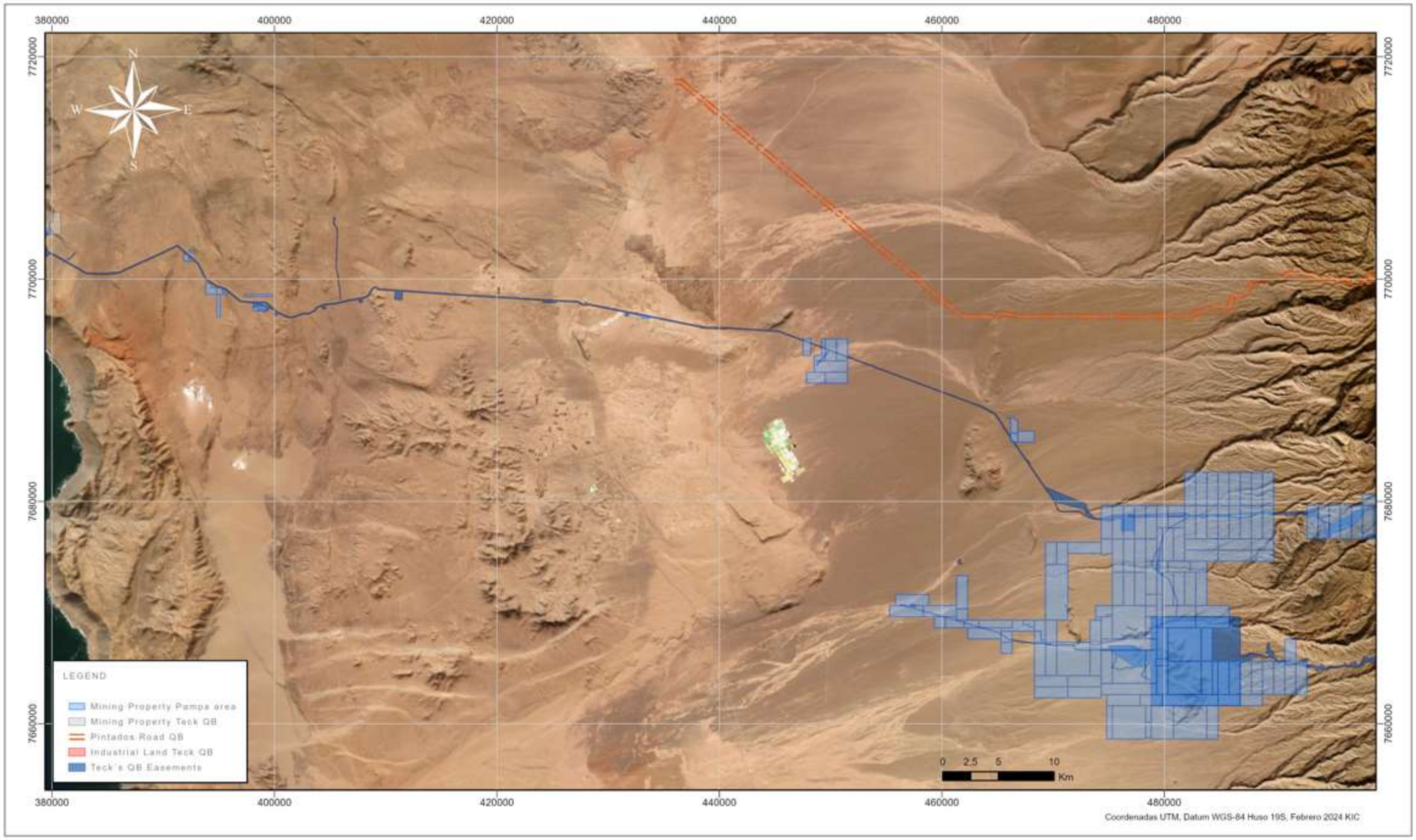
Note: Figure prepared by Teck, 2024.

Figure 4-3: CMTQB Road Access Area Mineral Concessions



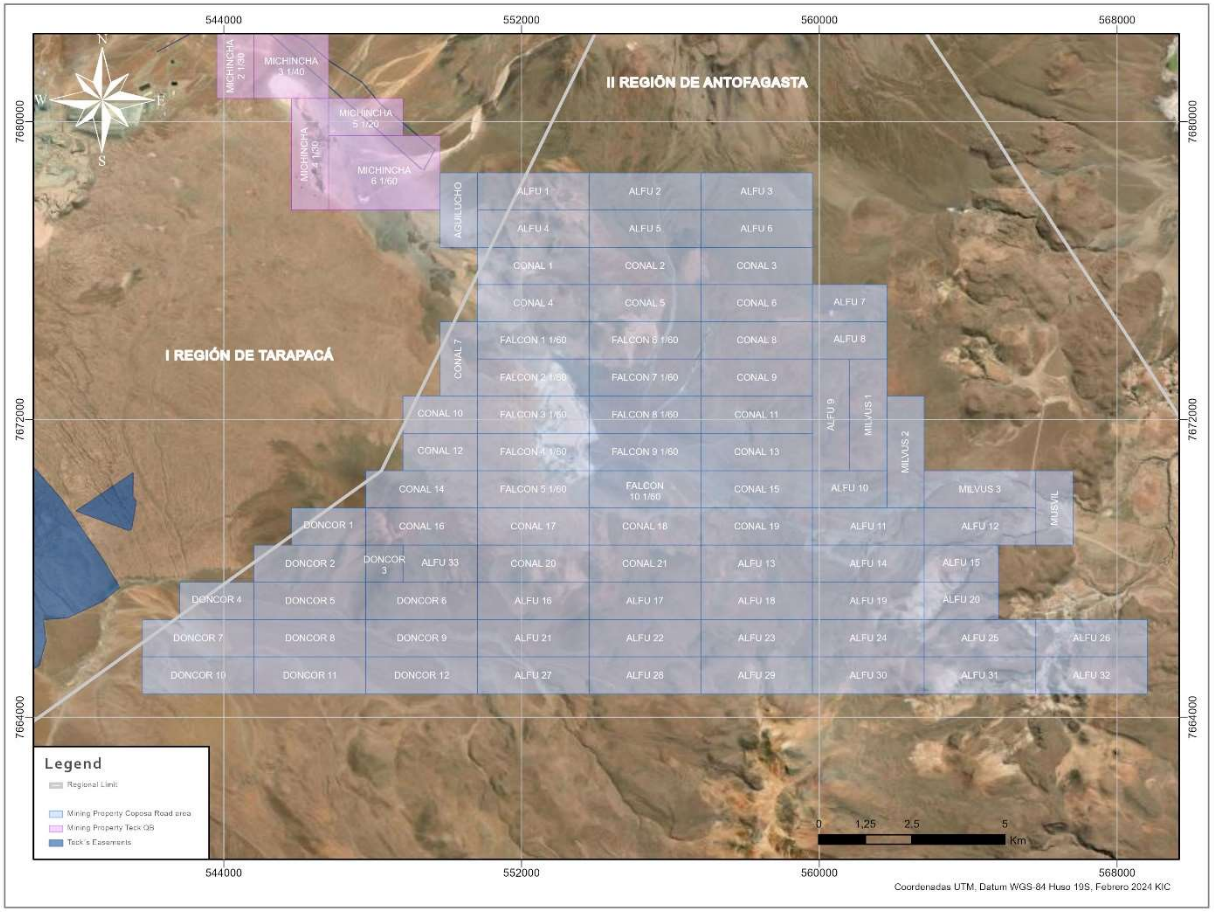
Note: Figure prepared by Teck, 2024.

Figure 4-4: Ramucho-Hundida Area Mineral Concessions



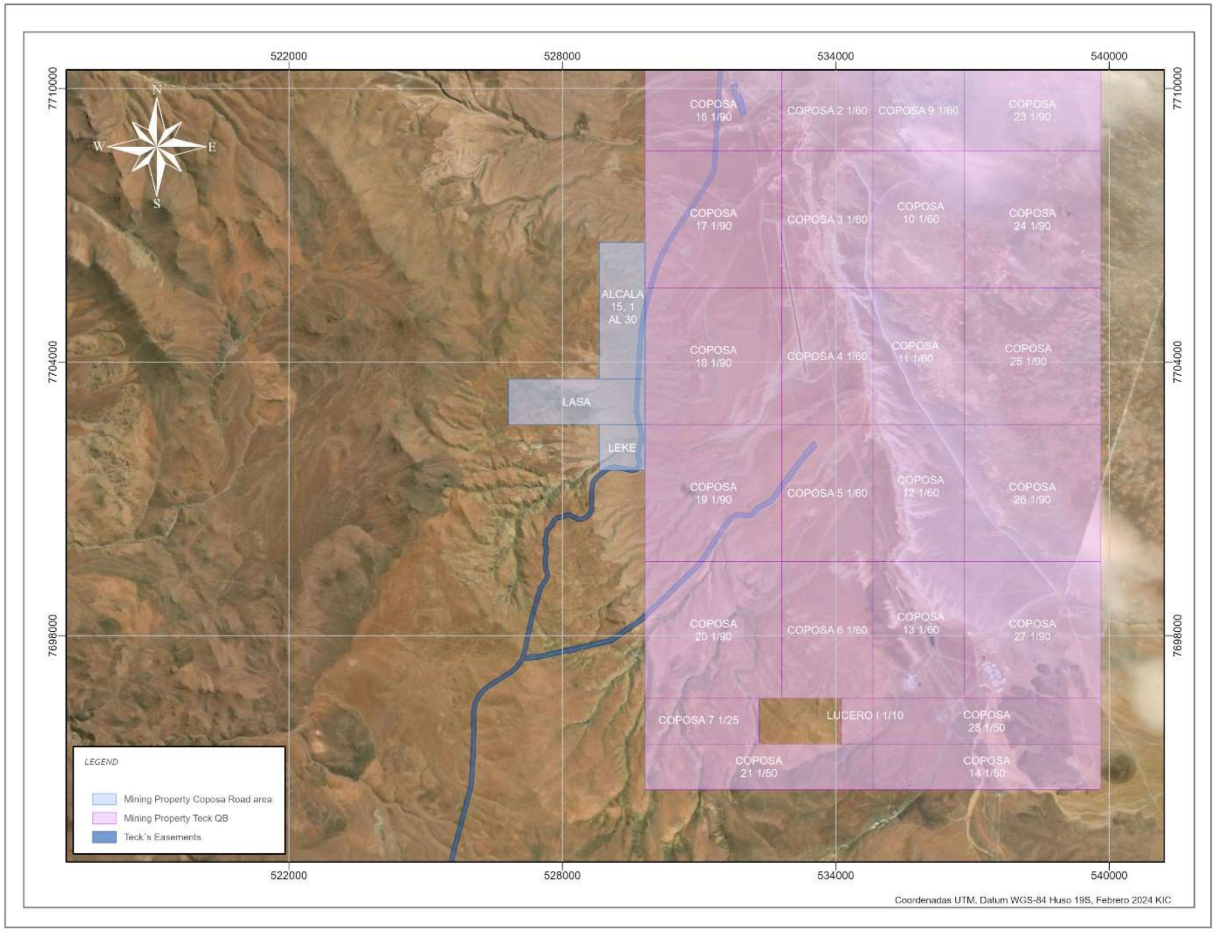
Note: Figure prepared by Teck, 2024.

Figure 4-5: Pampa Area Mineral Concessions



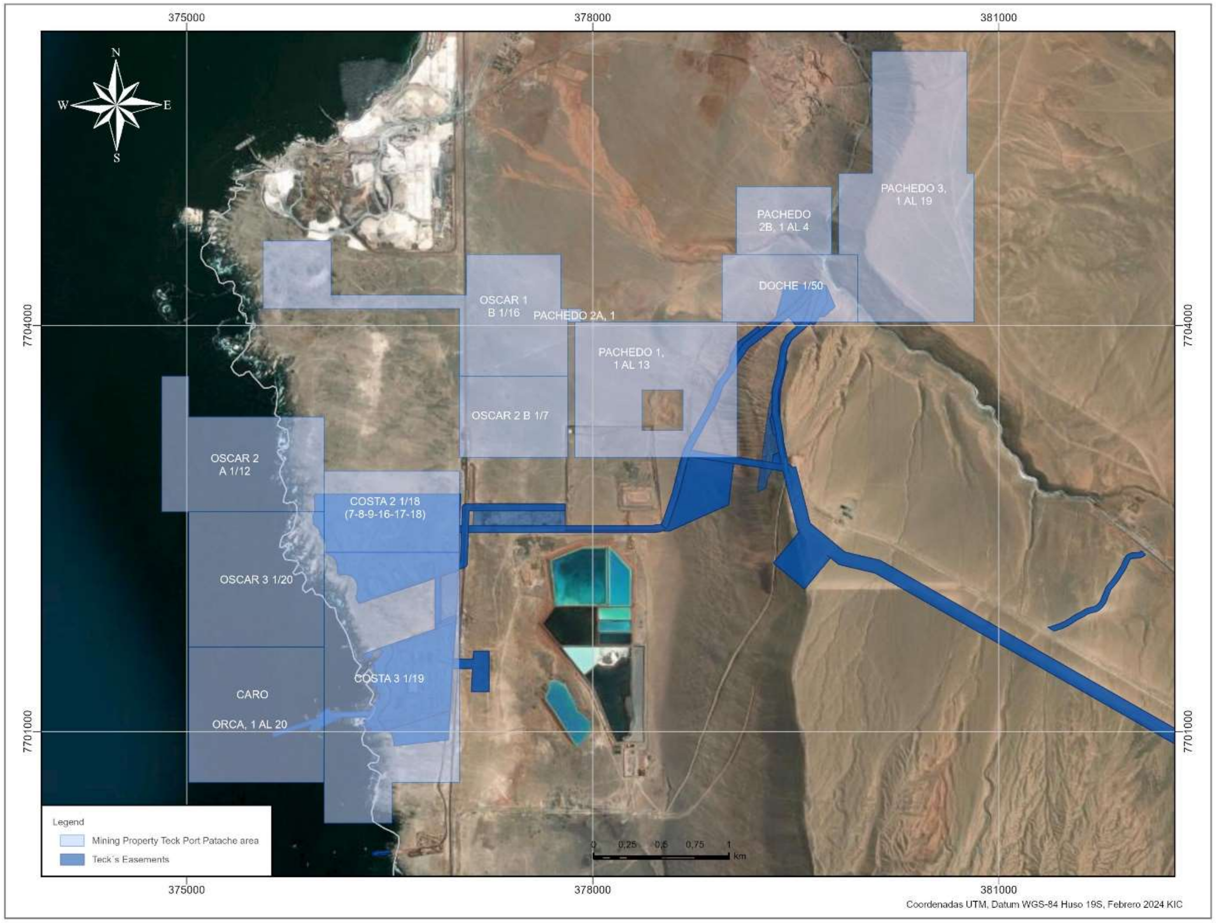
Note: Figure prepared by Teck, 2024.

Figure 4-6: Alconcha Area Mineral Concessions



Note: Figure prepared by Teck, 2024.

Figure 4-7: Coposa Road Area Mineral Concessions



Note: Figure prepared by Teck, 2018.

Figure 4-8: Port Patache Area Mineral Concessions

Table 4-2: Mineral Tenure Summary Table

Sector Name	Concession Type	Number of Concessions	Area (ha)
Mine	Exploitation	40	23,106
	Exploration	1	100
Access road to Quebrada Blanca	Exploitation	26	4,586
	Exploration	—	—
Ramucho–Hundida	Exploitation	19	24576
	Exploration	—	—
Pampa	Exploitation	146	35,733
	Exploration	37	9,100
Alconcha	Exploitation	10	3,000
	Exploration	71	19,900
Coposa Road area, includes the Bypass A-97 access road	Exploitation	1	300
	Exploration	2	400
Port	Exploitation	12	1,140
	Exploration	1	200
		366	***122,414***

Table 4-3: Mine Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Tanger	Exploration	100	4/21/2026
Quebraditas 1/400	Exploitation	2,000	No expiry date
Fiel 1/180	Exploitation	900	No expiry date
Ester 1/288	Exploitation	1,440	No expiry date
Mauricio 1/655	Exploitation	3,275	No expiry date
Sofia 1/500	Exploitation	2,500	No expiry date
Hernan 1/283	Exploitation	132	No expiry date
Jaime 1/400	Exploitation	2,000	No expiry date
Teresa 1/294	Exploitation	1,403	No expiry date
Sonia 1/140	Exploitation	700	No expiry date
Carmen 1/4	Exploitation	20	No expiry date
Emilio 1/400	Exploitation	2,000	No expiry date
Victoria 1/197	Exploitation	380	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Carolina 1/141	Exploitation	270	No expiry date
Loretto 10 1/81	Exploitation	162	No expiry date
Loretto 9 1/16	Exploitation	150	No expiry date
Loretto 7 B 1/16	Exploitation	140	No expiry date
Loretto 7 A 1/20	Exploitation	195	No expiry date
Loretto 6 B 1/24	Exploitation	225	No expiry date
Loretto 6 A 1/40	Exploitation	400	No expiry date
Loretto 5 1/12	Exploitation	120	No expiry date
Loretto 4 1/12	Exploitation	115	No expiry date
Loretto 3 1/12	Exploitation	120	No expiry date
Loretto 2 1/12	Exploitation	120	No expiry date
Loretto 1 1/32	Exploitation	315	No expiry date
Isabel 1 1/45	Exploitation	45	No expiry date
Isabel 2 1/100	Exploitation	100	No expiry date
Blancado 2 1/60	Exploitation	300	No expiry date
Blancado 3 1/60	Exploitation	289	No expiry date
Blancado 4 1/29	Exploitation	128	No expiry date
Blancado 5 1/60	Exploitation	300	No expiry date
Blancado 6 1/60	Exploitation	300	No expiry date
Blancado 7 1/36	Exploitation	162	No expiry date
Blancado 8 1/60	Exploitation	300	No expiry date
Blancado 9 1/60	Exploitation	300	No expiry date
Blancado 10 1/60	Exploitation	300	No expiry date
Blancado 11 1/60	Exploitation	300	No expiry date
Blancado 12 1/60	Exploitation	300	No expiry date
Blancado 13 1/60	Exploitation	300	No expiry date
Blancado 14 1/60	Exploitation	300	No expiry date
Blancado 15 1/60	Exploitation	300	No expiry date
		23,206	

Table 4-4: Quebrada Blanca Road Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Pake uno 1 al 6	Exploitation	36	No expiry date
Pica D 1/10	Exploitation	60	No expiry date
Pica E 1/20	Exploitation	200	No expiry date
Pica F 1/30	Exploitation	300	No expiry date
Pica G 1/30	Exploitation	300	No expiry date
Pica H 1/20	Exploitation	200	No expiry date
Pica I 1/24	Exploitation	240	No expiry date
Pica J 1/14	Exploitation	140	No expiry date
Pica K 1/20	Exploitation	200	No expiry date
Pica L 1/20	Exploitation	200	No expiry date
Pica 2 1/20	Exploitation	200	No expiry date
Pica 13 1/20	Exploitation	200	No expiry date
Pica 15 1/20	Exploitation	200	No expiry date
Pica 16 1/20	Exploitation	200	No expiry date
Pica 17 1/20	Exploitation	200	No expiry date
Pica 18 1/20	Exploitation	200	No expiry date
Pica 19 1/20	Exploitation	200	No expiry date
Pica 26 1/20	Exploitation	200	No expiry date
Pica 29 1/20	Exploitation	200	No expiry date
Pica 30 1/20	Exploitation	100	No expiry date
Ramadas A 1/30	Exploitation	300	No expiry date
Ramadas B 1/6	Exploitation	60	No expiry date
Ramadas C 1/6	Exploitation	60	No expiry date
Ramadas E 1/4	Exploitation	40	No expiry date
Ramadas D 1/5	Exploitation	50	No expiry date
Blancado 1 1/60	Exploitation	300	No expiry date
		4,586	

Table 4-5: Coposa Road Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Lasa	Exploration	300	In process
Leke	Exploration	100	12/27/2026
Alcala 15, 1 al 30	Exploitation	300	No expiry date
		700	

Table 4-6: Pampa Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Reltado 2	Exploration	200	8/9/2026
Anasu	Exploration	300	10/21/2026
Dorel	Exploration	300	10/21/2026
Coty	Exploration	200	10/25/2026
Fani	Exploration	200	2/13/2027
Taca	Exploration	100	2/17/2027
Aly	Exploration	300	5/31/2027
Tarrido	Exploration	200	5/31/2027
Maru 1	Exploration	300	5/31/2027
Maru 2	Exploration	300	5/31/2027
Maru 3	Exploration	300	5/31/2027
Maru 4	Exploration	300	5/31/2027
Maru 5	Exploration	300	5/31/2027
Maru 6	Exploration	300	5/31/2027
Maru 7	Exploration	300	5/31/2027
Maru 8	Exploration	200	5/31/2027
Maru 9	Exploration	200	5/31/2027
Maru 10	Exploration	100	5/31/2027
Maru 11	Exploration	100	5/31/2027
Cose	Exploration	100	8/31/2027
Amal 1	Exploration	200	In process
Amal 2	Exploration	200	In process
Realtre 1	Exploration	300	In process
Realtre 2	Exploration	300	In process

Concession Name	Concession Type	Area (ha)	Expiry Date
Realtre 3	Exploration	300	In process
Realtre 4	Exploration	300	In process
Realtre 5	Exploration	300	In process
Realtre 6	Exploration	300	In process
Realtre 7	Exploration	300	In process
Realtre 8	Exploration	300	In process
Realtre 17	Exploration	300	In process
Realtre 18	Exploration	300	In process
Realtre 19	Exploration	200	In process
Realtre 20	Exploration	300	In process
Realtre 21	Exploration	300	In process
Realtre 22	Exploration	200	In process
Ronto	Exploration	100	In process
Minfe 1 1/42	Exploitation	210	No expiry date
Minfe 2 1/21	Exploitation	91	No expiry date
Aura 1, 1 al 30	Exploitation	300	No expiry date
Aura 3, 1 al 30	Exploitation	300	No expiry date
Aura 4, 1 al 30	Exploitation	300	No expiry date
Aura 5, 1 al 30	Exploitation	300	No expiry date
Aura 6, 1 al 30	Exploitation	300	No expiry date
Aura 8, 1 al 30	Exploitation	200	No expiry date
Aura 7, 1 al 30	Exploitation	300	No expiry date
Aura 10 1/30	Exploitation	300	No expiry date
Lima I 1/100	Exploitation	1000	No expiry date
Oscar I 1/20	Exploitation	50	No expiry date
Yanqui 1/50	Exploitation	500	No expiry date
Bravo 2 1/50	Exploitation	500	No expiry date
Tango 1/50	Exploitation	500	No expiry date
Delta 2 1/60	Exploitation	600	No expiry date
Oscar 2 1/20	Exploitation	140	No expiry date
Romeo 1 1/50	Exploitation	10	No expiry date
Victor 2 1/30	Exploitation	294	No expiry date
Sierra 1 1/20	Exploitation	200	No expiry date
Sierra 2 1/20	Exploitation	200	No expiry date
Uniform 2 1/30	Exploitation	10	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Alfa 3 1/26	Exploitation	260	No expiry date
Zulu 1 1/28	Exploitation	280	No expiry date
Rosario 1/90	Exploitation	10	No expiry date
Rosario 271/360	Exploitation	900	No expiry date
Rosario 361/450	Exploitation	900	No expiry date
Rosario 451/540	Exploitation	900	No expiry date
Rosario 541/630	Exploitation	900	No expiry date
Rosario 631/720	Exploitation	900	No expiry date
Rosario 721/810	Exploitation	900	No expiry date
Rosario 811/900	Exploitation	900	No expiry date
Rosario 901/980	Exploitation	10	No expiry date
Rosario 981/988 (981/987)	Exploitation	70	No expiry date
Rosario 989/996	Exploitation	75	No expiry date
Rosario 997/1018	Exploitation	220	No expiry date
Cristina 1/15	Exploitation	150	No expiry date
Zoraida 1/30	Exploitation	300	No expiry date
Amapola 1/30	Exploitation	300	No expiry date
Estrella 32 1/30	Exploitation	300	No expiry date
Estrella 44 1/20	Exploitation	200	No expiry date
Estrella 45 1/20	Exploitation	200	No expiry date
Estrella 46 1/10	Exploitation	30	No expiry date
Estrella 47 1/30	Exploitation	300	No expiry date
Estrella 48 1/20	Exploitation	200	No expiry date
Rosario 1022/1046	Exploitation	250	No expiry date
Dalia 1/30	Exploitation	300	No expiry date
Engañadora 7 1/54(21 a_25_35_41 a 45)	Exploitation	60	No expiry date
Engañadora 5B 1/8(3_4_7_8)	Exploitation	14	No expiry date
Atrel 44 1/14	Exploitation	140	No expiry date
Atrel 45 1/10	Exploitation	100	No expiry date
Famber 1 1/8	Exploitation	40	No expiry date
Gela A 1/12	Exploitation	12	No expiry date
Gela B 1	Exploitation	1	No expiry date
Challacollo 1B 1/30	Exploitation	300	No expiry date
Challacollo 2B 1/30	Exploitation	300	No expiry date
Challacollo 3B 1/29	Exploitation	290	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Challacollo 4B 1/30	Exploitation	300	No expiry date
Kike 1/8	Exploitation	66	No expiry date
Ceronte 2, 1 al 47	Exploitation	47	No expiry date
Damil 1, 1 al 21	Exploitation	105	No expiry date
Damil 2, 1 al 19	Exploitation	95	No expiry date
Damil 3, 1 al 40	Exploitation	200	No expiry date
Damil 4, 1 al 40	Exploitation	200	No expiry date
Valencia 14, 1 al 20	Exploitation	200	No expiry date
Valencia 15, 1 al 15	Exploitation	150	No expiry date
Valencia 16, 1 al 20	Exploitation	200	No expiry date
Damala 1, 1 al 10	Exploitation	100	No expiry date
Damala 2, 1 al 10	Exploitation	100	No expiry date
Marti 1, 1 al 15	Exploitation	150	No expiry date
Marti 2, 1 al 30	Exploitation	300	No expiry date
Marti 3, 1 al 30	Exploitation	300	No expiry date
Marti 4, 1 al 30	Exploitation	300	No expiry date
Marti 5, 1 al 30	Exploitation	300	No expiry date
Marti 6, 1 al 30	Exploitation	300	No expiry date
Marti 7, 1 al 30	Exploitation	300	No expiry date
Marti 8, 1 al 30	Exploitation	300	No expiry date
Marti 9, 1 al 30	Exploitation	300	No expiry date
Marti 10, 1 al 20	Exploitation	200	No expiry date
Marti 11, 1 al 20	Exploitation	200	No expiry date
Marti 13, 1 al 30	Exploitation	300	No expiry date
Marti 14, 1 al 30	Exploitation	300	No expiry date
Marti 15, 1 al 30	Exploitation	300	No expiry date
Marti 16, 1 al 30	Exploitation	300	No expiry date
Marti 17, 1 al 30	Exploitation	300	No expiry date
Marti 18, 1 al 30	Exploitation	300	No expiry date
Nava 22, 1 al 30	Exploitation	300	No expiry date
Nava 23, 1 al 30	Exploitation	300	No expiry date
Nava 24, 1 al 30	Exploitation	300	No expiry date
Nava 26, 1 al 30	Exploitation	300	No expiry date
Nava 27, 1 al 30	Exploitation	300	No expiry date
Nava 28, 1 al 30	Exploitation	300	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Nava 45, 1 al 15	Exploitation	150	No expiry date
Nava 46, 1 al 20	Exploitation	200	No expiry date
Nava 47, 1 al 15	Exploitation	150	No expiry date
Nava 48, 1 al 30	Exploitation	300	No expiry date
Nava 49, 1 al 30	Exploitation	300	No expiry date
Nava 50, 1 al 20	Exploitation	200	No expiry date
Nava 51, 1 al 15	Exploitation	150	No expiry date
Relta 7, 1 al 10	Exploitation	100	No expiry date
Relta 8, 1 al 58	Exploitation	290	No expiry date
Cali, 1 al 30	Exploitation	300	No expiry date
Relta 2, 1 al 15	Exploitation	150	No expiry date
Nava 25, 1 al 30	Exploitation	300	No expiry date
Estrella 1, 1 al 30 (1-4,16-23)	Exploitation	120	No expiry date
Estrella 2, 1 al 30 (6-12, 24-30)	Exploitation	140	No expiry date
Estrella 7, 1 al 30 (3-4-5)	Exploitation	30	No expiry date
Estrella 8, 1 al 30 (1-4, 7-10)	Exploitation	80	No expiry date
Estrella 9, 1 al 30 (6-7,11-15,17-20,23-25,29-30)	Exploitation	160	No expiry date
Estrella 10, 1 al 30 (11, 16-25, 26-30)	Exploitation	160	No expiry date
Estrella 15, 1 al 30 (5)	Exploitation	10	No expiry date
Estrella 16, 1 al 30 (1-10, 12-15, 18-20)	Exploitation	170	No expiry date
Estrella 25, 1 al 30(16)	Exploitation	10	No expiry date
Estrella 26, 1 al 30 (1, 2, 16, 17)	Exploitation	40	No expiry date
Estrella 27, 1 al 30 (1-2,6-7,11-14,16-20, 22-25,29-30)	Exploitation	190	No expiry date
Estrella 28, 1 al 30 (16, 21, 26)	Exploitation	30	No expiry date
Estrella 31, 1 al 30 (8-11)	Exploitation	40	No expiry date
Pancho 1 al 300 (17-23,43-48,69-73,94-98,120-123, 146-148,172-173)	Exploitation	160	No expiry date
Relt, 1 al 30	Exploitation	300	No expiry date
Vani 1 al 15	Exploitation	150	No expiry date
Milovan 1, 1 al 17	Exploitation	170	No expiry date
Milovan 2, 1 al 20	Exploitation	200	No expiry date
Quipu 1, 1 al 30	Exploitation	300	No expiry date
Quipu 2, 1 al 10	Exploitation	100	No expiry date
Quipu 3, 1 al 30	Exploitation	300	No expiry date
Quipu 4, 1 al 36	Exploitation	180	No expiry date
Relta 1, 1 al 98	Exploitation	98	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Berfani 1, 1 al 8	Exploitation	80	No expiry date
Mifedo 1, 1 al 30	Exploitation	300	No expiry date
Mifedo 2, 1 al 30	Exploitation	300	No expiry date
Mifedo 3, 1 al 33	Exploitation	149	No expiry date
Berfan, 1 al 5	Exploitation	50	No expiry date
Trelado 3, 1 al 3	Exploitation	15	No expiry date
Estrella 33 1/10	Exploitation	100	No expiry date
Marti 19, 1 al 30	Exploitation	300	No expiry date
Charo, 1 al 28	Exploitation	280	No expiry date
Angel 1	Exploitation	1	No expiry date
Real d9, 1 al 30	Exploitation	300	No expiry date
Real d10, 1 al 30	Exploitation	300	No expiry date
Real d11, 1 al 30	Exploitation	300	No expiry date
Real d12, 1 al 30	Exploitation	300	No expiry date
Real d13, 1 al 30	Exploitation	300	No expiry date
Real d14, 1 al 30	Exploitation	300	No expiry date
Real d15, 1 al 30	Exploitation	300	No expiry date
Real d16, 1 al 30	Exploitation	300	No expiry date
Rontedo, 1 al 100	Exploitation	100	No expiry date
		44,833	

Table 4-7: Alconcha Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Doncor 1	Exploration	200	1/3/2027
Doncor 2	Exploration	300	12/16/2026
Doncor 3	Exploration	100	12/29/2026
Doncor 4	Exploration	300	12/16/2026
Doncor 5	Exploration	300	12/30/2026
Doncor 6	Exploration	300	1/3/2027
Doncor 7	Exploration	300	1/3/2027
Doncor 8	Exploration	300	12/16/2026
Doncor 9	Exploration	300	12/28/2026
Doncor 10	Exploration	300	12/16/2026

Concession Name	Concession Type	Area (ha)	Expiry Date
Doncor 11	Exploration	300	12/30/2026
Doncor 12	Exploration	300	1/3/2027
Aguilucho	Exploration	200	1/5/2026
Conal 1	Exploration	300	1/13/2027
Conal 2	Exploration	300	1/31/2027
Conal 3	Exploration	300	12/30/2026
Conal 4	Exploration	300	1/10/2026
Conal 5	Exploration	300	1/13/2027
Conal 6	Exploration	300	12/28/2026
Conal 7	Exploration	200	1/10/2027
Conal 8	Exploration	300	1/9/2027
Conal 9	Exploration	300	2/15/2027
Conal 10	Exploration	200	1/10/2027
Conal 11	Exploration	300	1/9/2027
Conal 12	Exploration	200	12/29/2026
Conal 13	Exploration	300	1/9/2027
Conal 14	Exploration	300	1/9/2027
Conal 15	Exploration	300	1/10/2027
Conal 16	Exploration	300	1/6/2027
Conal 17	Exploration	300	12/29/2026
Conal 18	Exploration	300	1/10/2027
Conal 19	Exploration	300	1/6/2027
Conal 20	Exploration	300	12/30/2026
Conal 21	Exploration	300	1/10/2027
Alfu 1	Exploration	300	1/23/2027
Alfu 3	Exploration	300	1/24/2027
Alfu 4	Exploration	300	1/11/2027
Alfu 5	Exploration	300	1/17/2027
Alfu 6	Exploration	300	1/24/2027
Alfu 7	Exploration	200	1/11/2027
Alfu 8	Exploration	200	1/19/2027
Alfu 9	Exploration	300	1/24/2027
Alfu 10	Exploration	200	1/24/2027
Alfu 11	Exploration	300	1/19/2027
Alfu 12	Exploration	300	1/24/2027

Concession Name	Concession Type	Area (ha)	Expiry Date
Alfu 13	Exploration	300	1/19/2027
Alfu 14	Exploration	300	1/17/2027
Alfu 15	Exploration	200	1/31/2027
Alfu 16	Exploration	300	1/24/2027
Alfu 17	Exploration	300	1/11/2027
Alfu 18	Exploration	300	1/31/2027
Alfu 19	Exploration	300	1/11/2027
Alfu 20	Exploration	200	1/24/2027
Alfu 21	Exploration	300	3/28/2027
Alfu 22	Exploration	300	1/17/2027
Alfu 23	Exploration	300	1/31/2027
Alfu 24	Exploration	300	1/31/2027
Alfu 25	Exploration	300	1/25/2027
Alfu 26	Exploration	300	1/11/2027
Alfu 27	Exploration	300	1/25/2027
Alfu 28	Exploration	300	1/12/2027
Alfu 29	Exploration	300	1/12/2027
Alfu 30	Exploration	300	1/25/2027
Alfu 31	Exploration	300	1/31/2027
Alfu 32	Exploration	300	1/25/2027
Alfu 33	Exploration	200	1/20/2027
Alfu 2	Exploration	300	1/24/2027
Milvus 1	Exploration	300	3/27/2027
Milvus 2	Exploration	300	3/27/2027
Milvus 3	Exploration	300	3/30/2027
Milvus	Exploration	200	7/27/2027
Falcon 1 1/60	Exploitation	300	No expiry date
Falcon 2 1/60	Exploitation	300	No expiry date
Falcon 3 1/60	Exploitation	300	No expiry date
Falcon 4 1/60	Exploitation	300	No expiry date
Falcon 5 1/60	Exploitation	300	No expiry date
Falcon 6 1/60	Exploitation	300	No expiry date
Falcon 7 1/60	Exploitation	300	No expiry date
Falcon 8 1/60	Exploitation	300	No expiry date
Falcon 9 1/60	Exploitation	300	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Falcon 10 1/60	Exploitation	300	No expiry date
		22,900	

Table 4-8: Port Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Caro	Exploration	200	In process
Pachedo 2A, 1	Exploitation	1	No expiry date
Pachedo 1, 1 al 13	Exploitation	111	No expiry date
Pachedo 2b, 1 al 4	Exploitation	35	No expiry date
Pachedo 3, 1 al 19	Exploitation	157	No expiry date
Costa 3 1/19	Exploitation	185	No expiry date
Costa 2 1/18 (7-8-9-16-17-18)	Exploitation	60	No expiry date
Doche 1/50	Exploitation	50	No expiry date
Oscar 1 b 1/16	Exploitation	103	No expiry date
Oscar 2 a 1/12	Exploitation	90	No expiry date
Oscar 2 b 1/7	Exploitation	48	No expiry date
Oscar 3 1/20	Exploitation	100	No expiry date
Orca, 1 al 20	Exploitation	200	In process
		1,340	

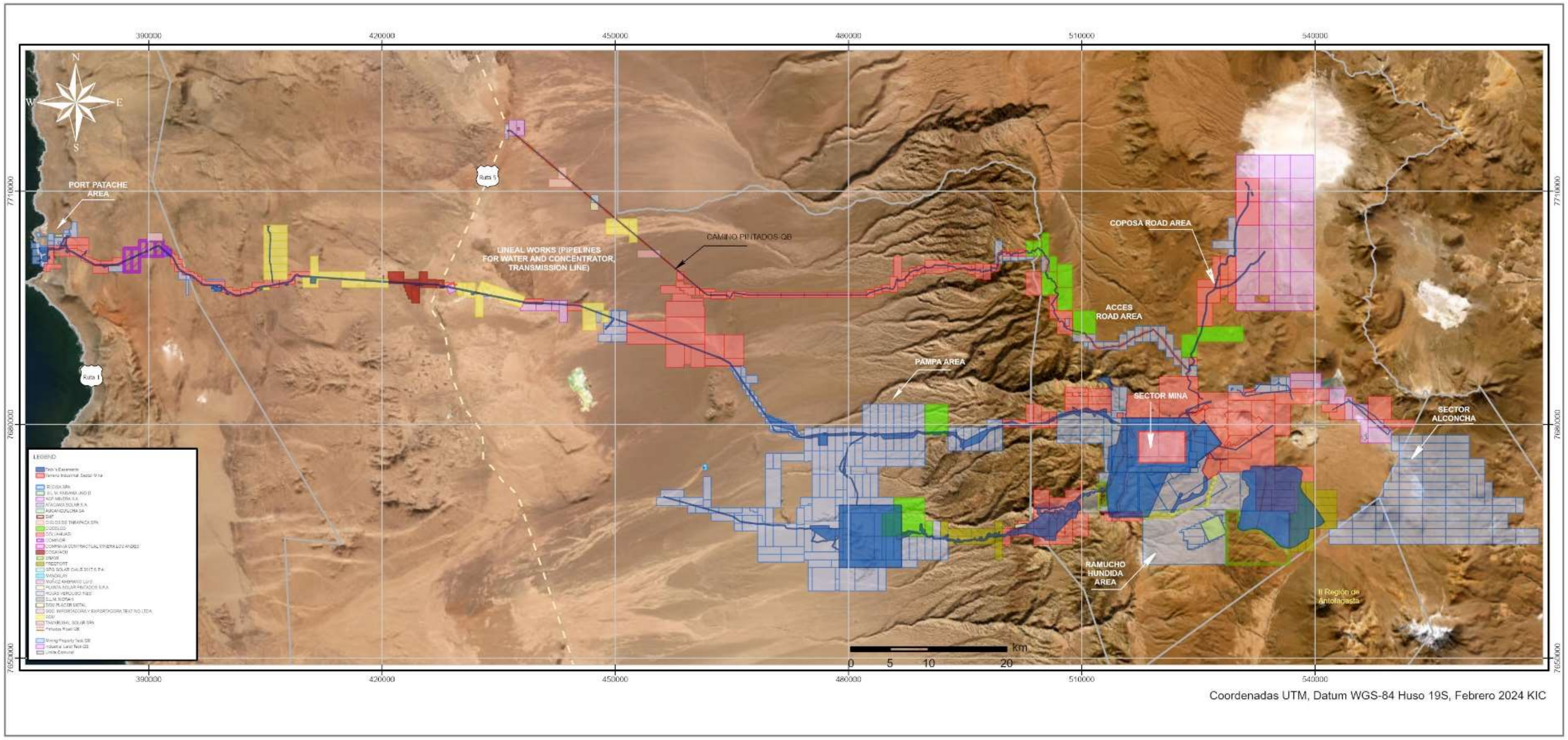
Table 4-9: Ramucho–Hundida Area Mineral Tenure

Concession Name	Concession Type	Area (ha)	Expiry Date
Sotam 1, 1 al 36	Exploitation	36	No expiry date
Sotam 2, 1 al 84	Exploitation	84	No expiry date
Sotam 3, 1 al 242	Exploitation	242	No expiry date
Sotam 4, 1 al 259	Exploitation	259	No expiry date
Sotam 5, 1 al 75	Exploitation	75	No expiry date
Collahuasi 1/500	Exploitation	2,210	No expiry date
Alex 1/1231	Exploitation	5,691	No expiry date
Ricardo 1/18	Exploitation	75	No expiry date
Hernan 1/283	Exploitation	1,126	No expiry date

Concession Name	Concession Type	Area (ha)	Expiry Date
Maggita 1/107	Exploitation	382	No expiry date
Alex 1/200	Exploitation	1,000	No expiry date
Juan Alberto 1/1223	Exploitation	5,476	No expiry date
Ron 1/17	Exploitation	84	No expiry date
Juan alberto 1/1498	Exploitation	5,595	No expiry date
Maggy I 1/6	Exploitation	36	No expiry date
Marianela 1 1/3	Exploitation	30	No expiry date
Marianela 2 1/6	Exploitation	60	No expiry date
Marianela 3 1/4	Exploitation	20	No expiry date
Juan Jose 1 1/1088	Exploitation	2,095	No expiry date
		24,576	

Table 4-10: Surface Rights

Area	Comment
Mine area	The Terreno Industrial is the main surface right, and was purchased by Teck in 1993. It covers an area of 2,400 ha and covers the open pits, mining facilities, process facilities associated with the oxide QB1 phase, and other facilities necessary for mining and operations. A judicial easement has been granted covering 4,752 ha which will cover the concentrator plant installation, waste rock storage facility (WRSF), power lines, and mine access roads
Roads	A judicial easement covers the A-97 Bypass road
TMF area	An easement is in place for the TMF (formerly referred to as Area S21), covering 4,616 ha. There is a supplemental easement of 209.45 ha for the TMF
Pampa area	Judicial mining easements have been granted covering the concentrate and water pipelines, the power transmission line, construction camps, and items such as pump stations
Port area	A 99.63 ha easement, covering State-owned land, is in place for the projected port site



Note: Figure prepared by Teck, 2024.

Figure 4-9: Overview Surface Rights and Mineral Tenure

4.7 Maritime Concession

Teck holds a maritime concession, granted through two decrees:

- Supreme Decree 516, dated August 28, 2012;
- Supreme Decree 918 dated December 30, 2016.

4.8 Water Rights

CMTQB currently holds the following highland (Altiplano) water rights:

- Salar de Michincha: 315.9 L/s;
- Salar de Alconcha: 120.3 L/s.

A coastal desalination plant will support the operations envisaged in this Report.

4.9 Royalties and Taxes

Taxes payable in Chile that affect the operation include the Chilean Specific Mining Tax, which applies to operating margin based on a progressive sliding scale from 5% to 14% until 2037, when the tax stability agreement that protects CMTQB against changes in mining taxes will expire.

After 2037, the new Chilean mining royalty regime that was enacted in 2023 will apply to CMTQB, which consists of a flat 1% ad-valorem component applicable to copper revenues and a profit-based component based on rates ranging from 8% to 26% applicable to progressive levels of adjusted operating profits, as that term is prescribed.

The amount of the profit-based royalty is capped so that the overall effective tax rate does not exceed 46.5% as computed in reference to the sum of the ad-valorem and profit-based components of the royalty, corporate income tax and imputed dividend withholding tax in relation to adjusted operating profits.

CMTQB is also subject to Chilean federal corporate income tax at 27%.

There is no provision in the current mining tax code nor in the new mining royalty law for carrying mining tax losses forward.

4.10 Permitting Considerations

Permitting for the Project is discussed in Section 20.

4.11 Environmental Considerations

Environmental considerations for the Project are discussed in Section 20.

Current environmental liabilities associated with the Project include open pit mining, processing, and support facilities.

4.12 Social Considerations

Social licence considerations for the Project are discussed in Section 20.

4.13 QP Comment on Item 4 “Property Description and Location”

Information from Teck and CMTQB land experts supports that the mineral tenure held is valid and is sufficient to support the declaration of Mineral Resources and Mineral Reserves.

CMTQB holds sufficient surface rights in the mine, TMF, Pampa, and port areas to support the mine expansion.

A maritime permit to use Patache Bay as a port facility is in place.

The Project is subject to the Chilean Specific Mining Tax until 2037. After 2037, the new Chilean mining royalty regime that was enacted in 2023 will apply to CMTQB. CMTQB is also subject to Chilean federal corporate income tax at 27%.

To the extent known to the QP, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property that have not been discussed in this Report.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

Iquique, the region's capital, is mainly accessed by a coastal highway, Chile's Ruta 1.

From Iquique, the Project can be accessed by taking the Iquique–Alto Hospicio road, continuing east on Ruta 16 to Pozo Almonte, then taking Ruta 5 south to Camino Pintados, a surfaced road approximately 130 km long, which intersects Ruta 5 at kilometre marker 1775 and continues to the Project area. The total distance to the mine by road is approximately 240 km.

An alternative route from Iquique through Pozo Almonte, then taking Ruta A-65 to the Collahuasi mine and passing through Collahuasi to the Quebrada Blanca mine, is approximately 254 km by road.

There is an international airport in the region, which is situated on the coast approximately 40 km south of Iquique and is accessed via Ruta 1.

5.2 Port

There are three major ports in the Región de Tarapacá: one at Iquique and two others south of Iquique at Caleta Patillos and Punta Patache. The port of Iquique is a multi-use commercial port that handles break bulk cargo in the Región de Tarapacá, while Caleta Patillos (salt) and Punta Patache (copper concentrates and coal) are both bulk handling private ports.

Additional information on the port as used for operations is provided in Section 17.3.10 and Section 18.11.

5.3 Climate

Rainfall typically occurs in the summer season, from January through March. While the annual total precipitation is limited, individual storms can be quite concentrated. Rainstorms are routinely accompanied by lightning. The recorded annual rainfall for the mine area amounts to 94.9 mm per year. Recorded year-round temperatures at the proposed concentrator site vary between highs of 11.4ºC and lows of -3.2ºC.

The TMF area has recorded an average annual precipitation of 91 mm, with temperatures ranging from a maximum of 5.8ºC to a minimum of 0.5ºC throughout the year.

Precipitation at the port site location at Punta Patache Norte is negligible, while temperatures are mild throughout the year.

The Quebrada Blanca Operations operate year-round.

5.4 Local Resources and Infrastructure

Information on the Project infrastructure and setting is discussed in Section 16, Section 18, and Section 20 of this Report.

The closest major population centre to the mining operation is Iquique, which provides services for a number of large mining operations in the region.

Huatacondo is the closest town to the existing mining facilities and is located within the Pozo Almonte comuna in the mountains. The small settlements of Tamentica, Quebrada Casillas (Choja Alto), Chiclla, and Copaquiri are in proximity to areas planned for the TMF and concentrate and water pipelines. The population centres of Caramucho, Chanavayita, and Cáñamo are in proximity to planned port operations.

5.5 Physiography

The Quebrada Blanca mine is situated in the Chilean Altiplano at an average elevation of about 4,400 masl. The terrain is rugged, with the mountains being intersected by many steep canyons or ravines (quebradas).

A species of desert plant, the Llareta, occurs in close proximity to the mine and planned supporting mining facilities. Animal life in the area consists primarily of llama, vicuña, viscacha, and foxes.

The TMF is located southwest of the mine site at an average elevation of approximately 3,900 masl. The TMF area does not contain any significant archeological sites; however, there is some vegetation in close proximity to drainage areas.

The sea coast has limited vegetation, which is typical of the west coast of South America. The planned port area is rocky, with moderate cliffs descending to the ocean, and is subject to strong breezes.

5.6 Seismic Considerations

The Project is within the zone of seismic intensity caused by the subduction of the Nazca Plate under the South American Plate. Plate seismic ratings, as defined in Chilean norm NCh 433, range from 2 for the proposed plant site to 3 nearer the ocean and planned port facilities. Earthquakes with an energy release of over seven on the Richter scale have a history of occurrence in the area.

From the same Chilean norm, NCh 433, the maximum ground acceleration is 0.3*g* in the planned process plant area and 0.4*g* for the proposed port area.

5.7 Sufficiency of Surface Rights

There is sufficient suitable land available within the mineral concessions for the TMF, mine waste disposal, and mining-related infrastructure such as the open pit, process plant, workshops, and offices.

Teck holds sufficient rights to support port and desalination plant operations. Surface rights required for Project operation are discussed in Section 4.5.

6 HISTORY

6.1 Ownership, Exploration, and Development History

Mineralization was identified at Quebrada Blanca as early as the 1800s. Mining activity, assumed to be in the period 1905–1930, included prospecting pits, shallow shafts, and short adits. The underground mine workings were small, accounted for only small tonnage extractions, and there is no formal production record. A summary of the Project ownership and exploration history is provided in Table 6-1.

The QB1 mining operations commenced in 1994 to exploit and process supergene ore using a combination of leaching and SX/EW. The QB1 mining operations ceased in late 2018; however, the SX/EW plant continued to produce cathodes until December, 2023.

The mine plan was developed to mine and process hypogene ore below the supergene mineralization. The initial feasibility study on QB2, completed in 2012 (FS2012), was superseded in 2016 (FS2016). A new mine plan was developed in 2023, based on the 2024 reserve mine plan for the operation, and forms the basis for this Report.

6.2 Production History

From 2006 to 2023, a total of 839,870 t was mined and sent to the heap leach pads. The production history is summarized on an annual basis in Table 6-1.

Table 6-1: Project History

Company	Active Period	Work Completed
Chile Exploration Company	1950s–1971	Claim staked.
Chilean Geological Survey	1973–1975	Geological mapping program, IP, and resistivity geophysical survey.
Codelco (Chuquicamata Division)	1975–1977	One core drill hole.
Superior Oil-Falconbridge Group	1977–1983	Optioned property. Exploration performed by subsidiary, Compañía Exploradora Doña Inés Limitada (Exploradora Doña Inés). Conducted detailed surface geological mapping, ground magnetic survey geochemical and mineralogical investigations, core drilling, underground tunnelling (2,600 m approx.), metallurgical test work (flotation, crushing, grinding, column tests), focusing on supergene mineralization. However, a small number of core holes (15 holes for 5,598 m) specifically targeted hypogene mineralization. Completed a pre-feasibility study on the supergene mineralization, and although results were positive, the Superior Oil-Falconbridge Group did not exercise the option due to the poor commodity prices prevailing at the time.
Empresa Nacional de Minería (ENAMI)	1983–1989	Acquired Codelco's interest in the property. Sought partners to help develop the property in 1989.
Cominco	1989	Acquired a property interest.
Compañía Minera Quebrada Blanca S.A	1989–2000	Compañía Minera Quebrada Blanca S.A. formed 1989. Initial ownership was Cominco Ltd. (76.5%), ENAMI (10%), and Sociedad Minera Pudahuel (13.5%). Cominco subsequently sold 29.5% of its property share to Teck Corporation. Pre-feasibility and feasibility studies completed during 1990 and 1991 on the supergene mineralization, with a decision to commence mining in 1992. First cathodes produced in 1994.
Regional exploration by third-parties	1992–1999	Codelco, 1992: regional-scale airborne magnetic survey. Noranda, 1999: a regional-scale hyper-spectral survey.
Aur Resources	2000–2007	Purchased the Teck and Cominco interests to obtain their 76.5% interest in Compañía Minera Quebrada Blanca S.A. Continued to operate the SX/EW operation, and prioritized exploration and infill drilling for leach ore. Treatment of low-grade run-of-mine (ROM) material via dump leaching methods commenced in 2003. Limited hypogene exploration performed. Exploration activities included IP/resistivity surveys (2000, 2003); ground magnetic survey (2002); acquisition of Codelco and Noranda airborne geophysical survey data and data interpretation (2003); transient electro-magnetic (TEM) survey (2004). Ongoing core and RC drilling.

Company	Active Period	Work Completed
Teck	2007 to date	Acquired Aur Resources in 2007. Continued with active supergene mining operations, with material being sent to heap leach or the run-of-mine (ROM) dump leach; annual Mineral Resource and Mineral Reserve estimates completed on the supergene mineralization. Undertook core and RC drilling, metallurgical test work, environmental studies, Mineral Resource and Mineral Reserve estimation in support of evaluation of the hypogene mineralization. Engineering studies on the hypogene mineralization included: advanced scoping study, 2009; tailings management site location study, 2009; pre-feasibility study, 2010; initial feasibility study, 2012; updated feasibility study, 2016. Supergene mining operations completed in 2018, and processing completed in 2023.

Table 6-2: QB1 Production History

Year	Cathode Production (t)
2006	83,790
2007	83,005
2008	85,410
2009	87,437
2010	86,177
2011	63,384
2012	62,437
2013	56,200
2014	46,622
2015	39,087
2016	34,661
2017	23,369
2018	25,454
2019	21,132
2020	13,364
2021	11,505
2022	9,595
2023	7,241
Total	***839,870***

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Quebrada Blanca porphyry copper deposit is hosted in the middle Eocene to early Oligocene metallogenic belt of northern Chile. It is located east of the West Fault system and west of the El Loa major fault, which together form a north–south-trending fault system developed as an intra-arc structural feature by contractional deformation during the Incaic tectonic event. Along the Andean margin, the Incaic tectonic event caused crustal shortening, uplift, and thickening, followed by a stage of weak crustal extension in the early Oligocene. The fault system divides the regional geology into three large blocks: a western Jurassic–Cretaceous block, an eastern Cenozoic block, and a Central block formed by Paleozoic volcanic sedimentary basement. These blocks are intruded by with Permo–Triassic igneous intrusions that host Eocene–Oligocene age mineralized porphyries (Figure 7-1).

7.2 Project Geology

A north–south trending corridor, bounded by the West and El Loa Faults, is preserved in the Quebrada Blanca–Collahuasi area. The corridor includes the Paleozoic volcano–sedimentary sequence Collahuasi Formation, generally consisting of Permian sub-aerial and sub-aqueous dacite and rhyolite volcanic flows of with minor volcaniclastic rocks, and voluminous Paleozoic quartz monzonite to granodiorite stocks (303–294 Ma).

To the northwest of the Quebrada Blanca deposit, sedimentary rocks of the Quehuita Formation un-conformably overlie the Collahuasi Formation. The unit consists of deep to shallow marine limestone, calcareous sandstone, arenites, and conglomerates reflecting the extensional evolution of a Jurassic back-arc basin in northern Chile. Within the same Mesozoic belt, the Cretaceous Cerro Empexa Formation crops out to the west and southeast of the Quebrada Blanca area, and consists of dacite lavas, volcaniclastic breccias, and inter-bedded arenite and conglomerates. Granite stocks have intruded the Cerro Empexa Formation and reflect the marginal shift of a Cretaceous arc into the Quebrada Blanca district.

During the late Eocene to Early Oligocene, pre- to syn-mineral feldspar porphyries (37.5–36.4 Ma) and syn-mineral hydrothermal breccias (37.4–34.5 Ma) were emplaced.

7.3 Deposit Descriptions

7.3.1 Overview

The deposit is hosted in nine individual or groups of rock types (Figure 7-2). These include a Paleozoic quartz monzonite to granodiorite, and Late Eocene to Early Oligocene pre- to syn-mineral feldspar porphyries and syn-mineral hydrothermal breccias that intrude Collahuasi Formation lithologies.

Supergene leaching of the upper portions of the deposit and subsequent remobilization of copper produced supergene mineralization consisting of chalcocite and, to a lesser degree, copper oxides (chrysocolla, copper wad, copper clays, and minor atacamite, cuprite, and locally brochantite).

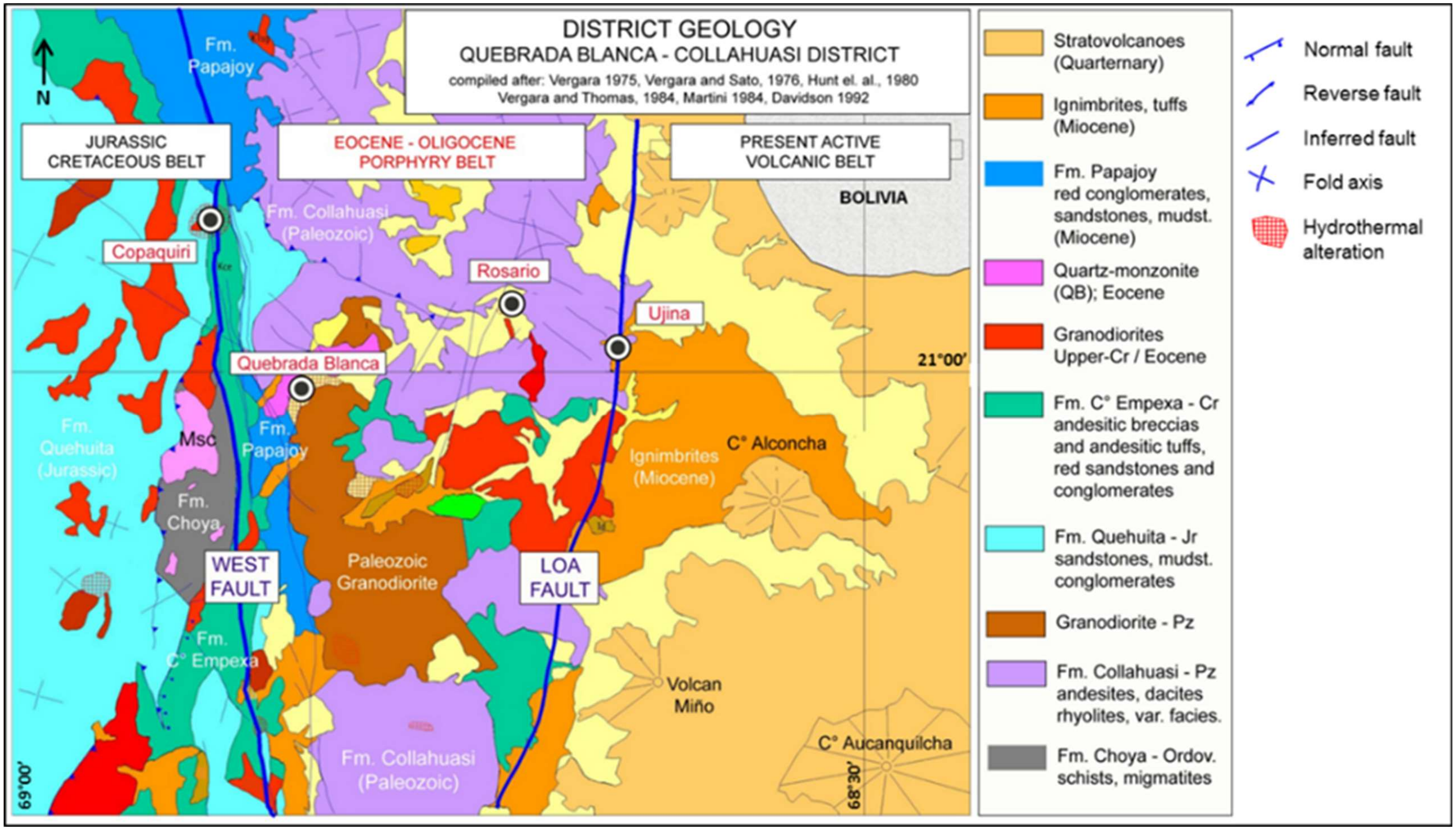
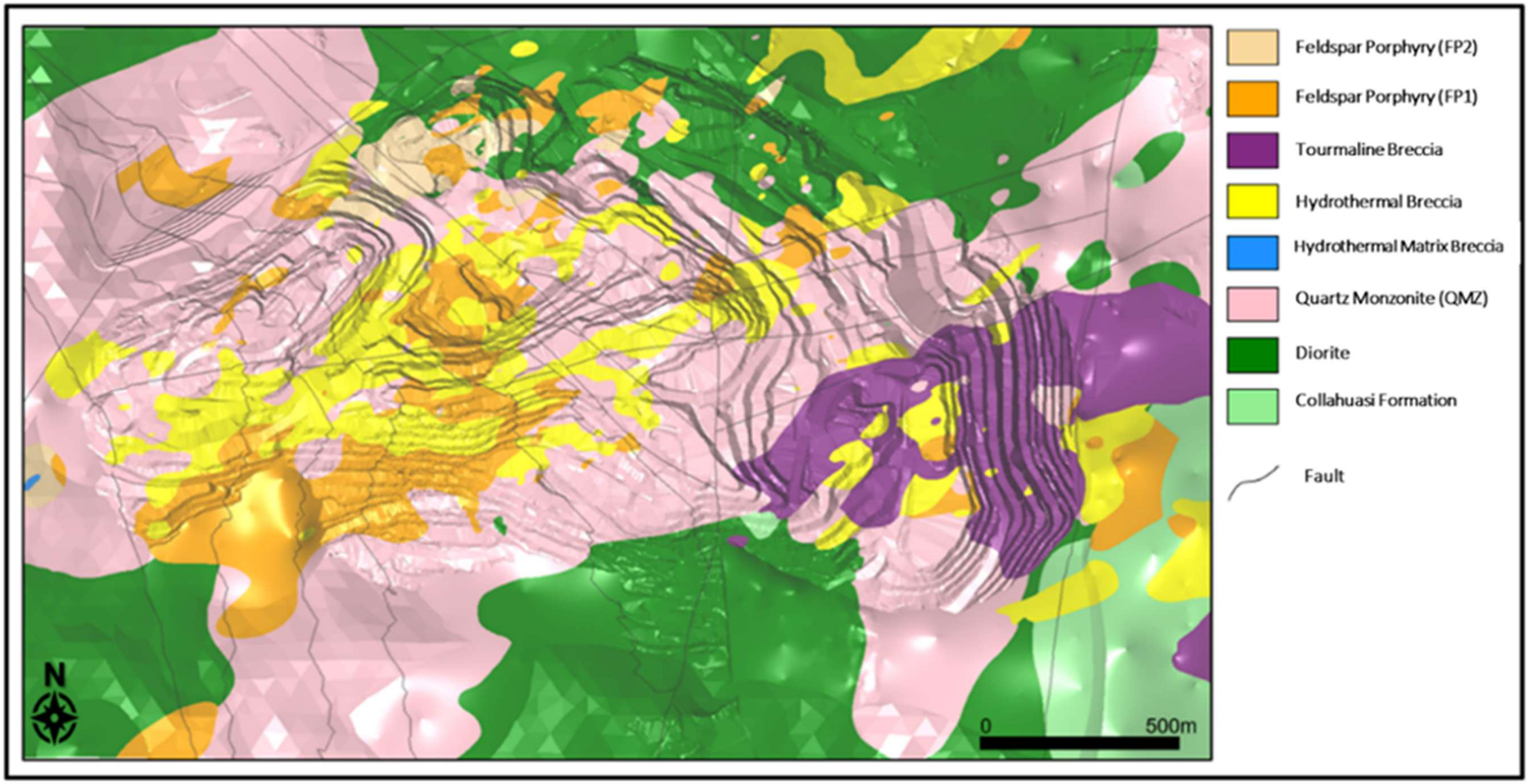


Figure prepared by Teck, 2016. Deposits other than Quebrada Blanca shown in the figure are held by third-parties.

Figure 7-1: Locations of Metallogenic Belts and Major Deposits in Northern Chile



Note: Figure prepared by Teck, 2023.

Figure 7-2: Geology Map, Quebrada Blanca

The hydrothermal breccias are interpreted to be formed by a single event, with textural and hydrothermal facies representing different energy conditions and hydrothermal zonation. The eastern area, dominated by tourmaline, and biotite–magnetite and biotite–potassic feldspar cements, is interpreted to be a better conserved column in the hydrothermal system. The western breccias do not contain tourmaline at the top. Lower-temperature quartz-rich and molybdenum-rich breccias have been recognized in the shallower parts of the breccia body.

7.3.2 Deposit Dimensions

The leach cap varies from about 7–200 m in thickness, whereas the thickness of the secondary copper zone ranges from 10–200 m. Continuous supergene copper mineralization has been traced over a 2.5 x 1.5 km area.

Hypogene mineralization occurs over a 2 x 5 km area, extending to at least 1.5 km vertical depth. Hypogene mineralization remains open to the west, northeast, east, southeast, and at depth.

7.3.3 Lithologies

Table 7-1 summarizes the major deposit lithologies.

The FP1 and FP2 porphryries have been discriminated on the basis of geochemistry. A matrix-rich breccia in the western deposit area is a separate unit because overall, it has a lower copper grade compared to the other hydrothermal breccias.

Teck geologists have defined a cupola in the center of the hydrothermal system. This is a late-magmatic to early hydrothermal event. Since the features generated by this event are formed at high temperatures, copper minerals did not precipitate due to the solubility of copper in the hydrothermal fluids. Copper solubility is directly proportional to the temperature and pressure of the hydrothermal environment. The cupola feature was also used for molybdenum estimation.

Figure 7-3 and Figure 7-4 are a plan and sectional view, respectively, showing the deposit geology and structure, respectively.

7.3.4 Structure

The emplacement and geometry of the feldspar porphyritic intrusions and the hydrothermal breccias are controlled by two or more structural corridors oriented to the northeast, and to a lesser extent by northwest-oriented faults (Figure 7-5).

The primary structural control on lithology, grade and early-stage alteration corresponds to east–northeast-trending faults dipping either to the south (in the west) and to the north (in the east).

The northwest-oriented faults controlled a late-stage alteration, pre-supergene enrichment as well as horizontal and vertical structural block displacements. These faults show normal movement not exceeding 45 m as observed in the field.

Table 7-1: Deposit Lithologies

Lithology	Abbreviation	Description
Gravel	GRA	Tertiary polymictic gravels. Consists of 2–64 mm clasts, formed from the erosion of pre-existing rocks.
Hydrothermal breccia matrix rich	HBxMx	A hydrothermal, dark-colored, matrix-supported, polymictic breccia. Clasts are generally rounded and can include all lithologies. The matrix is locally fine-grained. The breccia is interpreted to be a broader expression of a hydrothermal breccia and to generally occur near faults. Grades are typically lower in this breccia.
Tourmaline breccia	TBX	Characterized by a cement composed of tourmaline and quartz. In general, when the unit is well developed, it is cement supported and can be monomictic or polymictic with angular clasts.
Hydrothermal breccias	HBX	Hydrothermal breccias are varied in their matrix and cement content and nature. The proportion of matrix versus cement can be challenging since similar minerals, such as biotite, occur in both matrix and cement. In general, the breccias were differentiated by the type of cement. For modeling purposes, all hydrothermal breccias were modeled as a single breccia body, except for HBMx which is a matrix-dominant breccia, and TBX which was historically separately modeled. In general, hydrothermal breccias are cement- to clast-supported, and monomictic to polymictic. Hydrothermal breccias, cement-dominant with varied composition or overprinted by supergene events are termed HBCm. In the east of the deposit, a breccia body with a vertical zoning has been described and consists of a deep, biotite-dominant cemented breccia, grading upward to magnetite–biotite and finally into a tourmaline breccia at shallow levels. Quartz is commonly present in the cement.
Feldspar porphyries	FP1	A series of syn-mineral granodioritic feldspar porphyry dikes occur at Quebrada Blanca. Irregular crowded feldspar porphyry (FP1) stocks, dated between 37.5 and 36.5 Ma, have invaded the central portion of the quartz monzonite stock. Most of the dikes are steeply southeast- to northeast-dipping and northeast–north–northeast-trending, which is roughly parallel to the elongation of the quartz-monzonite stock. These dikes have been cut by a hydrothermal breccia event and have been, in many cases, incorporated as blocks or fragments within the breccia. The FP1 dikes are typically grey and characterized by phenocrysts of predominantly plagioclase with fewer quartz and biotite phenocrysts. The phenocryst percentage can vary from <30–>50%, suggesting there may have been multiple injections of the porphyry host.
	FP2	Some contact relationships have shown a later event of similar composition but with a different texture, with smaller amounts of phenocrysts and a grey matrix. This FP2 phase is dated at 36.4–36.1 Ma. Two intrusive units are separately logged; however, they are modeled as a single unit. The spatial extension of FP2 appears to be more restricted than FP1.

Lithology	Abbreviation	Description
Quartz monzonite	QMZ	A quartz monzonite to granodiorite stock was emplaced into Collahuasi volcanic rocks and has been dated as Permian in age. The quartz monzonite unit is considered a pre-mineral intrusion. Petrological investigations done by Teck staff on a few samples and chemical analyses performed by consultants have shown that the unit mapped as quartz monzonite corresponds to a range of compositions. The unit is primarily a granodiorite, but quartz diorite, quartz monzonite, and porphyritic quartz monzonite phases are also present.
Diorite	DIO	The diorite is part of the Paleozoic rocks in the Quebrada Blanca district. The unit appears mostly in the northern portion of the open pit but is also found to some extent in the southern part of the deposit. The diorite has been affected by a regional or early metasomatic event of biotite (hornfels) and local hydrothermal alteration and mineralization associated with the porphyry.
Collahuasi Formation	FmCOLL	The Collahuasi Formation generally consists, in the Quebrada Blanca area, of Permian sub-aerial and sub-aqueous dacite and rhyolite volcanic flows with minor volcaniclastic rocks.

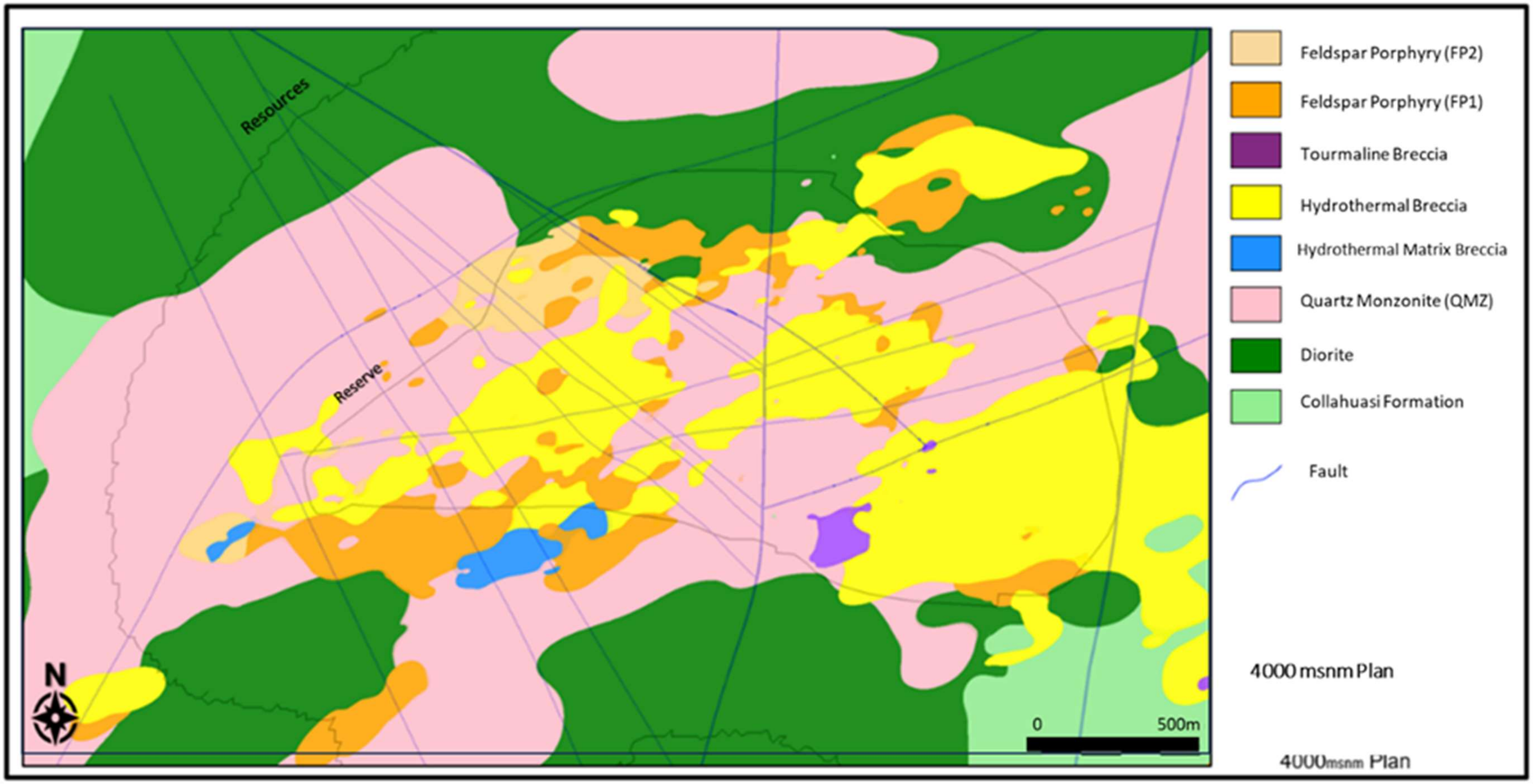
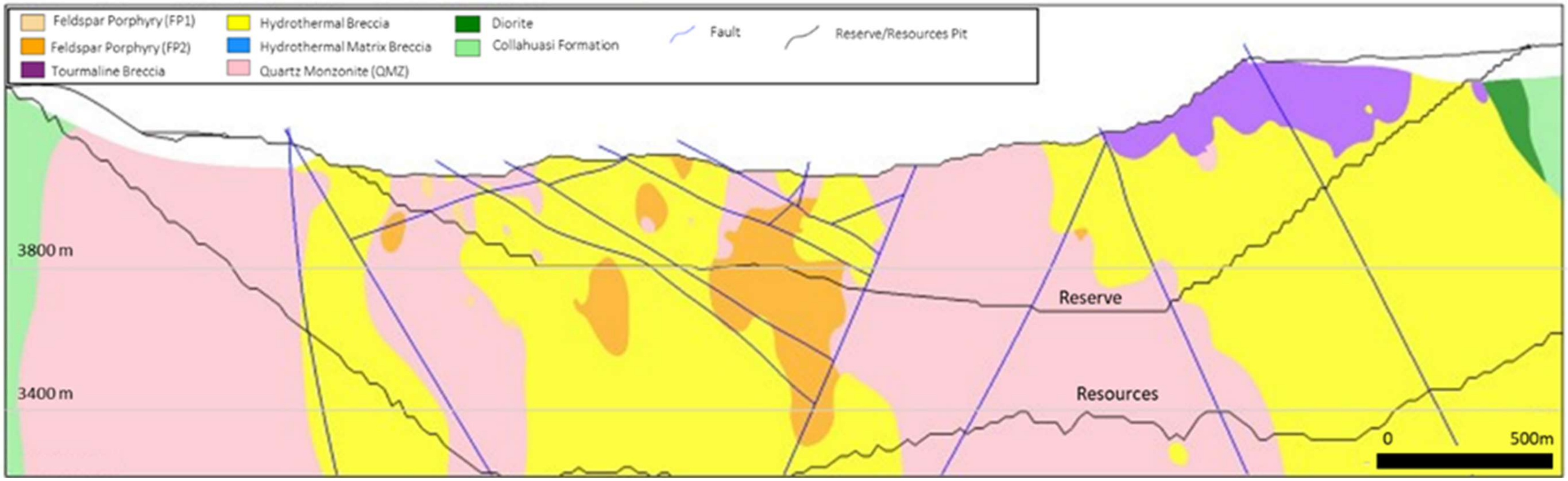


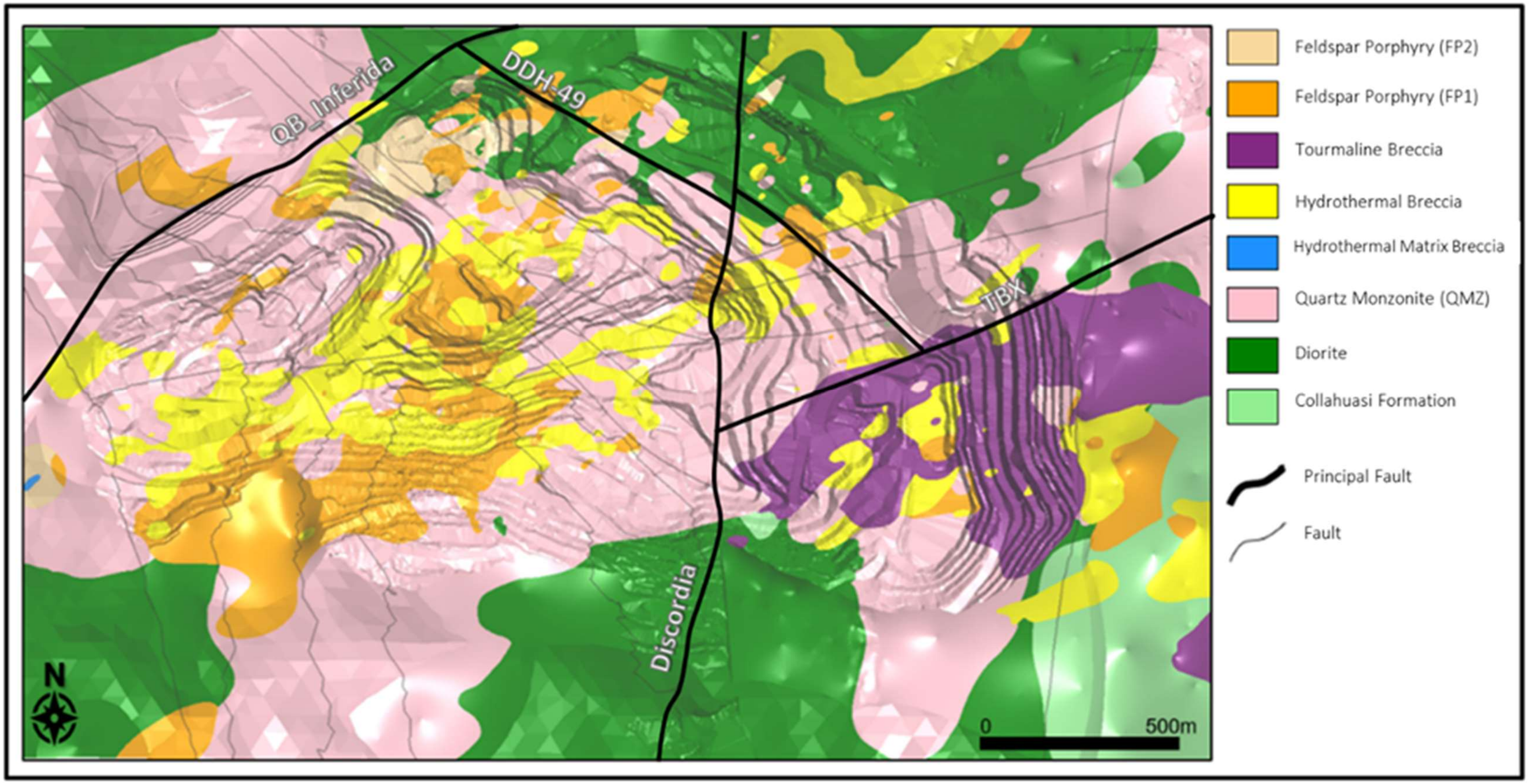
Figure prepared by Teck, 2023. Plan view at 4000 m level.

Figure 7-3: Geology Plan View



Note: Figure prepared by Teck, 2023. East–west cross-section, 78,000 N

Figure 7-4: Longitudinal Geological Section



Note: Figure prepared by Teck, 2023. Interpreted structures shown in in grey. Principal structures defining domains are shown in black.

Figure 7-5: Structural Plan View

North–northwest-oriented faults have a normal displacement of approximately 80 m, mainly affecting the gravel units. These structures appear as oblique normal faults; however, the fault movement age is later than about 14 Ma, as shown by offsets in the overlying Tertiary gravel.

No movement has been observed along the east–northeast-trending faults.

7.3.5 Alteration

Alteration zoning patterns at Quebrada Blanca are typical of porphyry copper deposits, and a detailed paragenetic sequence has been established. The three major alteration stages include:

- Early stage potassic alteration event: defined by secondary K-feldspar and biotite with associated biotite veinlets (EB), dark mica veins (EDM with biotite and green mica), and A veins (mainly quartz with K-feldspar halos). Brecciation occurred during the potassic event, permitting these hydrothermal minerals to develop locally as breccia cement. Chalcopyrite ± bornite occur as disseminations, in veins and/or in the cement of the breccia;
- Transitional stage alteration event: consists of grey-green sericite (SGV) and quartz as cement in breccias and/or as veins in coherent rocks. Quartz veins with sulfides (chalcopyrite and molybdenite and B veins) occur in this event as well as a biotite-, or biotite–magnetite- and chalcopyrite-cemented hydrothermal breccia;
- Late stage alteration event: consists of sericite–quartz–pyrite (phyllic; QS alteration) mainly as planar veins showing a prominent alteration halo (typical of D veins) and intermediate argillic alteration with kaolinite–smectite clays dominant.

Table 7-2 provides a summary of the main alteration type characteristics. Figure 7-6 provides a summary the main characteristics of the alteration zones differentiated by stages, early, transition and late.

Figure 7-7 is a plan view showing the predominant alteration styles within the pit area. Cross- and long-sections showing examples of the alteration styles are provided in Figure 7-8, Figure 7-9, and Figure 7-10.

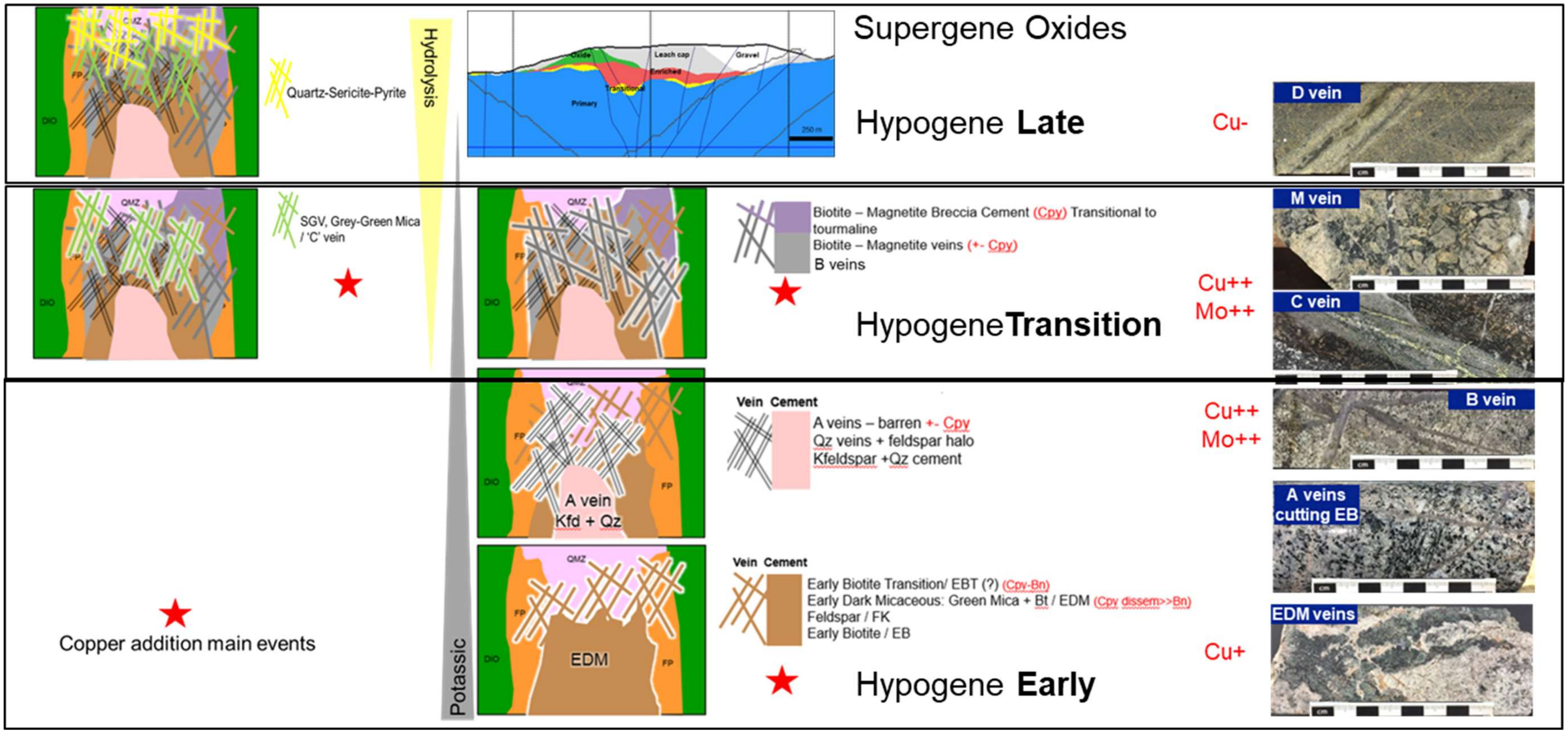
7.3.6 Mineralization

Mineralization consists of supergene (chalcocite and, to a lesser degree, copper oxides such as atacamite, cuprite, and locally brochantite) and hypogene (chalcopyrite, bornite, molybdenite) mineralization, see Table 7-3). Mineralization displays two major trends.

Within the east–northeast trend, bornite mineralization forms two distinct zones that are interpreted to represent two different mineralizing centres as they do not spatially coincide with the higher copper grade areas hosted in chalcopyrite. Bornite is mainly concentrated in the southwestern part of the pit and in the northeastern portion of the east–northeast corridor that controls the porphyry and breccia intrusions. Chalcopyrite is controlled by the east–northeast trend in early potassic alteration as well as in transitional grey–green sericite and magnetite–chalcopyrite. Molybdenite mineralization is controlled by the same east–northeast-trending structures controlling higher copper grades (>0.5% Cu), but is also associated with northwest-trending structures in the eastern portion of the deposit.

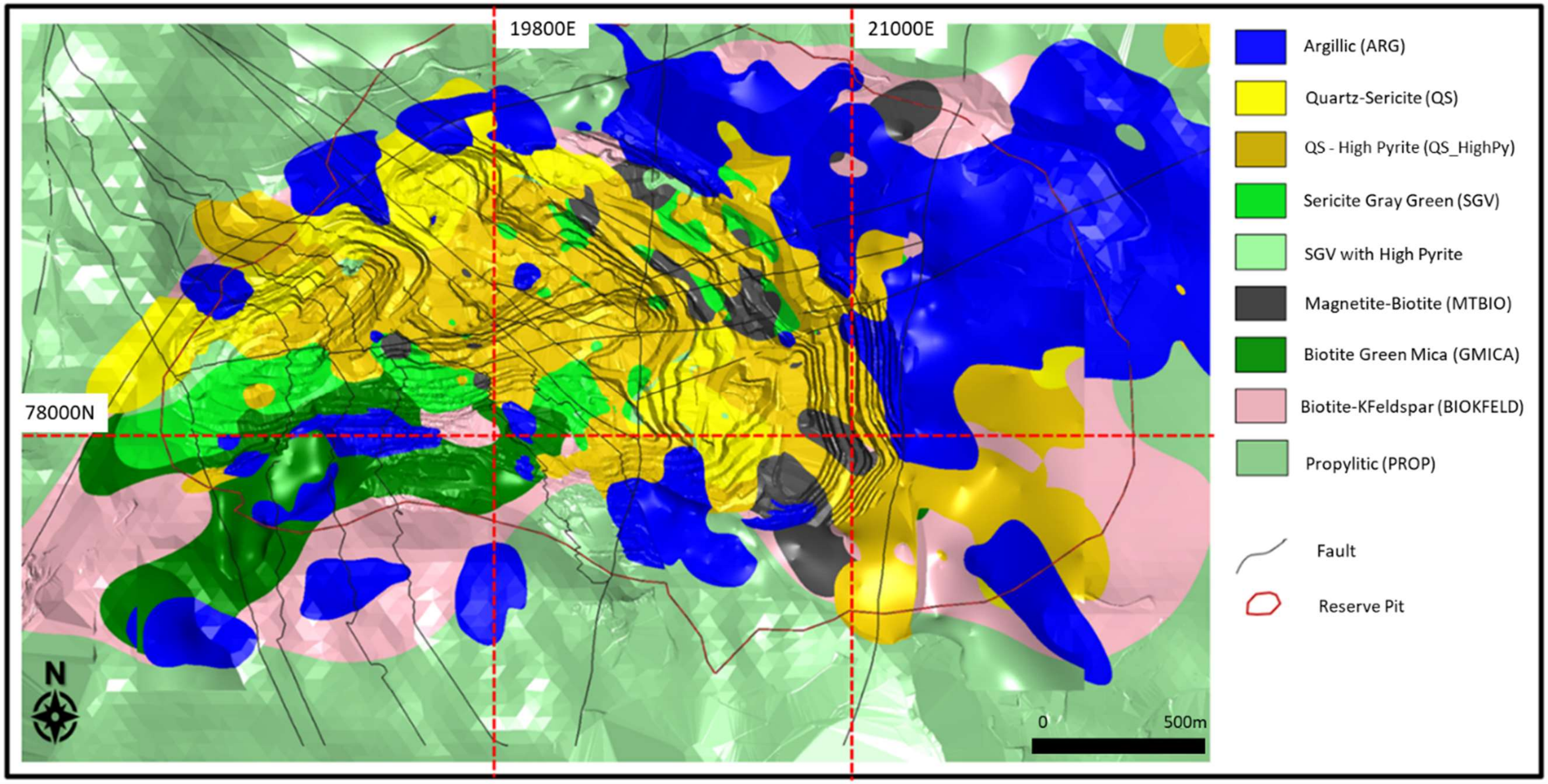
Table 7-2: Major Alteration Types

Alteration	Code	Description
Argillic	ARG	Characterized by the presence of clays (kaolinite, montmorillonite, illite, smectite) replacing plagioclase and mafic minerals, leaving the rock with an earthy appearance. It is associated with the weathering process, producing limonite, but also with low to moderate temperature and low acidity (pH 3 to 4) hypogene alteration events.
Quartz–sericite	QS	Total or partial destruction of feldspars and mafic minerals; generating sericite, secondary quartz, and pyrite. It is a hydrolytic process which affects the feldspars and mafic minerals, where the stage of the original minerals is used to estimate the intensity of the process. This alteration is typically associated with D veins.
Green–grey Sericite	SGV	Defined as a partial destruction of feldspars and mafic minerals (biotite) due to the formation of sericite and quartz. It is a retrograde process that affects feldspars and mafic minerals and the stage of the original minerals is used to estimate the intensity of the process. This alteration is typically associated with C and/or B veins, and in general, it is possible to find remanent biotite pseudomorphs in halos. It is the result of the beginning hydrolysis process in moderately acidic conditions and temperatures between 350–450ºC.
Magnetite–biotite	MT-BIO	Corresponds to a magnetite and quartz >biotite assemblage intergrowing with chalcopyrite. Occurs as cumulates and veins crosscutting the hydrothermal breccia, or as a coherent zone of alteration.
Green mica	GMICA	Characterized by a microgranular texture, which corresponds to a fine-grained aggregate of phlogopite–chlorite–fine muscovite (sericite)–quartz. It coexists with potassium feldspar/albite and contains traces of andalusite and corundum; all of them defined under microscope. It is associated with disseminations, cumulus, and filling of open spaces with fine-grained chalcopyrite and pyrite. It can also occur as replacement in clusters (island textures) or disseminated, but also, as pervasive replacements obliterating the rock texture. It can also occur as breccia cement. May include biotite, magnetite, or albite.
Biotite–K-feldspar	BIO-KFELD	Potassium feldspar replaces magmatic feldspars and biotite replaces mafic minerals. It corresponds to the classical background potassium alteration in porphyry systems. It does not obliterate texture since this alteration is selective, not pervasive.
Propylitic	PROP	Alteration characterized by chlorite, epidote ± calcite, magnetite and albitized plagioclase. These minerals can occur as disseminations, in veinlets, and clusters. It is generated by almost neutral solutions within a wide range of temperatures. It can be associated with pyrite and subordinate chalcopyrite.



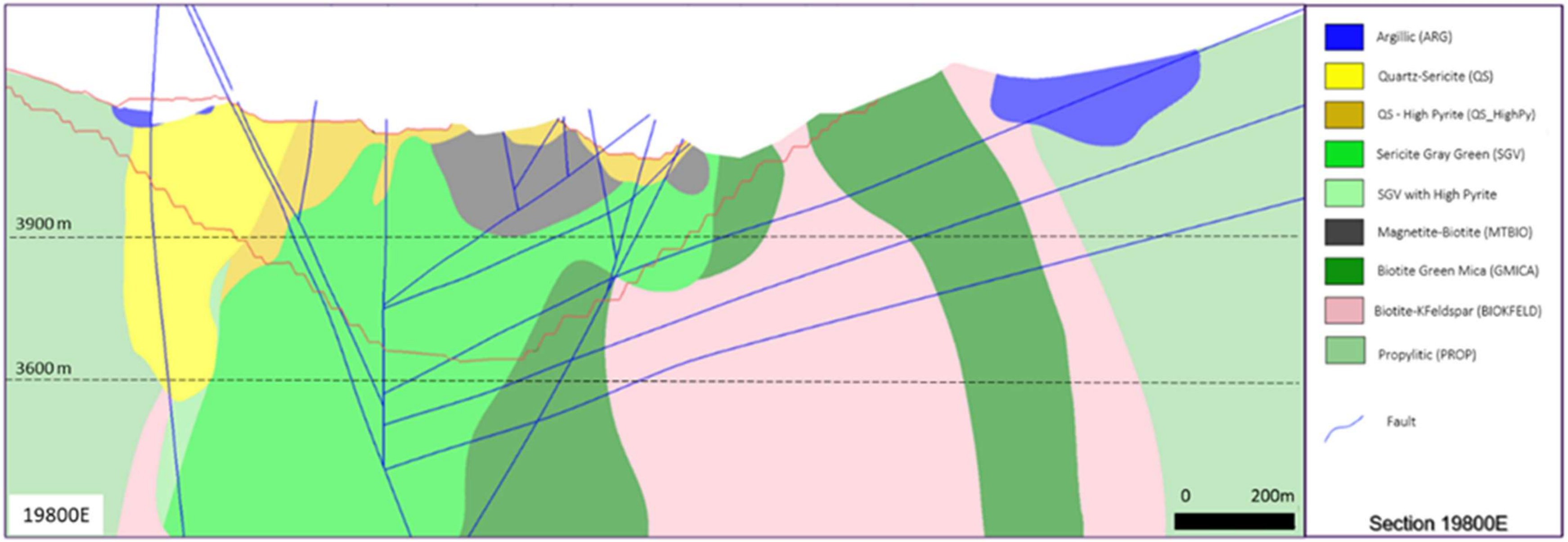
Note: Figure prepared by Teck, 2023.

Figure 7-6: Alteration Stage Schematic



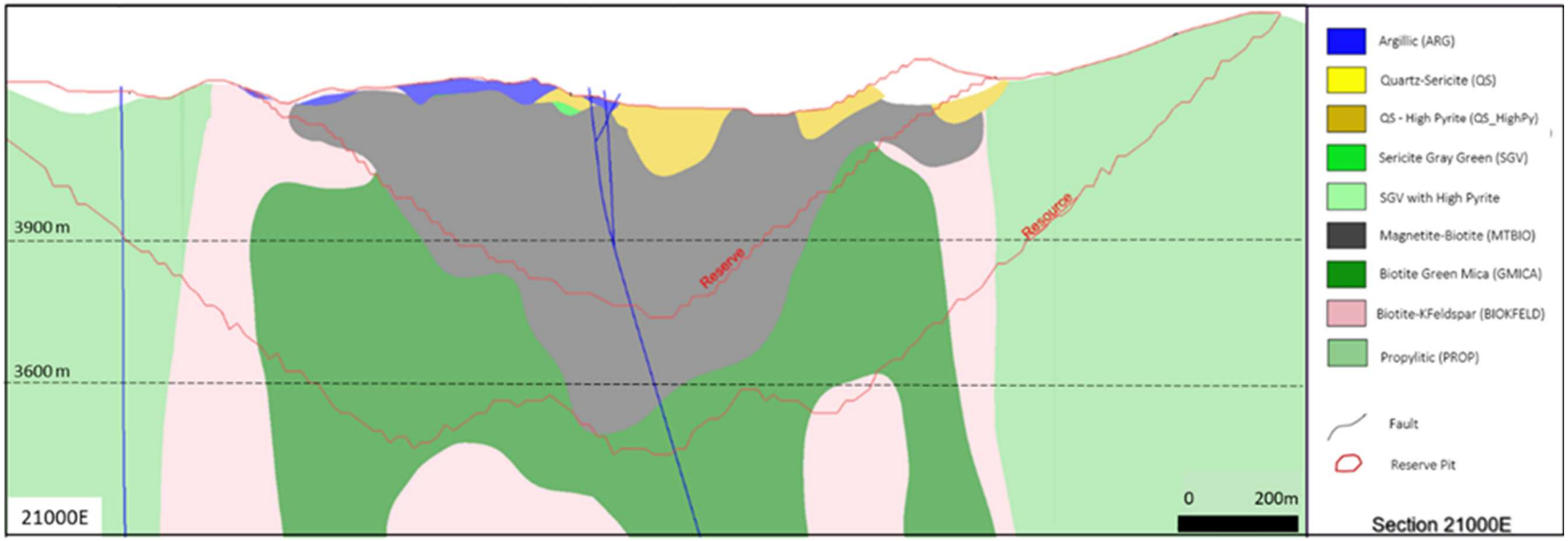
Note: Figure prepared by Teck, 2023. Plan elevation 3850 m. Red lines show section locations.

Figure 7-7: Alteration Plan



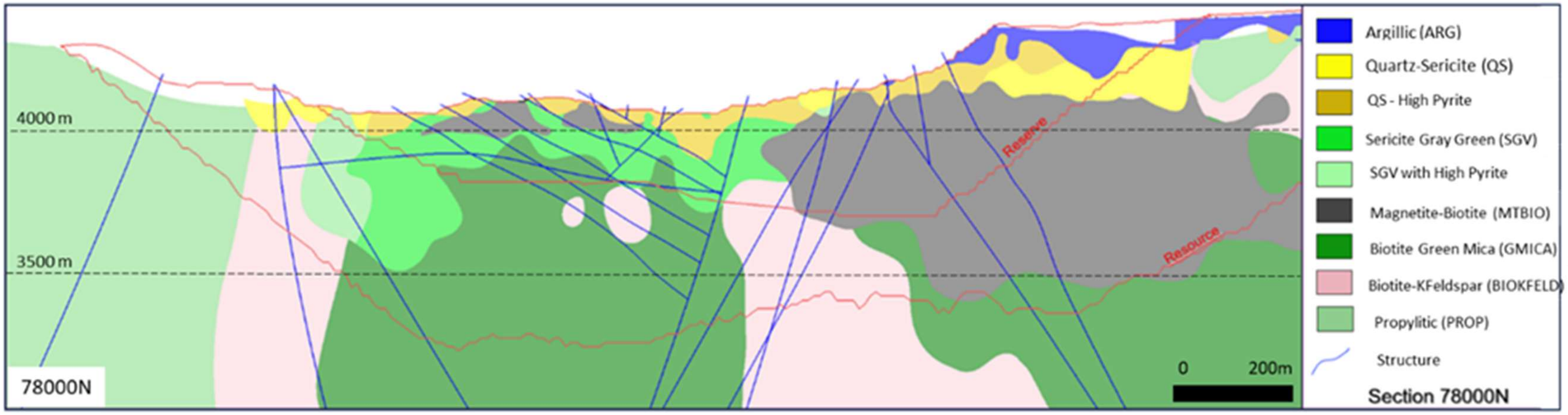
Note: Figure prepared by Teck, 2023. Section line location shown on Figure 7-7.

Figure 7-8: Alteration Cross-Section(19800 East)



Note: Figure prepared by Teck, 2023. Section line location shown on Figure 7-7.

Figure 7-9: Alteration Cross-Section(19800 East)



Note: Figure prepared by Teck, 2023. Section line location shown on Figure 7-7.

Figure 7-10: Alteration Long Section (78,000 N)

Table 7-3: Mineralization Types

Style	Description
Supergene	Secondary mineralization appears to be preferentially concentrated close to structures and more permeable rocks. The lower portions of the secondary enrichment zone transition into primary copper mineralization, resulting in a mixed low-grade ore type that was processed through run- of-mine (ROM) dump leaching.
Hypogene	In the hypogene environment, mineralization occurs mainly as disseminated, veinlet-like and breccia cement mineralization forming an east–northeast-trending area within the Paleozoic quartz monzonite to granodiorite, feldspar porphyry intrusions, and breccias.

Within the northwest trend, pyrite distribution is generally related to quartz–sericite alteration and highly concentrated in late veins, typical of the northwest-trending principal faults where they also control supergene copper mineralization. The supergene mineralization is characterized by chalcocite and minor covellite. Gold and silver distributions correlate with copper mineralization grading >0.5% Cu. The locations of higher metal grades also appear to be structurally controlled, with grades increasing towards the hanging wall of the main fault. These minerals can locally occur outside of the main trends.

Figure 7-11 shows the distribution of the copper sulphide mineralization. Figure 7-12 is a longitudinal section showing copper sulphide mineralization, and Figure 7-13 shows the copper grade shells in a longitudinal view.

7.3.7 Mineralization Zone (Minzone) Definition

The mineralization zone (“minzone”) defines the copper sulphide assemblages based on the environment they formed in and the copper mineral species. The initial calculation was focused on the supergene zones and used during the QB1 supergene mining phase. The calculation was updated to describe the transition and primary zones of the hypogene mineralization within QB2.

Several assumptions are made to enable consistency in the calculation. All sulphur deports to sulfides, which is supported by mineralogical data (quantitative evaluation of materials by scanning electron microscopy (QEMSCAN) mineralogical data on 250 geometallurgical samples).

The sequential copper analyses have the assumptions summarized in Table 7-4.

The mineralization zone (“min-type” in the database) used for interpretation and modelling corresponds to a calculation based on sequential copper assays for all zones and with visual logging for the leached zone.

The detailed logic used to define and assign the mineralization zones is summarized in Figure 7-14.

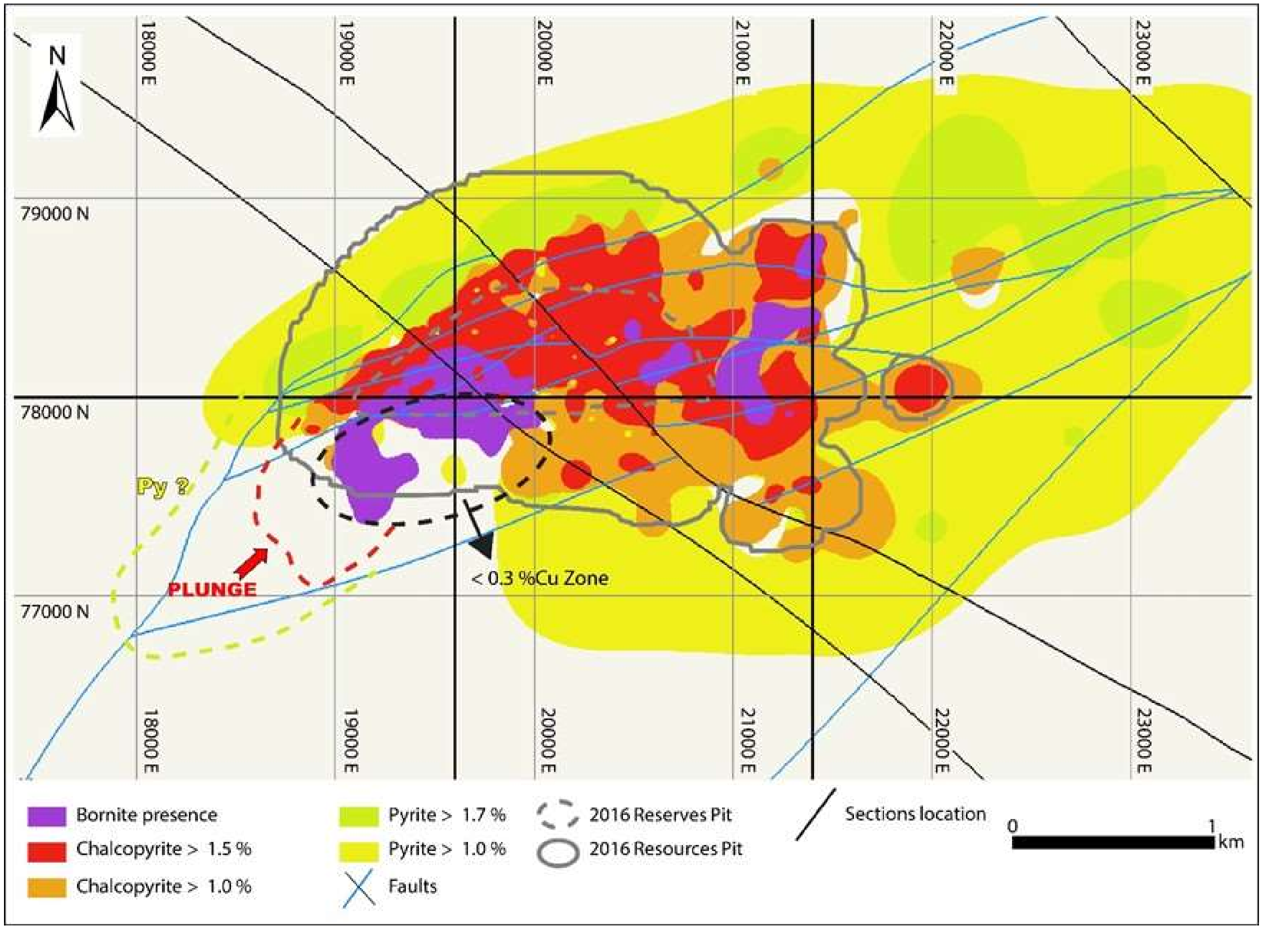


Figure prepared by Teck, 2016.

Figure 7-11: Copper Sulphide Mineralization Plan (level 3850 m)

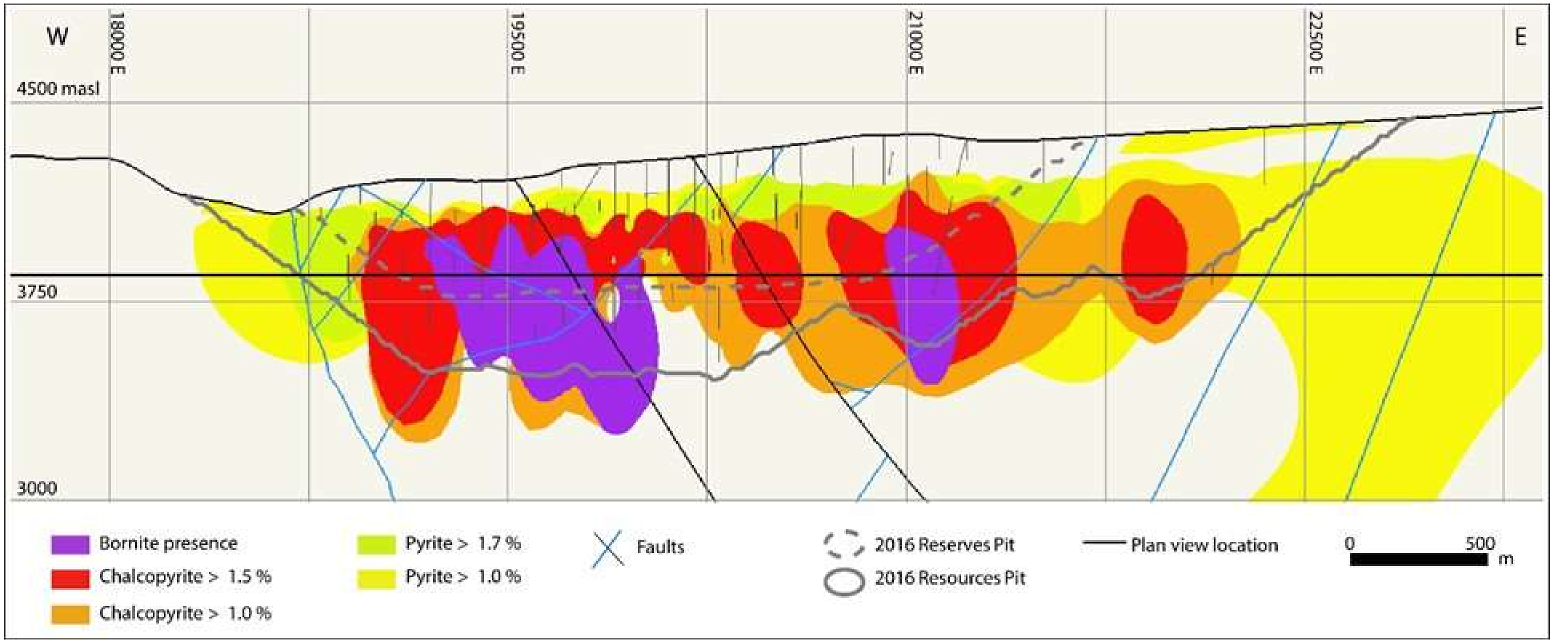


Figure prepared by Teck, 2016. Grey lines on figure are drill traces projected to the section. Figure looks north.

Figure 7-12: Longitudinal Copper Sulphide Mineralization Section (78,000 N)

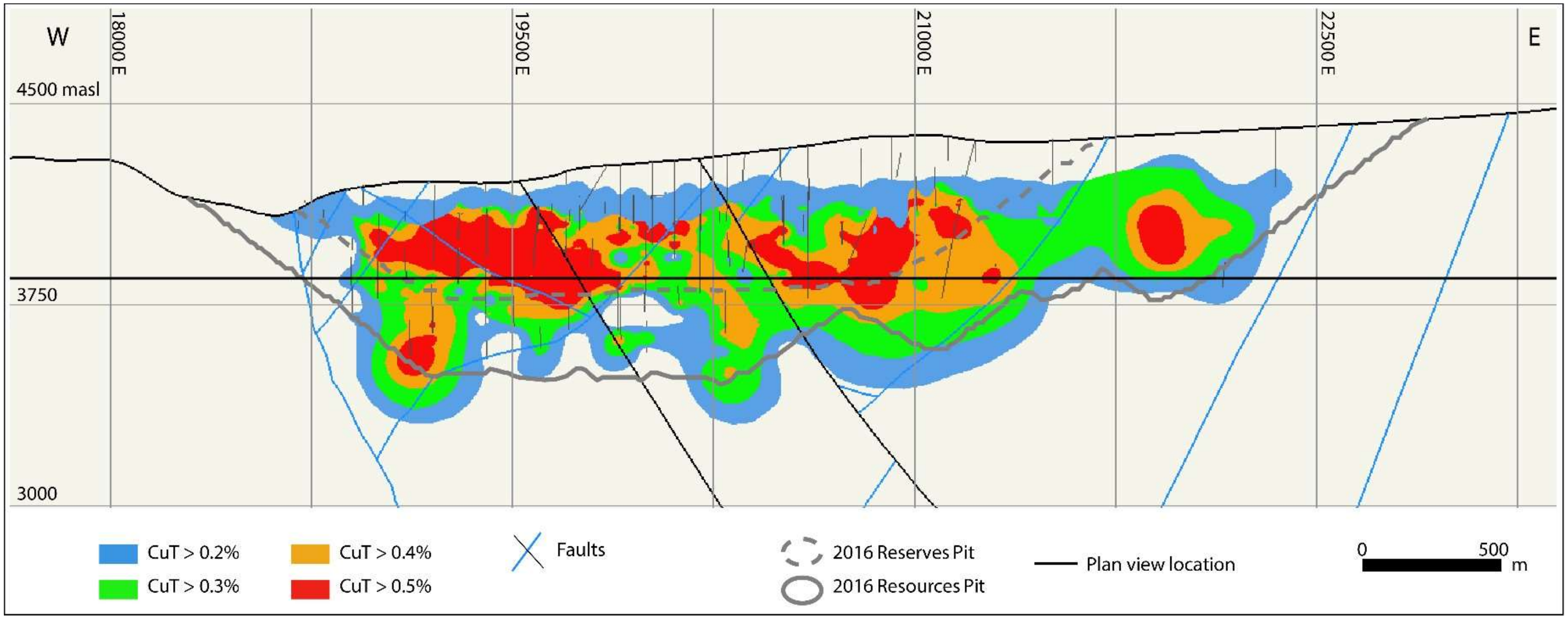


Figure prepared by Teck, 2016. Grey lines on figure are drill traces projected to the section. Figure looks north.

Figure 7-13: Longitudinal Copper Grade Shell Section (78,000 N)

Table 7-4: Sequential Copper Analysis Assumptions

Zone	Note
Supergene	No bornite is present.
	All CuCN corresponds to chalcocite and covellite.
	All CuSH corresponds to oxides.
	All CuRes corresponds to chalcopyrite.
Hypogene	All CuCN corresponds to bornite.
	CuSH is minor to non-existent.
	All CuRes corresponds to chalcopyrite.

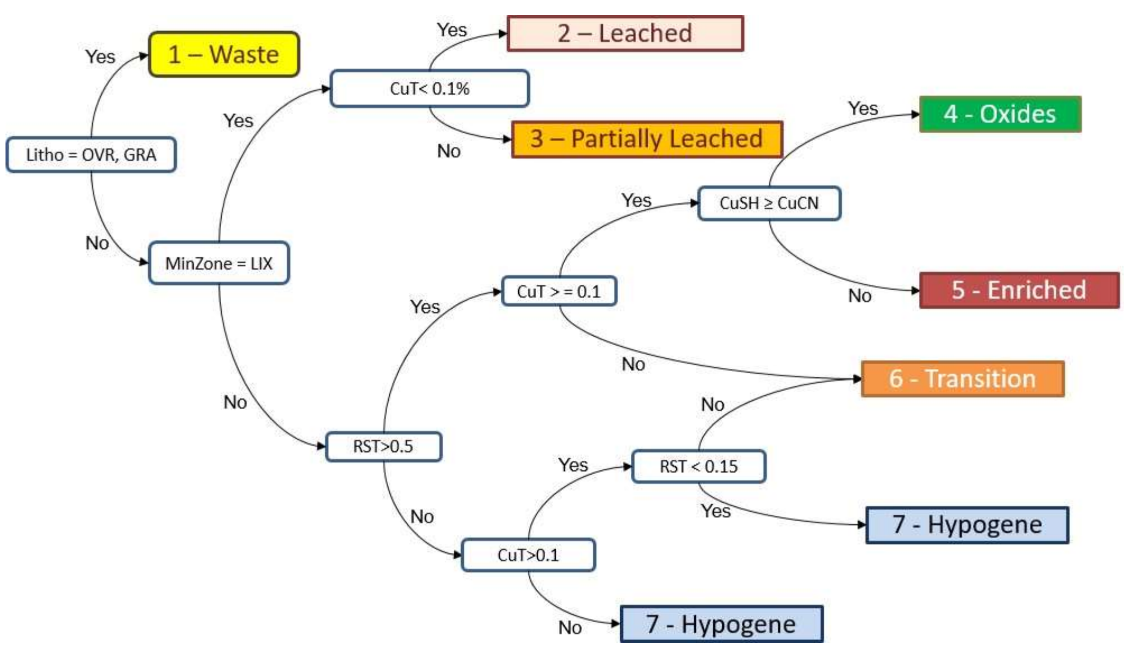


Figure prepared by Teck, 2018. (Abbreviations: CuCN= Cyanide soluble Cu, CuSH= Acid soluble Cu, CuT= total Cu, LIX = leach zone, OVR and GRA = Gravels/soil, RST= (CuCN+CuSH)/CuT)).

Figure 7-14: MinType Definition Logic

7.4 Prospects

Prospects and exploration potential are discussed in Section 9.7.

7.5 QP Comment on "Item 7: Geological Setting and Mineralization"

The understanding of the geological and deposit setting is acceptable to support Mineral Resource and Mineral Reserve estimation, and can support mine planning.

8 DEPOSIT TYPES

8.1 Overview

The porphyry-style mineralization at Quebrada Blanca is considered to be typical of an Andean porphyry copper–molybdenum deposit.

Common features of this subset of porphyry-style deposits include:

- Large zones (>10 km^2) of hydrothermally altered rocks that commonly grade from a central potassic core to peripheral phyllic-, argillic-, and propylitic-altered zones;
- Mineralization is generally low grade and consists of disseminated, fracture, veinlet, and quartz stock-work controlled sulphide mineralization. Deposit boundaries are determined by economic factors that outline ore zones within larger areas of low- grade, concentrically-zoned mineralization;
- Mineralization is commonly zoned with a chalcopyrite–bornite–molybdenite core and peripheral chalcopyrite–pyrite and pyrite zones;
- The effects of surface oxidation commonly modify porphyry deposits in weathered environments. Low pH meteoric waters generated by the oxidation of iron sulphides will leach copper from hypogene copper sulphides and form oxide copper minerals such as malachite, chrysocolla, and brochantite, and redeposit copper as secondary chalcocite and covellite immediately below the water table in flat tabular zones of supergene enrichment.

8.2 QP Comment on Item 8 “Deposit Types”

The middle Eocene to early Oligocene metallogenic belt of northern Chile, which hosts the Quebrada Blanca deposit, is also host to other large porphyry copper deposits, such as Escondida, El Abra, Chuquicamata, and the nearby Collahuasi mine.

The QP is of the opinion that exploration programs that use an Andean porphyry copper–molybdenum deposit model focusing on the late Eocene–Early Oligocene metallogenic belts in northern Chile are appropriate for the region.

9 EXPLORATION

9.1 Grids and Surveys

The QB1 supergene mining operations initially used the UTM PSAD 56 19S datum for all general surveying purposes. Chile moved the country's datum to the worldwide SIRGAS WGS84 in 1993. QB1 transitioned to the new country official geodetic system in 1998 by connecting the total stations available at the time to the new SIRGAS WGS84. For day-to-day mining operational convenience, however, local reference points based on PSAD 56 19S were established as the Quebrada Blanca local coordinate reference grid for which the actual easting (X) and northing (Y) coordinates were truncated by removing the first two digits. These local co-ordinates remain in use. Translation scripts were developed to move mine coordinates to SIRGAS WGS84 and vice-versa. The current Quebrada Blanca Operations use both the mine coordinate system and SIRGAS WGS84 as required.

The original mine topographic surface was surveyed; annual end-of-year (EOY) surfaces are also surveyed.

9.2 Geological Mapping

Geological mapping programs are summarized in Table 9-1.

9.3 Geochemical Sampling

Rock chip sampling programs are summarized in Table 9-1.

9.4 Geophysics

Airborne and ground geophysical programs are summarized in Table 9-1.

9.5 Petrology, Mineralogy, and Research Studies

A number of research studies have been completed over the Quebrada Blanca deposit, including three honours theses, three doctoral theses, and a number of published papers.

Teck provided access to researchers from the research organization AMIRA International in 2018 to undertake a "green mineral chemistry" study, with the objective of assessing whether the chemistry of individual chlorite and epidote samples can be used to target toward a known mineralized hypogene system. Samples from the Quebrada Blanca mine were provided to the researchers. Results were ambiguous.

Teck continues to integrate hyperspectral data, photogrammetry, and lithogeochemical analysis into its exploration programs.

Table 9-1: Exploration Programs

Year	Program	Company	Comment
1973	Ground induced polarization (IP) and resistivity geophysical surveys	Chilean Geological Survey	Completed over a 2 x 2 km area, directly centered over the current pit. The lines were oriented in several directions, with dipole spacings of 50 m and 100 m in order to enhance the resolution of shallow features.
1977–1982	Geological mapping	Exploradora Doña Inés	Producing reports and several detailed maps depicting lithology, alteration, structure, mineralogy, and copper–molybdenum–gold–silver distributions
1978	Ground magnetic geophysical survey	Unknown	Conducted over the Pampa Negra area in the east–central portion of the Quebrada Blanca property to better define poorly-exposed magnetic breccias. The survey identified several zones with higher magnetic responses
1992	Airborne geophysical survey	Codelco	Covered most of northern Chile. Flight lines were oriented north– south and spaced at 500 m intervals. These files were sent to Quantec Geofisica Ltda (Quantec) for processing and the subsequent interpretations were used for regional exploration. A series of north–northeast, east–northeast and northwest lineaments was interpreted by Compañía Minera Quebrada Blanca S.A. (CMQB; a predecessor company to CMTQB) geological staff as potential structural controls for the Quebrada Blanca deposit.
	Ground IP and resistivity geophysical surveys	CMQB	Covered approximately 85% of the Quebrada Blanca mining concession. The survey was performed along north–south lines, with a line spacing of 1 km and dipole spacing of 200 m. The line spacing was reduced to 500 m over the area of the 1991 feasibility study design pit.
1999	Airborne geophysical survey	Noranda	Regional hyper-spectral survey that included the Quebrada Blanca area. No additional details of the program are available. Spectral International Inc. processed the data and produced a series of maps for a suite of minerals including alunite, chlorite, hematite, illite, kaolinite, and tourmaline. The chlorite map was used to locate the extent of the propylitic alteration zone mapped to the north and south of the open pit.
2000–date	Rock chip sampling	Teck	Completed as part of the reconnaissance mapping programs, with samples analysed for copper. No significant copper anomalies were generated by the program; although, some areas of elevated copper were identified. Additional rock chip samples were taken during a regional geoscientific data compilation initiative,

Year	Program	Company	Comment
			including a property-wide 400 x 400 m rock chip sampling program covering a significant area of outcropping rocks. Each sample was also measured for its spectral response.
2002	Ground magnetic geophysical survey	Teck	Covered approximately 5.5 x 1.5 km located immediately north of the Quebrada Blanca open pit. The survey was performed along north–south lines, at a 100 m line spacing. The purpose of the survey was to define the diorite–quartz monzonite contact. The results, as interpreted by Quantec, showed that the contact was very irregular and marked by several moderately magnetic bodies extending from 100–250 m below the surface, with no apparent deeper root. Based on surface mapping, these magnetic bodies were found to coincide with the known diorite batholiths
2003	Ground IP and resistivity geophysical surveys	Teck	Colorado West area. This survey was performed to evaluate at mineralization in alluvial-filled graben and to generate an estimate of the depth of the graben
2004	Ground transient electromagnetic (TEM) geophysical survey	Teck	Located over the northeastern and east–northeastern portions of the Quebrada Blanca mine area where a zone of propylitic alteration had been mapped
2008–2012	Geological mapping	Teck	1:10,000 scale. This mapping program differentiated the deposit by lithology, alteration, mineralization, and structures, which had not previously been done. The mapping program was extended during 2010 to areas outside the Quebrada Blanca concessions and resulted in the generation of several exploration targets. The geological interpretation was revisited during 2011 to incorporate findings from a high- resolution aero-magnetic/radiometric dataset into the 1:10,000 scale district maps
2010	Airborne geophysical survey	New Sense Geophysics Limited	Helicopter-borne magnetic- radiometric data in 2010. The survey covered an area of approximately 380 km^2 centred over the Quebrada Blanca mine development. Flight lines were oriented north–south and spaced at 200 m intervals, with three areas of infill at 100 m line spacing. New Sense Geophysics Limited processed the data and delivered a suite of final processed products.
2011	Mount Isa Mine's distributed acquisition system (3D MIMDAS) geophysical survey	Teck	Conducted over some of the targets generated during Teck's mapping programs. These targets were situated south of Quebrada Blanca claims.

Year	Program	Company	Comment
	Ground IP/resistivity geophysical surveys		Performed over selected targets. This work generated a target area that corresponds to the east–northeast extension of the mineralization in the open pit
2012–2013	Geological mapping	Teck	1:2,000 and 1:5,000 scale, focused on Las Arterias prospect
2015–2016	Structural mapping	Matías Sánchez	Used 2010 geophysical survey information. Identified new targets which were reviewed in the field. Of these, Las Arterias, Yuruguaico, La Cruz, West Mag Low and El Colorado Norte were interpreted to warrant additional evaluation.
2017	Ground IP/resistivity geophysical surveys	Southern Rock Geophysics	The survey was performed to delineate a chargeability anomaly present in the western part of the Las Arterias area.
	Ground MIMDAS geophysical survey	Geophysical Resources and Services	Yuruguaico area. Completed to investigate for any areas of the chargeability and resistivity subsurface of anomalous copper concentrations in rock samples collected at surface.
2017–2018	IP/resistivity survey	HyVista	The hyperspectral survey covered an area of approximately 4,000 km^2 within and around the Quebrada Blanca mining district, neighbouring tenure, and additional areas of interest. Flight lines were oriented north–south and spaced at 2,000 m intervals. HyVista processed the data and delivered a suite of final processed products including mineral maps. An in-house first-pass interpretation was conducted in 2018 with a focus on leveraging spectral characteristics from drill core from the Quebrada Blanca hypogene system and applying those criteria to the district.
2018	Pit mapping	Teck	1:2,000 scale. Collection of lithology, alteration, mineralization, and structural information.
	Airborne geophysical survey	New Sense Geophysics Limited	Helicopter-borne magnetic- radiometric data survey. The survey covered an area of approximately 2,600 km^2 centred over the Quebrada Blanca and Collahuasi districts. Flight lines were oriented north–south and spaced at 400 m intervals, with three areas of infill at 200 m line spacing. New Sense Geophysics Limited acquired and processed the data and delivered a suite of final processed products.
2020	Ground MIMDAS geophysical surveys	Geophysical Resources and Services	La Cruz area. Completed to investigate for any areas of chargeability and resistivity subsurface anomalies to delineate continuity of the ore deposit system.
2022	Ground IP/resistivity geophysical surveys	Quantec Geoscience	Dos Quebradas area. Located over the northwestern to the Quebrada Blanca mine area and

Year	Program	Company	Comment
			southwestern from Copaquire, where a zone of alteration had been recognized.
2023	ZTEM survey	Geotech	Helicopter-borne magnetic and ZTEM survey on QB district are. The survey covered an area of approximately 1,600 km^2 centred over the Quebrada Blanca mine and surroundings. Flight lines were oriented west–east and spaced at 400 m intervals. Geotech acquired and processed the data and delivered a suite of final processed products.

9.6 Exploration Potential

9.6.1 Quebrada Blanca Open Pit

The primary hypogene mineralization remains open to the immediate east–southeast of the EOY2023 pit boundary. No infrastructure is currently planned for this area. Drilling was completed in the period 2018–2022. The drill programs encountered hypogene mineralization along two corridors of breccia and porphyries that extend to the northeast, east and southeast of the open pit. The deposit remains open at depth, and to the north, south and east.

A zone of potentially higher-grade chalcopyrite–bornite mineralization was interpreted from sulphide mineral zoning studies at depth to the west–southwest of the EOY2023 pit boundary. The interpretation remains to be drill tested.

To the east–northeast of the EOY2023 pit boundary is an area that contains quartz monzonite stocks, a large diorite roof pendant or fragment, and a few small porphyry dikes. A well-developed propylitic alteration zone has been mapped, which is characterized by 3–30% chlorite and trace to 3% epidote. Northwest-striking zones of phyllic alteration, consisting of approximately 8–45% sericite and 2–20% quartz cross-cut the propylitic alteration. These zones contain 1–5% pyrite, and minor chalcopyrite, chalcocite, bornite and magnetite. The 2004 TEM survey identified a high chargeability and low resistivity anomaly in the approximate area of the alteration, which was attributed to the presence of pyrite and magnetite.

The 2004 TEM survey also identified a pronounced northeasterly-oriented magnetic high anomaly along the contact between quartz monzonite and Collahuasi Formation rhyolites. A drill program to test the boundary between the magnetic high and associated magnetic low was completed and returned anomalous copper values.

Drill testing an area identified from geophysical anomalies, located about 1 km east of the open pit, has outlined an area of hydrothermal breccias with anomalous copper grades.

9.6.2 Regional Prospects

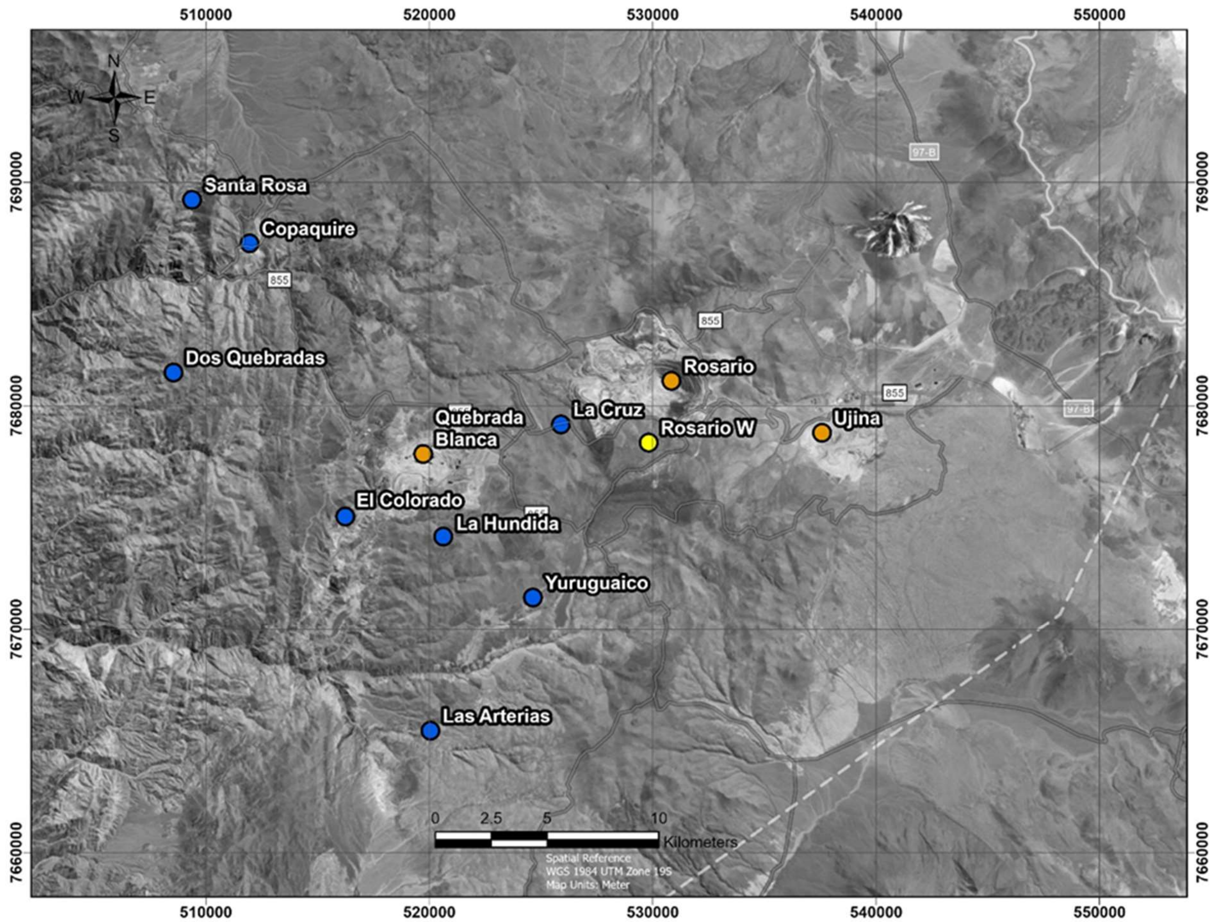
A number of prospects have been identified and tested since 2013 within the Quebrada Blanca Project area (Figure 9-1).

The majority are not considered to retain significant near-surface exploration potential; however, the potential for hypogene mineralization is still being investigated in the following areas: Las Arterias–Elena, West Mag Low, El Colorado Norte, and La Cruz.

Prospect features are summarized in Table 9-2.

9.7 QP Comment on "Item 9: Exploration"

Exploration programs conducted have been appropriate for the mineralization type. The Project area retains exploration potential.



Note: Figure prepared by Teck, 2023. Rosario and Ujina are mines held by third parties. Blue points are the Teck exploration projects satellite to the Quebrada Blanca Operations.

Figure 9-1: Exploration Prospects

Table 9-2: Exploration Potential

Prospect	Notes
Las Arterias–Elena	Located ~15 km south of Quebrada Blanca mine, where Eocene porphyritic bodies are intruded into Paleozoic granodiorite. Structurally, the target area is east of the West Fault and is interpreted to be along sub-parallel strands of the related northeast-striking El Loa Fault system. The prospect area is characterized in outcrop by mineralized hydrothermal breccias and the presence of porphyritic intrusions of the same texture and mineralogy as are present within the Quebrada Blanca system. Drill-tested outcropping areas are interpreted have intercepted alteration facies representative of the deeper parts of a porphyry center and drilling of covered areas of the target intercepted alteration. With only 10 drill holes to date, the system remains open. Importantly, the prospect highlights the under-explored nature of the Collahuasi District where undrilled outcropping porphyry systems exist.
West Mag Low	The Quebrada Blanca mineral system is characterized by a distinct east–west to southeast–northwest-trending low magnetic response feature, interpreted to be a result of magnetite-destructive phyllic alteration. Immediately to the west of the Quebrada Blanca pit, across the Quebrada Blanca Fault, is a northwest-trending ~3 x 2 km area of the same magnetic low character. In outcrop, the host rock is a Paleozoic granodiorite with local tourmaline-bearing hydrothermal breccias and small Eocene intrusions. The host rocks exhibit propylitic alteration. As such, an interpretation of the “west magnetic low” feature is that a hypothesized porphyry system may be located at some depth and be fully preserved. The target area currently has no effective drill tests.
El Colorado	Extending down topography to the southwest and to the southwest of the QB1 pit is a historically-tested target area known as El Colorado. Eighteen drill holes tested alteration features consistent with epithermal and porphyry features. There is an area of about 3 x 2 km essentially extending from the southwest side of the QB1 pit toward El Colorado, referred to as El Colorado Norte, where outcrop is characterized by variable intensities of biotite–albite, biotite–magnetite–trace copper sulfides, and sericite alteration. Given that there are open bornite and chalcopyrite grade shells outlined in the southwest area of the Quebrada Blanca pit and a lack of any drilling to close these off, the area between Quebrada Blanca and El Colorado represents a key exploration opportunity.
Dos Quebradas	The Dos Quebradas area, to the northwest of the QB deposit, was subject to an IP/resistivity survey, which indicated zones of high chargeability and high electrical conductivity anomalies in the subsurface. Additional work is warranted.
La Cruz	The La Cruz prospect to the northeast is similar to El Colorado. The La Cruz prospect is located ~2–3 km northeast of the QB1 pit and extends to Teck’s tenure boundary, where the Rosario and Rosario Oeste deposits are 0.5 to 3 km further east and northeast. Hydrothermal breccias, epithermal vein textures and mineralogy (such as alunite), small-volume Eocene intrusive bodies, geochemical anomalism in elements characteristics of epithermal and porphyry systems and a chargeability feature at depth with characteristics similar to the Quebrada Blanca hypogene system are all present in the La Cruz target area. A ZTEM survey was completed in 2023. Geophysical anomalies were drill tested, and indicated elevated sulphide and copper values.

10 DRILLING

10.1 Introduction

Drilling completed to December 31, 2023 on the Quebrada Blanca Project includes 951 core drill holes (318,382 m) and 1,512 reverse circulation (RC) drill holes (204,960 m) for a total of 2,463 drill holes (523,341 m). A summary of the various drilling programs is provided in Table 10-1.

The Mineral Resource estimate in Section 14 is supported by 869 core holes (282,495 m). Drilling that does not support estimation was either completed after the database cut-off date, had assay results pending as of the cut-off date, or were completed for purposes other than estimation support, such as geotechnical facilities drilling. A total of 1,333 RC drill holes (136,236 m) were used to support the estimation of supergene mineralization. A drill collar location plan for the drilling supporting the Mineral Resource estimate is provided in Figure 10-1.

The main objective of the drilling from July 2017 to April 2023 was to provide support for potential confidence category upgrade of Indicated Mineral Resources to Measured Mineral Resources and to provide additional technical information for the metallurgical and geotechnical models.

Drilling outside the Quebrada Blanca Operations area is summarized in Table 10-2. The prospects tested in these programs were shown on Figure 9-1.

At the Report effective date, a drilling program is underway to:

- Support potential upgrade of material currently classified as Inferred with appropriate accompanying mining studies;
- Identify shallower mineralization in and around the pit shell;
- Confirm continuity of mineralization at depth.

10.2 Drill Methods

A number of core diameters have been employed over the history of the operations, including BX (36.6 mm core diameter), NX (54.9 mm), HX (76.2 mm), NQ3 (47.6 mm), HQ3 (63.5 mm) and PQ core (85 mm) sizes. HQ3 core represents around 70% and NQ3 core represents around 10% of the total core drilling programs.

10.3 Logging Procedures

Core drill holes have been geologically logged for lithology, structure, alteration, and copper–iron mineralization. Geological logging of RC chips records similar information to that described for the core programs.

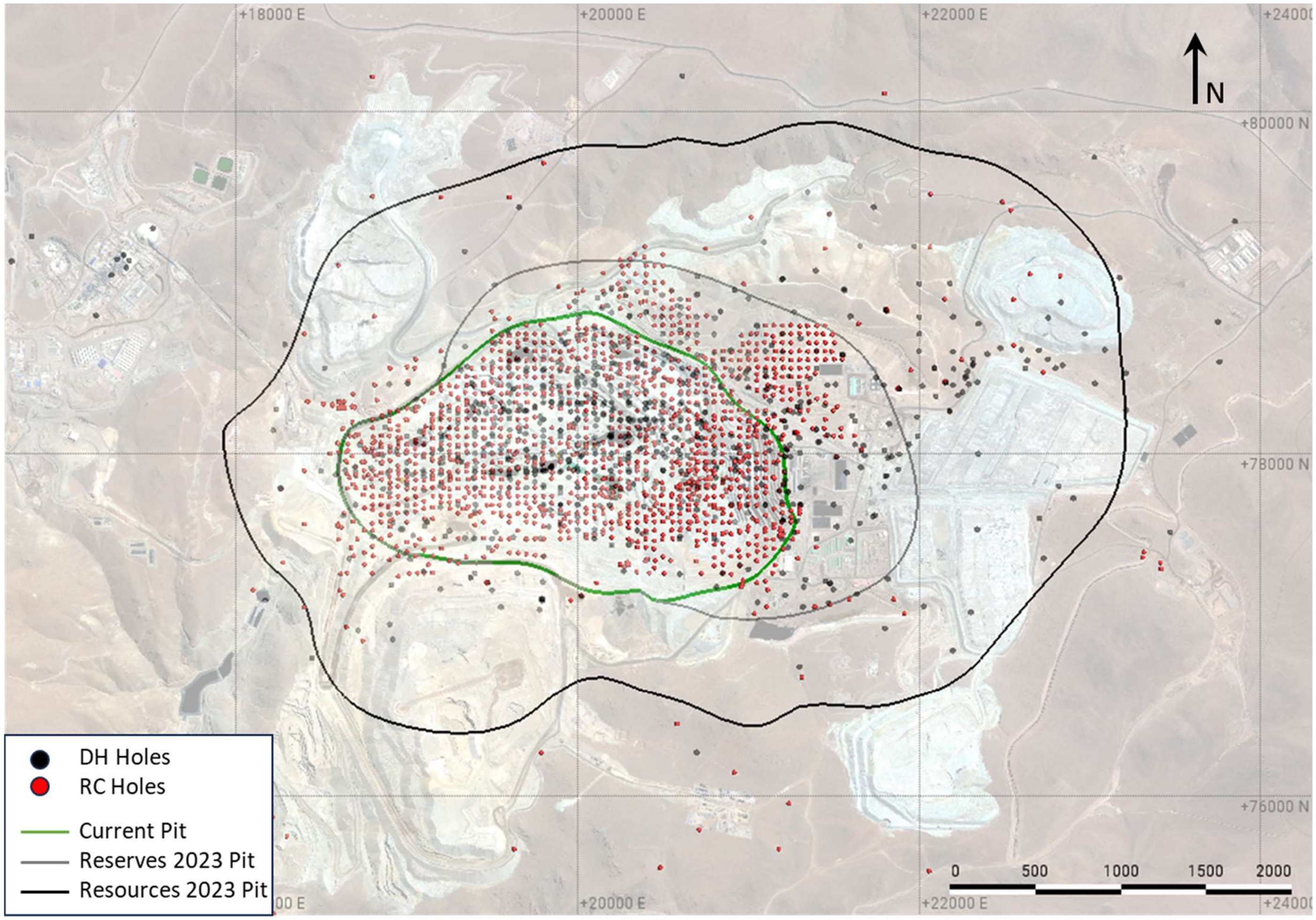
Percentage core recovery, rock quality designation (RQD), fracture frequency, and hardness were recorded for all drill cores to establish a geotechnical database.

Table 10-1: Drill Summary Table

Date	Core				RC				Total		Operator
	Metres	# Holes	From Hole	To Hole	Metres	# Holes	From Hole	To Hole	Metres	# Holes	
1975 *	unknown	1	—	—	0	0	—	—	—	1	Codelco
1977–1982	44,463	235	DDH-001	DDH-229	0	0	—	—	44,463	235	Exploradora Doña Inés
1990	2,394	5	DDH-230	DDH-234	0	0	—	—	2,394	5	CMTQB
1994	0	0	—	—	2,887	26	RC001	RC026	2,887	26	
1995	0	0	—	—	3,627	20	RC027	RC046	3,627	20	
1997	0	0	—	—	7,486	47	RC047	RC093	7,486	47	
2000	3,035	15	DDH-235	DDH-249	14,069	92	RC094	RC185	17,104	107	
2001	0	0	—	—	16,954	107	RC186	RC292	16,954	107	Aur
2002	0	0	—	—	20,988	192	RC293	RC484	20,988	192	
2003	0	0	—	—	40,149	233	RC485	RC717	40,149	233	
2004	0	0	—	—	26,176	140	RC718	RC857	26,176	140	
2005	1,962	6	DDH-250	DDH-255	10,397	83	RC858	RC939	12,359	89	
2006	0	0	—	—	5,106	45	RC940	RC984	5,106	45	
2007	9,732	36	DDH-256	DDH-288	0	0	—	—	9,732	36	
2008	29,927	64	DDH-289	DDH-346	0	0	—	—	29,927	64	Teck
2009	17,900	34	DDH-347	DDH-380	0	0	—	—	17,900	34	
2010	49,084	120	DDH-377	DDH-494	9,492	76	RC985	RC1057	58,576	196	
2011	31,119	116	DDH-491	DDH-605	14,888	172	RC1058	RC1226	46,007	288	
2012	20,467	63	DDH-601A	DDH-662	21,135	176	RC1227	RC1396	41,602	239	
2013	5,589	28	DDH-663	DDH-689	7,519	61	RC1385	RC1450	13,108	89	

Date	Core				RC				Total		Operator
	Metres	# Holes	From Hole	To Hole	Metres	# Holes	From Hole	To Hole	Metres	# Holes	
2014	0	0	—	—	836	10	RC1451	RC1459	836	10	
2015	1,804	10	DDH-690	DDH-699	2,980	23	RC1460	RC1476B	4,784	33	
2016	1,931	11	DDH-700	DDH-709	270	9	RC1477	RC1485	2,201	20	
2017	19,920	84	DDH-710	DDH-786	0	0	—	—	19,920	84	
2018	17,231	40	DDH-637A	DDH-818	0	0	—	—	17,231	40	
2019	20,634	28	DDH-811A	DDH-841	0	0	—	—	20,634	28	
2020	2,476	5	DDH-842	DDH-845	0	0	—	—	2,476	5	
2022	16,122	21	DDH-846	DDH-865	0	0	—	—	16,122	21	
2023	22,592	29	DDH-865A	DDH-891	0	0	—	—	22,592	29	
Total	***318,382***	***951***	**—**	**—**	***204,960***	***1,512***	—	—	***523,341***	***2,463***	

Note * This drilling is not included in the drill totals for the Project.



Note: Figure prepared by Teck, 2023. DH = core drilling, RC = reverse circulation drilling.

Figure 10-1: Quebrada Blanca Operations Drill Collar Location Plan

Table 10-2: Regional and Prospect Drilling

Area or Prospect	Date	Core				RC				Total		Operator
		Metres	# Holes	From Hole	To Hole	Metres	# Holes	From Hole	To Hole	Metres	# Holes	
Copaquire	1977	—	—			2,128	9	P1	P9	2,128	9	Placer
	1992	—	—			2,976	18	CRC01	CRC18	2,976	18	Cominco
	2005	3,884	12	CQ-01	CQ-12					3,884	12	IPBX
	2006	1,814	7	CQ-31	CQ-37	4,598	18			6,412	25	Cominco
	2007	18,449	56	CQ-38	CQ-94					18,449	56	IPBX
	2008	691	5	95	99					6,91	5	IPBX
	2010	2,369	6	100	105A					2,369	6	IPBX
	2011	5,528	14	COPW001	COPW004	—	—	—	—	5,528	14	IPBX
	2013	3,638	4	—	—	—	—	—	—	3,638	4	OZL
Yuruguaico	2011	3,582	8	DDH-YU-01	DDH-YU-08	—	—	—	—	3,582	8	Teck
La Hundida	2013	4,165	7	DDHHU-01	DDHHU-07	—	—	—	—	4,165	7	Teck
Santa Rosa	2019	—	—	—	—	1,504	6	RC-SR19-001	RC-SR19-006	1,504	6	Teck
Las Arterias	2016	1,584	5	DDHELE-01	DDHELE-06	—	—	—	—	1,584	5	Teck
	2017	2,686	6	DDHAR-01	DDHAR-01	—	—	—	—	2,686	6	Teck
El Colorado	1980	743	4	DDH 146	DDH 149	—	—	—	—	743	4	Explorada Dona Ines
	2001	—	—	—	—	200	1	RC200	—	200	1	Teck
	2003	—	—	—	—	2,994	14	RC615	RC712	2,994	14	Teck
	2004	—	—	—	—	2,836	10	RC726	RC811	2,836	10	Teck
	2005	—	—	—	—	408	2	—	—	408	2	Teck
	2011	137	2	—	—	—	—	—	—	137	2	Teck

Area or Prospect	Date	Core				RC				Total		Operator
		Metres	# Holes	From Hole	To Hole	Metres	# Holes	From Hole	To Hole	Metres	# Holes	
	2016	—	—	—	—	210	3	—	—	210	3	Teck
	2014	—	—	—	—	190	3	—	—	190	3	Teck
La Cruz	2023	4,583	5	DDH-LC-001	DDH-LC-005	—	—	—	—	4,583	5	Teck
	Total	***54,074.31***	***141***			***18,044***	***75***			***72,079***	***225***	

10.4 Recovery

Drill core recovery at Quebrada Blanca has been acceptable, averaging 95% or higher. Approximately 10% of the data included in the database have recovery percentages that are less than 85%. Most of these low recovery intervals are related to the presence of faults and gravel.

10.5 Collar Surveys

From the 1990s to 2005, a theodolite Wild Model T-1 was used to survey drill hole collars. Between 2005 and 2010, a Trimble GPS R7 and R6-2 and Trimble S6-3” Total Station, with a precision of ±5 mm was used. After 2010, the mine has used a Trimble GPS R8 (± 3 mm accuracy), and NET R9 and S6-2” and S6 3” Total Stations have been used as control stations.

Drill protocols in place since 2004 require that the initial drill collar location be surveyed prior to drilling, and after hole completion, the location is picked up by a survey crew. The requirement for two surveys is to ensure that there are minimum differences in the database between original and final collar locations.

10.6 Downhole Surveys

Limited information is available on the 1977–1982 core drill programs. A single-shot instrument is known to have been used in the programs; however, the data available do not clearly differentiate drill holes with actual downhole surveys, and drill holes that use the collar inclination.

No surveys are known to have been performed on the six holes from the 1990 drill program.

From 2000 to date, a gyroscopic instrument has been used, with data collected at 10–20 m intervals down the core hole.

10.7 RC Drilling

The RC drilling that was shown in Table 10-1 was primarily used for in-pit infill drill programs, as well as for leachable material exploration drilling.

In the supergene zone, RC drilling is used to support the geological interpretations and is used in copper grade estimation. Other than in the supergene material, RC drilling has been excluded from the geological interpretations and Mineral Resource estimation.

10.8 Blast Hole Drilling

The blast hole drilling programs were executed only to support the mining operation. The drilling grid spacing varies from a regular spacing of 10 x 10 m, at the beginning of the operation, to 7 x 8 m and 8 x 9 m spacings later in operations.

Blast hole data are not used for Mineral Resource estimation purposes.

10.9 Geotechnical and Hydrological Drilling

Geotechnical drilling was completed from 2008–2015 to assess the geotechnical characteristics of the QB open pit, using a combination of NQ, HQ, and PQ drilling methods. Some of the drill holes were oriented for geotechnical structure using either manual methods or the acoustical or optical televiewer (ATV/OTV) geophysical system. Testwork completed included point load index, unconfined compressive strength (UCS), Brazilian, triaxial compression, and direct shear testing. From 2009–2015, standpipe and vibrating wire piezometers were installed within and around the QB1 open pit for determination of pore pressure conditions.

In 2017–2018, core was drilled to obtain geotechnical information to support the geotechnical design for the open pit. Core was oriented using ATV/OTV. Testwork completed included point load index, UCS, Brazilian, triaxial compression, and direct shear tests. Thirteen hydraulic (Packer) tests were completed. Two to three vibrating wire piezometers were installed in the core holes to establish pore pressure conditions.

During 2019–2020, basic geotechnical information such as fracture frequency and RQD were obtained from 21 core holes. Comprehensive geotechnical and structural mapping was completed over 44 core holes during 2022–2023. A total of 13 drill holes were completed in 2022–2023 for the installation of vibrating wire piezometers to establish pore pressure conditions within the QB pit walls. Seven large diameter wells were completed to allow the installation of pumping wells for dewatering the open pit. Three open pit monitoring wells were installed for water level monitoring and water quality sampling purposes.

10.10 Metallurgical Drilling

Historical metallurgical drilling programs specific to hypogene material were completed from 2002–2012, using PQ and HQ core. A second PQ and HQ core program was completed in 2017–2018. Drill holes were located throughout the deposit.

10.11 Sample Length/True Thickness

The central portion of the Quebrada Blanca deposit has been delineated along 100 m spaced north–south-oriented sections, with drill holes spaced approximately 60–80 m along the sections. Outside this central portion of the deposit, drilling grid spacing increases to about 100–150 m.

Drill holes completed prior to 2000 were typically vertical drill holes. From 2000 to date, most drill holes are inclined.

The general orientation and trend of the porphyry system is to the northeast, and the majority of the drill sections are oriented north–south, principally to the north. In general, most drill holes intersect mineralized zones at an angle, and the drill hole intercept widths reported for the Project are typically greater than the true widths of the mineralization at the drill intercept point. Drill holes are not drilled exactly perpendicular to the orientation of the mineralization (northwest), because this is the direction of the predominant northwesterly-trending structures.

10.12 QP Comment on Item 10 "Drilling"

There are no drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results known to the QP.

Logging, recovery, and survey data collected during Teck's drill programs are considered acceptable to support Mineral Resource and Mineral Reserve estimation, and can support mine planning.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sample Methods

11.1.1 Reverse Circulation

The RC samples were typically taken on 1 m or 2 m intervals. A small representative sample of rock cuttings for each interval was kept in labelled chip trays as a record of the interval.

Dry samples were collected at the drill rig, weighed, and halved or quartered in a riffle splitter. A rotary wet splitter was employed in extreme wet conditions, and two smaller splits were recovered in porous sample bags at the rig, labelled, and dried.

11.1.2 Core

Sampling was generally performed at fixed 2 m intervals. This is considered acceptable as changes in lithology, mineralogical types, and grade are generally transitional, which is typical for a porphyry copper deposit, and breaking the sampling at specific geological or other boundaries is not warranted.

Samples were historically halved using core sawing when core was sufficiently competent; when core was broken, a hydraulic split was used. Since 2017 core has been halved using a semi-automatic saw, eliminating the use of hydraulic split. One half of the sawn core was placed back into the pertinent core box in depth order, and the other half was placed in a plastic sample bag. After each 2 m sampling interval was completed, a sample tag was attached to the bag, and the bag was sealed.

11.1.3 Blast Holes

The blast hole samples were collected using a 51 mm diameter ribbed tube. A total of 12 portions were collected from each blast hole cone using a cone-and-quartering method to form one complete sample. All material was placed into a polyethylene bag which contained a sample tag listing: date, bench number, blast number, and drill hole number.

11.2 Density Determinations

Density samples were taken approximately every 20 m to provide representative data for all of the geological units.

Historically, density determinations were performed by Andes Analytical Laboratories (Andes Analytical) in Santiago. Since 2017, samples have been sent to the ALS Global (ALS) laboratory in La Serena, Chile (ALS La Serena).

Geological information for each sample was entered into the acQuire database, together with information on the physical sample properties, and core diameter. Data are stored in acQuire and density determination certificates are stored on the server.

A check calculation was performed using the database data as a verification step on the values supplied by Andes Analytical and the ALS laboratory in Patagonia, Chile (ALS Patagonia).

The database contains 6,869 specific gravity measurements within the deposit area, all obtained from post-2007 drill programs.

11.3 Analytical and Test Laboratories

A summary of the sample preparation, analytical and test laboratories are included as Table 11-1.

The grade control sample preparation and analysis were usually carried out at the mine laboratory which has no accreditation and is not independent. The mine laboratory performed sample preparation and analytical procedures for selected RC campaigns.

11.4 Sample Preparation and Analysis

Sample preparation and analysis procedures, where known, are summarized in Table 11-2.

The site laboratory prepared and analyzed blast hole samples on a daily basis, and was equipped to perform total copper and sequential soluble copper analyses. The most common methods used by the laboratory included sample preparation, three-acid digestion with AAS finish, and determination of copper, molybdenum, CuSH, and CuCN.

11.5 Quality Assurance and Quality Control

Although drill programs prior to 2007 were not routinely subject to an onsite quality assurance and quality control (QA/QC) program, the laboratories selected during this period included internal quality control programs that conformed to international norms for the time.

All submissions of core drilling, post-2008, have included QA/QC samples. From 2008–2013, the QA/QC insertion rates consisted of 5% coarse blanks, 5% standard reference materials (standards), and 5% half-core duplicates. After 2015, this rate was changed to an insertion rate of 4% coarse blanks, 2% fine blanks, 6% standards, 4% field duplicates, 2% crush duplicates and 2% pulp duplicates.

Program results are summarized in Table 11-3. At the Report effective date, sample preparation and analytical precision were acceptable for the core programs.

QA/QC for the RC drilling completed prior to 2008 included submission of rig duplicates, coarse reject duplicates, and pulp checks. Post-2008, the same QA/QC protocols as used for core were applied to the RC programs. At the Report effective date, sample preparation and analytical precision were acceptable for the RC programs.

The current QA/QC protocol for blast hole sampling was initiated in 2011, and includes submission of field duplicates, standards (high, medium, and low grade), field blank samples, crusher reject duplicates, pulp duplicates and check samples that are sent to an umpire (check) laboratory. Results to date indicate the sample preparation and analysis are acceptable.

Table 11-1: Sample Preparation and Analytical Laboratories

Program	Laboratory	Accreditation	Purpose	Independent
1975	Chuquicamata	Unknown	Sample preparation and primary analysis	Unknown
1977 to date	Quebrada Blanca site laboratory	None	Sample preparation for selected programs, primary analysis for blast hole samples	No
1977–1983	Centro de Estudios de Medición y Certificación de Calidad S.A (CESMEC), Iquique, Chile	Unknown	Primary analysis	Yes
	Union Assay, Salt Lake City, USA	Unknown	Check analysis	Yes
	Assayers Canada, Vancouver, Canada	Unknown	Check analysis	Yes
1994	Centro de Investigaciones Minero Metalúrgicas Technologies & Services S.A. (CIMM), Calama	Unknown	Sample preparation and primary analysis	Yes
1995	CIMM, location unknown	Unknown	Sample preparation and primary analysis	Yes
1997	CIMM, Antofagasta	Unknown	Sample preparation and primary analysis	Yes
2000	Actlabs Chile S.A.	Unknown	Sample preparation and primary analysis	Yes
2001	CESMEC	Unknown	Primary analysis for RC samples; pulp reanalysis	Yes
2002–2003	Quebrada Blanca site laboratory	None	Sample preparation	No
	Geoanalitica Ltda (Geoanalitica)	Unknown	Primary analysis for RC samples	Yes
2004–2005	Quebrada Blanca site laboratory	None	Sample preparation for selected samples	No
	Acme Santiago (Acme Santiago)	ISO 9001:2000	Sample preparation and primary analysis	Yes
2007–2008	Andes Analytical Laboratories, Santiago (Andes Analytical)	ISO 9001:2000 from 2006	Sample preparation and primary analysis	Yes
2009 to December 2012	Acme Santiago and Acme Copiapó	Santiago: ISO 9001:2000 from 2005 Copiapó: ISO 9001:2000 from 2010	Acme Copiapó: sample preparation; Acme Santiago: primary analysis	Yes

Program	Laboratory	Accreditation	Purpose	Independent
2010–2012	Quebrada Blanca site laboratory	None	Sample preparation for selected samples	No
	Geoanalitica	9001:2008	Primary analysis for RC samples	Yes
2013	Acme Santiago and Acme Copiapó	Santiago: ISO 9001:2000 from 2005 Copiapó: ISO 9001:2000 from 2010	Acme Copiapó: sample preparation; Acme Santiago: primary analysis	Yes
2015–2023	ALS Patagonia and ALS Lima (Peru)	Chile: ISO9001: 2015 Lima: 17025	ALS Patagonia: sample preparation; ALS Lima: primary analysis	Yes
2023	Bureau Veritas, Reno	ISO 9001	Umpire analysis	Yes

Table 11-2: Sample Preparation and Analysis

Program	Sample Preparation	Analysis	Comment
1977–1983	Site laboratory: crush to -6 mm; pulverize to -100 mesh	CESMEC: total copper, CuS and molybdenum analysis by atomic absorption spectroscopy (AAS). Assayers Canada: 49 element suite by mass spectrometry	Union Assay: check total copper analysis using potassium iodide method
1990–1997	Unknown	Unknown	
1994 to date	Site laboratory: crush to -10 mesh, pulverize to -150 mesh.	Total copper by AAS; sequential soluble copper	Blast hole sampling
2000	Unknown	Unknown method. Assayed for total copper, CuS, CuCN, total non- soluble copper in the residue after the cyanide soluble analysis, and molybdenum	Used for core and RC
2001	Unknown	Total copper, sequential soluble copper (acid and cyanide), and molybdenum	RC only
2002	Unknown	Sequential soluble copper	RC only
2004–2005	Unknown	Unknown	
2007–2008	Crush to 80% passing -10 mesh, pulverize to 95% passing -150 mesh	Copper and molybdenum by AAS	

Program	Sample Preparation	Analysis	Comment
2009 to date	Crush to 80% passing -10 mesh, pulverize to 85% passing -200 mesh; crush to 70% passing -10 mesh, pulverize to 85% passing -200 mesh	Copper and molybdenum by AAS. Total copper using sequential soluble copper method	Samples within the oxide, supergene, and transition zones were also analyzed for soluble copper

Table 11-3: QA/QC Results

QA/QC Sample Type	Source	Comment
Blanks	Eary programs: barren coarse quartz generally containing <40 ppm Cu, or 0.004% Cu Later programs: purchased material, coarse blanks from ALS and certified fine blanks from Ore Research & Exploration Pty Ltd (OREAS)	No significant contamination problems with either copper or molybdenum at the primary laboratory
Standards	CDN Resource Laboratories Ltd; OREAS	Acceptable ranges of accuracy for the total copper and molybdenum values
Duplicates	Field duplicates: halved drill core Crush and pulp duplicates	Reasonable correlations for total copper; however, molybdenum showed significant variability. This was attributed to the nugget and veinlet mineralization style of the molybdenite

11.6 Check and Re-assay Programs

An independent QA/QC checking procedure is in place for the mine site laboratory, and consists of sending about 1% of the total drill campaigns analysed by the site laboratory each year to two external laboratories, Geoanalitica and Andes Analytical. At the Report effective date, the sample preparation and analysis were considered to be acceptable.

In 2015, an umpire assay program of 5% of all samples across the grade range was added to the quality control process. This program continued at the Report effective date.

Re-assay programs were conducted as follows:

- 2002: selection of 2,461 sample pulps was re-analyzed from the 1977–1983 drilling campaigns; results were considered acceptable;
- 2007: 5% of the core was submitted for re-assay. Copper assays were found to be acceptable. There was some evidence of possible overestimation of molybdenum in the higher grades; however, there was good correlation around the average grade (0.02%) of the deposit. Check analysis program on 343 pulps at the Acme laboratory; results were considered satisfactory;

- 2011: re-assay program of 23 historical drill holes from the 1977–1983 drilling campaign; results indicated the drilling could be used to support Mineral Resource estimation;
- 2019: check program on 2017–2018 analyses. The results were considered satisfactory, as about 99% of samples had an analytical difference of <10%.

No re-assay programs have been completed since 2019. Based on acceptable results from the check and re-assay programs, Teck decided to use all of the core drilling from these early drill programs in grade estimation.

11.7 Databases

Until 2001, surface geological mapping and core and RC drill data were recorded within Excel spreadsheet tables. In 2002, a MS Access database was built, and the Excel tables were uploaded into it. The current acQuire database was constructed in 2009.

Geological logging data are uploaded by the database administrator from the original logging tablet. Pit mapping data are also captured and migrated into acQuire. Down hole and collar survey data are provided in electronic format by the drillers and surveyors respectively, and imported into the database. Assay data are received directly from the laboratory. QA/QC protocols (i.e. lower detection limits compliance, etc.) are completed after the results have been imported into the database, but prior to release of the data for use in Mineral Resource estimation.

As a check on the database, assay results can be plotted in section and plan view to confirm that they acceptably match with historical data. Lithology sections are typically plotted after each drill hole is logged to highlight any inconsistencies. Drill core is visually re-checked if necessary.

The database is under the control of the geological group, a senior geologist with experience in QA/QC and databases is responsible for the process, and the daily management is undertaken by two database administrators. The acQuire database is backed-up on a regular basis in accordance with Teck protocols.

The historical (pre-2009) geological and drilling information that were originally captured on paper are stored by the mine geological department, and its usage is restricted and controlled by the database administrator.

11.8 Sample Security

There is no information available on the sample security measures in place for the 1975, 1977–1982, 1990, 2000, and 2005 drill programs.

From 2007 onward, samples have been stored in a secure area under 24-hour security. Teck staff prepare samples for transport to the laboratory, and maintain a list of the samples in each load. All samples remain in the custody of Teck on Teck property under the supervision of the sample supervisor, until they are transferred by a contract transportation company, Cargotrans SA, to the independent laboratory for preparation and analysis. Samples are checked on arrival at the laboratory and any issues with the delivery are advised to Teck.

No significant security issues have been identified.

11.9 Sample Storage

After the core sampling process was completed, core was placed in tagged metal trays. Historically drill core trays, pulps, and rejects samples were stored in the open on site. Drill core boxes trays were also placed in racks or in wooden or plastic pallets. About 110,000 m of drill core remains stored in this manner at the mine site. As the core trays are exposed to high altitude weathering conditions, there is some risk of sample degradation.

About 124,000 m of core has been transported to a core storage facility in Pozo Almonte. An additional 45,600 m, from recent drill campaigns, has been transported and stored into a new core facility in Alto Hospicio, a location closer to the town of Iquique. There are plans to continue transporting the remaining drill core on site to this new facility.

11.10 QP Comment on Item 11 “Sample Preparation, Analyses and Security”

No major areas of bias or errors are considered to remain in the core sample database for copper for those drill holes used in resource estimation. Repeated duplicate sampling of drill core has indicated that there are lower levels of sampling precision for molybdenum when duplicate sampling results are reviewed. This has been attributed to the nugget and veinlet mineralization style of the molybdenite.

Sample preparation and analytical methods are appropriate to the mineralization style. Sample security measures are considered acceptable.

Overall, the copper, silver and molybdenum data generated from the core drill programs that were used in estimation are considered acceptable for supporting Mineral Resource and Mineral Reserve estimates.

12 DATA VERIFICATION

12.1 Internal Data Verification

Teck personnel have conducted laboratory visits, including in 2008, 2017, and 2018.

Teck prepares an annual "Resource and Reserve" report for the Quebrada Blanca Operations. Each report provides a review of the data used to support that year's estimates, includes an annual summary of the results and interpretations of the QA/QC performed on exploration and blast hole data, and a discussion of the reconciliation trends and observations. No issues with the exploration data collected each year that would materially affect the Mineral Resource and Mineral Reserve estimates were noted during these annual reviews, conducted from 2009 to 2023.

Teck's Reserve Evaluation Group conducts an annual process review at each operation, including the Quebrada Blanca mine. The reviews check that the processes set out corporately in terms of data collection, data verification and validation, and estimation procedures are being appropriately followed. The audits also review the results of the processes. No issues that would materially affect the Mineral Resource or Mineral Reserve estimates were noted during these annual reviews.

Teck personnel have completed four technical reports on the Quebrada Blanca deposit and operations. These reports required that sufficient data verification be performed to support the Mineral Resource and Mineral Reserve estimate current at the time the reports were prepared. A combination of Teck staff and the Qualified Persons for the reports provided information on the verification programs performed. No issues that would materially affect the estimates were noted in any of the four reports.

12.2 External Data Verification

External database audits were performed in 2011 and 2012. These reviews consisted of an examination of the digital database at the time of examination, followed by a comparison of the digital database with physical logs and/or folders stored at the mine for approximately 10% of the data. Integrity and logical checks were performed for the individual database tables, to check for "from/to" interval mismatches, missing intervals, and records extending beyond the recorded end of hole depth. The checks included a review of the downhole survey measurements based on a maximum 3D angle deviation tolerance. In each review, the quality and completeness of the database at the time was found sufficient to support estimation.

12.3 Verification by Qualified Persons

12.3.1 Rodrigo Marinho

Mr. Marinho most recently visited the site from October 11–12, 2022 (see Section 2.4). He has conducted a number of site visits since 2012.

Mr. Marinho has participated in every annual process review for the Quebrada Blanca Mineral Resources and Mineral Reserves from 2013 to date; no major issues that would materially affect the Mineral Resource or Mineral Reserve estimates were noted in any of these reviews.

The level of review has adequately verified the quality of the core database as sufficient for use in estimating Mineral Resources and Mineral Reserves, and for use in mine planning. Sample preparation, security, and analytical procedures are acceptable to support estimation.

12.3.2 Claudia Velasquez

Ms. Velasquez most recently visited the site in 2024 (see Section 2.4).

She reviewed the key metallurgical laboratory testing procedures, result, and procedures used in support of the process LOM plan.

12.3.3 Eldwin Huls

Mr. Huls visited the Project site and the key infrastructure locations during August 2023 (see Section 2.4). He has conducted a number of site visits since 2011. He also visited analogous facilities to those proposed for QB2 during 2016–2022 (see also discussion in Section 2.4).

He reviewed the status of infrastructure construction as at the effective date of the Report. He discussed costs with relevant staff and verified that the key inputs into the capital and operating cost estimates were acceptable for use in support of mineral reserve estimates.

12.3.4 Jacquelyn Vanos

Ms. Vanos performed a site visit as discussed in Section 2.4.

As part of her data verification, she discussed and reviewed LOM and five-year plans with project staff and technical teams. These included production assumptions, operating cost assumptions and reviews, sustaining capital cost assumptions and submission reviews. She verified that the key inputs to the capital and operating costs presented in Section 21 were acceptable for use in support of mineral reserve estimates.

12.3.5 Paul Kolisnyk

Mr. Kolisnyk verified marketing assumptions that support marketability of the copper and molybdenum concentrates. He reviewed supporting reports from third-party commodity analysts on the state of the copper and molybdenum markets that supported that the concentrates will be marketable. Mr. Kolisnyk also reviewed the concentrate quality data to confirm that the assumptions in the marketing analysis were supported, and that assumptions as to low levels of impurities in the concentrates and market access were supported.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

A series of metallurgical testwork programs have been conducted by Teck's third-party consultants throughout the Project's development history.

To the Report effective date, the independent consultants performing and overseeing or reviewing the testwork have included: Aminpro, Garibaldi Highlands, B, Canada; DJB Consultants Inc. (DJB), North Vancouver, British Columbia (BC), Canada; G&T Metallurgical Services Ltd. (G&T), Kamloops, BC, Canada; Inspectorate PRA Group (PRA), Richmond, BC, Canada; Phillips Enterprises (Phillips), Golden, Colorado, USA; SGS Canada, Lakefield and Vancouver, Canada; SGS Santiago, Chile; JKTech Pty. Ltd (JKTech), Brisbane, Australia; SimSAGe Pty. Ltd. (SimSAGe), Brisbane, Australia; Bear Rock Solutions Pty. Ltd. (Bear Rock), Melville, Australia; Castro ingeniería, Santiago, Chile; Woodgrove Technologies, Toronto, Canada; and Keramos UFG, Perth, Australia.

Some mineralogical studies were performed at Teck's Trail Technical Services mineralogy laboratory.

Work completed included: mineralogical examination; comminution testwork (Bond work index (BWi), drop weight index tests (DWi) and the SMC test for semi-autogenous grinding (SAG) mill and ball mill comminution analysis); flotation testwork (rougher, open cycle, locked cycle) that included flowsheet development, pilot plant campaigns, variability testing, and copper–molybdenum separation testwork; pilot plant testing; and variability testwork. Supplemental work conducted during these programs included testwork by vendors on process materials produced during pilot plant operation, to establish and validate equipment sizing criteria (concentrate regrind; bulk concentrate and copper concentrate thickening; concentrate filtration; transportable moisture limit; tailings thickening).

13.2 Metallurgical Testwork

Major work programs were completed in support of the 2010 pre-feasibility and 2012 feasibility studies. Additional testwork was completed in 2012–2013 and in 2017–2019 to support the design criteria.

13.2.1 Sample Selection

Samples were generated from HQ and PQ sized drill core, selected to represent the mineralization to be treated over the life-of-mine (LOM). The core was split to facilitate sample selection, and intervals with consistent lithology were selected for variability sample test work. Discrete interval lengths ranged from 10–20 m, with geological review and oversight to ensure that sample selection was representative of the mineralization domains, lithologies, and alteration types in the mine plan:

- 2012 campaign: 7 core holes, 566 m of core sample, 57 variability samples; 2013 GeoMet program;
- 2017–2018 campaign: 56 core holes, 4,298 m of core sample, 250 variability samples; 2017 GeoMet program;

- 2017–2019 campaign: 44 core holes, 1,850 m of core sample, 105 variability samples; 2019 GeoMet program.

In the 2013 program, ¾ of the core was used for the variability samples, with half-core used for comminution tests and quarter-core used for flotation tests and assays. In 2017 and 2019, the half core was used for the comminution test work, flotation test work, and metallurgical assays. Additional drop weight tests were completed on six (2017 program) and eight (2019 program) whole core intervals to support throughput analysis.

Table 13-1 summarizes the mineralization domains, and whether the mineralization in these domains will be recoverable through the proposed concentrator. Mineralized zones were defined based on sequential copper leach assay data, supported by information from the drill logs in areas where sequential copper assays were not available.

Composite and pilot plant samples were generated with consideration of the mineralization domains, lithology and alteration types represented in the LOM plan, and the average total copper grade in the LOM plan. These samples consisted of surplus variability sample charges and additional select intervals of half core.

13.2.2 Mineralogy

Mineralogical examination of samples was carried out using quantitative evaluation of materials by QEMSCAN particle mineral analysis (PMA). Three size fractions (+106, - 106/+53 and -53 µm) per sample were submitted in the 2013 program and for the global composite sample from the 2017 program. The 2017 and 2019 variability samples campaign were analyzed using two size fractions (-212/+150 and -150/+3 µm) with sample grounded to 150 µm. A traditional polished section method was used in the 2013 and 2017 mineralogical programs, and was found to adequately segregate the coarse and fine particles. The method was enhanced during the 2019 program at Teck's Trail mineralogical facilities.

In composite samples, pyrite and chalcopyrite were the dominant sulfide species, with minor levels of molybdenite and other copper sulfides present. Chalcopyrite was well liberated at the 150 µm primary grind size P80, with 75–85% reporting as liberated. The remainder of the chalcopyrite was predominantly locked with non-sulphide gangue. Chalcopyrite is not commonly associated with pyrite and shows minor levels of locking. Results indicated that the separation of pyrite and chalcopyrite would not be influenced by liberation.

For 412 variability samples, pyrite and chalcopyrite were the most common sulphide minerals. The pyrite content ranged from 0.02–16.90% and averaged 1.65%. The chalcopyrite content ranged from 0.11–8.21% and averaged 1.47%. The average ratio of pyrite to chalcopyrite was 1.1.

The major non-sulphide gangue minerals were quartz, feldspar, plagioclase, and sericite/muscovite. Clay content averaged 2.54%, with a range of 0.47–13.35%.

Table 13-1: Mineralization Domains

Mineralization	Interpretation	QB2 Concentrator
Mineralization	Interpretation	QB2 Concentrator
Oxide	Oxide copper minerals	Not recoverable
Leached	Leached zone	Not recoverable
Enriched	Secondary chalcocite replacement	Recoverable
Transitional	Chalcopyrite with chalcocite coatings	Recoverable

Chalcopyrite was well liberated at the primary grind size P80 of 150 µm, liberation ranged from 10–86%, averaging 63%. The unliberated chalcopyrite was predominantly associated with non-sulphide gangue, with an average locking value of 13%. Chalcopyrite locking with pyrite was uncommon, and ranged from 0–9%, averaging 1.5%.

13.2.3 Comminution

Comminution testwork results are summarized in Table 13-2.

The JK Drop weight results for 14 samples indicated the resistance to impact breakage average, Axb, is 35.46 with a range of 28.3–45.3. The resistance to abrasion breakage average (t_a) is 0.35, with a range of 0.27–0.44. Both parameters are considered to be median hard when compared to the samples in the JKTech database.

The SMC Test results for 411 samples included the average rock density and the DWi. The size fraction used in the test was –31.5+26.5 mm. The DWI average value was 7.18 kWh/m^3 indicating the material has a medium to hard resistance to impact breakage.

The BWi results for 412 samples ranged from 8.05–18.3 kWh/t, and averaged 13.23 kWh/t. This indicates a medium hardness in terms of ball milling. The average BWi test P_{80} value was 165 µm, in line with the primary grind target of 150 µm.

The comminution results were reviewed against:

- Geological characteristics (minzone, lithology and alteration);
- Assay and mineralogy (lithogeochemical and QEMSCAN);
- Geotechnical characteristics (PLT Block Model Nov23);
- Structural blocks (or domains).

Table 13-2: Comminution Variability Testwork Results

Parameter	JKWT Test Axb Index	SMC Test Drop Weight Index (DWI, kWh/m³)	Bond Ball Mill Test Bond Work Index (BWI, kWh/t)
Average	35.46	7.18	13.23
Median	36.55	7.24	13.13
Standard deviation	4.74	1.49	1.39
Minimum	28.30	2.22	8.05
Maximum	45.30	12.13	18.30

The 412 samples were used to reveal the hardness drivers and thereby determine the geometallurgical hardness units that were used in the Mineral Resource model. Six DWi and four BWi domains were defined:

- DWI domains: UG1 for the enrichment zone, UG2 for the transitional zone and UG3 to UG6 for the primary zone;
- BWI domains: UG1 for the enrichment and transitional zones, and UG2 to UG4 for the primary zone.

13.2.4 Flotation

The flotation test programs were carried out using synthetic process water. The purpose of the synthetic process water was to approximate the Project's water quality during Year 5 of the operation with desalinated water as the makeup water source. Teck selected the process water characteristics based on water quality modeling undertaken for a similar project.

The flotation programs that support the metallurgical projections included the following stages:

- Flowsheet development;
- Pilot plant campaigns;
- Variability testing;
- Copper–molybdenum separation testwork.

Flowsheet development focused on establishing the flotation circuit and baseline conditions, and on developing design criteria. The pilot plant campaign was undertaken to generate bulk products for additional testing and to demonstrate flowsheet stability.

Variability testing was used to assess variation in metallurgical performance across the orebody under baseline conditions, and to support development of the geometallurgical units and metallurgical performance projections. Subsequent flotation chemistry optimization was completed based on selected variability samples, leading to the development of flotation driver groups that further refined the metallurgical projections.

The results from the flotation test programs supported the development of metallurgical projections for concentrate grades and metal recoveries.

13.2.5 Flowsheet Development

The composite samples were used for flowsheet development and optimization work. These programs included rougher, open-circuit cleaner and locked-cycle tests.

Rougher tests were undertaken to confirm the selection of the primary grind size, retention time, and reagent addition scheme. The rougher test conditions were used as the basis for the remainder of the flowsheet development program and the variability testing program;

Open-circuit cleaner tests were used to assess the number of cleaning stages, regrind target particle size, and reagent addition. Two stages of dilution cleaning and a cleaner–scavenger stage was selected for the open-circuit tests. The cleaning circuit parameters were used as the basis for the locked-cycle tests and the subsequent variability testing.

Triplicate locked-cycle tests were completed on the composite sample from the 2012 program, resulting in a copper recovery of 91.6% at a concentrate grade of 27.1% Cu to the bulk concentrate. The recovery of molybdenum to the bulk concentrate was 83.9%, at a grade of 0.82% Mo. The cleaning efficiency was 97.6% for copper and 93.8% for molybdenum.

Locked-cycle tests in the 2017–2018 program were completed on composite samples representing the first six years of the 2017–2018 mine plan to confirm concentrate quality and flowsheet stability. The six annual composite locked cycle tests averaged a bulk concentrate grade of 26.7% Cu and 0.61% Mo at 88.6% Cu and 61.3% Mo recovery at elevated pH conditions.

13.2.6 Pilot Plant

Pilot plants were operated as part of the 2012 and 2017–2018 testwork programs.

In the 2012 testwork, the flotation circuit consisted of a rougher stage, a concentrate regrind mill in closed circuit with a hydrocyclone, two stages of dilution cleaning, and a cleaner-scavenger stage. Synthetic process water was added to the circuit and no process water was recycled. Approximately five tonnes of ore were processed through the pilot plant six days at a feed rate of 99 kg/h. The feed material head assays averaged 0.53% Cu and 0.021% Mo, with 91% Cu recovery to the bulk concentrate at a 28% Cu grade, and 59% Mo recovery to the bulk concentrate at a 0.64% Mo grade.

Rougher tailings, first cleaner scavenger tailings, and bulk concentrate were collected as separate products throughout the six-day operating period. Bench-scale rougher, cleaner, and locked-cycle tests were completed on the pilot plant composite prior to commencing operations.

During the 2017–2018 testwork, pilot plant consisted of a single-stage ball mill with spiral size classification followed by rougher flotation. Oversize material was returned to the mill and undersize material was directed to rougher flotation. This arrangement was selected to target a P80 of 150 µm. Synthetic process water was added to the circuit. Approximately seven tonnes of ore were processed through the pilot plant for seven days at a feed rate of 90 to 100 kg/h. The feed material head assays averaged 0.51% Cu and 0.017% Mo. The bulk rougher concentrate was collected for staged flotation reactor (SFR) flotation test work to confirm first and second cleaner equipment sizing and performance. The SFR test work produced a high-grade concentrate with copper stage recovery exceeding 90% and molybdenum stage recovery exceeding 80%. The concentrate grade averaged 27% Cu, with the best test producing a bulk concentrate of 31% Cu and 0.48% Mo.

Rougher feed samples were collected during pilot plant operation and cleaner feed samples were collected during SFR pilot test work for bench scale testing to validate metallurgical performance.

13.2.7 Copper–Molybdenum Separation

The bulk concentrate generated from the 2012 pilot plant was used for a copper–molybdenum separation program. It included rougher, cleaner, and locked cycle tests, which were conducted in synthetic process water and nitrogen gas was used for flotation.

A series of rougher and open-circuit cleaner tests were completed for the purposes of flowsheet development. The parameters targeted for optimization were flotation time, rougher concentrate regrind size, cleaning configuration, solution chemistry (Eh, pH), and reagent dosage. The selected cleaning circuit consisted of four stages of dilution cleaner. The first cleaner tailings were recycled to the rougher stage.

Following the completion of rougher and cleaner optimization tests on bulk concentrate, two duplicate locked-cycle tests were conducted. The results indicate that on average 97.4% of the molybdenum was recovered to the final molybdenum concentrate, with a grade of 49.6% Mo. The average copper recovery to the final copper concentrate was 99.9%, at a grade of 25.7% Cu.

The results from the copper–molybdenum separation locked-cycle tests were used as the basis for the selective stage factor applied in the recovery models to determine the global molybdenum recovery.

13.2.8 Variability Tests

The 2013 GeoMet program included lock cycle tests on 57 variability samples. The 2017–2019 geometallurgical programs evaluated the rougher kinetics for 355 variability samples, and locked-cycle performance for 62 variability samples to support an update to the metallurgical projections.

The 412 samples with copper and molybdenum kinetic rougher flotation were analyzed together with geology (minzone, lithology, alteration, and PLT Block Model Nov2022), spatial distribution, and rougher value at 15 minutes. Seven geometallurgical domains were identified for rougher copper recovery:

- UG1 for enrichment ores;
- UG2 for transitional ore;

- UG3–UG7 for primary ores.

For and molybdenum rougher recovery, four domains were identified:

- UG1 for enrichment ore;
- UG2 for transitional ore;
- UG3–UG4 for primary ore.

The block model LPNov23 model maintained these domains for rougher recovery projections.

Additional, locked-cycle flotation testwork was completed on selected variability samples to evaluate the effect of high and low pH and to determine the optimum pH. The samples with low pyrite and sericite–muscovite content were found to have better flotation performance at low pH, while other samples were found to have better performance with elevated cleaner pH.

13.2.9 Ancillary Tests

A series of ancillary tests to support process equipment selection were completed, and used to validate the thickening and filtration design criteria:

- 2012 program: concentrate regrind, bulk concentrate and copper concentrate thickening concentrate filtration, transportable moisture limit and tailings thickening;
- 2017–2019: bulk concentrate and tail thickening, bulk filtration, and transportable moisture limit.

13.3 Metallurgical Projections

13.3.1 -Throughput Model

A metallurgical test program was completed in 2013 to provide updated throughput and metallurgical projections for QB2. The 2013 GeoMet program included the sampling and testing of material within the initial five-year mine plan schedule as defined during the 2012 feasibility study, and concluded that a concentrator throughput rate of 135,000 t/d (75th percentile hardness, 2012 FS) to 140,000 t/d (50th percentile hardness, 2016 FS) was achievable with the selected grinding circuit configuration supported by SimSAGe Pty Ltd. (SimSAGe), comminution circuit modelling, and simulations.

The comminution results were reviewed against:

- Geological characteristics (mineralized zone, lithology, and alteration);
- Assay and mineralogy (lithogeochemical and QEMSCAN);
- Geotechnical characteristics (such as rock quality designation, results of point load tests, unconfined compressive strength);
- Structural blocks/domains.

The test results were grouped according to the following lithological types: QMZ, IBX, FP and DIO. The finalized GeoMet units were the basis for predicting throughput, where the simulation methodology included the following steps:

- Blast fragmentation;
- Crushing circuit;
- Grinding circuit.

The throughput estimation based on the Morrell model methodology was updated in 2020. This model has a base specific energy consumption estimation (CEE) for the grind size reduction and ore hardness. The block model parameters DWi, BWi, SG, and geotechnical variables as RQD and uniaxial compressive strength were used in model development of the SAG feed distribution, CEE, and power consumption requirements for the SAG mill. The throughput considerations are provided in Table 13-3.

In addition to the throughput variable (t/h) used by LOM mining planning, the metallurgical model provides additional variables that contain potentially relevant information, such as estimates of specific energy consumption for SAG and ball milling. The metallurgical model also contains a final prediction of P80, due to the fact that although the limiting stage is preferably ball grinding, there are periods where the limiting stage is the SAG and, therefore, in these cases the energy not used by the ball mills for grinding moves towards the final P80 circuit, decreasing the particle size and, therefore, the final P80 will be <150 µm.

13.3.2 Recovery Model

A rougher recovery block-by-block direct spatial interpolation methodology was selected and applied in the 2024 LOM plan. The plans used a rougher pH of 8.5 as the standard condition. The calculation of the global copper and molybdenum recovery assumed collective and selective flotation, which is defined in equations 1 and 2:

- Equation 1, copper recovery formula:
  - $Global\ Recovery_{Cu} = Rougher\ Rec_{Cu}\ x\ Factor_{pH-Cu}\ x\ Factor_{Cleaner-C}$
- Equation 2, molybdenum recovery formula:
  - $Global\ Recovery_{Mo} = Rougher\ Rec_{Mo}\ x\ Factor_{pH-Mo}\ x\ Factor_{Cleaner-Mo}\ x\ Factor_{Selective}$

Factor parameters used in the equations are summarized in Table 13-4.

The results of the copper–molybdenum separation test program indicated that a molybdenum concentrate grade of 49.6% Mo with a stage recovery of 97.4% could be achieved. The projections assume a constant grade of 50% Mo to the molybdenum concentrate and a copper–molybdenum separation efficiency of 95%.

Table 13-3: Throughput Considerations

Input	Parameter
Throughput kt/d @ availability/utilization	140 @ AU 92% 143 @ AU 94%
SAG and Ball mill power (max, %)	94% (22,560 kW/mill) 90% (14,760 kW/mill)
Maximum by line t/h	3,646 (SAG feed conveyor limited)
Final P_{80} μm	150

Table 13-4: Cleaner and pH Factors Applied to Copper and Molybdenum Recovery Model

Metallurgical Factor	LOM
$Factor_{pH\text{-}Cu}$	1.000 (pH 8.5)
$Factor_{pH\text{-}Mo}$	1.000 (pH 8.5)
$Factor_{Cleaner\text{-}Cu}$	0.9805
$Factor_{Cleaner\text{-}Mo}$	0.9492

13.3.3 Concentrate Grade Model

The copper and silver concentrate grade models were based on 153 locked cycle tests.

Three copper concentrate grade domains were defined based on copper and sulphur head grades and geological criteria (Table 13-5).

In the case of the concentrate silver grade, two domains were defined based on the silver head grades (Table 13-6).

The estimation of the molybdenum grade in the final molybdenum concentrate is based on interpretation and analysis of historical testwork results. This value was defined as a fixed and constant 50% for all cases and mineralization types without additional considerations for the pH value in the rougher collective flotation stage.

13.4 Metallurgical Variability

The metallurgical testwork completed at the Report effective date is based on 412 samples that adequately represent the variability within the proposed mine plan.

Table 13-5: Copper Concentrate Grade Model

Criteria	Cu Concentrate Model
All – (QS_HighPy + SGV_HighPy) and cut ≥ 0.2%	34.064 – 2.987*S + 6.354*Ln(cut)
QS_HighPy + SGV_HighPy and cut ≥ 0.2%	$21.18 - 7.8*\ln(cut) + 6.55*(\ln(cut))^2$
conc_cu limited by capping	14% ≤ Cu ≤ 32%

Table 13-6: Silver Concentrate Grade Domains and Models

Criteria Ag (g/t)	Ag Concentrate Model
> 0	$45.83 + 9.7*cut + 2.3*S + 9.01*\ln(Ag/S) + 8.23*(cut)^2 - 2.568*(\ln(Ag/S))^2 - 6.56*cut*S$
conc_ag limited by capping	20 g/t ≤ Ag ≤ 71 g/t

Where:

cut: Total copper feed grade, % (block model);

S: Sulphur feed grade, % (block model);

Ag: Silver feed grade, ppm (block model);

QS_HighPY: Quartz–sericite alteration with high pyrite content (block model);

SGV_HighPy: Green–gray sericite alteration with high pyrite content (block model).

13.5 Deleterious Elements

The copper and molybdenum concentrates generated in the copper–molybdenum separation program were submitted for detailed concentrate quality analysis.

No elements are present at penalty levels in the copper concentrates. Credits may be obtained for silver; however, the average value (47.8 g/t Ag) is considered to be only marginally above the payable value.

Current information indicates that gold is not present at payable levels.

The average copper grade in the molybdenum concentrates is 1.4% Cu. Copper grades >1% Cu are expected to impact the molybdenum concentrate payment structure. No additional penalty elements are expected.

The rhenium content of the molybdenum concentrate would, at a minimum, make the molybdenum concentrate more marketable, and is also considered to be a Project upside opportunity.

14 MINERAL RESOURCE ESTIMATES

14.1 Introduction

The database supporting the estimate was closed as at September 7, 2023.

Software used in estimation included Leapfrog Geo, Supervisor, and Vulcan.

A parent block size of 20 x 20 x 15 m was used, sub-blocked to a minimum 5 x 5 x 5 m to better honour the variability of the geological models.

14.2 Modelling Approach

The implicit modeling process included ongoing collaboration with the geological mapping and logging team. An internal peer review process was conducted with the geology and resource estimation team, to ensure adherence to the conceptual geology and spatial distribution of the geological units.

The lithological model was prepared based on inputs such as: the intrusive sequence; the preferential direction of intrusive, breccia and mineralization emplacement related to the northeasterly-trending structures; the subsequent dislocation associated due to northwesterly-trending faults; logging data; and interpretations from sections and plans.

The oxidation domains or mineral zones used for interpretation and modelling were based on an algorithm applying sequential copper assays. Mineral zones were calculated in the acQuire database, and exported to Leapfrog without any data manipulation. Where a drill hole lacked sequential copper analysis, input from geological mapping was used to address the gaps.

The emplacement and geometry of intrusions, breccias and mineralization are controlled by "structural corridors" oriented northeast and east–northeast, and to a lesser extent by northwest-oriented faults that controlled a late-stage alteration and are pre-supergene enrichment.

An alteration model was prepared by independently modeling key alteration units (argillic, quartz–sericite, magnetite–biotite, gray–green sericite, biotite–green mica, biotite–K-feldspar and propylitic).

A set of alteration models were generated for geometallurgical purposes including pyrite, sericite/muscovite, and smectite (montmorillonite and iron–magnesium clays). For each of these models, only the occurrence above a certain modal abundance was interpreted, and each modal abundance criterion was selected based on geometallurgical guidance.

14.3 Exploratory Data Analysis

Exploratory data analysis (EDA) was performed on different combinations of geological knowledge of the mineralization variables distribution together with histograms, log probability plots, and box and whisker plots over the oxidation state, alteration, lithology, and structural domains. Contact analysis plots were prepared to analyze grade trends and contact relationships between the units.

Copper, molybdenum, silver, gold, and sulphur values were analyzed for grade trends, domain correlations, and contact relationships to establish the final estimation domains.

Contact analysis showed that most boundaries were considered to be hard. Soft boundaries could be used where the contact analysis warranted.

14.4 Density Assignment

The density dataset is discussed in Section 11.2.

The assignment of density values to the block model was conducted through two methods. The initial phase involved a density interpolation process using an estimation plan for estimation domains specifically prepared for this variable. The second stage consisted of assigning density vales to non-interpolated blocks using the average value calculating within each geological domain.

14.5 Composites

A 4 m composite length was chosen to preserve vertical variability for the sub-horizontal oxidation zones. Composites were split out by estimation domain, based on back flagging codes from the geological wireframes, with the option of adding a maximum of 2 m to the composite to improve geological continuity.

14.6 Grade Capping/Outlier Restrictions

No direct grade capping was done; the extended influence of the high-grade outlier composites was restricted in the kriging plans where necessary using an “influence area” methodology. The impact of this restriction was assessed by interpolating auxiliary block models without outlier restriction and by close visual inspection of the results. Nearest-neighbour (NN) reference models were also obtained with and without outlier restriction and served as reference for checking for global bias.

14.7 Variography

Semi-variograms were calculated for total copper, sequential copper, molybdenum, silver, gold, and sulphur.

For a few domains, it was not possible to find an adequate continuity model due to the limited number of available composites. In these domains, an inverse distance weighting (IDW) method was used as the interpolation method, because that estimation method does not require a variogram model.

A kriging neighborhood analysis (KNA) was carried out to define the correct number of samples to use within the search volume or “kriging neighborhood”.

14.8 Estimation/Interpolation Methods

Total copper, molybdenum, silver, gold, and sulphur were estimated into the model using ordinary kriging (OK). The kriging parameters applied to the estimates were customised for each parameter and within each domain, based on the results of an iterative estimation, validation, and update process.

Estimation was undertaken into parent cells and applied to the sub-cells in order to maintain uniform discretization and volume representativity for each estimate. A four-or five-pass estimation approach was used for the metal estimates. The purpose of the multiple passes is to ensure strong local support to estimates in well-informed parts of the model while allowing an appropriate search to find sufficient samples in less-informed model areas and estimate some isolated group of blocks not estimated (pass 4 and pass 5). The maximum and minimum number of samples used in each estimate was revised based on the results of the model validation.

Where estimates could not be made within the first three OK pass criteria described above, values were interpolated using simple kriging. The first pass used short distances to ensure strong local support. The second and third passes had longer distances, and were used to inform all distant blocks. Where this approach was not possible due to a lack of adjacent data, values were interpolated using simple kriging for passes 4 and 5.

The block grade dilution related to the geology boundaries was taken up in the final block grades by considering the proportion of each geological population within each block. This approach accounts for grade dilution related to geological contacts and provides similar results to what is normally referred to as “partial block” grade interpolation. The proportion of the geological population in each estimation domain is stored on a block by block basis from the interpreted solids. For the interpolation of total grades, each domain had its own interpolated variable that was used to derive the final block grade by weighting the interpolated grades based on the proportions of each domain within the block.

Interpolation parameters used are summarized in Table 14-1.

14.9 Block Model Validation

Model validation steps included:

- Visual validation;
- Statistical comparisons;
- Swath plot analysis (drift analysis).

The validation process showed that the model does an acceptable performance in matching the source data. No global bias was observed as the OK model generated the same tonnes and grade as the NN model at a zero cut-off, with no shift in the mean value on histogram comparisons.

Table 14-1: Estimation Parameters

Element	Pass 1	Pass 2	Pass 3	Pass 4/5	Comment
Copper	Search distances between 50–150 m. Minimum of 3 drill holes and 10–12 samples	Search distances between 80–250 m. Minimum of 3 drill holes and 10–16 samples	Search distances between 120–350 m. At least 2 drill hole	At least 2 drill hole	Where blocks were not estimated, a value was assigned using simple kriging
Molybdenum	Search distances between 30–150 m and a minimum of 10 composites based on the kriging neighborhood analysis	Search distances between 50–180 m using at least 10 composites and 2 drill holes	Search distances of 100–350 m and at least 2 drill holes	At least 2 drill holes	Where blocks were not estimated, a fourth, simple kriging pass was used to assign a value. The exception is domain 100 where 5% of blocks have an assigned value within the blocks classified as Measured and Indicated
Silver	Minimum of 10 samples, minimum of 3 drill holes	Minimum of 10 and maximum of 18 samples, and at least 2 drill holes	Minimum of 8 samples and maximum of 24 samples, and at least 2 drill holes	Minimum of 12 samples, and at least 2 drill holes	Assigned a value of 0.01 ppm when copper was estimated, but silver was not estimated
Sulphur	Minimum of 4 samples, and at least 1 drill hole	Minimum of 5 samples and at least 1 drill hole	Minimum of 6 samples, and at least 2 drill holes	Minimum of 8 samples	Where estimates could not be made within the kriging pass criteria, average values from the third pass were assigned
Gold	At least 2 drill holes and 4 samples	At least 2 drill holes and 4 samples	At least 2 drill holes and 6 samples	At least 2 drill holes and 8 samples	

14.10 Classification of Mineral Resources

The confidence classifications used for hypogene mineralization were based on core drill holes only. Classifications used for supergene material were based on a combination of RC and core drilling. Classification parameters were based on an optimum drill hole grid analysis and error study using lithology and copper grade simulation as inputs. The resource classification methodology consisted of an interpolation plan set up to assess the level of information of each individual block in relation to the location and density of drill holes available in the block neighbourhood.

Confidence criteria requirements to classify blocks as Measured, Indicated, or Inferred Mineral Resources are summarized in Table 14-2.

A smoothing algorithm employing the moving window approach was used to reclassify isolated blocks of one classification to ensure continuity of blocks classified as another confidence category.

14.11 Reasonable Prospects of Eventual Economic Extraction

The evaluation of reasonable prospects of eventual economic extraction assumes a conventional open pit mining method. The ultimate pit was created based on the same parameters (costs, prices, metallurgical recoveries, and pit slope angles) that were used for defining Mineral Reserves (see Section 15 and Section 16); however, the pit outline selected for Mineral Resources represents the revenue factor (RF) 1 pit (Table 14-3). The metallurgical recovery equations used were a function of head grade, copper-to-sulphur ratio, and mineralization type.

14.12 Cut-off Criteria

The mine plan uses a variable cut-off NSR, calculated in the mine optimizing software COMET, to maximize the NPV. Cut-offs vary by year, and low-grade stockpiled material is deferred to later in the mine life. Included in the NSR are copper and molybdenum revenues including parameters such as grades, metallurgical recovery, concentrate grades and payable factors, treatment and refining charges, and ocean freight costs.

The NSR optimization variable is estimated using the following equations:

$$NSR\ CU = \left(\frac{CUT}{100} \times \frac{RCU}{100} \times TonLb \times CPF\right) \times CUP - ((RC \times (Conc_{cu} \times CPF \times TonLb)) + TC + OF) * \left(\frac{{}^{CUT}/_{100} \times {}^{RCU}/_{100}}{Conc_{cu}}\right)$$

$$NSR\ MO = \left(\frac{MO}{100} \times \frac{RMO}{100} \times TonLb\right) \times MPF\ X\big(MOP - (MOP * RCH)\big) - TFR * \left(\frac{{}^{MO}/_{100} \times {}^{RMO}/_{100}}{Conc_{MO}}\right)$$

$$NSR\ = NSR\ MO + NSR\ MO$$

Where CUT: total copper grade (%); MO: molybdenum grade (%); RCU: copper recovery (%); RMO: molybdenum recovery (%); Conc cu: copper concentrate grade; Conc mo: molybdenum concentrate grade; CUP: copper price (US$/lb); MOP: molybdenum price (US$/lb); CPF: payable copper; TC: treatment charge (US$/dmt); RC: refining charge (US$/lb payable); OF: ocean freight (US$/dmt); MPF: payable molybdenum; RCH: roasting charge (% of Mo price); TFR: total molybdenum freight (US$/dmt).

Table 14-2: Mineral Resource Classification Considerations.

Mineral Zone	Resource Confidence Category	Number of Drill Holes	Search Radius (m)			Restriction Imposed
			Major	Semi Major	Minor	
Leach	Measured	—	—	—	—	
	Indicated	3	60	60	60	
	Inferred	1	140	140	140	
Oxide	Measured	3	40	40	40	
	Indicated	3	60	60	60	
	Inferred	1	140	140	140	
Enrichment	Measured	3	40	40	40	
	Indicated	2	55	55	55	
	Inferred	1	140	140	140	
Transition	Measured	3	50	50	50	
	Indicated	2	60	60	60	
	Inferred	1	140	140	140	
Primary	Measured	3	110	110	110	One drill hole ≤ 50 m
	Indicated	2	140	140	140	
	Inferred	1	175	175	175	

Table 14-3: Pit Shell Input Parameters

Item	Unit	Value
Copper price	$/lb	3.25
Molybdenum price	$/lb	9.90
Discount rate	%	8.00
Payable copper	%	96.50
Treatment charge	$/dmt	75.0
Copper refining	$/lb payable	0.075
Ocean freight	$/wmt	58.3
Moisture	%	9
Total freight	$/dmt	64.07
Payable molybdenum	%	99
Roasting charge	% of price per lb	1.85
Ocean freight	$/wmt	86
Moisture	%	4
Total freight	$/dmt	89.58

Item	Unit	Value
Operating costs, mineralized material, mine general	$/t mined	0.425
Operating costs, mineralized material, drill	$/t mined	0.129
Operating costs, mineralized material, blast	$/t mined	0.384
Operating costs, mineralized material, load	$/t mined	0.195
Operating costs, mineralized material, haul	$/t mined	0.825
Operating costs, mineralized material, support	$/t mined	0.220
Operating costs, mineralized material, mine sustaining capital	$/t mined	0.187
Operating costs, direct mine cost mineralized material	$/t mined	2.37
Operating costs, waste, mine general	$/t mined	0.42
Operating costs, waste, drill	$/t mined	0.08
Operating costs, waste, blast	$/t mined	0.24
Operating costs, waste, load	$/t mined	0.15
Operating costs, waste, haul	$/t mined	0.62
Operating costs, waste, support	$/t mined	0.16
Operating costs, waste, mine sustaining capital	$/t mined	0.19
Operating costs, direct mine cost, waste	$/t mined	1.87
Concentrator process costs	$/t milled	5.24
Desalination plant costs	$/t milled	0.33
Water recovery system costs	$/t milled	0.41
Total process cost	$/t milled	7.79
Mill sustaining capital costs	$/t milled	0.67
G&A	$/t milled	1.64
Marginal cost	***$/t milled***	***10.10***

The NSR cut-off for mineralization is US$10.10/t milled and includes the costs for marginal material.

14.13 Hypogene Stockpile

The QB1 pit exposed some areas of hypogene mineralization and this material was stockpiled when encountered. Tonnages and copper grades were tracked and recorded as part of grade control practices. These existing stockpiles are classified and reported as Indicated Mineral Resources and are not scheduled in the current LOM plan.

The molybdenum grade of the stockpile is unconfirmed as it was not tested at the time of extraction.

14.14 Mineral Resource Statement

The Mineral Resource estimate is reported exclusive of those Mineral Resources that have been converted to Mineral Reserves, and uses the 2014 CIM Definition Standards. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee.

Mineral Resources have an effective date of December 31, 2023, and are reported insitu, or in stockpiles, on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

Table 14-4 summarizes the estimated Measured, Indicated and Inferred Mineral Resources for the Project.

14.15 Factors That May Affect the Mineral Resource Estimate

Factors that may affect the Mineral Resource estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the NSR cut-off;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shapes, and geological and grade continuity assumptions;
- Density and domain assignments;
- Changes to geotechnical assumptions including pit slope angles;
- Changes to mining and metallurgical recovery assumptions;
- Changes to the input and design parameter assumptions that pertain to the conceptual pit constraining the estimates potentially amenable to open pit mining methods;
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

14.16 QP Comment on Item 14 “Mineral Resource Estimates”

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Mineral Resources that are not discussed in this Report.

Table 14-4: Mineral Resource Summary Table

Category	Tonnage (Mt)	Grade			Contained Metal		
		Cu (%)	Mo (%)	Ag (g/t)	Cu (Mt)	Mo (Mt)	Ag (Moz)
Measured	954	0.37	0.013	1.0	3.50	0.13	32.18
Indicated	3,413	0.36	0.018	1.1	12.44	0.61	123.70
Measured and Indicated	***4,367***	***0.36***	***0.017***	***1.1***	***15.93***	***0.74***	***155.88***
Inferred	4,260	0.34	0.015	1.1	14.44	0.64	148.89

Notes to Accompany Mineral Resource Table:

1. Mineral Resources are reported insitu or in stockpiles, using the 2014 CIM Definition Standards, and have an effective date of December 31, 2023. The Qualified Person for the estimate is Rodrigo Marinho, a Teck employee.
2. Mineral Resources are reported exclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are reported on a 100% basis. Teck has an indirect 60% ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.
4. Mineral Resources are reported using a net smelter return cut-off of US$10.10/t, which assumes metal prices of US$3.25/lb Cu and US$9.90/lb Mo.
5. Mineral Resources are contained within a conceptual pit shell that is generated using the same economic and technical parameters as used for Mineral Reserves but at a selected revenue factor of 1. Direct mining costs are estimated at US$2.37/t of mineralized material mined; direct waste costs are estimated at US$1.87/t mined. Processing costs include concentrator costs of US$5.24/t milled; desalination costs of US$0.33/t milled; water recovery costs of US$0.41/t milled; mill sustaining capital allocations of US$0.67/t milled, and general and administrative costs of US$1.64/t milled, for a total process marginal cost of US$10.10/t milled. Metallurgical recoveries are variable over the life of mine. Pit slope angles are variable, based on geotechnical domains.
6. Mineral Resources also include mineralization that is within the Mineral Reserves pit between NSR values of US$10.1/t and US$21.92/t that has been classified as Measured and Indicated Mineral Resources, as well as all material classified as Inferred Mineral Resources that is within the Mineral Reserves pit. Mineral Resource estimates include 23.8 Mt of hypogene material grading 0.54% Cu that was extracted and stored during the previous QB1 operation.
7. Tonnage and contained copper and molybdenum tonnes are reported in metric units and grades are reported as percentages.
8. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

15 MINERAL RESERVE ESTIMATES

15.1 Introduction

Mineral Reserves were modified from Measured and Indicated Mineral Resources based on open pit mining. Inferred Mineral Resources were set to waste.

The size of the open pit and the production rate for LOM planning purposes are controlled by the storage capacity of the tailings management facility (TMF), which is in turn affected by site-specific constraints.

15.2 Pit Optimization

Pit shell 46 was determined to be suitable to provide the Mineral Reserves that most closely matched the available TMF capacity.

The pit designs focused on initial mining phases with low mining rates that allowed rapid access to higher-value mineral material. Successive mine pit expansions occupy successively new areas, and the corresponding mining ratios gradually increase, allowing sufficient time to increase the mining fleet to meet increasing production demands while keeping the mill feed head grade as constant as possible.

The TMF has a finite tailings capacity of about 1,400 Mt, due to site constraints. This capacity determined the low-grade stockpile cut-off grade, as the direct feed ore plus the low- and high-grade material in the heap had to match the limited throughput of the LOM concentrator. The NSR cut-off value for determining Mineral Reserves to meet stockpile capacity corresponds to an NSR of US$20.00/t milled, a value that also defines the lower limit for determining low-grade stockpile Mineral Reserves. The remaining mineralized rock is segregated into marginal stockpiles, where the NSR cut-off is US$11.74/t, and waste. Material classified as waste is sent to the WRSF.

Additional information on the optimization process is included in Section 16.3.

15.3 Optimization Inputs

Optimization data includes metal prices and smelter contracts, operating cost forecasts and production cost estimates. These are summarized in Table 15-1.

The deposit topography used for the estimation of the final reserve pit was projected to December 31, 2023.

Table 15-1: Whittle Shell Input Assumptions

Item	Unit	Value
Copper price	$/lb	3.25
Molybdenum price	$/lb	9.90
Discount rate	%	8.00
Payable copper	%	96.50
Treatment charge	$/dmt	75.0
Copper refining	$/lb payable	0.075
Ocean freight	$/wmt	58.3
Moisture	%	9
Total freight	$/dmt	64.07
Payable molybdenum	%	99
Roasting charge	% of price	1.85
Ocean freight	$/wmt	86
Moisture	%	4
Total, freight	$/dmt	89.58
Operating costs, ore, mine general	$/t mined	0.425
Operating costs, ore, drill	$/t mined	0.129
Operating costs, ore, blast	$/t mined	0.384
Operating costs, ore, load	$/t mined	0.195
Operating costs, ore, haul	$/t mined	0.825
Operating costs, ore, support	$/t mined	0.220
Operating costs, ore, mine sustaining capital	$/t mined	0.187
Operating costs, direct mine cost, ore	$/t mined	2.37
Operating costs, waste, mine general	$/t mined	0.42
Operating costs, waste, drill	$/t mined	0.08
Operating costs, waste, blast	$/t mined	0.24
Operating costs, waste, load	$/t mined	0.15
Operating costs, waste, haul	$/t mined	0.62
Operating costs, waste, support	$/t mined	0.16
Operating costs, waste, mine sustaining capital	$/t mined	0.19
Operating costs, direct mine cost, waste	$/t mined	1.87
Process cost, concentrator	$/t milled	6.04
Desalination plant costs	$/t milled	0.38
Water recovery system costs	$/t milled	0.47
Total process cost	*$/t milled*	*8.97*
Mill sustaining capital	$/t milled	0.67
G&A	$/t milled	2.10
Marginal Cost	***$/t milled***	***11.74***

15.4 Cut-off Criteria

The estimated Mineral Reserves are reported using metal prices of $3.25/lb Cu and $9.90/lb Mo, and a variable grade cut-off approach based on NSR values that average US$23.8/t milled over the planned LOM.

The NSR formulae and inputs were provided in Section 14.12.2. The resulting NSR cut-offs are:

- Ore: US$20/t milled;
- Marginal: US$11.74/t milled

The NSR cut-off value was based on cost assumptions that were subsequently modified in the final base case economic model. The updated economic model assumes flotation using desalinated water, whereas the original NSR cut-off was based on costs associated with seawater processing. This change results in new values for average cost per tonne processed, site general and administrative (G&A), and mine G&A costs.

15.5 Ore Loss and Dilution

An analysis was carried out to review the resource model for individual blocks that were surrounded by waste (potential loss) and waste blocks that were surrounded by ore (potential dilution). The potential for losses and dilution are minimal, based on the homogeneity of the deposit, elevated cut-off grades, typically gradual transitions between ore and waste contacts, and the planned use of large rope shovels equipped with high-precision GPS instruments. Any potential impacts to ore feed that might arise due to ore loss or dilution were not considered material, and no provisions for ore loss or dilution were included in the mine plan.

15.6 Stockpiles

Where included as Mineral Reserves, stockpiles were reported using the following NSR criteria:

- High-grade: >US$23/t NSR;
- Low-grade: US$20–23/t NSR.

Marginal stockpiles, defined as material that had an NSR value of US$11.74–20/t, were not included in the Mineral Reserve estimates or the LOM plan.

15.7 Mineral Reserves Statement

Proven and Probable Mineral Reserves are reported using the 2014 CIM Definition Standards. Mineral Reserves have an effective date of December 31, 2023 and are reported at the point of delivery to the process plant. Mineral Reserves are reported on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee. Mineral Reserves are summarized in Table 15-2.

Table 15-2: Mineral Reserve Summary Table

Category	Tonnage (Mt)	Grade			Contained Metal		
		Cu (%)	Mo (%)	Ag (g/t)	Cu (Mt)	Mo (Mt)	Ag (Moz)
Proven	1,082	0.53	0.020	1.4	5.75	0.22	48.25
Probable	335	0.50	0.023	1.2	1.68	0.08	13.33
Proven and Probable	***1,417***	***0.52***	***0.021***	***1.4***	***7.42***	***0.29***	***61.58***

Notes to Accompany Mineral Reserves Table:

1. Mineral Reserves are reported effective December 31, 2023. The Qualified Person for the estimate is Mr. Rodrigo Marinho, P.Geo., a Teck employee.
2. Mineral Reserves are reported on a 100% basis. Teck has an indirect 60% ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.
3. Mineral Reserves are reported using a net smelter return cut-off of US$21.92/t, which assumes metal prices of US$3.25/lb Cu and US$9.90/lb Mo.
4. Mineral Reserves are contained within operational phases defined with an optimized pit shell sequence. Mining is performed using conventional open pit methods and equipment, and use a stockpiling strategy. Direct mining costs are estimated at US$2.36/t of ore mined; direct waste costs are estimated at US$1.87/t mined. Processing costs include concentrator costs of US$6.04/t milled; desalination costs of US$0.38/t milled; water recovery costs of US$0.47/t milled; mill sustaining capital allocations of US$0.67/t milled, and general and administrative costs of US$2.10/t milled, for a total process marginal cost of US$11.74/t milled.
5. Tonnage and contained copper and molybdenum tonnes are reported in metric units and grades are reported as percentages.
6. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

15.8 Factors that May Affect the Mineral Reserves

Factors that may affect the Mineral Reserve estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the NSR cut-off;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shapes, and geological and grade continuity assumptions;
- Density and domain assignments;
- Changes to geotechnical assumptions including pit slope angles;

- Changes to hydrological and hydrogeological assumptions;
- Changes to mining and metallurgical recovery assumptions;
- Changes to the input and design parameter assumptions that pertain to the open pit shell constraining the estimates;
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

15.9 QP Comment on Item 15 “Mineral Reserve Estimates”

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Mineral Reserves that are not discussed in this Report.

16 MINING METHODS

16.1 Overview

The mining operations will use conventional open pit mining methods and conventional equipment, including autonomous haulage vehicles.

16.2 Geotechnical Considerations

The geotechnical domain model was based on work by E-Mining Technology S.A. in 2011 and updates by Piteau Associates (Piteau) from studies completed from 2015–2020. To generate the required slope designs, the pit was subdivided into geotechnical zones, each with different design inter-ramp slope angles (Figure 16-1). Designs incorporated single and double bench considerations.

16.3 Hydrogeological Considerations

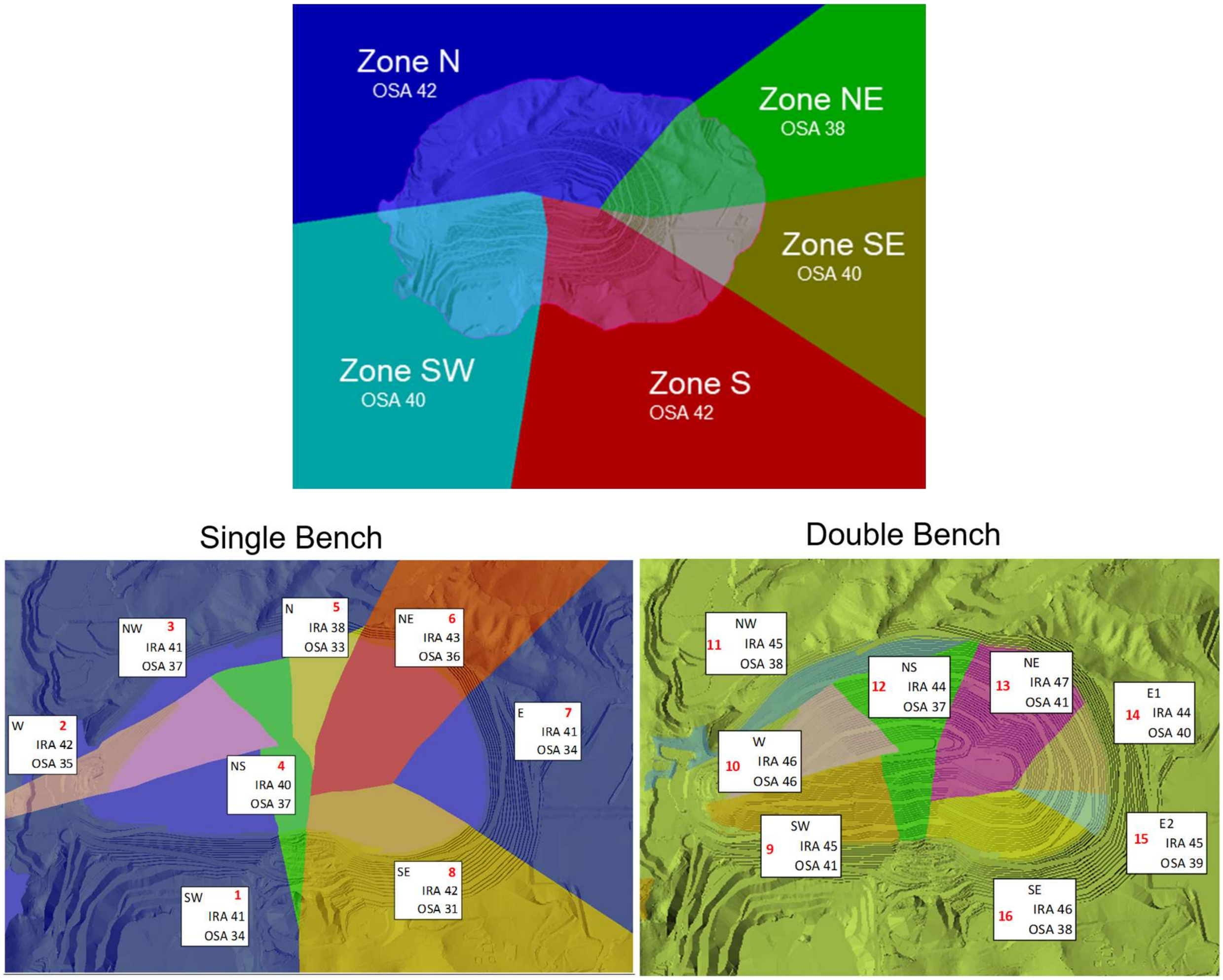
A total of 20 pumping wells, each extracting 1–2 L/s, would need to be implemented over the course of about five years to manage pit dewatering. After this period, wells would be replaced on an as-needed basis to ensure suitable dewatering capacity meets the requirements of the dynamic pit development. In total, 37 deep wells will be required, which would require installed pumps and discharge piping.

A horizontal drill hole campaign would be required on a two-yearly basis for specific pit wall pore depressurization purposes. A piezometer installation and monitoring program would be developed to support pit dewatering and would focus on areas that required depressurization.

A requirement of eight sumps has been estimated to provide temporary storage for different water sources (e.g., deep wells, horizontal drill holes, and seepage). The water would subsequently be pumped to larger facilities. The pump design requires a pumping power load of 350 kW.

16.4 Mine Designs

The detailed phased mine designs used the same geological, geotechnical, and metallurgical models as used in the pit shell development process. The pit shells were used to identify the logical pushback sequences for the detailed design, starting in the center–west zone of the pit and subsequently extending east and expanding outwardly. The location of the primary crusher at the western edge of the pit will generally allow for dual access on both the northern and southern pit walls. The inclusion of dual access will enable greater operational flexibility and reduce the risk of any operational disruption that could arise in the unlikely event of an access point becoming inaccessible.



Note: Figure prepared by Teck, 2023. North is to top of figure. IRA = inter-ramp angle, OSA = overall slope angle.

Figure 16-1: Geotechnical Domain Schematic

Key metrics that were analyzed during the optimization process consisted of:

- Total mine movement;
- Mill throughput;
- NSR cut-off grades;
- Recovered copper in first five years and in the LOM plan;
- Stockpile capacities;

- High-grade, low-grade, and marginal stockpile cut-offs;
- Mine total extraction capacities;
- Phase mine extraction capacities.

A systematic process was followed to determine the optimum mining rate, NSR cut-offs, and stockpile capacities, while using a range of mining constraints to ensure the mine plan was viable and achievable given the Project constraints.

The major inputs and constraints used in COMET included the following:

- Block model;
- Detailed mine phases;
- Economic parameters (same as those used in Whittle);
- Estimated capital expenditures (both initial and sustaining);
- Mine production profile;
- Variable NSR cut-off to the mill;
- Stockpile NSR cut-off grades;
- Stockpile capacities;
- Maximum number of phases per period;
- Fixed costs for the plant, as well as general and administrative site costs;
- A maximum sinking rate per year for each phase.

Numerous scenarios were analyzed to better understand the key levers that drive project value. The TMF has a finite tailings capacity that corresponds to approximately 1,400 Mt of tailings. This tailings storage restriction causes cut-off grade optimization and stockpile capacity to become two of the key drivers of the value generated in mine planning.

The division between high-grade, low-grade, and marginal material was established by considering the physical stockpile capacities and a cut-off was identified that resulted in an appropriate split between the three (refer to discussion in Section 15.6).

The NSRs used ensure that the tailings production does not exceed the TMF capacity.

16.5 Operational Considerations

The stockpiles and WRSFs for QB2 will be located to the southeast and southwest of the pit. Care was taken to ensure a suitable offset was maintained such that a potential pit pushback could be implemented with minimal interaction from WRSFs or stockpiles in close proximity to the pit crest. Additionally, the area to the east of the pit was excluded as the mineralization is currently still open in this direction.

16.6 Infrastructure

16.6.1 Waste Rock Storage Facilities

Two WRSFs are required:

- Southeast WRSF;
- Southwest WRSF.

A layout plan showing the WRSF locations is provided in Figure 16-2.

Material identified in the mine plan as waste would be scheduled to these locations. The facilities will have seven 45 m benches, the global slope angle will be 37º, and the maximum berm heigh will be about 46 m. The WRSFs will cover an approximate area of 3.9 Mm^2.

16.6.2 Stockpiles

Three stockpiles are required (see discussion in Section 15.6):

- High-grade stockpile;
- Low-grade stockpile;
- Marginal stockpile.

Stockpile locations were provided in Figure 16-2.

The high-grade stockpile will be located in the southwestern corner of the pit, on top of the current South WRSF. The site was selected for its close proximity to the primary crusher location. The COMET mine scheduler assigned material to this stockpile for any material that had an NSR value >$24/t that was not required to fill the mill capacity in the year it is mined. The stockpile capacity is 28 Mt, and all material from the stockpile is included in the LOM plan.

All stockpiles will be built using two 45 m bench heights. The global slope angle will be 37º and the maximum berm height will be 46 m. Stockpiles will cover an approximate area of 5.9 Mm^2.Of the total material accumulated in these stockpiles, approximately 64% (191 Mt), is re-handled and sent to the mill. The available TMF capacity is sufficient for treatment of higher-grade material from the mine and the high-grade stockpile, but cannot accommodate all of the lower-grade stockpiled material.

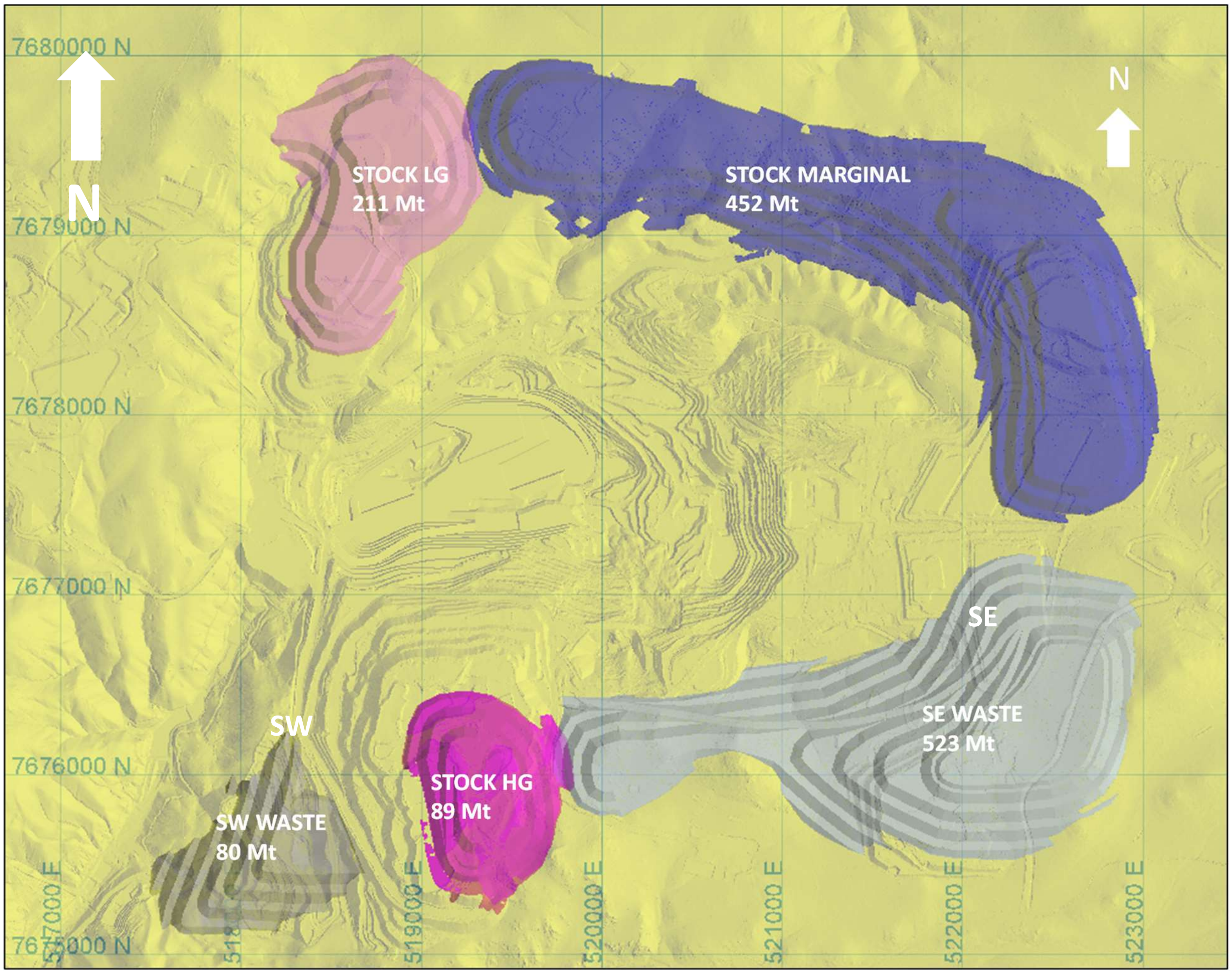


Figure prepared by Teck, 2023. LG stock = low-grade stockpile, Marginal stock = marginal stockpile, HG stock = high-grade stockpile; Waste = WRSF.

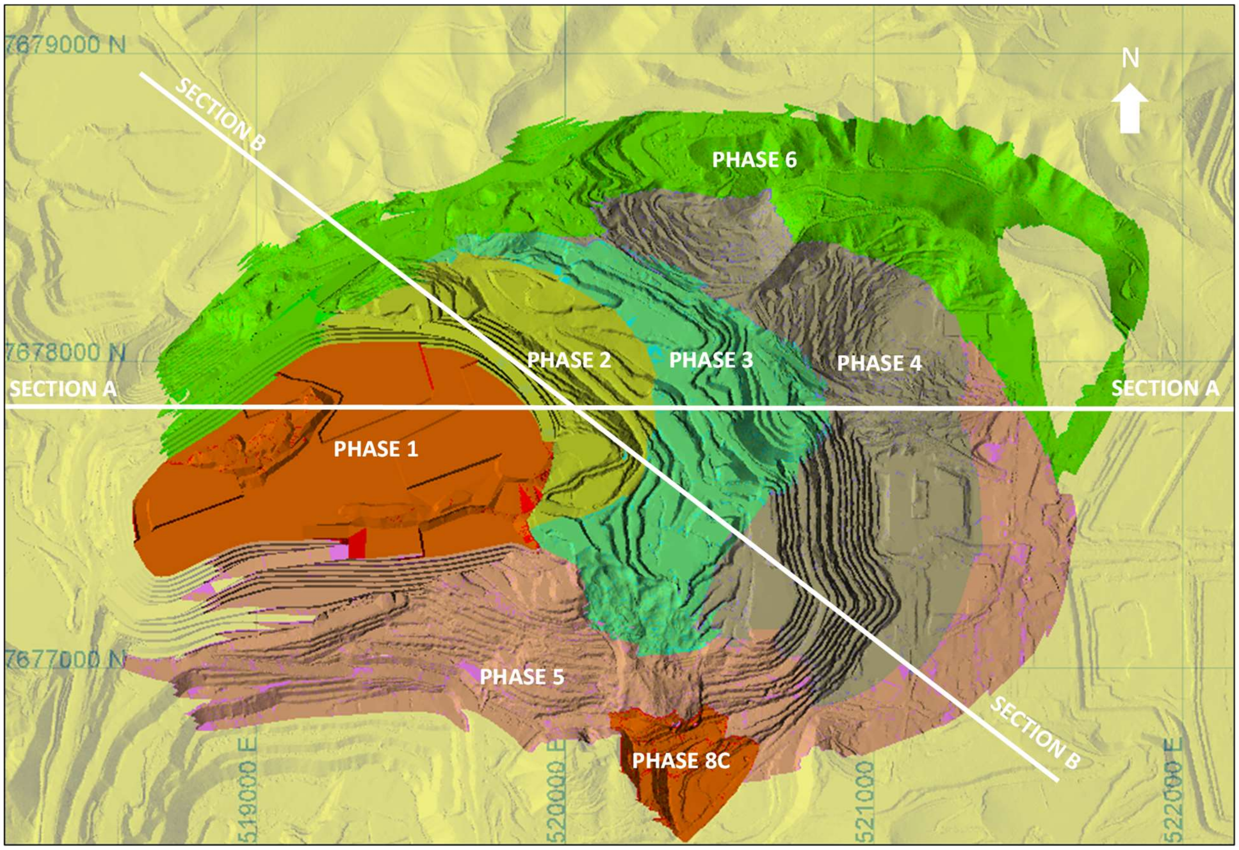
Figure 16-2: Stockpile and WRSF Layout Plan

16.7 Life-Of-Mine Plan

The mine has a planned 27-year mine life, to 2050.

Seven phases were designed and used in the mine plan. Pit phases are shown in Figure 16-3 (plan view) and Figure 16-4 (section view).

A total of 1,215 Mt of ore will feed the mill from the mine, 294 Mt of ore will be sent to the low- and high-grade stockpiles, 323 Mt of material will be sent to the marginal stockpile, and 594 Mt of waste rock will be mined as part of the production plan. The average stripping ratio is expected to be 0.61.



Note: Figure prepared by Teck, 2023. Cross-sections on figure are the locations of the cross-sections provided in Figure 16-4. Map north is to the top of the figure.

Figure 16-3: Final Pit Layout Plan

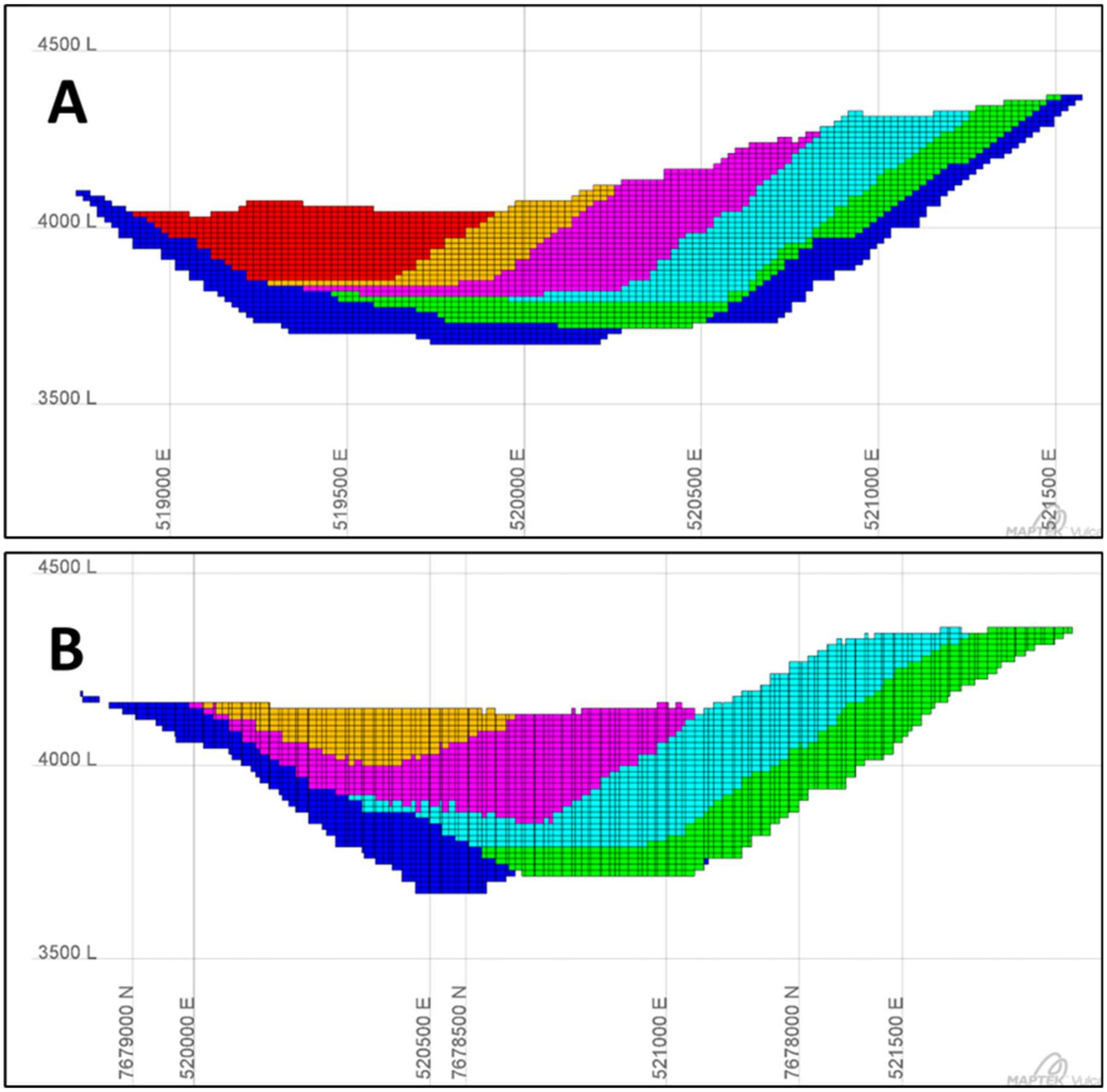


Figure prepared by Teck, 2023. Colour codes to pit phasing shown in Figure 16-3.

Figure 16-4: Section View, Pit Phases

The mine plan uses a variable cut-off (NSR) strategy (refer to discussion in Section 15.4).

The annual material movements are summarized in Figure 16-5. The first seven years have the highest copper production, due to the higher copper grades in the ore planned to be processed in those years. A breakdown of the expected ore types in the mill feed over the LOM is provided in Figure 16-6.

16.8 Blasting and Explosives

Blasting services would be contracted to a third party.

The mine plan assumes the blast hole diameters for mineralization is 270 mm (10 ⅝) inch and for waste the diameters is 311 mm (12 ¼ inches).

Drill spacing depends on whether the rig is drilling ore or waste. In ore, drill patterns are generally 8 x 9 m; in waste, the pattern is typically 9 x 10 m. To avoid wall damage, a presplit 165 mm (6.5 inch) hole is drilled, with 1.5 m spacings between drill holes.

Wet blasting conditions are expected to be encountered at times during mining operations. In wet ground, Fortis TM Extra 65 (or similar), a traditional ammonium nitrate and emulsion mix, will be used. In dry ground, Fortan TM Extra 50 will be used.

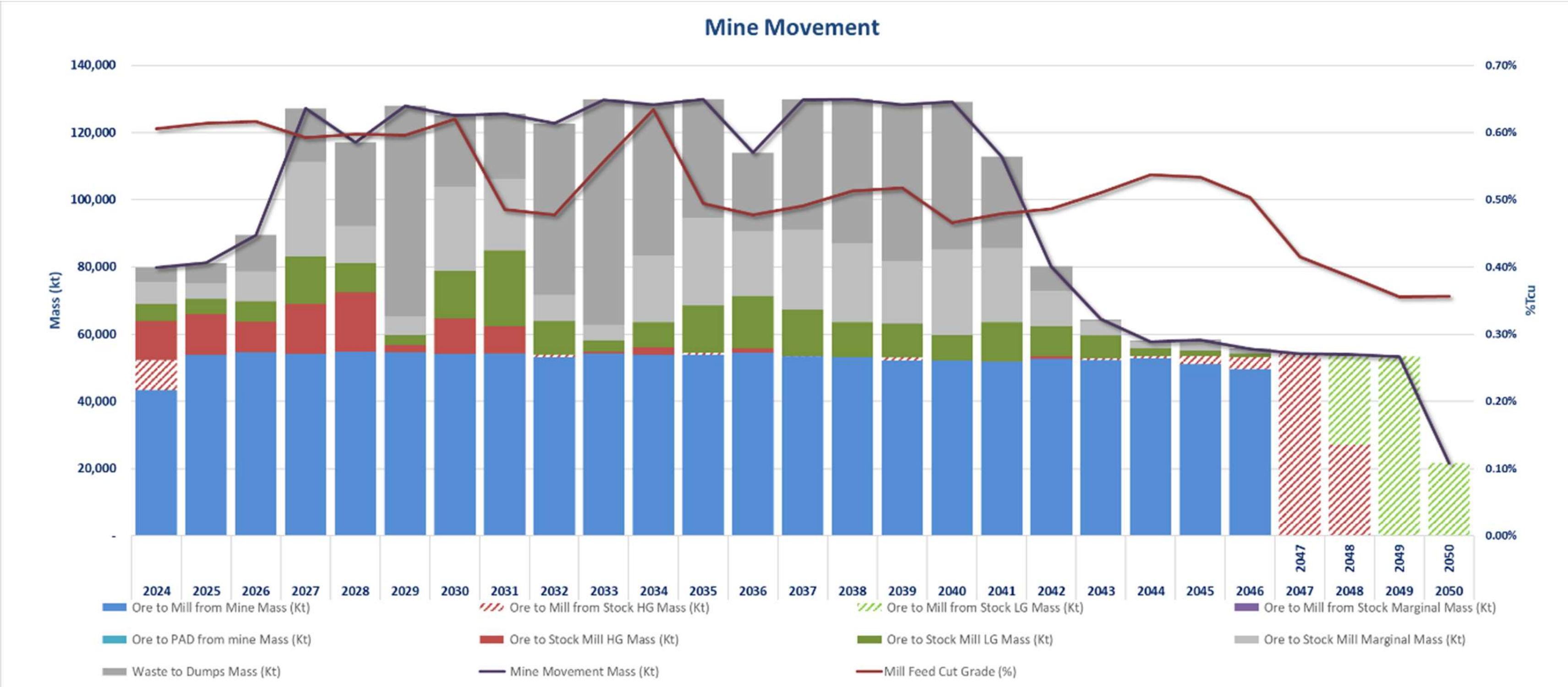
16.9 Equipment

The primary loading units are electric rope shovels (4100XPC), with a nominal capacity of 58.1 m³. The shovels are well-matched (three-pass loading) to 305 wmt haulage trucks. The existing hydraulic shovel fleet (Komatsu PC5500), with a nominal capacity of 27.5 m³, will continue to remain in service, given the units' availability and remaining available service lives. The existing front-end loader fleet (WA1200), with a nominal capacity of 18 m³, will continue to serve the mine and will be replaced as necessary to ensure two units are always available to serve the mine. When replacements are required, it is expected that these will be CAT994K units.

At its peak, the loading fleet will consist of four electric rope shovels, one hydraulic shovel, and two front-end loaders. All pit phases were designed to achieve high productivity, taking advantage of double-sided loading, and working fronts >90 m in width.

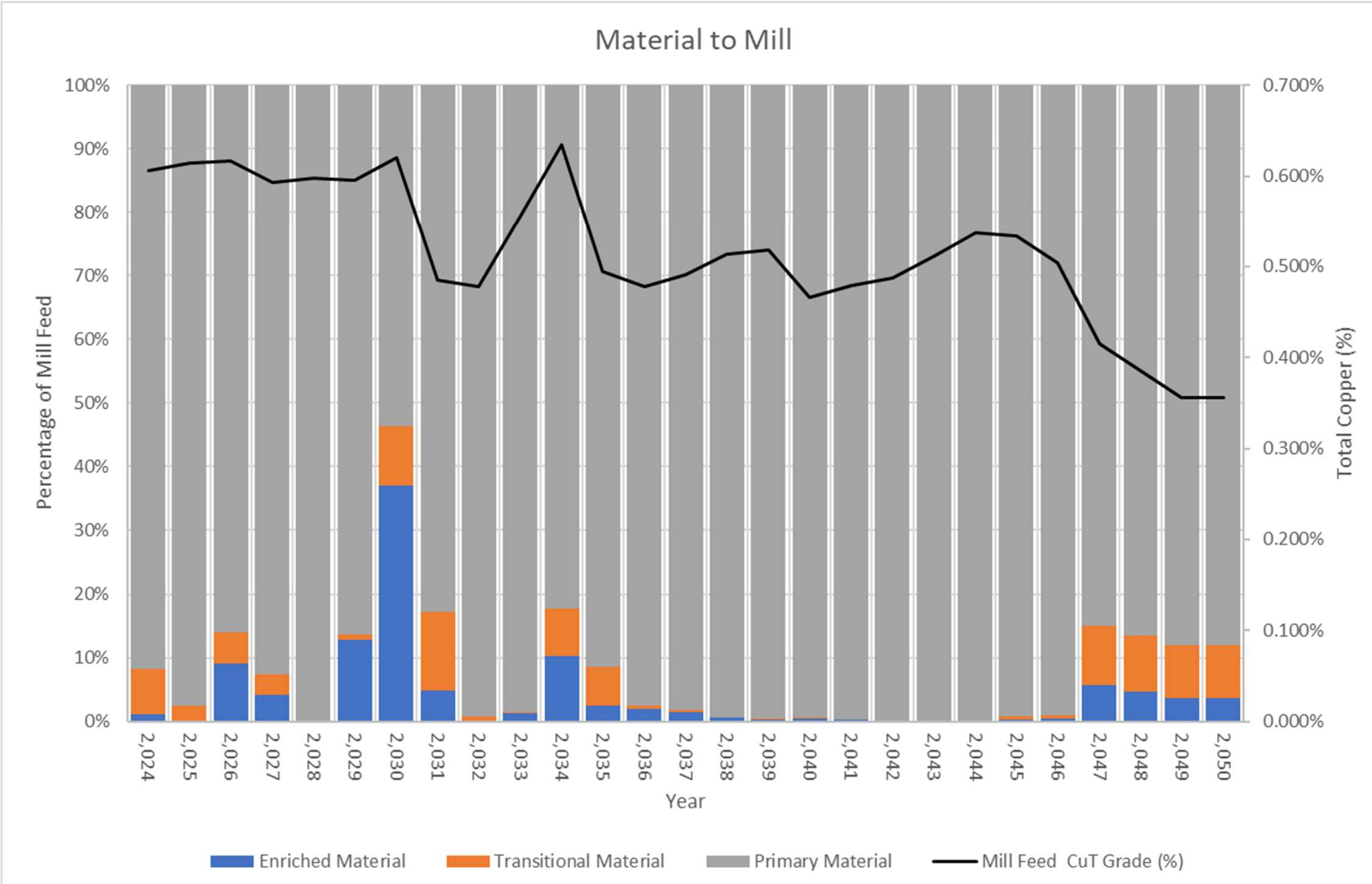
During operations, an average of 30 CAT994 AC HAA will be used. The mine production rates will surpass the existing fleet haul trucks. At the peak, in year 2039, the haulage fleet would require 45 haul trucks.

At the peak of operations, support equipment requirements will be eight bulldozers, seven wheeled dozers, nine graders, five water trucks, one tracked excavator, two cable reelers, one mobile generator, and six sets of lighting equipment.



Note: Figure prepared by Teck, 2023

Figure 16-5: LOM Production Plan, Material Movement



Note: Figure prepared by Teck, 2018

Figure 16-6: LOM Production Plan, Supergene and Hypogene Material to Mill

17 RECOVERY METHODS

17.1 Introduction

The process plant design is based on the testwork described in Section 13, and operating experience gained with QB1.

The process consists of crushing, milling, bulk flotation, copper–molybdenum separation, copper concentrate thickening, tailings thickening, concentrate and tailings transport systems, tailings disposal, filtering, and port facilities. The process will operate at a production capacity of 140,000 t/d.

17.2 Process Flow Sheet

The process flowsheet is included as Figure 17-1.

17.3 Plant Design

17.3.1 Primary Crusher

Run-of-mine (ROM) ore is dumped from mine trucks into the dump pocket of a primary gyratory crusher. The primary crushed coarse ore is conveyed to an open conical coarse ore stockpile with a live capacity of 80 000 t. The coarse ore is reclaimed from the stockpile by feeders and fed to the semi-autogenous grinding (SAG) mills by mill feed conveyors.

The primary crusher area contains the following major equipment and structures:

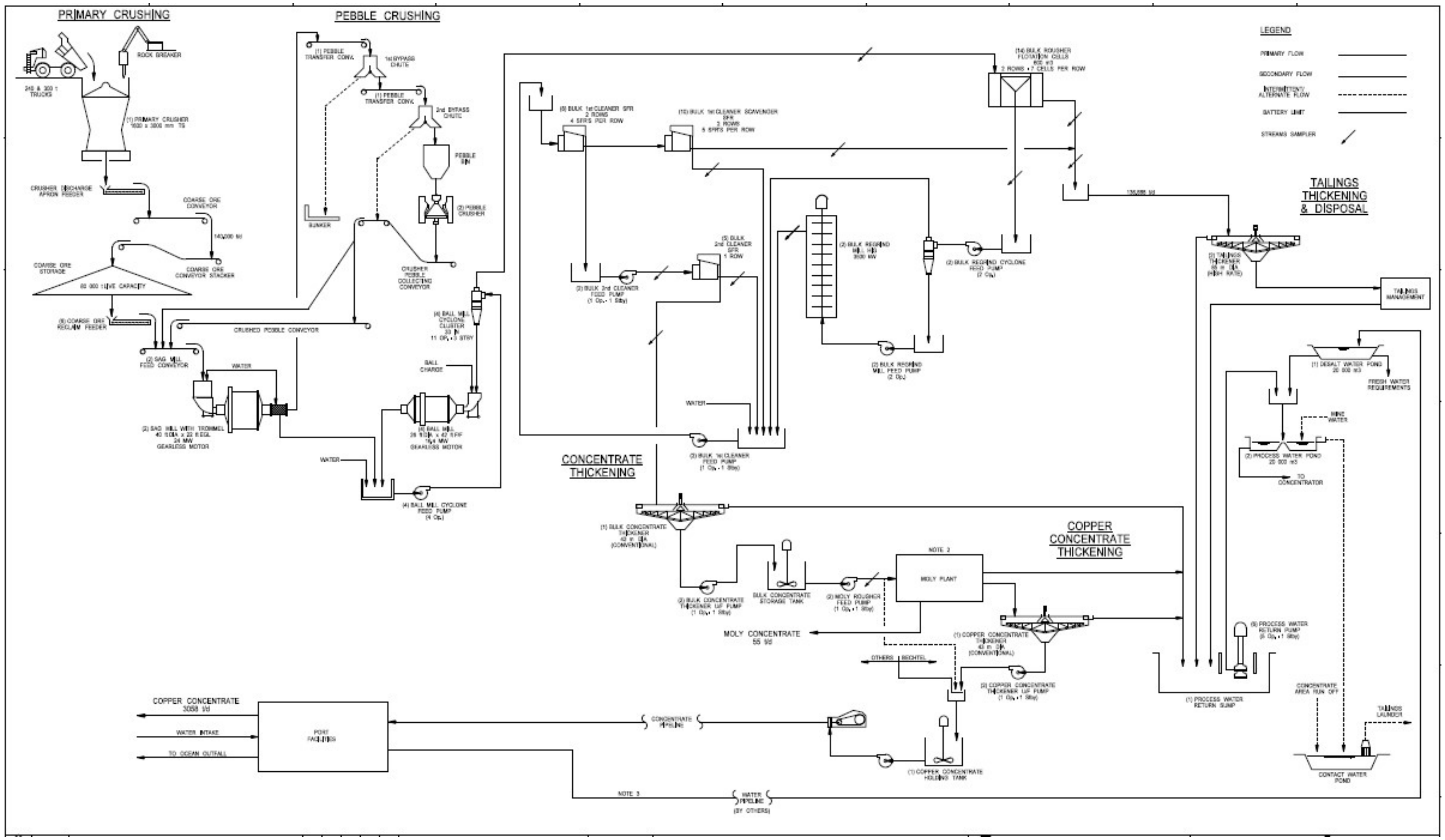
- One 1,000 kW, 1,600 x 3,000 mm (63 x 118 inch) gyratory type crusher;
- One 3,150 mm (width) apron feeder with adjustable speed, hydraulic drive, and two 185 kW motors;
- One hydraulic rock breaker;
- One dust suppression system.

17.3.2 Coarse Ore Conveyor

The coarse ore conveyor system consists of two overland conveyors to transport the crushed ore from the primary crusher to the coarse ore stockpile.

The coarse ore conveyor area contains the following major equipment and structures:

- Coarse ore conveyor belt no. 1: 260 m long x 1,830 mm wide steel cord, 8,333 dry t/h capacity;
- Coarse ore conveyor belt no. 2: 1,216 m long x 1,830 mm wide steel cord, 8,333 dry t/h capacity.



Note: Figure prepared by a third-party engineering firm for Teck, 2017.

Figure 17-1: Process Flow Sheet

17.3.3 Coarse Ore Stockpile

The coarse ore stockpile has a conical shape fed by a fixed stacker conveyor fed from coarse ore conveyor no. 2, has a live capacity of 80,000 t, and a total 268,000 t capacity. The coarse ore reclaim system consists of two concrete coarse ore stockpile reclaim tunnels, with six installed apron feeders (four required for production) and reclaim conveyors.

17.3.4 Storage Bins

Two 260 t capacity SAG mill ball storage bins with ball feeders and two 260 t capacity ball mill ball storage bins with ball feeders are located on the south side of the grinding building.

17.3.5 Grinding Circuit

The concentrator facility includes grinding mills, cyclone feed pumps, and cyclone clusters. The grinding equipment is housed in a steel building.

The grinding circuit area contains the following major equipment and structures:

- Two SAG mills: 12.2 m internal diameter x 6.7 m effective grinding length (EGL), 24 MW net power installed, driven by gearless type drives, each with a discharge trommel screen (6.1 m in diameter x 5.2 m long);
- Four ball mills: 7.9 m internal diameter x 12.8 m flange-to-flange length, 16.4 MW installed power overflow, driven by gearless type drives;
- Two SAG mill feed conveyor (coarse ore plus crushed pebbles): 1,524 mm wide, 195 m length with 250 kW motor (335 HP), 3.3 m/s speed and adjustable speed drive;
- Four cyclone feed slurry pumps: rated at 7,951 m^3/h and 2,500 kW (3,400 HP) each, with adjustable frequency drives;
- Four cyclone clusters (one per mill): 11 operating and three on standby; 838 mm diameter cyclones (33 inch) in each cluster;
- A 103.65 m wide x 116.06 m long x 47 m high steel grinding building.

17.3.6 Pebble Crushing

This facility includes pebble transfer conveyors, storage bins, feeders, and crushers. The crushers are housed in an open steel building.

The pebble crushing area contains the following major equipment and structures:

- One pebble transfer conveyor SAG mills discharge: 1,219 mm wide, 385.30 m long (load and return), constant speed of 3 m/s, and 185 kW motor (controlled by a variable speed drive);

- One pebble transfer conveyor: 914 mm wide, 173.59 m long (load and return), constant speed of 2.92 m/s and 150 kW motor;
- One crushed pebble collecting conveyor: 914 mm wide, 250.07 m long (load and return), constant speed of 2.92 m/s, and 150 kW motor.
- One crushed pebble conveyor: 914 mm wide, 91.47 m long (load and return), constant speed of 1.3 m/s, and 22 kW motor.
- Two 750 kW (1,000 HP) cone short head crushers.

17.3.7 Molybdenum Plant

The molybdenum plant will process the bulk concentrate from the bulk concentrate storage pond delivering two products:

- Dry molybdenum concentrate in bags;
- Copper concentrate pulp transported to copper thickener.

The facility will consist of the pulp conditioning, molybdenum rougher, first cleaner, second cleaner, and third cleaner flotation and regrind equipment, as well as the molybdenum concentrate thickener, filter, dryer, and packaging equipment. The area will contain the following major equipment and structures:

- One condition sealed tank, 36 m^3 capacity;
- Seven 42.5 m^3 molybdenum rougher sealed and self-aspirated cells (one row of seven);
- One 500 kW HIGMill molybdenum regrind mill, fed by two adjustable speed pumps of 114 m^3/h capacity (one in operation);
- Six 14.2 m^3 molybdenum first cleaners sealed and self-aspirated cells (one row of six cells);
- One conditioning tank receiving tailings from flotation cells first cleaning, through variable speed pumps (one in operation) with a capacity of 206 m^3/h;
- One 3 m diameter and 12 m high second cleaner column cell;
- Two 1.5 m diameter and 12 m high third cleaner column cells;
- One 15 m diameter molybdenum concentrate thickener with rakes and underflow pumps;
- One molybdenum flotation cell exhaust gas scrubber with fan;
- One molybdenum concentrate filter press, area of 31.6 m^2 will include several systems such as hydraulics, feed tanks and pumps, make-up water tanks and pumps, and a core separation tank;

- One drying system that will have a screw feeder and a molybdenum rotary screw dryer with a capacity of 4.5 t/h, where the final dry product (4% moisture) will be sent to a bulk bag molybdenum packaging system;

To avoid sulfurized hydrogen gas (H_2S) in the flotation area, all equipment will be connected to a wet scrubber, which will be filled with a NaOH solution. The wet scrubber will include two fans and two recirculation pumps; one of each must be operating.

17.3.8 Flotation and Regrind

The flotation and regrind area contains the following major equipment and structures:

- Fourteen bulk rougher flotation tank cells: 650 m^3 nominal volume (two rows of seven cells), dimensions of 10,87 x 8,155 m;
- Two regrind cyclone clusters (one per mill): five operating + five standby cyclones, 508 mm diameter (20 inch) per cluster.
- Two regrind mills: 3,500 kW high-intensity grinding, effective height of 8,200 mm and diameter of 1,850 mm;
- Eight first cleaner staged flotation reactor cells (two rows of four cells): particle collector unit with dimensions of 2.7 m diameter x 3.3 m high, bubble decoupling/froth recovery unit dimensions of 4.4/4.4 m diameter x 6.9 m high, 90 kW installed power per reactor;
- Ten bulk cleaner/scavenger staged flotation reactor cells (two rows of five cells): particle collector unit dimensions of 2.7 m diameter x 3.3 m high, bubble decoupling/froth recovery unit dimensions 3.8/2.4 m diameter x 6.4 m high, 93 kW installed power per reactor;
- Five bulk second cleaner staged flotation reactor cells (one row of five cells): particle collector unit dimensions of 2.1 m diameter x 2.5 m high, bubble decoupling/froth recovery unit dimensions 4.1/4.1 m diameter x 6.0 m high, 55 kW installed power per reactor.

17.3.9 Tailings disposal and reclaim water

The final tailings slurry flows by gravity to two high-rate tailings thickeners. A flocculant preparation plant provides flocculant. Thickener underflow slurry flows by gravity to the tailings management facility. The thickener overflow flows to the process water collection sump. Reclaim water from the tailings pond is also pumped to this sump. The water collected in the sump is pumped to the process water ponds. The process water ponds receive desalinated makeup water from the port site via an overland pipeline. Water from process ponds is distributed throughout the process facilities.

The tailings disposal and water reclaim area contains the following major equipment and structures:

- Two high-rate tailings thickeners: 85 m diameter, with underflow discharge of 7,073 m^3/h (nominal flow), and 50–59% solids, sent into the collection box and then transported to the tailings pond by gravity wash;
- Clarified overflow: recovery nominal water flow of 11,202 m^3/h, sent gravitationally to the process water return sump.

17.3.10 Port and Concentrate Transport

The main function of the copper concentrate transportation process is to transport the copper concentrate through the concentrate pipeline with a pressure and flow determined by operations, to the Punta Patache Norte port, a distance of about 164 km.

The concentrate transportation process consists of six stages:

- Pumping station:
  - One linear screen where particles ≥ 2 mm and other elements foreign to the operation are removed. Design maximum capacity flow of 155 m^3/h;
  - One distributor drawer composed of three chambers divided by screens;
  - Two holdings tanks at the concentrator area, mechanically agitated, 16.0 m diameter x 16.0 m high, 12 kW motors;
  - Two charge pumps that drive the fluid to two GEHO TZPM1200 transmission pumps, delivering the suction pressure required by the latter for their correct operation. The charge pumps are sized for a flow of 158 m^3/h at a discharge pressure of 1,888 psig (130 bar);
- Two dissipation stations;
- Two valve stations;
- Terminal station:
  - Three holding tanks at the port area, mechanically agitated, 16.0 m diameter x 16.0 m high, 112 kW;
  - One filter feed tank, 102 m^3 net volume, mechanically agitated, 6.8 m diameter x 5.8 m high;
  - One filter receiving agitator tank, 7.9 m diameter x 5.8 m high;
  - Three vertical plate and frame press filters, with 77 chambers, plate size of 1,500 x 1,500 mm;
  - One conventional clarifier/thickener, 30 m diameter;

- Flocculant preparation system: includes a flocculant feed hopper, a reductor system, an agitated preparation pond, flocculant storage pond, and a flocculant in-line mixer.

The Punta Patache Norte port and concentrate transport facilities are discussed in Section 18.

17.4 Energy, Water, and Process Materials Requirements

17.4.1 Reagents and Consumables

Reagents will include:

- Lime;
- Primary collector;
- Secondary collector;
- Frother;
- Fuel oil;
- Sodium hydrosulphide (NaHS);
- N_2 (liquid);
- Carbon dioxide (liquid);
- Flocculant for tailings;
- Flocculant for copper concentrate.

Consumables will include:

- SAG and ball mill liners and lifter (metal material);
- SAG mill ball size: five inch (12.7 cm) diameter;
- Ball mill ball size: three inch (7.6 cm) diameter;
- Cyclone grind and regrind areas (inlet, vortex, apex).

17.4.2 Water

Process make-up water will be from desalinated water (see discussion in Section 18.7 and Section 18.8) with reclaim water from the TMF.

17.4.3 Power

Power for the process plant will be sourced from the Chilean grid (see discussion in Section 18.12).

18 PROJECT INFRASTRUCTURE

18.1 Introduction

The facilities supporting the mine expansion are located at three principal sites:

- Mine and concentrator at an elevation of approximately 4,300 masl;
- TMF at an elevation of approximately 3,900 masl and located about 7 km south of the concentrator site;
- Port and desalination plant at the coast.

The key infrastructure includes:

- Open pit;
- Two WRSFs;
- Three stockpiles;
- Access and haul roads;
- Truckshop, truck wash, maintenance, and service area;
- TMF and tailings transport system, water reclaim pipeline;
- Accommodations complex including offices, fire station, medical clinic;
- Administration building;
- Workshop and warehouses, laydown areas;
- Mine laboratory;
- Change house and dining room facility
- Gatehouse;
- Explosives facility;
- Core shed;
- Concentrate pipeline to port;
- Port, filter plant, concentrate storage, concentrate load-out;
- Port administration buildings, changeroom, gatehouse, workshops, laboratory;
- Desalination plant and desalinated makeup water pipeline system;

- Powerlines and electrical substations;

Figure 18-1 to Figure 18-3 show the layout of the principal infrastructure components for the planned operation.

Construction of the molybdenum plant was substantially complete at the end of 2023. Shiploader construction is ongoing, and expected to be completed in the first half of 2024.

18.2 Road and Logistics

A new, 22 km-long road was constructed from public road A-97B to kilometre 120 of the Pintados private road. The design, performed by a third-party consultant, is stated to be in accordance with Chilean standards for unpaved roads, including road alignment, subgrade, sealing, drainage, and signage. It was a private, restricted-access road during construction, but following concentrator start-up, is operated as an unrestricted public road and the construction access control at the junction with public road A-97B was removed.

In addition, 12 km of the Pintados private road from kilometre 120 (A-97 bypass junction) to kilometre 132 (existing mine main gate) was improved, including road re-alignment, subgrade improvements, sealing, improved drainage, and signage. A total of 8.7 km of public road A-855 from the main gate point for the mine expansion operations to the existing operations' main gate was improved.

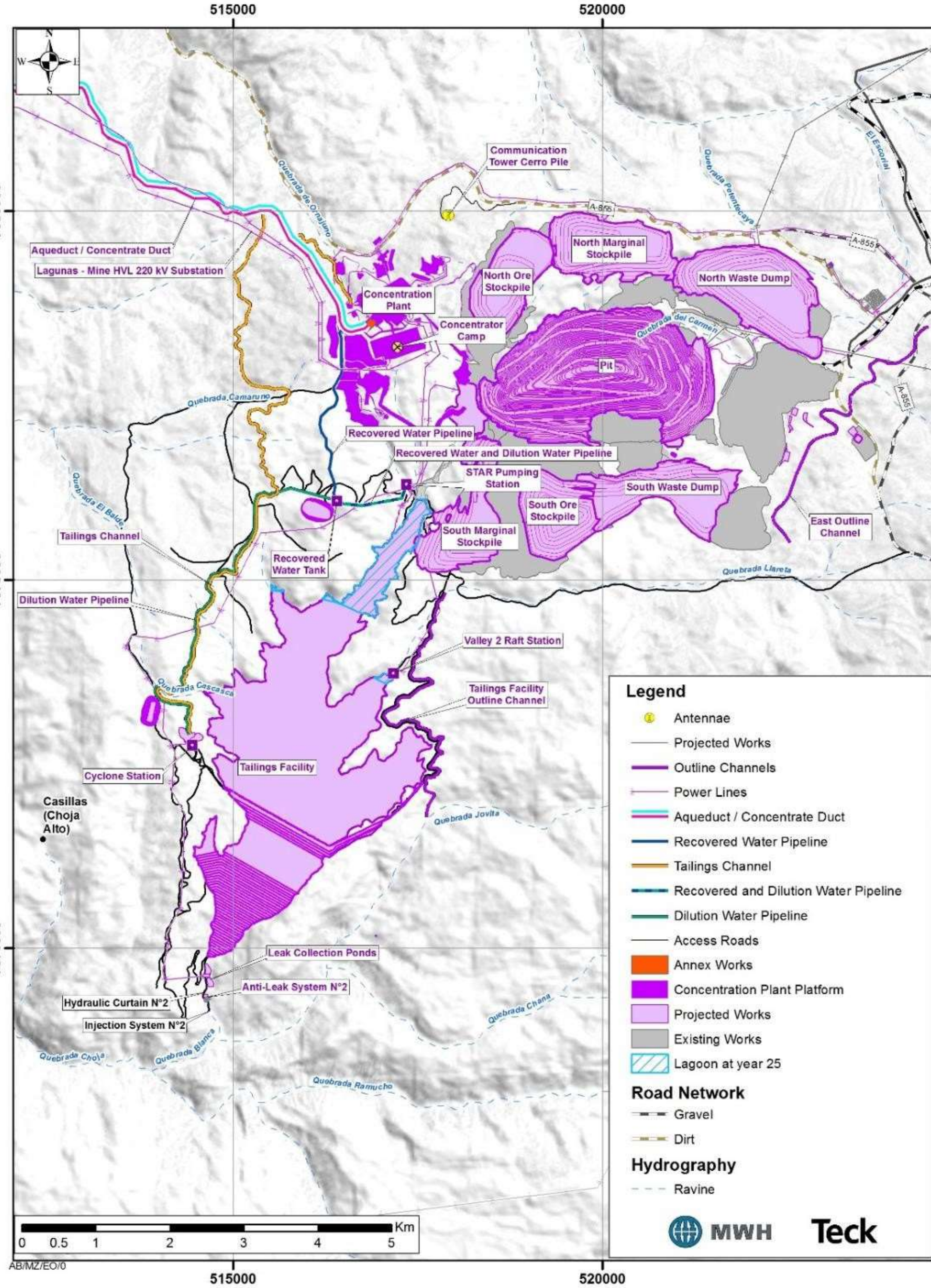
An established network of haul roads and infrastructure remaining from the supergene operation was available for the expansion project, and use of these has minimized many of the mine commissioning activities. Existing haul roads within the pit area were widened to 40 m from the existing 30 m to support two-way traffic. A nominal number of new haulage routes were constructed to link the site infrastructure, including the primary crusher, mine phase excavations, WRSFs, and stockpiles. Two additional haul roads were constructed, one to link the pit to the mine equipment service shop location, and the second to enable construction material transport for the tailings starter dam. This second road has subsequently been closed with the completion of the starter dam construction.

18.3 Camps and Accommodation

The permanent camp has 1,300 beds.

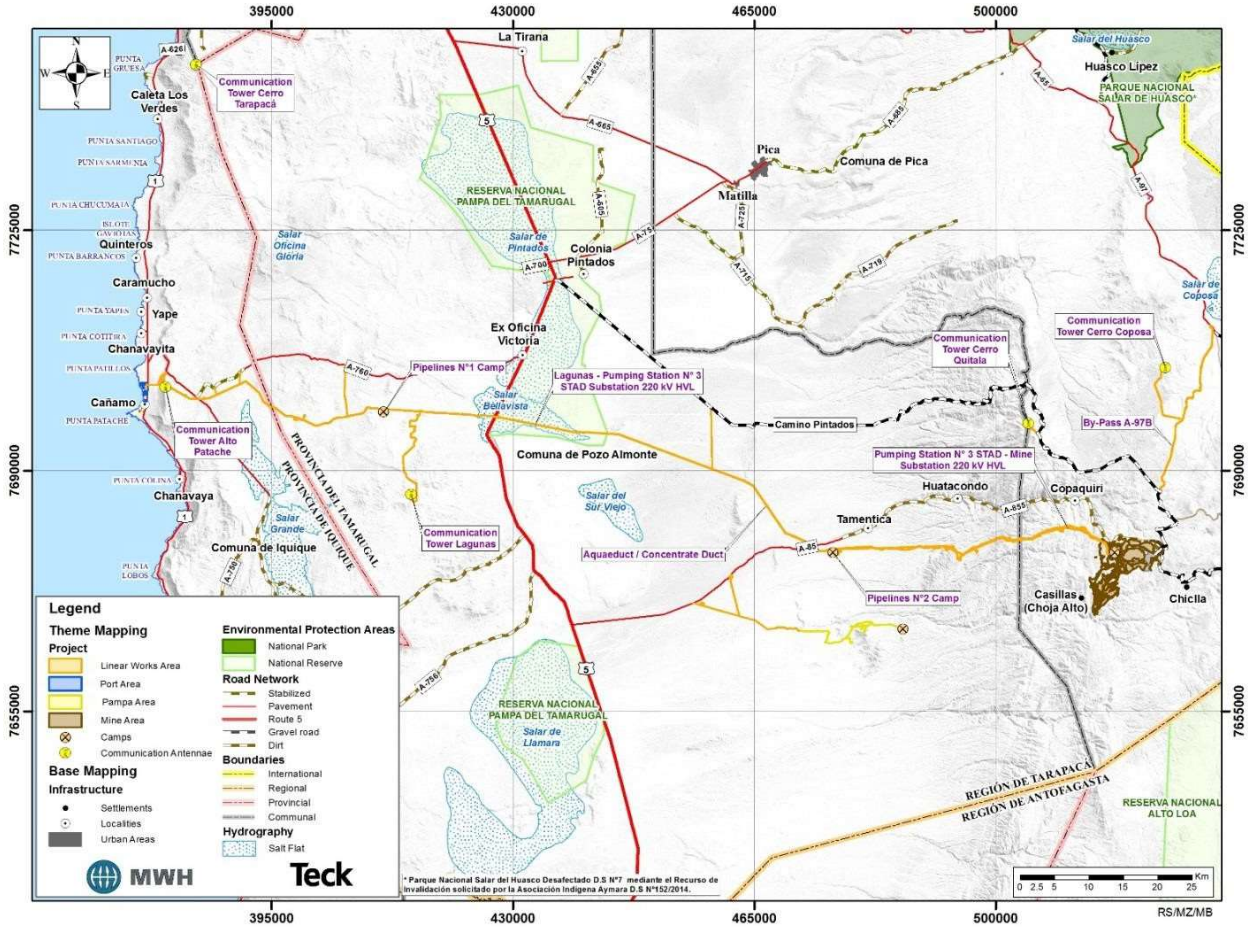
18.4 Stockpiles

Stockpiles are discussed in Section 16.6.



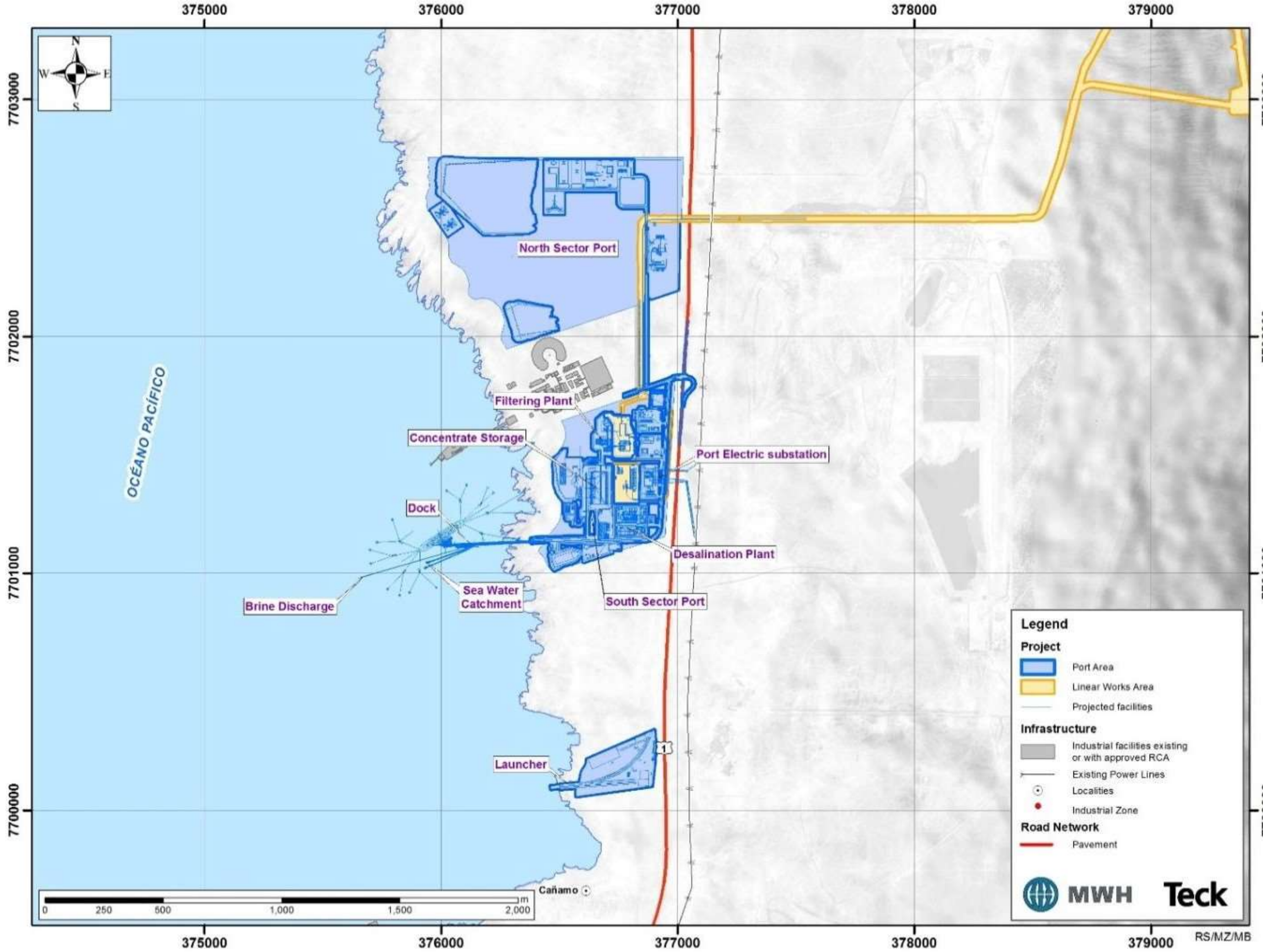
Note: Figure prepared by MWH and Teck, 2016.

Figure 18-1: Mine Area Infrastructure Layout Plan



Note: Figure prepared by MWH and Teck, 2016.

Figure 18-2: Linear Works Infrastructure Plan



Note: Figure prepared by MWH and Teck, 2016.

Figure 18-3: Port Area Infrastructure Plan

18.5 Waste Rock Storage Facilities

WRSFs are discussed in Section 16.6.

18.6 Tailings Management Facilities

Tailings from the process plant are transported by gravity to the TMF where the tailings are separated, through a cyclone station, into fine and coarse fractions. The coarse sand fraction is used for tailings dam construction by the centerline raise method, while the fines fraction is deposited in the tailings impoundment.

The TMF site is located in the Quebrada Blanca valley, approximately 7 km south of the process plant (refer to Figure 18-1). The TMF has an approximate capacity of 1.407 Bt. The final dry density of the deposited tailings is estimated at 1.45 t/m^3. The final crest elevation of the starter dam is planned for 4045 masl.

The TMF has been developed as a rockfill cofferdam, with a 120 m high rockfill starter dam. By the end of the LOM, this will be developed into a 310 m high tailings cyclone sand dam, and wing dam. The use of cycloned sand is a common practice in Chile and has proven to be a safe and economical method of construction for large scale structures such as required for this site. Sand is transported and placed hydraulically using cell construction. A drainage system at the base of the dam recovers the excess water and ensures a drained and unsaturated structure which eliminates the potential for sand to liquefy during a large earthquake.

A pumping system is installed in the TMF to recover water from the pond that will form during tailings deposition.

Foundation seepage control measures were incorporated into the design to collect seepage to the foundation and impoundment of the facility. These measures include twin seepage collection ponds and a pump back station, as well as a downstream cut- off system.

18.7 Desalination Plant

Seawater from the Pacific Ocean is pumped by intake pumps to the desalination plant for processing. The various filter backwashes and seawater reverse osmosis brine are directed by gravity flow back to the Pacific Ocean via the brine discharge outfall.

The seawater treatment plant is fed with seawater from seawater intake pumps, and produces desalinated and potable water via three main stages:

- Pre-treatment;
- Reverse osmosis;
- Post-treatment.

Brine is the main waste product and is discharged back into the ocean via the brine outfall pipeline from the brine outfall tank. The plant includes a chemical and reagent storage and handling facility.

18.8 Water Supply

Process water is primarily sourced from the desalination plant on the coast and transported to the concentrator site through the make-up water transport system (see Section 18.7).

A portion of the process water is reclaimed water sourced from the TMF main operational pond. This water will be pumped either to the tailings cyclone station, or to the concentrator. An initial lined start-up water pond of 1,500,000 m^3 behind the starter dam was designed for water supply prior to concentrator commissioning.

The potable water plant consists of a packaged reverse osmosis system that provides potable quality water to the concentrator and camps. The plant capacity is approximately 150 m^3/h, sized to include the feed to the main operations camp, as well as the local concentrator camp. The plant includes supply for the cooling tower makeup, and supply to the remediation water system. The system is located adjacent to the feed source, which is the makeup water pond. It includes a 450 m^3 tank that is used to distribute treated water to the various consumer areas.

18.9 Water Management

Water management includes a number of diversion channels and ponds:

- Mine diversion channel: developed around the eastern sector of the Quebrada Blanca basin, 4.8 km long. The water is discharged into Quebrada Llareta;
- TMF diversion channel: starts in Quebrada Llareta, has an approximate length of 5 km to its discharge point into Quebrada Jovita;
- Contact water control pond: will collect contact water downstream of the sulphide leach WRSF emergency pond, and on the upstream side of the leakage pond. It will also capture water leaching from the south WRSF. The 25,000 m^3 capacity, high-density polyethylene (HDPE)-lined pond will include a reclaim pumping system to return the water to the process plant.

Water entering the open pit will primarily be a combination of direct seasonal rains, run-off, and infiltration water. A water collection and pumping system sends excess water to the tailings pond. The system includes pit dewatering pumps constructed in a series configuration.

The water reclaim system reclaims water from the main TMF operational pond. Water is pumped in a closed system to the dilution water tank and also to the process plant area.

Water from the concentrator remediation water recharge system is delivered to a point downstream of the tailings dam wall and meets applicable environmental discharge criteria.

18.10 Pipeline Corridor Infrastructure

The main corridor for the pipelines encompasses the ROW for the concentrate transport system and the make-up water transport system. It primarily runs in an east–west direction, connecting the port facilities and the mine site.

The concentrate transport system commences at the concentrator pump station located at the mine site process plant and terminates at the filter plant at the port site, a distance of 164 km. The concentrate transport system capacity ranges from 97–165 t/h or 120–149 m^3/h (minimum to maximum).

The concentrate transport system pump station is located at the concentrator area. The pump station pumps copper concentrate into the pipeline. The station is the location of the primary control for the concentrate transport system flow. Two above-ground choke stations are used to control the pressure buildup with dynamic dissipation and aboveground valve stations are used to control static pressure. A terminal station at the port site is used to control dynamic dissipation and static pressure. Three solar-powered pressure monitoring stations are required to operate the concentrate transport system.

The make-up water transport system transports desalinated water from the seawater treatment plant at the port site to the process water reservoirs at the concentrator. The transport system has a 3,502–4,202 m^3/h (nominal/design values, respectively) capacity. The desalinated water is pumped using a buried pipeline installed along the pipeline corridor. There are five pump stations along the route.

18.11 Port Infrastructure

Copper concentrate is filtered to produce a dewatered copper concentrate suitable for ocean transportation at the port site using three parallel filtration systems.

Concentrate handling and loading consists of a concentrate tripper conveyor, front-end loaders, reclaim belt feeders, concentrate loadout pipe conveyor, and a radial ship loader. Rotainer loading facilities were added to accommodate domestic transport of concentrate by truck.

The marine facilities include an onshore abutment, an access trestle, a pump station platform, a ship loader platform, a boat berth, a standoff spread mooring system, two protection dolphins, and a ship access gangway.

18.12 Power and Electrical

A number of power purchase agreements were signed with AES Gener in 2012 and thereafter, under which Teck would receive power in aggregate from a number of sources, including conventional and solar power plants. Teck has agreements for 240 MW of power, and has an additional 21 MW available from solar sources. Typical load requirements are summarized in Table 18-1.

The HV transmission system consists of 220 kV transmission lines from the Lagunas substation to the Quebrada Blanca 220 kV substations.

Table 18-1: Estimated Power Usage

Facility Description	Installed Load (MW)	Demand Load (MW)	Energy (GWh/year)
Port site facilities	33	16	107
Pipeline systems	102	60	501
TMF	42	24	176
Mine	54	20	47
Concentrator site	209	146	1189
Project Substations Total Load	***440***	***266***	***2,020***

19 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Teck staff performed a review of the estimated quality of, and potential markets for, the copper and molybdenum concentrates that would be produced by the operations.

19.1.1 Copper

19.1.1.1 Market Demand

Copper consumption can be divided into three main product groups: copper wire rod, copper products and copper alloy products. Copper wire rod (which includes, amongst other things, wires, and cables) is the primary group, accounting for 62% of total global consumption (including scrap) and 74% of primary consumption. This is driven by the conductivity potential of copper, which has the highest electrical conductivity of all metals other than gold and silver. The balance of global consumption is relatively evenly split between copper products and copper alloy products.

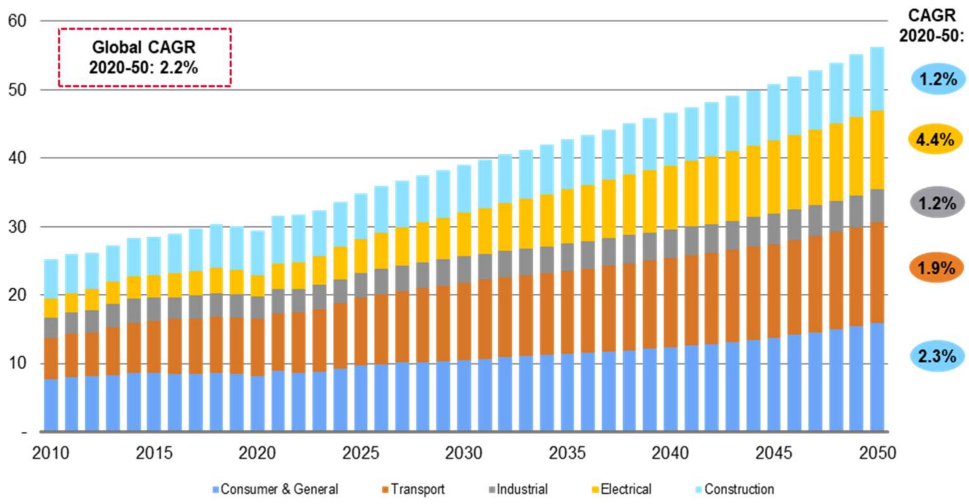
In general, copper is consumed in five broad sectors: construction, electrical network infrastructure, industrial machinery and equipment, transportation equipment and consumer & general products. Of these, construction is the largest sector for consuming copper, accounting for 28% of total copper consumption. Figure 19-1 provides the historical and forecast copper consumption by industry sector.

While total copper consumption is expected to grow across all industry sectors, it is expected to be most pronounced in electrical network, transport, and consumer and general (Figure 19-1). This is forecast to be driven by urbanization and electrification in developing economics, which, as shown in Figure 19-2, is largely underpinned by “Other Asian” growth, primarily sourced from India, Thailand, Vietnam, and Indonesia.

Other drivers of copper consumption in these specific industry sectors include de-carbonization (due to the copper intensive nature of alternative energy sources and, especially, electric vehicles; see Figure 19-2) and the rise of the middle class (due to associated increases in appliance and vehicle purchases).

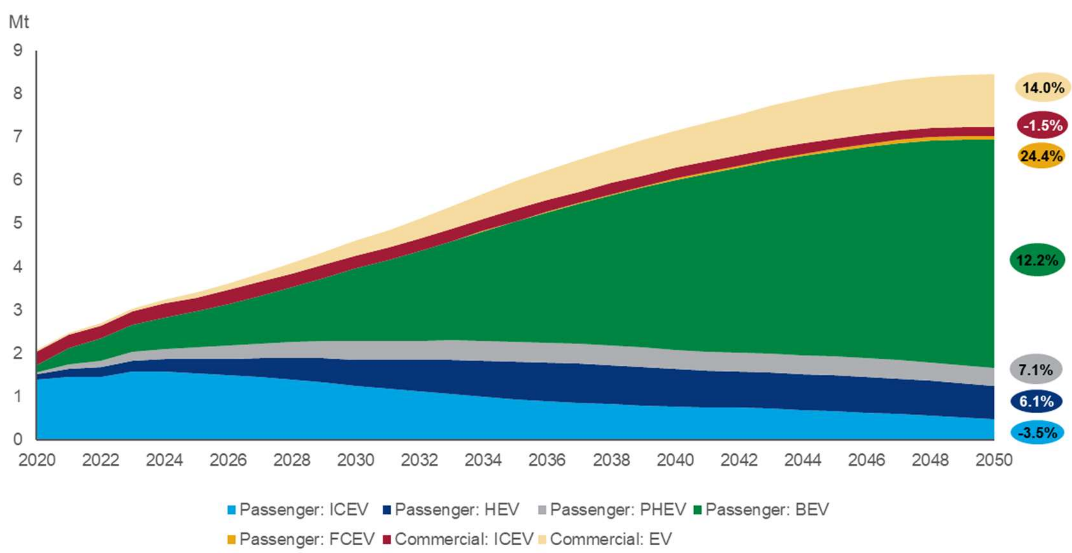
China is the largest consumer of copper in the world, accounting for 48% of demand in 2022. Since 2000, Chinese demand has grown due to a combination of infrastructure (electrical network and construction represented 37% and 18% of China’s 2022 consumption, respectively) and consumer spending, driven by general economic growth and regulation. Chinese refined copper consumption growth is expected to be relatively flat for the foreseeable future (Figure 19-3), yet the country will remain the world’s largest source of copper consumption demand.

As shown in Figure 19-3), Wood Mackenzie forecasts the average annual global refined copper consumption will grow at 1.8% compound annual growth rate between 2020–2050, with China’s compound annual growth rate at 0.2% p.a. and other Asian countries (including India, Vietnam, and Indonesia) compound annual growth rate at 4.8%.



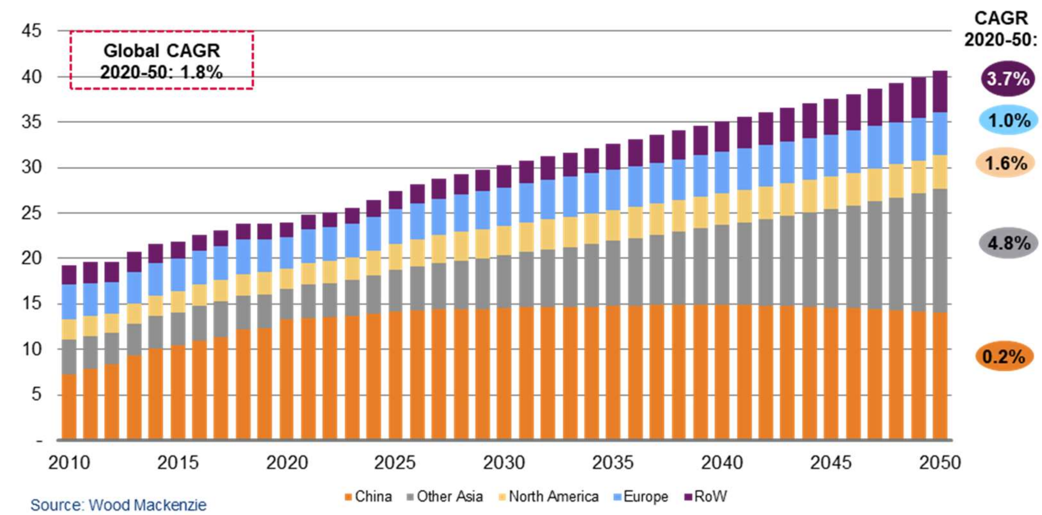
Note: Figure prepared by Teck, 2024. Consumption shown in Mt. CAGR = compound annual growth rate.

Figure 19-1: Total Copper Consumption By Industry Sector (including scrap)



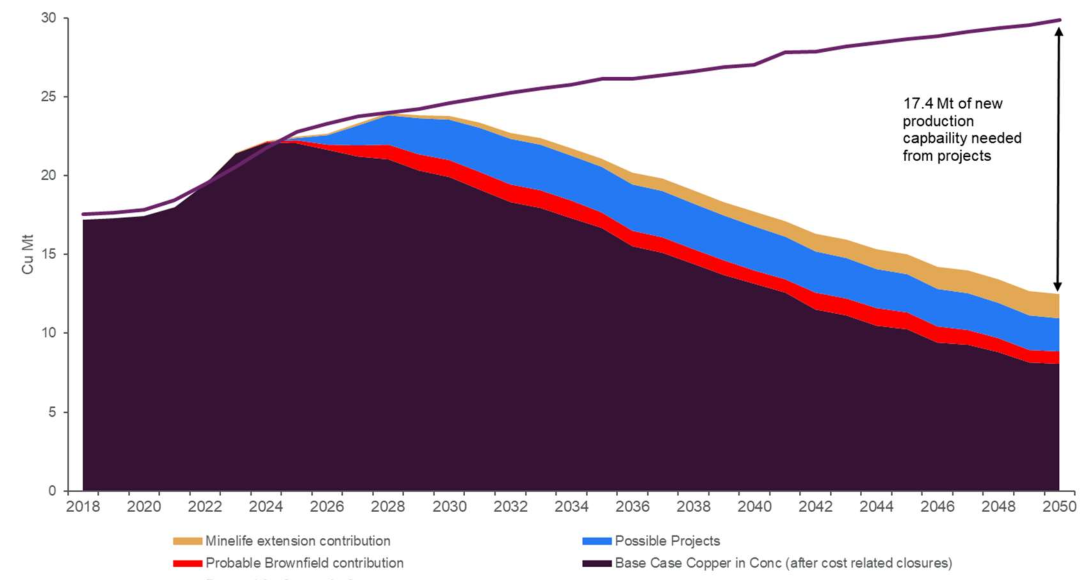
Note: Figure prepared by Wood Mackenzie, 2024. ICE, HEV, PHEV, FCEV and BEV represent internal combustion engines, hybrid electric vehicles, plug-in hybrid electric vehicles, fuel cell electric vehicles and battery electric vehicles, respectively. Commercial HEV, PHEV, BEV & FCEV combined as Commercial EV.

Figure 19-2: Passenger and Commercial Vehicle Copper Demand By Vehicle Type



Note: Figure prepared by Wood Mackenzie, 2024. Copper consumption in Mt.

Figure 19-3: Refined Copper Consumption By Region



Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-4: Copper Production Capability and Future Supply Gap

19.1.1.1 Copper Market Supply

Wood Mackenzie expects that, beginning in 2025, a requirement for new mine production will emerge between total mined copper demand (adjusted for scrap processed at smelters) and base case mined supply (which includes active mines and committed projects). This increasing requirement is viewed because of the diminished appetite of mining companies to invest in large scale mining projects since 2015, difficulties in permitting new projects, and the increasing cost of capital required to build large projects.

The total supply requirement for concentrates is expected to grow to 21.8 Mt by 2050 in the absence of any new investment. Wood Mackenzie believes 1.6 Mt of this will be sourced from mine life extensions and a further 2.8 Mt could come from probable brownfield and greenfield expansions, leaving a remaining requirement (gap) of 17.4 Mt to come from greenfield and other brownfield developments that Wood Mackenzie identifies as either “probable” or “possible”). Figure 19-4 shows Wood Mackenzie’s forecast supply gap.

Scrap consumption has generally tracked movements in the copper price given the direct impact price has on the attractiveness of collecting scrap (Figure 19-5). As a result, scrap demand as a percentage of global copper consumption decreased by about 10% between 2012–2016 after hitting a high of approximately 40%, in 2012 and falling back to about 30% in 2020. Wood Mackenzie forecasts that scrap consumption will steadily increase between 2020–2050, representing between approximately 31–36% of global consumption throughout this period, primarily driven by an expectation of a robust copper price environment and opportunities to decarbonize the production of refined copper, as scrap processing requires less energy.

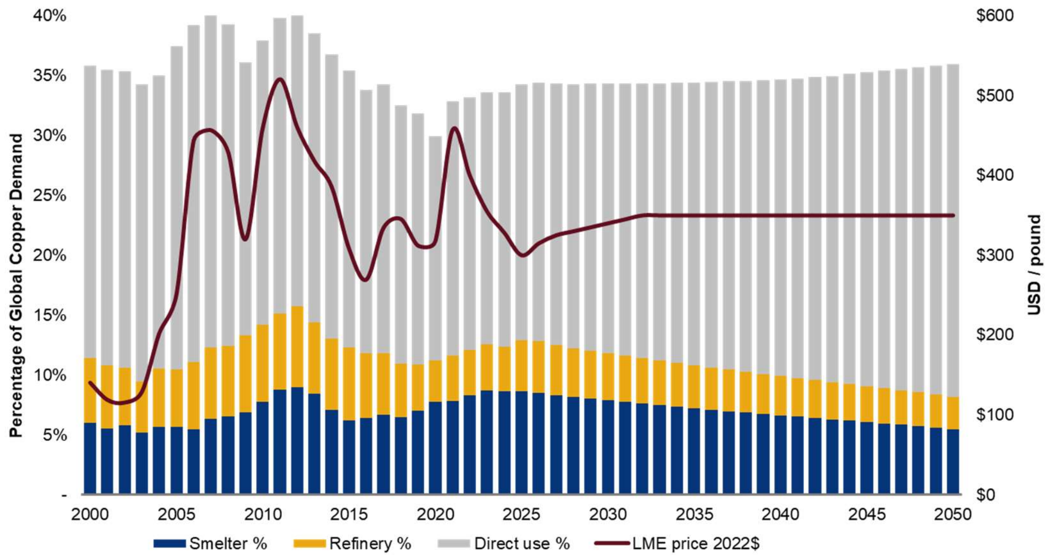
19.1.1.2 Price Outlook

Due to increasing costs associated with finding, developing, producing, and delivering copper to the market, coupled with steadily rising demand, Wood Mackenzie believes that the medium to long-term outlook for the copper price is robust. The industry-wide increase in operating and capital costs is occurring for a several reasons including:

- Inflationary factors have been impacting copper producer costs in the last two years with rising costs being driven by inputs such as fuel, power, labour, consumables, and acid. These cost drivers are only partially mitigated with currency devaluation and higher by-product pricing;
- Average C1+ sustaining capital costs in 2022 are estimated to rise by 8% year-on-year to 181 c/lb, while C1 costs are set to increase by 11% to 145 c/lb. A 10% year-on-year increase brings 90th percentile C1+ sustaining costs to 283 c/lb.

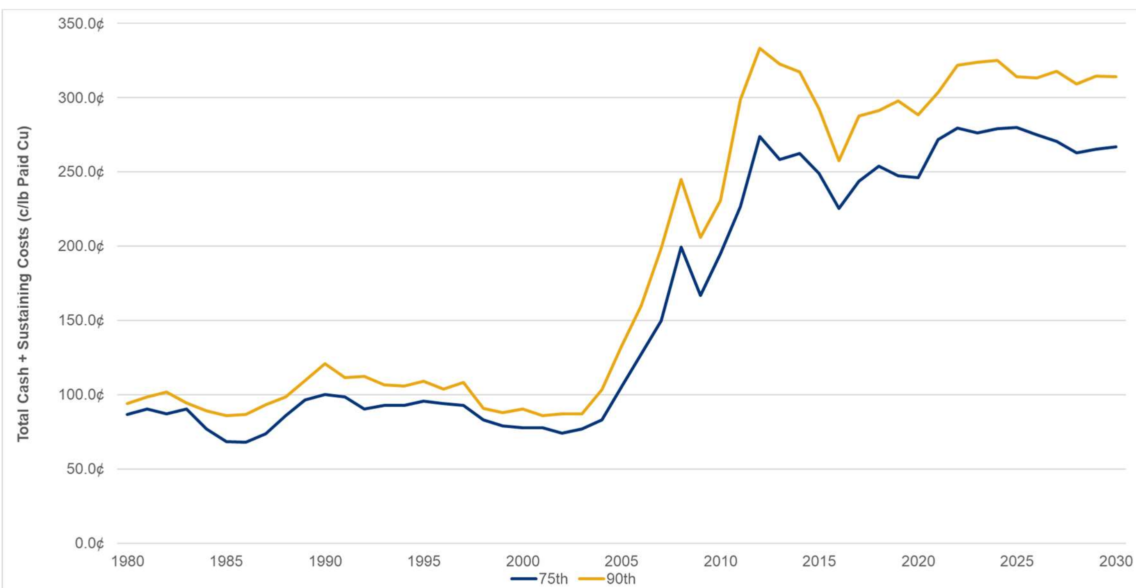
Further upside cost risks may potentially be posed by factors relating to mines' workforce and communities, government, or changes to mine plans.

There have been relatively few new project approvals in recent years and an environment of decreasing margins will constrain capital-intensive new projects. The large increase in operating costs over the past decade can be seen in Figure 19-6.



Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-5: Global Copper Scrap Consumption



Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-6: Historical and Forecast Cost Inflation

Wood Mackenzie uses an incentive price methodology to arrive at a long-term forecast copper price. This methodology theorizes that for mining companies to be incentivized to construct sufficient additional greenfield capacity to meet demand, a minimum copper price will be required to generate threshold pre-tax returns in the forecast cost environment.

On a non-risk adjusted basis, Wood Mackenzie estimates the long-term copper incentive prices required to generate a 15% pre-tax IRR to be US$4.25/lb in real 2022 dollars (see Figure 19-7). These incentive prices contribute to Wood Mackenzie's projected real long term copper prices of US$3.50/lb beginning in 2022.

19.1.1.3 Copper Concentrate Market Outlook

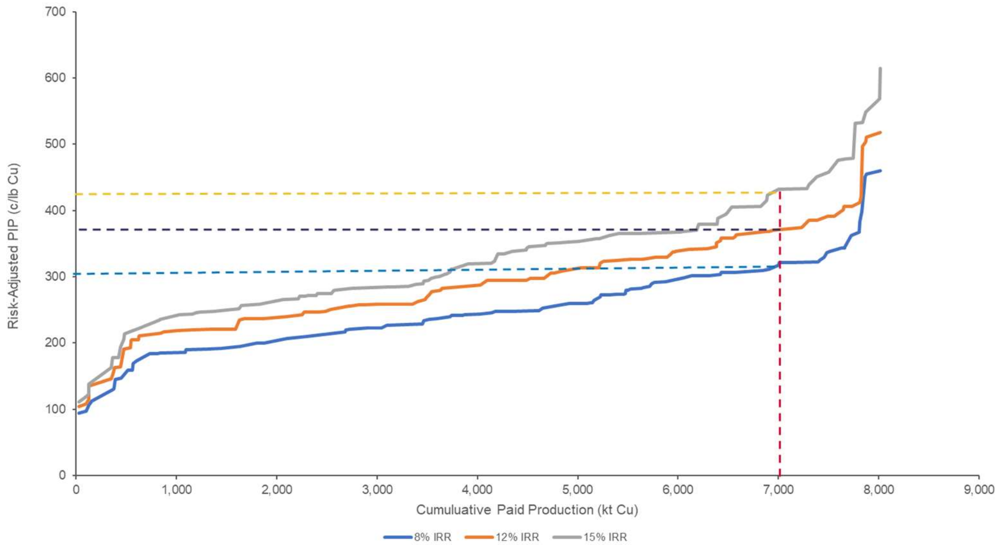
Copper smelter capacity growth since the early 1990s has come primarily from Asia, where copper smelting capacity grew by 9. 0Mt between 1990–2015 (including 7.0 Mt, or 77% of capacity built in Asia, from China). By contrast, the US has closed approximately 1.0 Mt of capacity during the same period.

From 2020–2030, Wood Mackenzie projects copper smelter capacity will continue to increase in China. Of the projected 3.8 Mt increase in global copper smelting capacity, 3.3 Mt is expected to occur in the Asian region, of which 2.2 Mt will be in China.

In the long-term, new smelting capacity will need to come on-stream to meet rising demand. Wood Mackenzie projects that Chinese smelters and refineries will represent the marginal producer and it is their breakeven costs, which will determine long run, equilibrium TC/RC levels (which will, in turn, incentivize/disincentivize new entrants to the smelting market). Current projections for smelter capacity growth globally as shown in Figure 19-8, outline that the growth projects currently under development, commissioning and in the planning stages are mostly located in the Asian region, with China making up most of the projected increase.

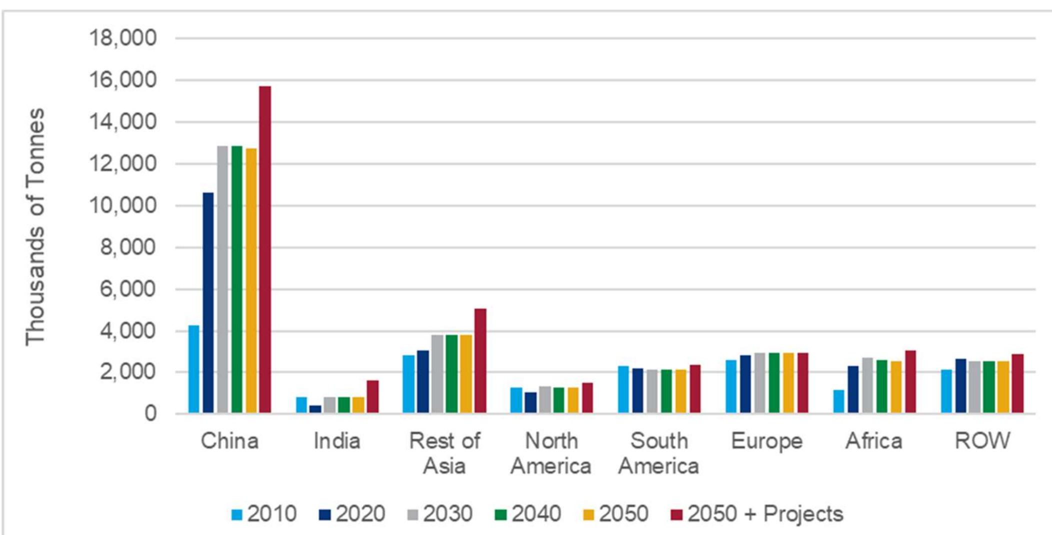
Wood Mackenzie maintains their assumption that a new greenfield smelter in China will set the long-term marginal TC/RC. As shown in Figure 19-9, Wood Mackenzie forecasts global TC/RCs to be materially unchanged from current levels and demonstrate more consistency than in the early to mid-2000s.

The growth in smelter capacity over the past 20 years has been focused on the custom concentrate market. As outlined in Figure 19-10, the global copper concentrate market has been growing year on year with the largest growth in mine supply coming from the custom or seaborne concentrate market. The global custom concentrate market has increased in size from 1.6 Mt in the 1980s to 3.5 Mt/a in the 1990s to close to 10.6 Mt in 2023. In 1997 the custom concentrate market was only 31% of the total global concentrate market, today the custom concentrate market accounts for 55% of all concentrates treated globally and by 2025 it is projected to reach 65%. This means that there are more smelters in the market purchasing concentrates on the open market from un-related parties and more mines being built without direct ownership access to smelting capacity.



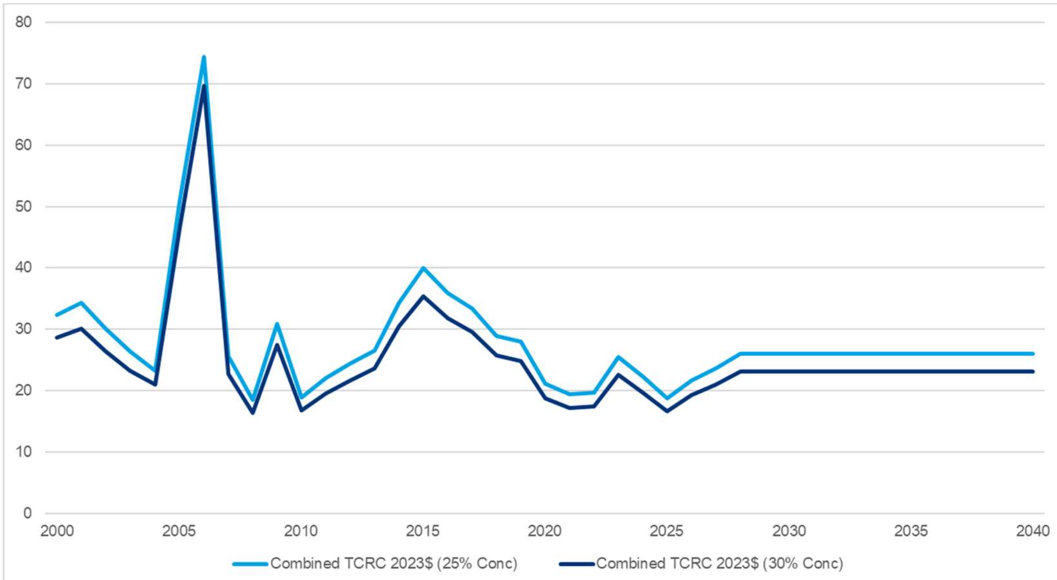
Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-7: Wood Mackenzie Non-Risk Adjusted Incentive Prices For All Projects



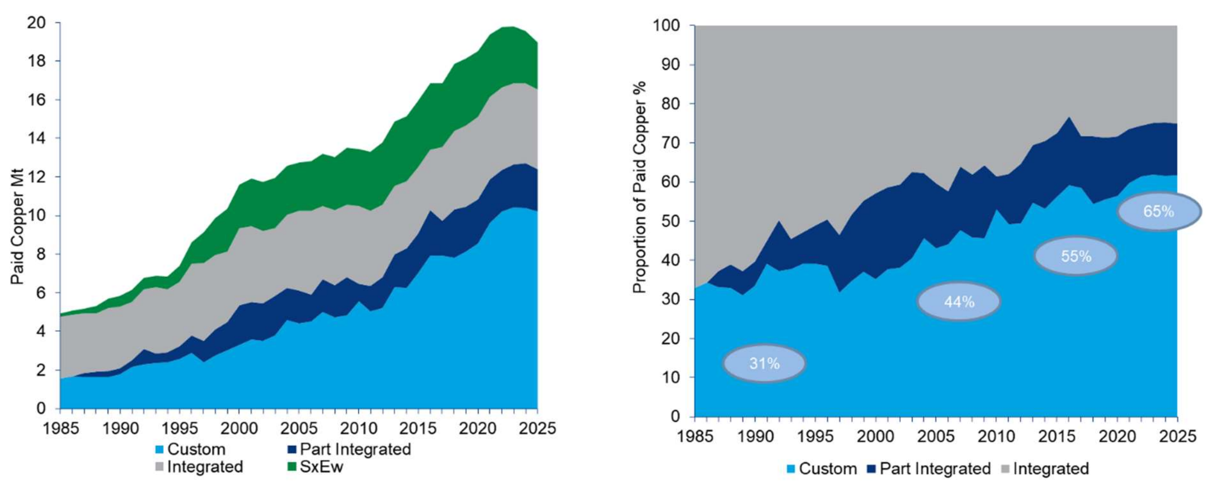
Note: Figure prepared by Wood Mackenzie, 2024. ROW = rest of world

Figure 19-8: Global Copper Smelter Capacity Growth



Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-9: Combined Marginal TC/RC Forecasts (2023 US¢/lb)



Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-10: Custom Concentrate Market Evolution

Copper concentrate grades have also declined from an average of 30% of copper contained in concentrates to today where concentrate grades globally average below 26%. The amount of dry metric tonnes (dmt) being shipped and sold around the world has increased from 12.5 Mdmt in 1997 to closer to 42.5 Mdmt being traded in 2023.

Regionally China is the largest buyer in the global custom concentrate market with close to 60% of the market share. The remainder of the custom market is mostly made up of smelters in Japan, South Korea, India, and Europe, and when all combined with China, account for over 86% of the global custom smelting market. Figure 19-11 outlines the global smelter requirements for copper concentrates, which suggests that the global forecast smelter capacity requirement for concentrates is more than the currently planned and operating global mine supply.

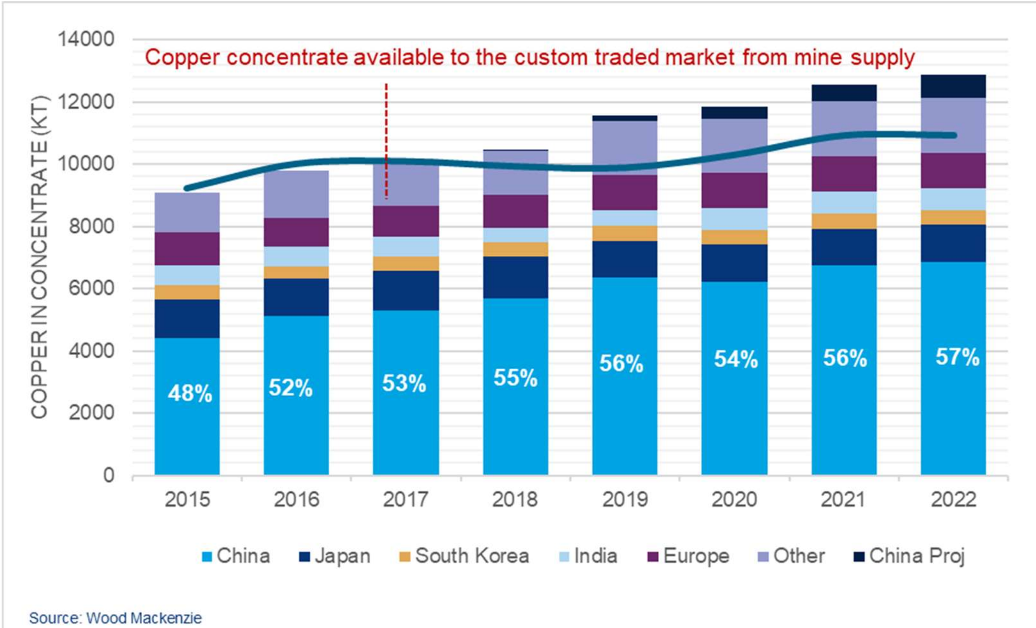
19.1.2 Molybdenum

19.1.2.1 Molybdenum Market Demand

Molybdenum is used in an extensive number of applications however global molybdenum consumption can be summarized into seven larger first uses. Globally, molybdenum is used primarily as an alloy in various types of steel production, it is also used as a catalyst and lubricant in several chemical applications. Figure 19-12 outlines the first use applications for molybdenum globally. Steel and alloy demand account for over 88% of molybdenum demand, this is driven by molybdenum's ability to make steel that can withstand high temperatures without expanding or softening. For these reasons it is used extensively in high strength or hardened steels, cast irons or tool steels. Molybdenum is also highly valued for its corrosion resistance and weldability and is used extensively in 300 series stainless steels.

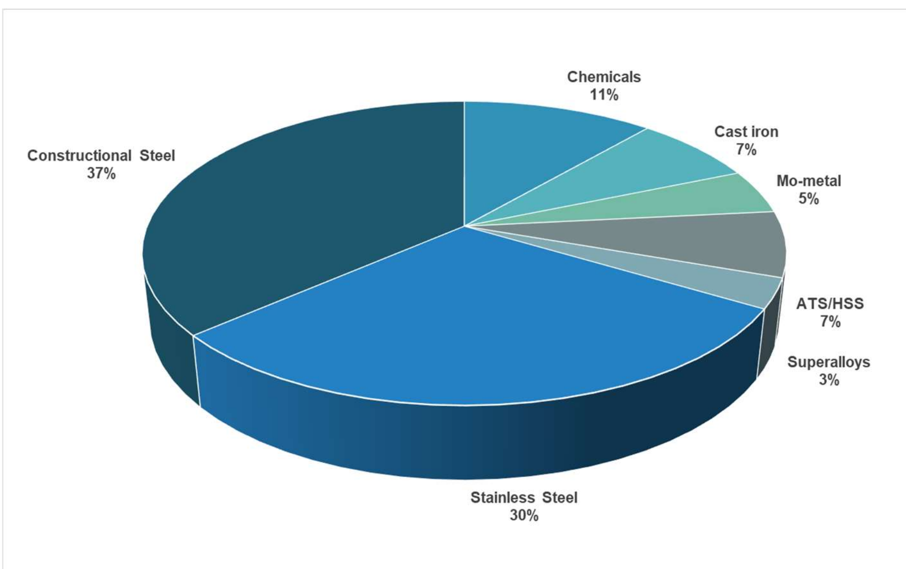
Steel demand tends to follow the global economy and industrial production, but with a different time lag in its various sub sectors. More than 90% of steel produced in the world is 'ordinary' carbon steel which uses very little additional molybdenum. These carbon steels still account for 8% of total molybdenum use by its sheer volume. Some carbon steels do use molybdenum, specified at low levels, 0.08% – 0.15% of Mo. Of more importance to the overall molybdenum market are the remaining 8–10% of total steel production known as specialty steels. Depending on their type and application, these steels can contain from 0.25–9.5% Mo.

Figure 19-13 outlines the transition between molybdenum mine production on a regional basis to its first use consumption regionally and then where molybdenum is finally consumed in its end use applications, including the use of molybdenum from secondary sources.



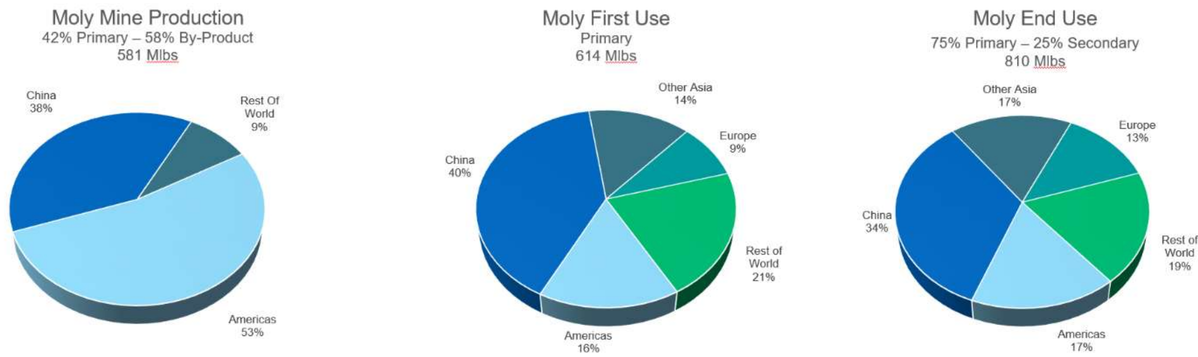
Note: Figure prepared by Wood Mackenzie, 2024.

Figure 19-11: Custom Concentrate Market Regional Breakdown



Note: Figure prepared by CRU Group, 2023.

Figure 19-12: Global Molybdenum First Use (2022) 617 Mlbs



Note: Figure prepared by CRU Group, 2023; SMR Steel & Metals Market Research, 2023. Moly = molybdenum

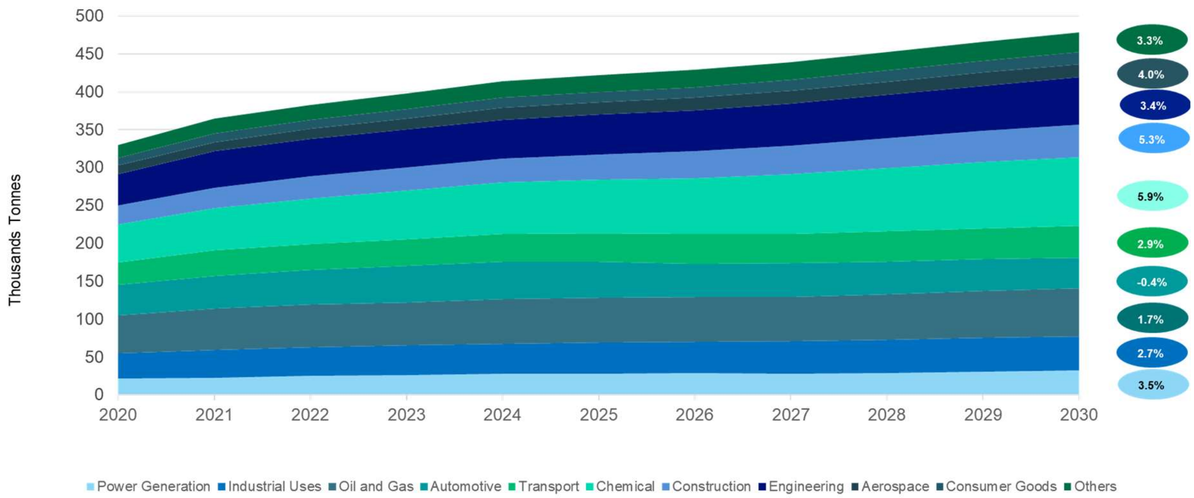
Figure 19-13: Global Molybdenum Regional Supply Demand Matrix

The global forecast for demand as shown in Figure 19-14 is estimated at a combined 3.3% CAGR. There is promising demand for molybdenum-containing steels (mainly stainless steels) which will continue to increase in coastal areas prone to higher atmospheric corrosion, and where the population is expected to grow. There is also increasing acceptance of stainless steel in building cladding materials and in concrete re-bar in the construction segment. In the petrochemical industry, oil prices have again started to rise, and this should bode well for molybdenum-containing steels for pipelines, drill rigs, and chemical and refinery plants. The market is also expecting an increase in water treatment and distribution services being built world-wide, for desalinization, potable water uses, and industrial consumption. Due to the highly corrosive nature of sea water, stainless steel containing molybdenum is critical in these applications.

Segments identified with the best growth potential (above 3% p.a. growth from 2020–2030) are: consumer goods; aerospace; engineering; construction and other transportation. Negative growth may be expected in the automotive sector as auto production globally may have reached its peak of molybdenum demand.

19.1.2.1 Molybdenum Market Supply

Molybdenum is mined globally as either the primary metal being extracted, or it is present in large copper ore deposits in sufficient grade and quantity that is deemed economic to recover. Global production and production forecasts to 2034 are provided in Figure 19-15. Currently over half (58%) of the molybdenum mine globally comes from by-product production of copper mining. In times of low prices this percentage has increased as high as 70%, in the 1980s and again in 2017 mine production was strongly in favour of by-product molybdenum mines. This is important as decisions to mine are driven by copper market prices and conditions and are not driven by molybdenum prices and market trends. The explanation of this phenomenon lies in a period of persistently low molybdenum prices between 2013–2016. Sub-$10/lb prices discouraged new investment, expansions, or the indeed the increase of production.



Note: Figure prepared by CRU Group, 2023; SMR Steel & Metals Market Research, 2023.

Figure 19-14: Global Molybdenum Demand Growth by First Use

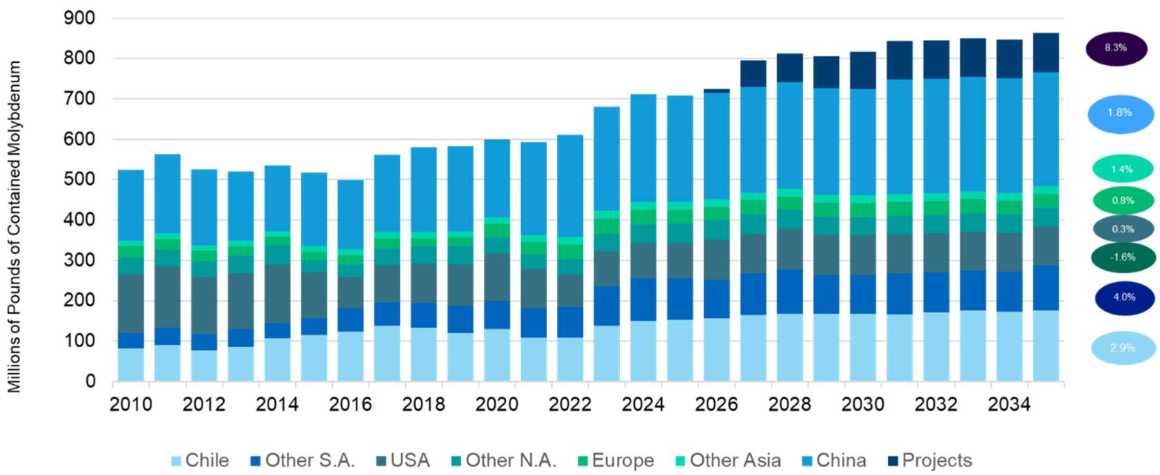


Figure prepared by CRU Group, 2023; SMR Steel & Metals Market Research, 2023.

Figure 19-15: Molybdenum Regional Mine Production Growth

Higher molybdenum prices tend bring high-cost primary mine production to the market and in the past has changed the amount of molybdenum that China will consume/import or export to global markets. As China moves further down the value chain into higher grade specialty steels, their willingness or ability to export excess domestic molybdenum could be restricted.

19.1.2.1 Molybdenum Roasting Market Supply

Teck currently sells its concentrate production in the custom roasting market as molybdenum concentrates. The market for custom molybdenum concentrates outside of China is split almost equally between three major players, with a couple of smaller players that operate roasting facilities outside of China. Figure 19-16 outlines a combined historic estimate of market share of the global molybdenum roasting market.

Molymet is the largest custom roaster globally. The company is a fully custom roasting company with facilities in North America, South America, and Europe. They are the primary outlet for many miners looking to market molybdenum concentrates or to toll roast for producers and the trade into roasted molybdenum products.

Freeport Climax Molybdenum is the second largest company in terms of roasting capacity, with roasting facilities in the US and Europe. Freeport, however, is mostly integrated and supplies most of its own feed to its own roasting facilities. Freeport does make some of their excess capacity available to the market through long-term tolling arrangements.

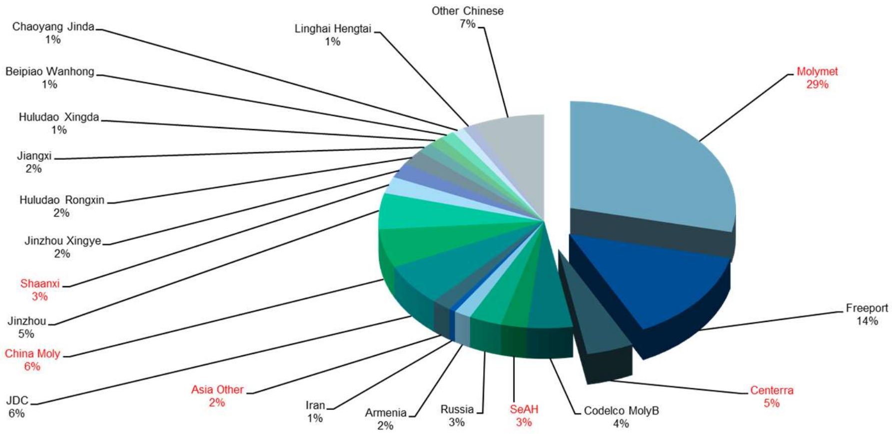
Centerra Gold, the former Thompson Creek Mining company, used to be partially integrated until they closed all of their primary mines. Centerra currently operate a fully custom roasting facility but, should molybdenum prices improve, they have idled primary mine production as well as idled roasting capacity that could be brought to the market.

The largest molybdenum roasting market is in China where almost half of the world's molybdenum concentrate is roasted and converted into several forms of molybdenum, including molybdenum oxide, molybdenum trioxide, ferro-molybdenum, and molybdenum metal. China also has the largest concentration of primary molybdenum mines in the world and for years has been relatively self-sufficient in molybdenum mine supply and demand. China's steel producers have increasingly moved down the value chain and increased their production of specialty steels for both domestic consumption and export.

19.2 Concentrate Sales

19.2.1 Marketing of Copper Concentrate

The operations are expected to produce an average of 930,204 dmt/a of copper concentrates annually with expected peak production of 1,173,906 dmt in 2026. The copper concentrate is expected to have an average copper grade of 24–29% with 45–75 g/dmt of silver and 0.4-0.7 g/dmt of gold. The concentrate is not expected to have any notable impurities with low levels of arsenic, zinc, lead, bismuth, mercury, and fluorine. Given the mine location, the copper concentrates have unincumbered access to all major custom copper concentrate markets.



Note: Figure prepared by CRU Group, 2023; SMR Steel & Metals Market Research, 2023.

Figure 19-16: Global Roasting Capacity Share By Company

19.2.2 Copper Concentrate Sales Strategy

CMTQB entered into long-term sales contracts with smelters in Asia and Europe to secure capital for development of the Quebrada Blanca Operations. These contracts will expire at the end of 2032 and account for approximately 25% of the average annual production. About 10–15% of the average annual production will be sold to smelters in Chile. The contracts with local Chilean smelters have a duration of 3–5 years but are expected to be renewed after they expire.

The remaining 60–65% of the annual copper concentrate production will be sold to Sumitomo Metal Mining Co., Ltd., and Teck Metals Ltd. (a wholly-owned Teck subsidiary) under a concentrate sales offtake contract. The tonnes purchased by Sumitomo Metal Mining Co., Ltd. will be processed at Sumitomo's smelters in Japan and China and the tonnes purchased by Teck Metals Ltd will be resold in the custom concentrate market. Given the quality of the copper concentrate, all contracts have market terms or better than market terms, inclusive of treatment and refining charges, metal payables and freight.

19.2.3 Marketing of Molybdenum Concentrate

Over the LOM, the operations are expected to produce an average of 18 Mlb/a of molybdenum as molybdenum concentrate with 1.5–2.0% copper which is higher than the typical grade of 0.5%. The concentrate is expected to contain about 350–400 g/t Rh. At these levels, the rhenium is not payable, but in certain market conditions can make the concentrate more marketable by partially offsetting the negative impact of the high copper content.

19.2.4 Molybdenum Sales Strategy

Approximately 50% of QB's molybdenum will be sold as molybdenum concentrates and the remaining 50% will be toll converted to molybdenum oxide and ferro molybdenum at molybdenum roasters in Chile and the resulting molybdenum oxide and ferro molybdenum will be sold by Teck to the end use market. For sales of molybdenum concentrates and molybdenum oxide/ferro molybdenum, the target is to have a diverse sales book with customers in all major markets. In addition to achieving best commercial returns customers will be prioritized based on their sustainability and material stewardship practices.

Of the 50% of annual production that will be sold as molybdenum concentrate, 90% is expected to be sold under long-term contracts to molybdenum roasters in Chile, North America, Europe, Thailand, China, and Korea. The remaining 10% will be sold in the spot market periodically during the year.

About 50% of the annual molybdenum production is expected to be toll converted to molybdenum oxide/ferro molybdenum at either Molymet's or Codelco's molybdenum roasters in Antofagasta region in Chile. The molybdenum oxide/ferro molybdenum will then be sold to steel mills in Brazil, North America, Europe, India, China, Taiwan, Korea, and Japan. The molybdenum oxide/ferro molybdenum is expected to be sold under annual contracts and meet regional regulatory requirements.

19.3 Metal Price Forecasts

Metal pricing that supports the Mineral Resources is provided in Section 14, and for Mineral Reserves, is included in Section 15.

19.3.1 Copper Price

The methodology for development of the base copper price forecast uses various approaches for long-term price determination. The long-term base copper forecast price is based on a weighted average approach using several specific components, with the fundamental inputs to the forecast being projection of industry supply and demand totals, along with consideration of global and country-specific economics. Cost structure and incentive prices were incorporated into the price forecast, together with industry market forecasts and historical prices.

The price forecast used in the economic analysis that supports the Mineral Reserves is US$3.25/lb.

19.3.2 Molybdenum Price

Molybdenum prices are still typically determined by negotiation between producers, trading houses, and end users, with supply and demand fundamentals in the background. Surveys are done by a number of independent publications such as Platts Metals Week, Metals Bulletin, and CRU Consulting (CRU) regarding these negotiations and the estimated transaction prices are published on a regular basis. This pricing system is fairly opaque, as the quantity and nature of the transactions used to set prices are not readily available. Molybdenum is traded in various forms, including raw molybdenum concentrates, molybdenum oxide, ferromolybdenum, ammonium molybdate, and molybdenum powders.

The increase in molybdenum price volatility over the past eight years has encouraged several attempts to establish a forward pricing market to allow industry participants to hedge their price exposure. Most of these have failed to provide the necessary liquidity to successfully trade any future positions. The launch of the London Metals Exchange (LME) contract has been seen as the longest running futures contract, but liquidity of the contract remains an issue and has not been adopted by the industry.

Teck's internal metals sales department uses the published prices from publications such as the Metals Bulletin in its contracts and negotiations with its customers. The price of future concentrate shipments would be based on the amount of molybdenum contained in the raw molybdenum concentrates. Teck also negotiates penalties, discounts, roasting charges, shipping fees, and delivery terms with each of its customers to obtain final settlement prices.

For molybdenum, there are essentially two markets for supply: these being supply from primary molybdenum producers and supply from by-product producers that produce molybdenum from copper mines. In the case of by-product producers, the cost of producing molybdenum is highly dependent on the price of copper and is less impacted by movements in the molybdenum price. Conversely, primary molybdenum producers, where molybdenum is the only source of revenue, are highly dependent on movements in molybdenum prices. For this reason, Teck looks at the 90^{th} percentile costs of the primary producers as being the point where production should be rationalized. This is then used as one of the bases for estimating future price trends. However, as most of the global primary mine production is based in China and comes from extremely small operations, it becomes difficult to estimate actual costs of production for these small producers. Therefore, other market indicators must also be considered.

Teck estimates that basis the fundamental supply/demand view molybdenum prices will remain healthy; however, this level of pricing will not be sufficient to allow for the kind of return on investment necessary to develop any significant new primary molybdenum mine production outside of China. With significant underutilized mine capacity currently off-line in the West, and with several by-product projects still not operating at full capacity or as yet undeveloped, it is unlikely that a rise in molybdenum prices in the medium term would be sustained at previous historic levels. Without a significant increase in the price of oil, which would increase underlying molybdenum demand from the oil and gas sector, molybdenum prices are likely to remain subdued over the next five years, and potentially for the remainder of the period through 2028.

The price forecast used in the economic analysis that supports the Mineral Reserves is US$9.90/lb.

19.4 Contracts

Concentrate contract assumptions are discussed in Section 19.2.

19.4.1 Freight

The Punta Patache Norte port facility will be a dedicated and modern, high- speed loading terminal capable of berthing and loading Handymax and up to Panamax- sized vessels. It is expected this would prove attractive to vessel owners and promote competition for copper concentrate transport. The primary constraints would be customer inventory and port capacity (especially in Asia). Therefore, it is expected to attract highly-competitive rate levels versus other concentrate producers in the region.

At the Project's start-up, Teck expects to arrange for spot vessels to handle the initial shipments to the marketplace, followed by multi-year contracts of affreightment (COAs) to lock in shipping terms, provide some protection from shipping cost fluctuations, and ensure the availability of quality vessels to carry the Project's product. Facilities to enable domestic shipments, either to Chilean smelters or to alternative ports for temporary storage prior to vessel loading were installed. This ensured access to market for product from the mine, while the port infrastructure is constructed, tested, and commissioned in H1 2024.

19.4.2 Other Contracts

Teck has multiple major contracts in place or under negotiation that support operations. These include contracts relating to fuel, transport, contractor mining, mine and plant maintenance, consumables and bulk commodity supply, operational and technical services, and administrative services. Contracts are negotiated and renewed as needed. Contract terms are considered to be in line with typical such contracts in Chile.

19.5 QP Comment on Item 19 "Market Studies and Contracts"

19.5.1 Markets

A market review indicates that the copper and molybdenum concentrates will be saleable.

Metallurgical tests showed commercially substantial levels of rhenium in the molybdenum concentrate. The rhenium can, at minimum, make the molybdenum concentrate more marketable.

Selected off-take agreements are in place with buyers for the mine products.

19.5.2 Commodity Pricing

Metal pricing is based on long-term price forecasts completed by Teck and external third-party consultants. The Qualified Person has reviewed the prices, the market studies and analysis completed by Teck, and is of the opinion that the results support the assumptions in this Report, and can be used in the financial analysis that supports the Mineral Reserves.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Introduction

An Environmental Impact Assessment (EIA) for QB2 was completed in 2016 and approved by the Chilean authorities in 2018 under Resolución de Calificación Ambiental (RCA) 74/2018).

20.2 Baseline and Supporting Studies

Baseline studies and monitoring included:

- Climate and meteorology;
- Air quality;
- Noise;
- Geology, geomorphology, and geological risks;
- Soil;
- Vibrations;
- Hydrology;
- Hydrogeology;
- Water quality;
- Marine water resources;
- Terrestrial ecosystems;
- Continental aquatic ecosystems;
- Marine ecosystems;
- Cultural heritage;
- Landscape;
- Protected areas and priority conservation sites;
- Natural and cultural attractions;
- Land use and relationship with planning;
- Human environment.

Areas that were sensitive to changes were identified using cause–effect matrices. Where possible, the design strategy used impact minimization practices.

20.3 Environmental Considerations and Monitoring Programs

Teck has proposed a number of measures to mitigate environmental risks to the environment and communities within the Project area of influence.

Teck has implemented monitoring plans to help ensure that relevant environmental variables subject to environmental assessment are maintained as predicted. These plans were prepared in accordance with the requirements defined in Resolución Exenta no. 223/2015 and RCA 74/2018. The monitoring plans use standard formats and cover the following key areas:

- Biodiversity (including plants, fauna, soil, and continental aquatic ecosystems);
- Cultural heritage and archaeology;
- Human environment and socio-economics;
- Human environment and anthropology;
- Air quality;
- Noise;
- Vibration;
- Water;
- Marine resources;
- Marine ecosystem biota;
- Land use and roads.

A number of territorial planning instruments were identified, including instruments established and approved by the Región de Tarapacá government, and the local governments of the communities of Pica, Pozo Almonte, Alto Hospicio, and Iquique. Specific areas covered include:

- Exploitation of the hypogene mineralization;
- Construction of waste management facilities;
- Construction of port facilities;
- Construction of the desalination plant and use of the desalinated water in production processes;
- Use of Route A-855 and construction of Bypass A-97B;
- Connection to high-voltage power lines via a substation;

- Implementation of a water management plan;
- Implementation of a voluntary early public participation process in relation to the 2016 EIA;
- Creation of working groups with specific communities;
- Local hiring.

CMTQB has also undertaken voluntary environmental commitments to contribute to the improvement of relations between the mine, neighbouring communities, and the environment. These commitments broadly cover fauna, cultural heritage, land use, and the human environment. Voluntary commitments also include co-monitoring of water quality with the surrounding communities.

The majority of the monitoring agreed to in the QB EIA (RCA 72/2016) will now be absorbed and included in the Integral Water Monitoring Plan and the Air Quality Monitoring Plan that are included in RCA 74/2018.

20.4 Closure

20.4.1 Closure Plan

Closure is subject to separate sectorial regulatory requirements, and approval of the closure plan must be obtained from Sernageomin. Closure planning covers the mine area, TMF, linear works, and the port.

Post-closure activities would be focused on maintenance, inspections, monitoring, and operation of water management systems following closure.

The QB Closure Plan was approved through Exempt Resolution No. 0027 of Sernageomin on January 10, 2020. The approved Closure Plan includes the end of the QB1 supergene ore processing and the QB2 Project with the process modification from supergene to hypogene ore.

20.4.2 Closure Costs

Closure costs are established based on a methodology approved by the government. Under that methodology a bank guarantee needs to be provided to assure those costs over a 15-year period. The monetary amount in the guarantee can be reduced during closure, based on implementation of the closure plan. The monetary value can also be reduced if partial closure activities are undertaken during the mine life.

Closure costs were estimated by a third-party consultant at $268 M based on a detailed analysis of the closure plan and commitments. The major items included are:

- Demolition of project facilities and disposal of demolished materials;
- Closure of the TMF; including stabilization of the external dam surfaces with locally borrowed coarse material;
- Diversion of waste dump surface and drainage water to the mine pit.

A post-closure cost estimate was developed using current regulatory requirements. The post-closure costs were calculated as $19 M. This estimate includes value-added tax as per the current regulations.

20.5 Permitting

20.5.1 Environmental Sectorial Permitting

There are two types of environmental sectorial permits within Chile:

- Permiso Ambiental Sectorial (sectorial environmental permit or PAS);
- Permiso Ambiental Sectorial Mixto (mixed content sectorial environmental permit or PASM).

The difference between the two sectorial permits is in the granting process, whereby environmental permits (PAS) only require a valid Resolución de Calificación Ambiental (environmental qualification resolution or RCA) because permit grant is based strictly on compliance with environmental requirements. Mixed permits (PASM), while also needing a valid RCA as a pre-requisite, are subject to additional requirements for specific technical content to be submitted as part of the application, and are subject to sectorial approval in a process that is independent from the 2016 EIA evaluation.

20.5.2 Other Sectorial Permits

After a major project has been approved by the SEIA, additional sector-specific applications to various governmental agencies and ministries are needed in order to construct or operate the proposed facilities.

Under current Chilean legal requirements, projects are subject to regulatory approvals through a global process that addresses environmental obligations, followed by sectorial requirements for which the environmental approval constitutes a pre-requisite. The first is achieved through submission of the 2016 EIA into the SEIA. Following receipt of the corresponding approval (the RCA), sectorial permits were processed.

Project permitting followed the standard process of:

- Identifying which permits will be required and the associated regulatory agency;
- Identifying the technical and administrative requirements prior to applying for the designated permit;
- Reviewing permit submissions to identify any synergies or sequencing requirements;
- Preparing applications and submitting the documentation to the applicable regulatory authority;
- Processing applications;
- Receipt of approvals and authorizations;
- Setting up documentation and administrative phases for the granted approvals;

- Ongoing monitoring.

The number of permits required was defined based on the project description included in the 2016 EIA, and the subsequent modifications of the project during construction phase. The permitting strategy followed was always dependent on Project needs, and was governed by the application preparation and processing times in relation to the development schedule.

Currently Teck has applied for 2,191 permits (96.9% of the total number of permits) and has obtained 2,125 of those. The remaining 69 permits are related to the end of construction activities, operation of the facilities that are still under construction, and some permits required for the port operations.

The permitting strategy is still aligned with the Project execution schedule.

20.6 Considerations of Social and Community Impacts

Teck has corporate policies and guidelines in place that address corporate sustainability. These define corporate expectations for sustainable conduct and sustainable development for all projects with which Teck or its subsidiaries become involved, and include:

- Providing a positive and transparent engagement environment and feedback system (including a participative environmental monitoring program) with local communities in order to obtain and maintain the social license for the expanded mining operation;
- Monitoring the effectiveness of the sustainable development plan and undertaking revisions as necessary;
- Avoiding mining operational impacts on local communities of interest where possible; and where impacts are unavoidable, seeking agreements on mitigation and compensation measures that may be required;
- Coordinating the mine's activities with those local communities potentially affected by those activities, including scheduling;
- Pursuing economic prosperity, environmental quality, and social equity within the mine's area of influence while also managing and effectively resolving conflicts that might arise between the competing goals of the mining operation and the communities of interest;
- Creating and promoting social, economic, and institutional strategic community programs designed for the enhancement and betterment of local and regional peoples, with special emphasis placed on the following vulnerable groups:
  - Indigenous peoples;
  - Children and youth;
  - Women;

    - Impoverished;

- Providing and promoting employment training for residents within the Región de Tarapacá;
- Fostering the development of and contracts with local businesses and local suppliers;
- Entering into strategic partnerships with schools, universities, non-governmental organizations, communities of interest, and local and regional governments for continuing development of and integration of the sustainable development plan for QB2 with community and regional plans;
- Establishing and maintaining programs, potentially with third-parties or partners, which are designed to promote and conserve the region's biodiversity; specifically, flora and fauna impact mitigation and compensation programs would be developed for those areas where the mine expansion is expected to have direct impacts on biodiversity;
- Introducing the sustainable development plan and its key requirements and commitments to all relevant mining operation employees, including contractors or sub-contractors that will be associated with the Project.

21 CAPITAL AND OPERATING COSTS

21.1 Introduction

Capital and operating cost information is based on the 2024 LOM plan.

Cost estimates were prepared in June 2023, and reflect detailed LOM plans which have been reviewed by site and corporate management. Costs have been calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; however, there is currently little operating performance data for QB2, and costs may change in future by an estimated ±15%.

Costs reflect productivity and resourcing assumptions for the site.

21.2 Capital Cost Estimate

The capital cost estimate includes upfront development capital for remaining spend of the initial concentrator build in 2024, as well as ongoing sustaining capital costs over the LOM until 2049.

21.2.1 Development Capital Estimate

Go-forward development capital costs as at January 1, 2024 are estimated to be between US$500 and US$700 million to complete the construction of the Quebrada Blanca Operations. Projects that are ongoing and will be completed in 2024 as part of this spend include the molybdenum plant, and the ship loader.

21.2.2 Sustaining Capital

Sustaining capital estimates include mine equipment, ongoing tailings facility spend, and other sustaining capital (e.g. plant and infrastructure), as well as capital leases (start-up mine equipment, transmission line).

21.2.2.1 Mining Capital

Mining capital estimates were developed for the LOM. Capital includes spend on major equipment (haul trucks, loading units, drills), auxiliary equipment (dozers, grades, water trucks, generators, small excavators, cable reelers, and lighting equipment), major spare parts, equipment erection costs, and geotechnical drilling.

The number of major units required over the LOM is calculated based on an estimated hours per fleet in a mine plan (a product of the productivity and tonnages). Additional units are added as needed in the mine plan, and replacements are assumed once a unit exceeds the assumed lifetime maximum hours.

Initial fleet purchases for the QB2 start-up were completed as a lease-to-own agreement. Future purchases are assumed to be made outright. Prices are based on recent expenditures or contracted expenditures. The estimated average spend over the LOM is approximately US$20 M/a (including remaining lease payments associated with start-up equipment), although this is expected to fluctuate widely with major equipment purchases and replacements.

21.2.2.2 Tailings Facility Capital

While the majority of the expenditure for the tailings facility is considered as part of operating costs, some tailings capital is required over the LOM for specific construction projects (e.g. dam walls, pipe relocations, etc.), and for geotechnical work. The average expenditure for tailings capital is <US$5 M/a.

21.2.2.3 Other Sustaining Capital

Other sustaining capital includes ongoing purchases for the concentrator and general areas. The expenditure includes construction projects for the area (e.g. road construction), plant and infrastructure upgrades, and plant asset replacements. Detailed sustaining costs for these areas are understood for the first few years of operation, however in the long-term a minimum sustaining capital cost of $60 M/a has been assumed; this number is based on benchmarks however is likely to change as the operation matures and costs are better understood. In addition to the base placeholder, the costs for the power transmission lease are also included in this category. In total the estimated cost is approximately US$80 M/a.

21.2.2.4 Capital Leases

Initial mine equipment purchases were made through a lease-to-own purchase agreement. It is expected that all of these leases will be paid off in 2028.

A second lease-to-own arrangement has been made with Transelec on the power transmission line; this lease will end in 2047.

21.2.2.5 Sustaining Capital Cost Summary

A summary of sustaining capital costs are provided in Table 21-1.

21.2.3 Closure Costs

Closure costs were provided in Section 20.4.

Table 21-1: Sustaining Capital Costs and Leases

Cost Area	LOM Average (US$$M/a)
Mine Equipment	20
Tailings	5
Concentrator	80
Total	***105***

Note: Numbers have been rounded to the nearest $5 M, and are provided on a go-forward basis. The averages are based on full years only.

21.3 Operating Cost Estimates

The operating cost estimate includes all operational activities required for the mining and processing of hypogene ore through the concentrator facilities and production of copper and molybdenum concentrates, including all services required to support these operations. The battery limits of the estimate are in-situ ore through to dewatered concentrate, loaded either onto a ship (in the case of copper concentrate) or bagged and waiting at the port (in the case of molybdenum concentrate).

Operating costs are based on a nameplate throughput rate of 143 kt/d, although throughput can go beyond this rate depending on the hardness of the material. Planned LOM rates are up to 55 Mt/a of processed ore and up to 130 Mt/a of mined tonnes.

The general scope of each operating cost operating area includes:

- Mine: costs associated with the open pit mining of ore and waste and rehandling of mined materials.
- Concentrator: costs associated with the primary crushing of ROM ore, coarse ore transport of the crushed ore to the coarse ore stockpile, coarse ore stockpile/reclaim of the coarse ore to be fed to grinding, and concentrator operations.
- TMF: costs associated with the tailings management facility, specifically the transport, water recovery and seepage systems, sand dam construction, and general operations. Includes labour.
- Port facilities and desalination plant: costs associated with port and desalination operations including the filter plant.
- Pipelines: costs associated with the majority of pipeline systems.
- General and administration: costs associated with site overheads, including costs for the operation of the integrated operating center (IOC), offices, and camp, and site management.

The operating cost estimate excludes:

- Escalation and exchange rate fluctuations;
- Exploration costs;
- Contingency for quantities or pricing;
- Import duty and taxes (not expected);
- Working capital requirements, including payables, receivables, and inventory (included in the financial analysis);
- Interest and financing charges;
- Concentrate shipping, insurance, and marketing costs; however, these costs are included in the economic analysis that supports the mineral reserves;
- Treatment and refining charges (included in the financial analysis);
- Corporate head office costs or management fees and distributed overhead for general corporate management and administration, marketing and sales, exploration, project and technical development, and other centralized corporate services;
- Closure and rehabilitation activities (included in the financial analysis).

21.3.1 Key Input Assumptions

Costs at QB2 are driven by a limited number of input assumptions for key consumables as shown in Table 21-2. Input assumptions are based on Teck's internal, long-term forecasts, or existing contracts.

Labour cost assumptions are based on existing pay bands, labour agreements, and detailed head count estimates provided by site management. Labour costs are generally in Chilean pesos. All productivity assumptions are based on a 24 hr/day cycle, 365 days a year. All equipment and labour assumptions have been modified to consider operational efficiencies, and the shifts for different crews.

Treatment and refining costs (TCRCs) have been applied to the copper and molybdenum concentrates. Charges are defined by Teck's internal marketing team and are also included in Table 21-2.

21.3.2 Mining

The annual mine operating cost is calculated using the annual mine movement (including rehandle), and productivity assumptions.

Mining costs are calculated and vary based on rock type, location (phase and bench), and destination (mill, stockpile, or waste dump), and material classification (ore versus waste). Costs are calculated by activity (loading, hauling, drilling, blasting, auxiliary, support, and engineering/administration) with associated operations and maintenance cost allocations.

Table 21-2: Key Cost Inputs

Item	Unit	LOM Average
Diesel price	US$/L	0.60
Power price	US$/MWh	100
Foreign exchange rate (CLP:US$)		770
Long Term Treatment and Refining Charges		
Copper TC	US$/ t cct	70
Copper RC	US$/lb Cu	0.075
Molybdenum Roasting Charge	% price	15%
Molybdenum Min / Max Charge	US$/lb Mo	1.30 – 1.85

Note: Averages are based on full years only

Total movement includes ore, waste, as well as rehandle. Rehandle activities do not require drilling and blasting. The maximum movement rate in the LOM is 133 Mt; however, movement varies by year depending on ore and waste tonnages, haul cycles (related to source and destination), and rock hardness.

Loading will be performed using P&H 4100XPC cable shovels, as well as front-end Caterpillar 994K loaders. The haul fleet will consist of 300 t Caterpillar 794AC automated haul trucks. Production drilling will primarily be performed using Finning and EPIROC SmartRoc drills. Auxiliary equipment will include dozers, grades, water trucks, and smaller equipment to support pit operations. Mine overheads will include mine supervision and technical services. The total average mining cost over the LOM is US$$1.90/t moved with details provided in Table 21-3.

Major cost drivers in the mine will be labour, explosives, diesel, and maintenance supplies.

21.3.3 Concentrator

The LOM assumes a nameplate concentrator capacity of 143 kt/d, with a variable throughput depending on the hardness of the ore being processed, up to a maximum rate of 55 kt/a.

Concentrator activities include crushing and grinding, floatation, molybdenum plant operations, tailings thickening, and other activities/overheads. Costs are calculated using key cost input assumptions, long-term contracts, assumed productivities, and are summarized by area in Table 21-4. Concentrator costs are impacted by annual throughput rates as there are both fixed and variable components.

The largest cost centre for concentrator operations is power, which is based on a long-term contract with AES Andes S.A. Other significant cost areas are operating supplies (e.g., grinding media, reagents, etc.), labour (operations and maintenance), maintenance supplies (e.g., replacement parts, liners, etc.), and contracts. The concentrator is expected to be the highest cost area of the QB2 operation at US$6.20/t processed.

Table 21-3: LOM Mining Costs

Area	LOM Average (US$/t moved)	LOM Average (US$M/a)
Loading	0.20	20
Hauling	0.65	70
Drilling and Blasting	0.40	40
Auxiliary / Support	0.20	20
Mine Overheads	0.45	50
Total	**1.90**	**200**
	3.65/t processed	

Note: Numbers have been rounded to the nearest US$0.05/t, US$5 M, and are provided on a go-forward basis. Averages are based on full years only.

Table 21-4: LOM Concentrator Costs

Area	LOM Average (US$/t processed)	LOM Average (US$M/a)
Crush and grind	3.85	210
Flotation	1.00	50
Molybdenum plant	0.20	10
Tails thickening	0.15	10
Other/concentrator overheads	1.00	50
Total Concentrator Cost	***6.20***	***330***

Note: Numbers have been rounded to the nearest US$0.105/t, US$5 M, and are provided on a go-forward basis. The averages are based on full years only.

21.3.4 Tailings Management Facility

Costs associated with operations of the tailings facility include the tailings transport system, seepage control system, water recovery system, sand dam raise construction, and general operations. Annual tailings costs are impacted by throughput rates.

The largest cost centres for the TMF are labour, contracts for the sand dam construction/placement, power for the water recovery and seepage control system, and replacement equipment for the water recovery system. TMF costs are largely fixed; however, they do vary from year-to-year as a result of dam expansion schedule. Costs associated with the TMF are US$1.20/t processed over the LOM.

21.3.5 Port and Desalination

The port and desalination plant are physically located on the coast and are generally combined into one cost area. Costs include the operation of the desalination facility, filter plant, load out conveyor and shiploader, and general operations at the port. Port costs are generally associated with annual throughput and concentrate production rates.

Cost drivers are labour, contracts, supplies (filter plant, concentrate storage/movement, desalination pre-treatment and reverse osmosis facilities), power for the reverse osmosis and filter plant, and costs for the use of the alternative port until 2027. Port costs are estimated at US$1.05/t milled over the LOM.

21.3.6 Pipeline

Costs associated with the pipeline systems include the concentrate transport system, make up water system, and mine site high voltage transmission and distribution system. Other pipeline costs have been allocated to either the concentrator, TMF, or G&A classification.

Large cost centers include contracts, maintenance supplies for the concentrate transport system (e.g. pumps and valves), and power for the make-up water system. Pipeline costs are estimated at US$1.00/t milled over the LOM.

21.3.7 General and Administrative

The G&A cost classification includes indirect support of the operation which fall outside of the direct operating areas of mining, concentrator, TMF, port and desalination plant, and pipeline. Costs include operation of the IOC, offices, and camp are included, site management, and overheads.

Overheads cover auxiliary groups such as supply management, finance, operational excellence, security, projects, human resources, digital systems, external affairs, health and safety, and environment.

LOM G&A costs are estimated to be US$4.10/t processed; however, this cost is expected to drop over time as the site reaches steady-state and cost rationalizations can occur. G&A costs are also expected to decrease on a per tonne basis as throughput increases, as these costs are largely fixed.

Costs which have been excluded from G&A include corporate allocations, obligations, mineral title fees, and share-based compensation.

21.3.8 Operating Cost Summary

Table 21-5 summarizes the estimated average annual operating costs for the LOM.

Table 21-5: Operating Cost Summary

Area	LOM Average (US$/t processed)	LOM Average (US$M/a)
Mine	3.65	200
Concentrator	6.20	330
TMF	1.20	60
Port	1.05	60
Pipeline	1.00	50
G&A	4.10	220
Total Operating Cost	***17.20***	***920***

Note: Numbers have been rounded to the nearest US$5 M, and are provided on a go-forward basis. The averages are based on full years only.

22 ECONOMIC ANALYSIS

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Mineral Reserve declaration is supported by overall site positive cash flows and net present value assessments.

23 ADJACENT PROPERTIES

This Section is not relevant to this Report.

24 OTHER RELEVANT DATA AND INFORMATION

This Section is not relevant to this Report.

25 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

The QPs note the following interpretations and conclusions, based on the review of data and information available for this Report.

25.2 Ownership

The Project owner is CMTQB, which is organized as a Chilean closed corporation (sociedad anónima cerrada) with two series of shares: Series A (common) and Series B (preferred). Teck's interest in Quebrada Blanca is held by QBH. Teck holds an indirect 60% interest in QBH. Sumitomo holds an indirect 30% interest in QBH. QBH holds a 90% direct interest in CMTQB (100% of the Series A shares) and ENAMI holds a 10% carried interest in CMTQB (100% of the Series B shares), which does not require ENAMI to fund capital spending.

25.3 Mineral Tenure, Surface Rights, Water Rights, and Royalties

Information from Teck's land experts supports that the mining tenure held is valid and is sufficient to support the declaration of Mineral Resources and Mineral Reserves.

About 99% of the surface lands where Project facilities are, or will be, located belongs to the State. Teck has obtained 100% of the surface rights for operations through judicial easements and State lease agreements. A land acquisition study identified several third-party mining rights concession holders within some of the areas that were required to support operations. Agreements have been concluded with those third-parties to support operations.

Teck holds a maritime concession, granted through two decrees.

Taxes payable in Chile that affect the operation include the Chilean Specific Mining Tax, which applies to operating margin based on a progressive sliding scale from 5% to 14% until 2037, when the tax stability agreement that protects CMTQB against changes in mining taxes will expire. After 2037, the new Chilean mining royalty regime that was enacted in 2023 will apply to CMTQB, which consists of a flat 1% ad-valorem component applicable to copper revenues and a profit-based component based on rates ranging from 8% to 26% applicable to progressive levels of adjusted operating profits, as that term is prescribed. The amount of the profit-based royalty is capped so that the overall effective tax rate does not exceed 46.5% as computed in reference to the sum of the ad-valorem and profit-based components of the royalty, corporate income tax and imputed dividend withholding tax in relation to adjusted operating profits. CMTQB is also subject to Chilean federal corporate income tax at 27%. There is no provision in the current mining tax code nor in the new mining royalty law for carrying mining tax losses forward.

To the extent known, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property that have not been discussed in this Report.

25.4 Geology and Mineralization

The porphyry-style mineralization at Quebrada Blanca is considered to be typical of a porphyry copper–molybdenum deposit.

The knowledge of the deposit settings, lithologies, mineralization style and setting, ore controls, and structural and alteration controls on mineralization is sufficient to support Mineral Resource and Mineral Reserve estimation.

25.5 Exploration

Exploration conducted to date has been appropriate to the porphyry copper deposit model. Work completed by Teck and predecessor companies has included surface geological mapping, pit mapping, geochemical sampling, ground magnetic and IP/resistivity geophysical surveys, airborne magnetic geophysical surveys, RC, core, and blast hole drilling, metallurgical test work, and mining studies, including scoping, pre-feasibility, and feasibility studies.

The primary hypogene mineralization remains open to the immediate east–southeast of the EOY 2023 pit boundary. The deposit remains open at depth, and to the north, south and east.

The potential for hypogene mineralization is still being investigated in the following areas: Las Arterias–Elena, West Mag Low, El Colorado Norte, and La Cruz.

25.6 Drilling and Sampling

Drilling completed to December 31, 2023 on the Quebrada Blanca Project includes 951 core drill holes (318,382 m) and 1,512 RC drill holes (204,960 m) for a total of 2,463 drill holes (523,341 m). The Mineral Resource estimate is supported by 869 core holes (282,495 m). Drilling that does not support estimation was either completed after the database cut-off date, had assay results pending as of the cut-off date, or were completed for purposes other than estimation support, such as geotechnical facilities drilling. A total of 1,333 RC drill holes (136,236 m) were used to support the estimation of supergene mineralization.

Information collected from the core and RC drilling campaigns, including geological logging, collar and down hole surveys, and core recoveries, supports the use of the data in Mineral Resource and Mineral Reserve estimation. There are no drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results known to the QP.

In general, most drill holes intersect mineralized zones at an angle, and the drill hole intercept widths reported for the Project are typically greater than the true widths of the mineralization at the drill intercept point. Drill holes are not drilled exactly perpendicular to the orientation of the mineralization (northwest), because this is the direction of the predominant northwesterly-trending structures.

Collection of the analytical and QA/QC drill data on the Project is a team effort, with assay data collected between 1977 and 2023, and QA/QC data collected after 2008. No formal site-based QA/QC programs were in place prior to 2007. As a result, the core drilling prior to 2007 was evaluated using a combination of re-assay and check assay programs in 2002 and 2011. Repeated duplicate sampling of drill core has indicated that there are lower levels of sampling precision for molybdenum when duplicate sampling results are reviewed. This has been attributed to the nugget and veinlet mineralization style of the molybdenite. Overall, the sampling, sample preparation, assay and density data for the drill programs used are suitable to support Mineral Resource and Mineral Reserve estimation.

25.7 Data Verification

Site visits were completed. The QPs individually reviewed the information in their areas of expertise, and concluded that the information supported Mineral Resource and Mineral Reserve estimation, and could be used in mine planning and in the economic analysis that supports the Mineral Reserve estimates.

25.8 Metallurgical Testwork

A series of metallurgical testwork programs have been conducted by Teck's third-party consultants throughout the Project's development history. The majority of the testwork was performed by independent metallurgical testwork facilities.

Work completed included: mineralogical examination; comminution testwork; flotation testwork (rougher, open cycle, locked cycle) that included flowsheet development, pilot plant campaigns, variability testing, and copper–molybdenum separation testwork; pilot plant testing; and variability testwork. Supplemental work conducted during these programs included testwork by vendors on process materials produced during pilot plant operation, to establish and validate equipment sizing criteria (concentrate regrind; bulk concentrate and copper concentrate thickening; concentrate filtration; transportable moisture limit; tailings thickening).

The metallurgical testwork completed at the Report effective date is based on 412 samples that adequately represent the variability within the proposed mine plan.

Results from the flotation test programs supported the development of metallurgical projections for concentrate grades and metal recoveries

No elements are present at penalty levels in the copper concentrates. Silver credits are expected, and are included in the financial model at an average grade of 47.8 g/t Ag, which is well above the payable value of 30 g/t Ag in the concentrate. Gold is not present at payable levels.

The average copper grade in the molybdenum concentrates is 1.4% Cu. Copper grades >1% Cu are expected to impact the molybdenum concentrate payment structure. No additional penalty elements are expected. The rhenium content of the molybdenum concentrate would, at minimum, make the molybdenum concentrate more marketable, and is also considered to be a Project upside opportunity.

25.9 Mineral Resource Estimates

The geological features interpreted to support the Mineral Resource estimate are lithology, mineral type, and structural domains. Modelling considered sub-block proportions for the structural model, oxidation zones and lithology. The assigned block model density values were based on average density measurements for mineralization and lithology domains.

A 4 m composite length was selected. No direct grade capping was done; the extended influence of the high-grade outlier composites was restricted in the kriging plans where necessary using an "influence area" methodology.

Total copper, molybdenum, silver, gold, and sulphur were estimated into the model using OK. The kriging parameters applied to the estimates were customised for each parameter and within each domain, based on the results of an iterative estimation, validation, and update process. Estimation was undertaken into parent cells and applied to the sub-cells in order to maintain uniform discretization and volume representativity for each estimate. A four-or five-pass estimation approach was used for the metal estimates. Where estimates could not be made within the first three OK pass criteria, values were interpolated using simple kriging.

Estimates were validated using a combination of visual validation, statistical evaluations, and swath plots. The block model validation process showed that the model does an acceptable job of matching the source data.

The resource classification methodology is based on drill spacing. The confidence classifications used for hypogene mineralization were based on core drill holes only. Classifications used for supergene material were based on a combination of RC and core drilling.

The evaluation of reasonable prospects of eventual economic extraction assumes a conventional open pit mining method.

The Mineral Resource estimate is reported exclusive of those Mineral Resources that have been converted to Mineral Reserves, and uses the 2014 CIM Definition Standards. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Mineral Resources have an effective date of December 31, 2023, and are reported insitu, or in stockpiles, on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

Factors which may affect the Mineral Resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the NSR cut-off; changes in local interpretations of mineralization geometry and continuity of mineralized zones; density and domain assignments; changes to geotechnical, mining and metallurgical recovery assumptions; changes to input and design parameter assumptions that pertain to the conceptual Whittle pit design constraining the estimate; and assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environmental and other regulatory permits, and maintain the social licence to operate.

25.10 Mineral Reserve Estimates

Mineral Reserves were modified from Measured and Indicated Mineral Resources based on open pit mining. Inferred Mineral Resources were set to waste.

The size of the open pit and the production rate for LOM planning purposes are controlled by the storage capacity of the TMF, which is in turn affected by site-specific constraints. Pit designs focused on initial mining phases with low mining rates that allowed rapid access to higher value mineral material. Successive mine pit expansions occupy successively new areas, and the corresponding mining ratios gradually increase, allowing sufficient time to increase the mining fleet to meet increasing production demands while keeping the mill feed head grade as constant as possible. Any potential impacts to ore feed that might arise due to ore loss or dilution were not considered material, and no provisions for ore loss or dilution were included in the mine plan.

The estimated Mineral Reserves are reported using metal prices of $3.25/lb Cu and $9.90/lb Mo, and a variable grade cut-off approach based on NSR values that average US$23.80/t milled over the planned LOM.

Proven and Probable Mineral Reserves are reported using the 2014 CIM Definition Standards. Mineral Reserves have an effective date of December 31, 2023 and are reported at the point of delivery to the process plant. Mineral Reserves are reported on a 100% basis. Teck has an indirect 60% Project ownership, Sumitomo a 30% interest, and ENAMI a 10% interest.

Factors which may affect the Mineral Reserve estimates include: commodity price assumptions; changes to the input parameters to the NSR cut-off grade; changes to the input parameters to the constraining pit shell, and the mine plan that is based on that pit shell; changes to metallurgical recovery assumptions; changes to the assumed permitting and regulatory environment under which the mine plan was developed; ability to maintain mining permits and/or surface rights; and ability to maintain social and environmental license to operate.

25.11 Mining Methods

The mining operations use conventional open pit mining methods and conventional equipment, including an autonomous haulage fleet.

The pit was subdivided into geotechnical zones, each with different design inter-ramp slope angles. Designs incorporated single and double bench considerations.

Pumping wells would need to be implemented over the course of about five years to manage pit dewatering. After this period, wells would be replaced on an as-needed basis. A horizontal drill hole campaign would be required on a two-yearly basis for specific pit wall pore depressurization purposes.

The detailed phased mine designs used the same geological, geotechnical, and metallurgical models as used in the pit shell development process. The pit shells were used to identify the logical pushback sequences for the detailed design, starting in the center–west zone of the pit and subsequently extending east and expanding outwardly. The location of the primary crusher at the western edge of the pit will generally allow for dual access on both the northern and southern pit walls. The inclusion of dual access will enable greater operational flexibility and reduce the risk of any operational disruption that could arise in the unlikely event of an access point becoming inaccessible.

The tailings storage restriction causes cut-off grade optimization and stockpile capacity to become two of the key drivers of the value generated in mine planning.

Two WRSFs and three stockpiles are included in the mine plan. The stockpiles and WRSFs re located to the southeast and southwest of the pit. Care was taken to ensure a suitable offset was maintained such that a potential pit pushback could be implemented with minimal interaction from WRSFs or stockpiles in close proximity to the pit crest. Additionally, the area to the east of the pit was excluded as the mineralization is currently still open in this direction.

The mine has a planned 27-year mine life, to 2050, and seven pit phases will be mined. The first seven years have the highest copper production, due to the higher copper grade material that is planned to be processed in those years. A total of 1,215 Mt of ore will feed the mill from the mine, 294 Mt of ore will be sent to the low- and high-grade stockpiles, 323 Mt of material will be sent to the marginal stockpile, and 594 Mt of waste rock will be mined as part of the production plan. The average stripping ratio is expected to be 0.61.

25.12 Recovery Methods

The process plant design is based on metallurgical testwork, and operating experience gained with QB1.

The process is conventional. It consists of primary crushing, coarse ore conveying, a coarse ore stockpile, and coarse ore reclaim from the stockpile, before the ore proceeds to ore grinding, pebble crushing, bulk flotation, copper–molybdenum separation, concentrate thickening, and reagent facilities.

25.13 Infrastructure

Infrastructure to support operations is spread over three areas, at the mine site (4,300 masl elevation), at the TMF site (3,900 masl elevation), located about 7 km south of the concentrator site), and at the port site.

The mine plan requires significant supporting infrastructure, including an overhead high-voltage electric power transmission line, a concentrate pipeline system to the port, a tailings transport system to the TMF, reclaim water pipeline system from the TMF, a desalinated makeup water pipeline system, and access roads.

25.14 Market Studies and Contracts

Teck reviewed market studies by two third-party consultants, Wood Mackenzie (copper) and CRU Group (molybdenum). These studies provided support that there is a market for the copper and molybdenum concentrates.

CMTQB entered into long-term sales contracts, which expire in 2032, with smelters in Asia and Europe to secure capital for QB2 development. The remaining 60–65% of the annual copper concentrate production will be sold to Sumitomo Metal Mining Co., Ltd., and Teck Metals Ltd. The tonnes purchased by Teck Metals Ltd will be resold in the custom concentrate market. Given the quality of the concentrates, all contracts have market terms or better than market terms inclusive of treatment and refining charges, metal payables, and freight.

A total of 50% of the molybdenum will be sold as molybdenum concentrates and the remaining 50% will be toll converted to molybdenum oxide and ferro molybdenum at molybdenum roasters in Chile. The resulting molybdenum oxide and ferro molybdenum products will be sold to the end use market.

25.15 Environmental, Permitting and Social Considerations

The EIA for QB2 was approved by the Chilean authorities in 2018. A number of baseline and monitoring studies were performed in support of the EIA documentation.

Teck has proposed a number of measures to mitigate environmental risks to the environment and communities within the Project area of influence. Teck will employ monitoring plans to help ensure that relevant environmental variables subject to environmental assessment are maintained as predicted.

The majority of the permits in support of operations are in place. The remaining 69 permits of the 2,191 permits required for operations that have not yet been procured are related to the end of construction activities, operation of the facilities that are still under construction, and some permits required for the port operations. The permitting strategy is still aligned with the Project execution schedule.

Closure costs are established based on a methodology approved by the government. Closure costs were estimated by a third-party consultant at $268 M based on a detailed analysis of the closure plan and commitments. A post-closure cost estimate was developed using current regulatory requirements. The post-closure costs were calculated as $19 M. This estimate includes value-added tax as per the current regulations.

The Quebrada Blanca Operations subscribe to Teck's corporate policies and guidelines for corporate sustainability, which define the corporate expectations for sustainable conduct and sustainable development for all projects with which Teck or its subsidiaries become involved.

25.16 Capital Cost Estimates

Capital cost information is based on the 2024 LOM plan. Costs have been calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; there is currently little operating performance data on QB, and costs may change in future by an estimated ±15%. Costs reflect productivity and resourcing assumptions for the site.

Capital cost estimates include upfront development capital for remaining spend of the initial concentrator build in 2024, as well as ongoing sustaining capital costs over the LOM until 2049. Go-forward development capital costs as of 2024 are estimated to be between US$500 and US$700 million to complete Project construction. Sustaining capital estimates include mine equipment, ongoing tailings facility spend, and other sustaining capital (e.g. plant and infrastructure), as well as capital leases (start-up mine equipment, transmission line).

Sustaining capital costs are estimated at an average total US$105 M/a, including an average US$20 M/a for mining equipment, US$5 M/a for tailings, and US$80 M/a for the concentrator.

25.17 Operating Cost Estimates

Operating cost information is based on the 2024 LOM plan. Costs have been calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; there is currently little operating performance data on QB, and costs may change in future by an estimated ±15%. Costs reflect productivity and resourcing assumptions for the site.

The operating cost estimate includes all operational activities required for the mining and processing of hypogene ore through the concentrator facilities and production of copper and molybdenum concentrates, including all services required to support these operations. The battery limits of the estimate are in-situ ore through to dewatered concentrate, loaded either onto a ship (in the case of copper concentrate) or bagged and waiting at the port (in the case of molybdenum concentrate).

Operating costs were estimated at an average US$920 M/a or US$17.20/t processed.

25.18 Economic Analysis

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Mineral Reserve declaration is supported by overall site positive cash flows and net present value assessments.

25.19 Risks and Opportunities

25.19.1 Risks

Risks that may affect the Mineral Resource and Mineral Reserve estimates are provided in Section 14.15 and Section 15.9, respectively.

The capital and operating cost estimates were calculated by referencing historical information, where available, benchmark analysis, contract rates, and best estimates; however, there is currently little operating performance data for QB2, and costs may change in future by an estimated ±15%. This may affect the capital and operating cost estimates as presented in this Report, and the underlying cashflow that supports the Mineral Reserve estimates.

25.19.2 Opportunities

There is upside potential for the Project if the mineralization currently classified as Inferred can be upgraded with additional drilling and mining study support.

Metallurgical tests showed commercially substantial levels of rhenium in the molybdenum concentrate; however, there is no established basis for a rhenium payment structure in molybdenum concentrate. Therefore, rhenium is considered only as an opportunity. Rhenium can, at a minimum, make the molybdenum concentrate more marketable.

25.20 Conclusions

Under the assumptions in this Report, the Mineral Reserve declaration is supported by overall site positive cash flows and net present value assessments, which support Mineral Reserves. The mine plan is achievable under the set of assumptions and parameters used.

26 RECOMMENDATIONS

26.1 Introduction

Recommendations are provided as a single phase work program. All recommendations can be conducted concurrently and are not dependent on the outcomes of another recommendation. The recommended budget to complete the work is about C$25 M.

26.2 Recommendations

The following recommendations are made:

- Complete the implementation of orebody knowledge technologies to equip the operation for optimizing operational decision making. Such technologies could include: blast hole scanning (BlastDog); machine learning structural characterization; generation of a high-resolution un unconfined compressive strength model to provide support for geotechnical, and drill and blast decisions; trials of hyperspectral bench scanning; and blast-hole sampling studies. While a portion of this work can be completed in-house, a budget allocation of about C$0.20–0.25 M is recommended to support the programs;
- Implement a reconciliation system that will support the tracking of the long- and medium-term resource model forecasts. This work can be completed in-house as part of normal activities;
- Execute an advanced infill drilling program to support medium-term production forecasting capabilities. This would involve using the existing blast drill rigs during non-production spare time to drill areas where the spatial variability is not sufficiently characterized. About 24,000 m/a of drilling is suggested. The initial program is estimated at about C$0.75 M to provide adequate variability data, with a subsequent sustaining budget of C$0.2 M/a once that program is completed;
- Execute long range infill drilling to gather technical information to support potential expansions and permitting requirements. This is likely to require about 14,000 m/a of drilling, to gather sufficient material to allow metallurgical testwork, collection of geotechnical data, additional data for waste rock facility characterization, and to support geotechnical data for potential pit expansions. The budget estimate to complete is approximately C$24 M;
- Complete supporting mining studies in support of potential mine life extension and throughput expansion scenarios.
- Re-evaluate estimated operating and capital costs on an ongoing basis, as operational information becomes available.

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