La Colorada Operations,
Sonora, Mexico,
NI 43-101 Technical Report

Prepared for:
Heliostar Metals Ltd.

Prepared by:
Mr. Todd Wakefield, RM SME, Mine Technical Services
Mr. David Thomas, P.Geo., Mine Technical Services
Mr. Jeffrey Choquette, P.E., Hard Rock Consulting
Mr. Carl Defilippi, RM SME, Kappes Cassiday and Associates
Ms. Dawn Garcia, CPG, Stantec

Effective Date:

3 December, 2024

CERTIFICATE OF QUALIFIED PERSON

I, Todd Wakefield, RM SME, am employed as the Manager and Principal Geologist, with Mine Technical Services Ltd., with a street address at 4110 Twin Falls Drive, Reno, NV, 89511.

This certificate applies to the technical report titled "La Colorada Operations, Sonora, Mexico, NI 43-101 Technical Report" that has an effective date of 3 December, 2024 (the "technical report").

I am a Registered Member (RM) of the Society of Mining, Metallurgy, and Exploration (SME), registration number 4028798. I graduated from the University of Redlands with a Bachelor of Science degree in Geology in 1986, the Colorado School of Mines with a Master of Science degree in Geology in 1989, and the University of Alberta with a Citation in Applied Geostatistics in 2019.

I have practiced my profession continuously since 1987. I have been directly involved in gold and base metal exploration and mining projects in the United States, Venezuela, Indonesia, Perú, and Mexico, and I have been involved in the evaluation of data quality, geologic modeling, resource modeling, and estimation for gold, base metal, and industrial mineral projects in North and South America, and the Asia Pacific.

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 most recently visited the La Colorada Operations on 20 November, 2024, a duration of one day.

I am responsible for Sections 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8.1, 1.8.2, 1.24 (exploration); Sections 2.1, 2.2, 2.3, 2.4.1, 2.6, 2.7; Sections 3.1, 3.2; Section 4, Section 5; Section 6; Section 7; Section 8; Section 9; Section 10; Section 11; Sections 12.1, 12.2, 12.3, 12.4.1; Section 23; Sections 25.1, 25.2, 25.3, 25.4; Section 26.1 (exploration only), 26.2; and Section 27 of the technical report.

I am independent of Heliostar Metals Ltd. as independence is described by Section 1.5 of NI 43–101.

I have been involved with the La Colorada Operations since 2021 during compilation of a technical report on that project.

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: 13 January 2025

“Signed”

Todd Wakefield, RM SME.

CERTIFICATE OF QUALIFIED PERSON

I, David Thomas, P.Geo. am employed as an Associate Mineral Resource Estimator with Mine Technical Services Ltd., with a street address at 4110 Twin Falls Drive, Reno, NV, 89511.

This certificate applies to the technical report titled “La Colorada Operations, Sonora, Mexico, NI 43-101 Technical Report” that has an effective date of 3 December, 2024 (the “technical report”).

I am a member of the Engineers and Geoscientists of British Columbia (EGBC Licence # 149114). I am also a member of the Australasian Institute of Mining and Metallurgy (MAusIMM # 225250).

I graduated from Durham University, in the United Kingdom, with a Bachelor of Science degree in Geology in 1993, and I was awarded a Master of Science degree in Mineral Exploration from Imperial College, University of London, in the United Kingdom in 1995

I have practiced my profession for over 31 years since graduation. I have been directly involved in the review of exploration programs, geological models, exploration data, sampling, sample preparation, quality assurance/quality control, databases, and Mineral Resource estimates for a variety of mineral deposits, including epithermal vein deposits. I have worked in Argentina, Australia, Brazil, Bulgaria, Canada, Chile, Colombia, Ecuador, Greece, México, Peru, Romania, Serbia, and the USA.

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 most recently visited the La Colorada Operations on 20 November 2024, a duration of one day.

I am responsible for Sections 1.1, 1.2, 1.8.2, 1.10, 1.11, 1.22.1.1, 1.22.2.1; Sections 2.1, 2.2, 2.3, 2.4.2, 2.5, 2.6; Sections 3.1, 3.1; Section 12.4.2; Section 14; Sections 25.1, 25.6, 25.16.1.1, 25.16.2.1; and Section 27 of the technical report.

I am independent of Heliostar Metals Ltd. as independence is described by Section 1.5 of NI 43–101.

I have had no previous involvement with the La Colorada Operations.

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: 13 January 2025.

"Signed and sealed"

David Thomas, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

I, Jeffrey Choquette, P.E., am employed as a Principal Engineer with Hard Rock Consulting LLC, with an office address at 13918 E Mississippi Ave, Suite 474, Aurora, CO 80012.

This certificate applies to the technical report titled "La Colorada Operations, Sonora, Mexico, NI 43-101 Technical Report" that has an effective date of 3 December, 2024 (the "technical report").

I am a Registered Professional Engineer in the State of Montana (No. 12265) and a QP Member in Mining and Ore Reserves in good standing of the Mining and Metallurgical Society of America (No. 01425QP).

I am a graduate of Montana College of Mineral Science and Technology and received a Bachelor of Science degree in Mining Engineering in 1995.

I have 29-plus years of domestic and international experience in project development, resource and reserve modeling, mine operations, mine engineering, project evaluation, and financial analysis. I have worked for mining and exploration companies for 15 years and as a consulting engineer for 14 years. I have been involved in industrial minerals, base metals and precious metal mining projects in the United States, Canada, Mexico and South America.

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 most recently visited the La Colorada Operations on 20 November 2024, a duration of one day.

I am responsible for Sections 1.1, 1.2, 1.8.2, 1.12, 1.13, 1.14, 1.16, 1.18, 1.19 (excepting process costs), 1.20 (excepting process costs), 1.21, 1.22.1.2, 1.23; Sections 2.1, 2.2, 2.3, 2.4.3, 2.5, 2.6; Section 3; Section 12.4.3; Section 15; Section 16; Section 18 (excepting 18.9); Section 19; Section 21 (excepting process costs); Section 22; Section 24; Sections 25.1, 25.7, 25.8, 25.10, 25.12, 25.13 (excepting process costs), 25.14 (excepting process costs), 25.15, 25.16.1.2, 25.17; and Section 27 of the technical report.

I am independent of Heliostar Metals Ltd. as independence is described by Section 1.5 of NI 43–101.

I have had no previous involvement with the La Colorada Operations.

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: 13 January 2025

“Signed and sealed”

Jeffrey Choquette, P.E.

CERTIFICATE OF QUALIFIED PERSON

I, Carl Defilippi, RM SME am employed as a Project Manager at Kappes, Cassiday & Associates, with an office at 7950 Security Circle, Reno, NV, 89506.

This certificate applies to the technical report titled "La Colorada Operations, Sonora, Mexico, NI 43-101 Technical Report" that has an effective date of 3 December, 2024 (the "technical report").

I am a Registered Member of the Society for Mining, Metallurgy & Exploration (RM SME) with a membership number of 775870. I graduated from the University of Nevada with a Bachelor of Science degree in Chemical Engineering in 1978 and a Master of Science degree in Metallurgical Engineering in 1981.

I have practiced my profession continuously for 43 years. I have been directly involved in the development of gold-silver leaching projects and have successfully managed studies at all levels on numerous cyanidation projects.

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 most recently visited the La Colorada Operations on 20 November 2024, a duration of one day.

I am responsible for Sections 1.1, 1.2, 1.8.2, 1.9, 1.15, 1.16 (power only), 1.19 (process costs only), 1.20 (process costs only), 1.22.1.3, 1.22.2.2, 1.24 (process only); Sections 2.1, 2.2, 2.3, 2.4.4, 2.6; Sections 3.1, 3.2; Section 12.4.4; Section 13; Section 17; Section 18.9; Section 21 (process costs only); Sections 25.1, 25.5, 25.9, 25.10 (power only), 25.13 (process costs only), 25.14 (process costs only), 25.16.1.3, 25.16.2.2; Sections 26.1 (process only), 26.3; and Section 27 of the technical report.

I am independent of Heliostar Metals Ltd. as independence is described by Section 1.5 of NI 43–101.

I have been involved with the La Colorada Operations since 2011. I have previously co-authored the following technical report on the La Colorada Operations:

- Arkell, B., Carron, J., and Defilippi, C., 2021: La Colorada Gold/Silver Mine, Sonora, Mexico, NI 43-101 Technical Report: report prepared for Argonaut Gold Inc., effective date 1 October, 2021;

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: 13 January 2025

"Signed"

Carl Defilippi, RM SME

CERTIFICATE OF QUALIFIED PERSON

DAWN H. GARCIA

I, Dawn H. Garcia, state that:

(a) I am a Senior Associate at:
Stantec Consulting Services Inc.
One South Church Avenue, Suite 2100
Tucson, Arizona, USA

(b) This certificate applies to the technical report titled “La Colorada Operations, Sonora, Mexico, NI 43-101 Technical Report” with an effective date of 3 December (the “Technical Report”).

(c) I am a “qualified person” for the purposes of National Instrument 43-101 (“NI 43-101”). My qualifications as a qualified person are as follows: I am a graduate of Bradley University with a bachelor’s degree in Geological Sciences in 1982 and a graduate of California State University, Long Beach, with a master’s degree in Geology in 1995. I am a licensed Professional Geologist in Arizona (License No. 26034) and am certified as a Professional Geologist (CPG) with the American Institute of Professional Geologists (Membership Number 08313). I am also a registered member of the Society for Mining, Metallurgy & Exploration (Membership No. 4135993). I have practiced my profession as an environmental geologist and hydrogeologist for over 35 years. I have over 20 years of experience in the mining industry. My relevant experience for the purpose of this Technical Report is:
- Acted as the Qualified Person for the Environmental, Permitting and Social section for 18 public disclosure technical reports and more than 20 detailed environmental and permitting reviews.
- Conducted environmental, socio-economic, or water-related tasks for over 50 mineral development, mineral processing, and mining operations.

(d) My most recent personal inspection of the La Colorada Operations occurred on 9 September 2024 and was for a duration of one day.

(e) I am responsible for Sections 1.1, 1.2, 1.17, 1.24 (environmental only), 2.1, 2.2, 2.3, 2.4.5, 3.1, 3.2, 12.4.5, 20, 25.1, 25.11, 26.1 (environmental only), 26.4, and 27 of the Technical Report.

(f) I am independent of the issuer as described in Section 1.5 of NI 43-101.

(g) I have previous involvement with the property that is the subject of the Technical Report. I visited the La Colorada Gran Central open pit in 2019 and prepared a technical memorandum with recommendations for closure planning. I have not been involved in any previous Technical Report.

(h) I have read NI 43-101 and the part of the Technical Report for which I am responsible has been prepared in compliance with NI 43-101; and

(i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Tucson, Arizona, USA this 13th day of January 2025.

Dawn H. Garcia, PG, CPG

IMPORTANT NOTICE

This report was prepared as National Instrument 43-101 Technical Report for Heliostar Metals Limited (Heliostar) by Mine Technical Services Ltd., Hard Rock Consulting LLC, Kappes, Cassiday & Associates, and Stantec Consulting Services Inc. (collectively the Report Authors). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in the Report Author's services, based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Heliostar, subject to terms and conditions of its contracts with each of the Report Authors. Except for the purposes legislated under Canadian provincial and territorial securities law, any other uses of this report by any third party is at that party's sole risk.

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1.0 SUMMARY

1.1 Introduction

Mr. Todd Wakefield, RM SME, Mr. David Thomas, P.Geo., Mr. Jeffrey Choquette, P.E., Mr. Carl Defilippi, RM SME, and Ms. Dawn Garcia, CPG, prepared this technical report (the Report) for Heliostar Metals Ltd. on the La Colorada Operations (also referred to as the La Colorada Mine or the Project), located in Sonora State, Mexico.

The La Colorada Mine is owned and operated by Minera Pitalla, S.A. de C.V. (Minera Pitalla), which is a wholly-owned Heliostar subsidiary.

Heliostar announced notice of the acquisition of the Project on July 17, 2024, from Florida Canyon Gold Inc., an interim successor to the former operator Argonaut Gold Inc. (Argonaut), and completed the acquisition on November 8, 2024.

1.2 Terms of Reference

The Report was prepared to support Heliostar's news release dated 13 January 2025 entitled "Heliostar Files Technical Reports on Mines and Development Project Recently Acquired in Mexico".

Mineral Resources and Mineral Reserves are reported for El Crestón, Veta Madre, and the La Chatarrera waste rock storage facility (WRSF). La Chatarrera has been referred to as the "Junkyard Stockpile" in some of Heliostar's public disclosures, as the area was formerly used to store broken-down mining equipment. This Report uses the Spanish name, La Chatarrera, rather than Junkyard Stockpile.

Mineral Resources are classified using the 2014 edition of the Canadian Institute of Mining and Metallurgy (CIM) Definition Standards for Mineral Resources and Mineral Reserves (the 2014 CIM Definition Standards). All measurement units used in this Report are metric unless otherwise stated, and currency is expressed in United States (US) dollars unless stated otherwise. The Mexican currency is the Mexican peso. The Report uses Canadian English.

1.3 Project Setting

The village of La Colorada and the La Colorada Mine are located 45 km southeast of the city of Hermosillo, in the State of Sonora, Mexico. Access from Hermosillo to the Project area is via paved Highway 16, which continues east to the town of Yécora and the city of Chihuahua.

A port facility is located approximately 140 km south of the Project and rail is available in Hermosillo. Hermosillo has an international airport, and there are daily flights to Hermosillo from Mexico City and Phoenix.

The Project lies within the Sonora Desert climatic region. Mining operations are conducted year-round.

The city of Hermosillo has a large supply of skilled and unskilled labor, together with most supplies and contractors for construction and operations. Equipment and reagents can be sourced through several major cities in the U.S., the closest of which is through Nogales, Arizona, 177 miles north of Hermosillo via Federal Highway 15. The local resources and infrastructure are adequate to support the current mining operation.

Elevations at La Colorada range between 400 masl and 650 masl. The area around the current operation is characterized by relatively subdued topographic relief. Vegetation consists of extensive mesquite and paloverde trees, cactus, and sparse grass cover.

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

The La Colorada Mine is 100% owned by Compañía Minera Pitalla S.A. de C.V. (Minera Pitalla), a wholly-owned Heliostar subsidiary. The La Colorada Project consists of 42 mineral titles (concessions) covering approximately 10,085 ha in four blocks that are separated by land held by third parties.

Heliostar's concessions are valid in full force and effect. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area, though no known mineralization or Mineral Reserves occur within the concession boundary. Heliostar is legally entitled to right-of-way to strip this waste, and was working on finalizing the agreement at the effective date of this Report.

The mining operations and the Mineral Resource and Mineral Reserve estimates presented in this Report are located within the Project mineral concessions. As per Mexican requirements for grant of tenure, the concessions were surveyed on the ground by a licensed surveyor. All applicable payments and reports were submitted to the relevant authorities, and the licenses were in good standing as at the Report effective date.

Heliostar holds the surface rights and legal access to 1,447 ha of the concession package. Of this total Heliostar holds title to 1,398 ha and has Temporary Occupation of one parcel of 49 ha.

The Project maintains water rights totaling 170,467 m^3/year from two underground aquifers. In addition, Heliostar is authorized to use 450,000 m^3/year from water stored in inactive open pits within the La Colorada Project. Authorization from CONAGUA is pending for the transfer of 100,000 m^3 of additional water rights.

that had been purchased by Argonaut

All mining concessions at the La Colorada Mine are owned 100% by Minera Pitalla. There are no royalties for the La Colorada concession package. Under the Federal Ley de Derechos there is a mining duty that functions in a similar manner to an income tax, where the government collects 8.5% of taxable earnings before interest and depreciation. In addition, precious metal mining companies must pay a 1% duty on revenues from gold, silver, and platinum.

1.5 Geology and Mineralization

The La Colorada deposit is an atypical gold–silver deposit located in the centre of Sonora. It is not similar to the typical epithermal systems of the Sierra Madre Occidental, with a marked northwest control and lesser northeast-trending structures. The deposit type is not well constrained and a number of deposit types have been suggested. The El Crestón deposit appears to be situated between possible deeper copper porphyry mineralization and a near-surface epithermal environment.

Tectonically, the Project is located at the boundary between the Sonoran Basin and Range Province and the Sierra Madre Occidental Province. Intrusive rocks are contiguous with a broad batholithic belt extending along the western margin of North America. West-directed folding and thrust faulting occurred during the Late Cretaceous Laramide Orogeny. Basin-and-range faulting followed in the Tertiary and constitutes the dominant structural event in the area.

The La Colorada area is locally covered by mid-Cambrian to lower Ordovician quartzites, marbles, carboniferous limestones, and sandstones. In addition, the district hosts Triassic oligomictic conglomerate, limestones, shales, and a turbiditic sedimentary sequence of the Porfuna Basin formed by an alternation of shales, carbonaceous shales, flint horizons and an upper body of massive quartzites several metres thick. Upper Cretaceous volcanic tuffs range in composition from andesite to rhyolite. The older units are intruded by Paleocene to Oligocene age intrusive rocks that include granite, granodiorite, diorite, and andesitic porphyry. Tertiary rocks overlie the earlier units, consisting of continental conglomerates and sandstones interbedded with basaltic to andesitic volcanic rocks. These rocks are overlain by the Late Miocene Lista Blanca Formation comprising bimodal volcanism of rhyolitic tuff and andesite. The youngest Tertiary unit is an extension-related olivine basalt flow unit.

The El Crestón veins constitute the largest vein system on the La Colorada Project. Mineralization is approximately 1,000 m along strike, 250 m wide, and 250 m in vertical extent. Mineralization remains open along strike of the veins and to the north and south and at depth. Mineralization is hosted by a system of veins and hydrothermal breccias having grey to green microcrystalline quartz, white crystalline, or banded drusy quartz. Occasionally barite and magnetite are identified. Sulphides identified include galena, sphalerite, pyrite, and traces of chalcopyrite. Gold occurs in quartz as electrum containing 70–75% gold and 25–30% silver. Silver-rich mineralization is associated with polymetallic veinlets of galena, sphalerite, argentite, and occasionally traces of chalcopyrite.

Veta Madre is located 1.5 km east of the El Crestón open pit. Mineralization is approximately 500 m along strike, 200 m wide, and 200 m in vertical extent. Argonaut drill programs have determined that a down-faulted, and generally higher-grade, portion of the vein system continues a significant distance to the west. Mineralization remains open to the west down-plunge at depth and to the east near the surface. Veta Madre is characterized by the presence of breccias and multi-stage quartz veins, developing crustiform textures, banding, and blade textures. Veta Madre is mostly in an advanced state of oxidation, with occasional fresh pyrite and traces of galena and sphalerite observed. The mineralization is mainly associated with quartz veining that occurs in multiple stages, followed by the formation of hematite after the oxidation of sulphides. Occasionally barite and magnetite are identified. Gold occurs in quartz as electrum containing 70–75% gold and 25–30% silver. Silver-rich mineralization is associated with polymetallic veinlets of galena, sphalerite, argentite, and occasionally traces of chalcopyrite.

Material in the Eldorado WRSFs requires re-investigation for potential as heap leach feed material. Within the ultimate pit design at El Crestón, large areas are modeled as unmineralized material because those areas have not been drilled. Although the 2024 drill program is targeting some of this material, additional drilling is warranted. The oxide mineralized zones within the El Crestón pit remain open at depth. Mining and ore control in all three pits indicate that there are mineralized zones that remain open at depth. Argonaut internally evaluated the potential for underground mining operations below the open pits, and Heliostar plans to explore this opportunity. The mineralized zone at Veta Madre remains open to the east and west, and at depth and down plunge. Many of the main mineralized corridors exploited by the La Colorada/Gran Central, El Crestón, and Veta Madre pits remain poorly tested along strike. Historical rock and soil sampling campaigns in the areas surrounding the La Colorada mine have defined a number of prospects and targets that remain either undrilled or minimally drill tested. The northern portion of the land package has not been systematically explored.

1.6 History

Prior to Heliostar's acquisition of the Project, the following companies had completed exploration or mining activities: Crestón-Colorado Company, Pan American Company, London Exploration Company, Mines Company of America, Minerales de Sotula S.A. de C.V., Industrias Peñoles, S.A.B. de C.V., Cia. Minera Las Cuevas S.A. de C.V., HRC Development Corp and Rotor International S.A., Explorations Eldorado, S.A. de C.V. (Eldorado), Grupo Minero FG S.A.de C.V., Pediment Gold Corp. (Pediment Gold), and Argonaut. Work completed included geological mapping, surface geochemical sampling (rock, soil), geophysical programs (controlled source audio-frequency magnetotelluric, induced polarization), trenching, core and reverse circulation (RC) drilling, metallurgical testwork including pilot heap leach tests, mining and technical studies, Mineral Resource and Mineral Reserve estimates, and environmental and social studies. Open pit mining was conducted at the La Colorada, El Crestón, and Veta Madre deposits.

Since notice of the acquisition by Heliostar in July 2024, a drilling program at the La Chatarrera WRSF was completed in October 2024 and a drilling campaign initiated in October 2024 at El Crestón that remains in progress at the Report effective date.

1.7 Drilling and Sampling

Heliostar, Argonaut, Pediment Gold, and Eldorado conducted drill programs from the 1980s to 2024. Drilling totals 1,977 holes for 250,057.47 m, consisting of 1,655 RC drill holes (196,245.83 m) and 322 core holes (53,811.64 m). Drilling used in estimation consisted of 1,049 holes for 140,414.84 m, comprising 890 RC drill holes (108,522.84 m) and 159 core holes

(31,892.00 m). A total of 56 Eldorado RC drill holes from the El Crestón deposit area were excluded from resource estimation because they showed signs of downhole contamination.

No records regarding the logging methods used for the Eldorado drill holes remain. Pediment Gold geologists logged RC cuttings concurrently with drilling using a hand lens and binocular field microscope. The Pediment Gold RC holes were logged for lithology, structure, mineralization, alteration, oxidation, mineralogy, recovery, chip size, and contamination. During Argonaut programs, RC cuttings were logged concurrently with drilling using a hand lens and binocular field microscope. The Argonaut RC holes were logged for lithology, structure, alteration, oxidation, and mineralogy. Heliostar RC drill holes at La Chatarrera were logged for lithology at the La Colorada core logging facility using a special set of codes for the materials encountered in drilling the WRSF (e.g. WD for waste dump, AL for alluvium, and TP for tailings). The presence of moisture was also logged.

Argonaut core was routinely delivered to a logging facility where Argonaut geologists inspected the core and recorded core recovery and rock quality designation (RQD) data. The Argonaut core holes were logged for lithology, alteration, mineralization, oxidation, and structure, and core was photographed.

No records regarding sample recovery for the Eldorado drill holes remain. Pediment Gold and Argonaut core drill holes were consistently logged for recovery and rock quality designation (RQD); however, these data were not consistently captured in the drill hole database. RC drill holes were not logged for recovery, but sample weights were recorded prior to shipping samples to the assay laboratory for sample preparation and analysis. Sample recovery was not determined for the Heliostar RC drill holes at La Chatarrera.

No records regarding the collar surveying methods used remain for the Eldorado programs. Later programs had drill hole collars located using differential GPS (DGPS) instruments.

No records regarding the downhole surveying methods used remain for the Eldorado or Pediment Gold programs. Later programs either used a Reflex single shot camera, or a north-seeking gyro instrument.

In the QP's opinion the quantity and quality of the lithological, geotechnical, collar, and downhole survey data collected in the exploration and infill drill programs are sufficient to support Mineral Resource estimation.

No records regarding the sampling methods used remain for the Eldorado or Pediment Gold programs. Argonaut RC samples were collected every 5 ft (1.52 m). Argonaut core samples typically ranged from 1–2 m in length, and half-core was submitted for assay. Heliostar RC samples were collected in 1.52 m (5 ft) intervals.

Argonaut performed density testwork in 2011, 2012, and 2023, measuring 75 samples from Veta Madre and 144 samples from El Crestón. As part of their geotechnical stability analysis completed in 2023, Call & Nicholas determined bulk density on 69, 15 cm HQ diameter whole core samples from El Crestón. Heliostar conducted a density sampling program of seven surface exposures of historic tailings material in the La Chatarrera WRSF area.

The laboratory used by Eldorado is unknown. From 2008 until 2015, Pediment Gold and Argonaut used the Inspectorate laboratory in Hermosillo, Mexico (Inspectorate Hermosillo, now Bureau Veritas) for sample preparation. Analysis was completed at the Inspectorate laboratory in Reno, Nevada (Inspectorate Reno). The laboratories were and are independent of Argonaut, Pediment Gold, and Heliostar. Both laboratories are currently ISO/IEC 17025 certified. Prior to 2015, Inspectorate was not an ISO certified laboratory. Beginning in 2016, Argonaut used ALS Chemex Laboratories in Hermosillo (ALS Hermosillo) for sample preparation. Analysis was completed at the ALS facilities in Vancouver, Canada (ALS Vancouver). The laboratories were and are independent of Argonaut, Pediment Gold, and Heliostar. Both laboratories are currently ISO/IEC 17025 certified. Heliostar used the La Colorada assay laboratory located at the mine for sample preparation and analysis of the La Chatarrera RC samples. The laboratory is not independent of Heliostar and the laboratory is not certified by any international standards organizations.

Samples prepared by Inspectorate were dried, crushed to 80% <2 mm or better, split using a Jones riffle splitter until up to 250 g sample remained, and pulverized to 85% passing 200 mesh (75 µm) or better at Inspectorate Hermosillo. RC samples prepared at the La Colorada laboratory were crushed to 85% passing 10 mesh and riffle split to produce a 200 g subsample that was pulverized to 85% passing 200 mesh.

Argonaut pulps were sent from Inspectorate Hermosillo to Inspectorate Reno, where gold and silver were determined by fire assay of a 50 g subsample using atomic absorption spectrometry (AAS) finish. Thirty additional elements were determined by aqua regia digestion of a subsample and read by inductively coupled plasma atomic emission spectrometry (ICP-AES). At ALS Vancouver, gold was assayed by fire assay of a 30 g subsample with AAS finish (ALS method code Au-AA23). Samples reporting > 10 ppm were re-assayed by fire assay followed by gravimetric finish (ALS method code Au-GRA21). Silver was determined by aqua regia digestion of a 1–5 g pulp followed by ICP-AES finish (ALS method code ME-ICP41). At the La Colorada laboratory, gold and silver were determined by conventional fire assay on a 30 g subsample. Silver was finished by gravimetry and gold was finished by AAS following acid dissolution of the doré bead. The lower detection limit of the gold method is 0.02 g/t Au and samples reporting >10 g/t Au were re-assayed by fire assay followed by gravimetric finish. The lower detection limit of the silver method is 1.0 g/t Ag.

Argonaut inserted various control samples (standards, blanks, and duplicates) into the sample stream sent to commercial laboratories. Heliostar inserted standards, blanks, and field duplicates into the batches of La Chatarrera RC samples sent to the La Colorada laboratory for analysis.

All Argonaut drill and surface samples were stored and secured in the on-site offices prior to shipment to the sample preparation and analytical laboratories. Heliostar RC drill samples were transported directly from the drill rig to the core logging facility, organized into batches, and transported to the La Colorada laboratory for sample preparation and analysis.

The QP is of the opinion that the sample preparation, sample security, and analytical procedures undertaken by Argonaut and Heliostar for the La Colorada Project are acceptable. The QA/QC procedures and subsequent results demonstrate that the drill hole data are reasonable and suitable for estimating Mineral Resources.

1.8 Data Verification

1.8.1 Internal Verification

A system of macros within Excel were developed by Argonaut to check for quality on a range of items including drill hole identification numbers, maximum drill hole depth, sample interval overlapping, sample identification numbers, control sample insertions, collar location, and survey information. Heliostar data validation includes automatic validation of sample numbers and analytical methods in received analytical certificates in GeoSequel.

Over the Project history, a number of third parties have completed data verification in support of technical reports and mining studies. The QPs reviewed the findings of, and information in, these reports and studies as part of their data verification steps.

1.8.2 Verification by Qualified Persons

The Qualified Persons performed site visits in support of Report compilation and data verification. 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 economic analysis.

1.9 Metallurgical Testwork

Operations at La Colorada were re-started in 2012 and metallurgical testwork has been conducted from 2011 to 2023. Extensive metallurgical studies were conducted by KCA over the period from 2011–2012 on test composites from different deposit areas from the La Colorada Project. These metallurgical studies included bottle roll testwork followed by column leach tests over a range of crush sizes and included agglomeration and permeability studies. These earlier tests were the basis for Argonaut to re-start operations and add a crushing/stacking circuit and expand the existing recovery plant.

In 2021, Argonaut conducted in-house metallurgical testwork on material from El Crestón and Veta Madre. Site production column tests were also conducted monthly.

All the test results support the realized gold recovery of 69.8% as of the end of October 2024 and the assumed endpoint recovery of 70.9% of the gold stacked to date. Realized silver recovery is 10.7% and the assumed silver recovery is 14.5%.

In 2021, Argonaut conducted in-house metallurgical testwork on material from El Crestón and Veta Madre. Laboratorio Technologico de Metallurgia (Laboratorio Technologico) S.A. de C.V. conducted a metallurgical testing program on core samples from El Crestón in 2023. Laboratorio

Technologico is an ISO 9001 laboratory located in Hermosillo, Sonora, Mexico. Oversite and review of the program was conducted by Rodrigo Carneiro of RCarneiro Mineral Engineering & Consulting (RCMEC). Estimated gold recoveries for future ore to be processed from the Veta Madre and El Crestón pits are 68% and 78%, respectively. Silver recoveries are estimated to be 5% and 19%.

Coarse bottle roll tests on samples from the Chatarrera WRSF were completed at the site laboratory. Column leach tests are currently being conducted by the site laboratory on surface samples from the WRSF. Preliminary results indicate gold recoveries of 66% and silver recoveries of 27%.

Testwork indicates that there may be elevated copper levels in deeper parts of the El Crestón pit which led to higher cyanide consumptions in Laboratorio Technologico's testing results. Additional work is required. The potential higher copper levels do not appear to affect gold recovery.

There are no other deleterious elements that adversely affect either mining or processing.

Reagent requirements for Veta Madre and La Chatarrera are relatively low while cyanide requirements for El Crestón are considered to be moderate to high.

1.10 Mineral Resource Estimation

Mineral Resources were estimated for three separate mineralized zones (El Crestón, Veta Madre, and La Chatarrera) at the La Colorada Project. The El Crestón block model was estimated by Argonaut staff in May 2023. The Veta Madre block model was estimated by Argonaut staff in October 2024. A detailed review of each block model was performed by the QP.

1.10.1 El Crestón

Lithological units modelled included overburden, intrusive rocks, and sedimentary rocks; and the wireframes were used to code the block model. A 0.1 g/t Au grade envelope was developed by Argonaut technical staff to sub-divide the deposit into mineralized and non-mineralized populations. The mineralized wireframes represent a series of northerly dipping mineralized structures. The mineralized wireframes were sub-divided into three domains (north, south and central) with the north and south domains further sub-divided based on changes in the strike and dip of the mineralized structures.

Capping limits were chosen based on breaks in the probability distribution of grade. In addition, the influence of higher-grades (outlier restriction) was restricted with parameters selected based on mine production reconciliation. The QP notes that the amount of metal removed by capping is high (17–29%); however, this is consistent with the erratic nature of the gold distribution. The average assay sample length was approximately 1.8 m long with many of the RC intervals being 1.52 m (5 ft) or 2 m long. The capped drill hole intervals were composited into 6 m long fixed length composites without honoring the grade shell envelopes. The grade shell boundary was not honored to avoid the potential bias (over-estimating grade, under-estimating tonnes) associated with the use of a grade shell and a hard boundary. The composite length was selected to reduce the number of original data intervals being split and to conform to the bench height that will be mined.

A bulk density of 2.69 g/cm^3 was assigned to all bedrock (intrusive and sedimentary rocks) material in the block model. Alluvium and backfill materials were assigned a bulk density of 2.00 g/cm^3.

Block grades were interpolated by structural domain both inside and outside of the 0.1 g/t Au mineralized interpretation. The percentage of each block within the 0.1 g/t Au envelope was stored in each block.

For each case, a multi-pass ordinary kriging (OK) estimation method was used. The mineralized block estimate was accomplished using only drill hole composites located inside of the gold grade interpretation; likewise, for the non-mineralized blocks the estimate was accomplished using only drill hole composites located outside of the gold grade interpretation. For blocks on the contact of the mineralized interpretation, final block gold and silver grades were calculated by weighting the mineralized and non-mineralized block percentages and estimated mineralized and non-mineralized block grades. Where drill density is higher, the first pass served to localize and preserve the highest grades with a higher restricted grade, fewer composites and a smaller search distance. Subsequent passes used more composites and larger search ellipses. The directions of variogram anisotropy formed the basis for the orientation of the search ellipsoids and the variogram ranges formed the basis for the search distances.

The El Crestón block model was validated using visual inspection, comparison of nearest-neighbor estimates with the kriged estimate, and comparison with the mine production blasthole block model. No material biases with the estimate were noted.

Mineral Resources were classified using a drill spacing study:

- Indicated: 45 m drill spacing;
- Inferred: all blocks not classified as Indicated.

Mineral Resources are constrained within a conceptual open pit shell that used the following input parameters: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; rock mining cost of US$2.66/t mined; backfill mining cost of US$2.0/t mined; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 79%; silver metallurgical recovery of 13%; and pit slope angles from 35–51º. Mineral Resources are reported at a gold equivalent (AuEq) cut-off grade of 0.14 g/t AuEq, using the equation AuEq = (Au + Ag/equivalency factor), where the equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)), resulting in a Au:Ag ratio of 1:502.51.

1.10.2 Veta Madre

A geological model was constructed by creating wireframes, based on geologic logging and pit wall surface mapping, for each of the geologic units and known faults which resulted in four domains (two lithologies and two gold grade shell mineralization wireframes). A cut-off grade of 0.1 g/t Au was used to construct the gold mineralization wireframes. Mineralization is primarily hosted in volcanic rocks in the Upper Zone (Domain 3) and is hosted in intrusive diorite and granites in the Lower Zone (Domain 8). The Upper Zone is offset to the southeast of the Upper Zone by a low-angle fault (dipping to the west) along the contact between the volcanic and intrusive host rocks.

Gold and silver assay grades were capped at 7 g/t and 40 g/t, respectively and were composited into nominal 5 m length composites using the gold grade shell domains to split the composites. The composite length was selected to reduce the number of original data intervals being split and to conform to the bench height that will be mined.

Average bulk density values were assigned by lithology in the block model. Rhyolite porphyry was assigned a value of 2.64 g/cm^3, mineralized intrusive rocks, 2.51 g/cm^3, and unmineralized intrusive rocks, 2.65 g/cm^3.

Gold and silver grades were interpolated using OK methods. Blocks with centroids falling within the 0.1 g/t gold grade shell were coded. The coded blocks were estimated using OK methods and estimation was restricted to using only drill hole composites contained inside the gold wireframe. A three-pass interpolation plan was used with successively longer search distances for each pass. Gold and silver block grades were estimated using the same search ellipse dimensions, search directions, and number of composites. An outlier restriction method was used to cap high grade gold composites used in estimation to 3 g/t Au where the distance from the block centroid was greater than 50% of the maximum search ellipse dimension.

The Veta Madre block model was validated using visual inspection, comparison of nearest-neighbor estimates with the kriged estimate, and comparison with the mine production blasthole block model. No material biases with the estimate were noted.

Blocks were classified as Indicated if three drill holes were within 35 m. All other blocks were classified as Inferred.

Mineral Resources are constrained within a conceptual open pit shell that used the following input parameters: Mineral Resources are constrained by a conceptual pit shell using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 72%; silver metallurgical recovery of 9.0%; and pit slope angles from 46–51º. Mineral Resources are reported at a gold equivalent (AuEq) cut-off grade of 0.15 g/t AuEq, using the equation AuEq = (Au + Ag/equivalency factor), where the equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)), resulting in a Au:Ag ratio of 1:661.54.

1.10.3 La Chatarrera

The area contains low-grade mineralized material dumped by previous operators, primarily Eldorado. There is also a layer of higher-grade tailings material from the older underground operations underneath the WRSF. The La Chatarrera three-dimensional model consists of layers representing topography during time periods representing the ground surface at the start of material dumping by Eldorado, the start of dumping by Argonaut, and the current topography. The WRSF material covers an area of approximately 400 m in an east–west direction and 280 m in a north–south direction. The Argonaut WRSF material generally forms a thin skin of approximately 1 m in thickness on the southern slope of the facility. In the remainder of the WRSF, the Argonaut material averages 10–15 m in thickness. The Eldorado material averages 25 m in thickness on the slopes of the facility and averages 50 m in thickness in the central part of the WRSF. The underlying tailings material is about 5–10 m thick. Wireframe solids were created by intersecting the surfaces to produce cut volumes from the difference in surface elevations.

Grades were capped at varying values, depending on the source of the material, ranging from 1.10–2.50 g/t Au and 35–105 g/t Ag. Assays were composited into 3 m lengths broken on changes in the assay layer codes.

A bulk density of 1.5 g/cm^3 was used for the Mineral Resource estimate.

An inverse distance (squared) weighting method (IDW2) was used to estimate gold and silver grades in the block model. A dynamic unfolding routine was used to mimic the curved shape of the Argonaut material (draping over the Eldorado material) and the layering of mineralization within the Eldorado layer. The search ellipse major and intermediate axes were oriented in the plane of the surface representing the trend in the orientation of the mineralization. The minor axis was oriented perpendicular to the surface. A large number of composites were used to provide smoothed estimates in the blocks. No, or very little, grade control or mining selectivity is envisaged during mining. Outlier restriction was used to control the over-projection of composites with grades significantly higher than the mean grade of each layer.

The La Chatarrera block model was validated using visual inspection, comparison of nearest-neighbor estimates with the IDW2 estimate, and swath plots. No material biases with the estimate were noted.

A Monte Carlo bootstrap was completed on the mean grade of each WRSF layer. This supported classifying the Argonaut layer as Indicated, using an approximate 50 m drill spacing. There is insufficient metallurgical testwork on the tailings material to have confidence in the metallurgical recovery, so this layer was classified as Inferred.

The material is in a stockpile. Mineral Resources are reported using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; a stockpile rehandle cost of US$1.30/t mined; crushing and conveying cost of US$1.72/t processed; process and leaching cost of US$3.10/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 66%; and a silver metallurgical recovery of 27%. Mineral Resources are reported at a gold equivalent cut-off of 0.17 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)) resulting in a Au:Ag ratio of 1:202.14.

1.11 Mineral Resource Statement

Mineral Resources are reported insitu (El Crestón, Veta Madre) or in stockpiles (La Chatarrera), using the 2014 CIM Definition Standards, and are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The effective date for the estimates is October 31, 2024.

The Qualified Person for the estimate is Mr. David Thomas, P.Geo., Associate Mineral Resource Estimator with Mine Technical Services.

Mineral Resources for El Crestón are summarized in Table 1-1, reported inside a conceptual pit using a 0.14 g/t AuEq cut-off grade. Mineral Resources for Veta Madre are summarized in Table 1-2, reported inside a conceptual pit using a 0.15 g/t AuEq cut-off grade. Mineral Resources for La Chatarrera are summarized in Table 1-3, and reported as a stockpile using a 0.17 g/t AuEq cut-off grade.

Areas of uncertainty that may materially impact the Mineral Resource estimate include: changes to the long-term gold and silver prices and exchange rates; changes in interpretation of mineralization geometry and continuity of mineralization zones; changes to design parameter assumptions that pertain to the conceptual pit design that constrains the Mineral Resources; modifications to geotechnical parameters and mining recovery assumptions; changes to metallurgical recovery assumptions; changes to environmental, permitting, and social license assumptions; and the ability to obtain or maintain land access agreements, including specifically for the Pima 3 concession at Veta Madre.

1.12 Mineral Reserves Estimation

1.12.1 El Crestón and Veta Madre

The El Crestón deposit was mined from 2018–2022 with three open pit phases. A fourth phase is planned and has been split into two laybacks to spread out the stripping requirements. The Veta Madre deposit was mined from 2020–2023, with three open pit phases. A fourth phase is planned; however, to mine Phase 4, Heliostar must acquire access to a small parcel of private land and acquire the Pima 3 concession or a right-of-way to strip waste on the Pima 3 concession. Heliostar has a plan and timeline in place to obtain both the surface access and the legal right-of-way to the Pima 3 area and the QP considers it a reasonable expectation that both will be obtained within the required timeframe.

The El Crestón pit slopes follow recommendations provided by Call & Nicholas Inc. (Call and Nicholas). The Veta Madre pit slopes follow recommendations provided by A-Geommining.

Table 1-1: El Crestón Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	12,393	0.91	11.94	364	4,758
Inferred	202	0.70	6.07	5	39

Notes to accompany El Crestón Mineral Resource table:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, and have an effective date of 31 October 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are constrained by a conceptual pit shell using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; rock mining cost of US$2.66/t mined; backfill mining cost of US$2.0/t mined; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 79%; silver metallurgical recovery of 13%; and pit slope angles from 22º (pad), 35–42º (pit).
5. Mineral Resources are reported at a gold equivalent cut-off of 0.14 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)). This results in a Au:Ag ratio of 1:502.51.
6. Totals may not sum due to rounding.

Table 1-2: Veta Madre Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	2,724	0.73	3.5	64	309
Inferred	77	0.53	2.5	1	6

Notes to accompany Veta Madre Mineral Resource table:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, and have an effective date of 31 October, 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are constrained by a conceptual pit shell using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; mining rock costs of US$2.55/t mined; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 72%; silver metallurgical recovery 9.0%; and pit slope angles averaging 45º.
5. Mineral Resources are reported at a gold equivalent cut-off of 0.15 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)). This results in in a Au:Ag ratio of 1:661.54.
6. Totals may not sum due to rounding.

Table 1-3: La Chatarrera Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	3,504	0.20	6.8	23	763
Inferred	1,220	0.41	33.29	16	1,305

Notes to accompany La Chatarrera Mineral Resource table:

1. Mineral Resources are reported in stockpiles, using the 2014 CIM Definition Standards, and have an effective date of 31 October, 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are reported using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; a stockpile rehandle cost of US$1.30/t mined; crushing and conveying cost of US$1.72/t processed; process and leaching cost of US$3.10/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 66%; and a silver metallurgical recovery of 27%.
5. Mineral Resources are reported at a gold equivalent cut-off of 0.17 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)). This results in a Au:Ag ratio of 1:202.14.
6. Totals may not sum due to rounding.

Mineral Resources for the deposits were evaluated using a Lerchs–Grossmann (L–G) pit optimizer to generate optimized pit shells. Pit shells were generated based on varying metal prices with a base gold price of US$1,900/ oz and a US$23/oz silver price, and a June 2024 topographic surface.

Mineral Reserve estimates at El Crestón used a 0.16 g/t AuEg cut-off inside the final El Crestón pit design. The Mineral Reserve for Veta Madre is reported using a 0.175 g/t AuEg cut-off inside the final Veta Madre pit design. The cut-off grades include consideration of estimated plant operating costs, all general and administrative costs, and refining and selling costs during pit operations. For the Mineral Reserves the gold:silver equivalency factor results in a Au:Ag ratio of 1:502 for El Crestón and 1:660 for Veta Madre.

Gold equivalency grades were calculated using the following equation:

- AuEq = (Au + Ag/equivalency factor)

Where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).

1.12.2 La Chatarrera

Mineral Reserve estimates for La Chatarrera assume that mineralization from the Argonaut dumping phase will be hauled to the waste backfill in the Gran Central pit. The mineralization that will be sent to the leach pad represents material sent to the WRSF by Eldorado, which underlies the Argonaut material. The tailings layer at the bottom of the WRSF is also not included in the

Mineral Reserves and a 0.5-m layer of Eldorado material covering the tailings surface is planned to be left in place.

The Mineral Reserves are reported above a 0.164 g/t AuEq cut-off. The cut-off grade includes consideration of estimated metallurgical recoveries, estimated plant operating costs, all general and administrative costs, and refining and selling costs during operations. For the Mineral Reserves the gold:silver equivalency factor results in a Au:Ag ratio of 1:202.

1.13 Mineral Reserves Statement

The Mineral Reserve estimates are reported using the 2014 CIM Definition Standards. The QP for the estimate is Mr. Jeffrey Choquette P.E., of Hard Rock Consulting.

The Mineral Reserves have an effective date of November 30, 2024, with the point of delivery being the crusher.

The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report. Heliostar will also need to obtain access to a small wedge of private land for surface access. The Probable Mineral Reserves potentially affected in Phase 4 are estimated at 1.9 Mt at an average grade of 0.70 g/t Au and 3.1 g/t Ag.

Other areas of uncertainty that may materially impact the Mineral Reserves include the following: variations in the forecast commodity price; variations to the assumptions used in the constraining L–G pit shells, including mining loss/dilution, metallurgical recoveries, geotechnical assumptions including pit slope angles, and operating costs; variations in assumptions as to permitting, environmental, and social license to operate.

1.14 Mining Methods

Call & Nicholas defined six geotechnical design sectors based on rock type, modeled faults, and wall orientation, which were used in the pit design for El Crestón. A-Geommining defined four geotechnical design sectors for Veta Madre.

Both the El Crestón and Veta Madre pits have intercepted the ground water table at the current depths. The use of in-pit sumps and pumps are used to collect and remove the water from the open pit to permit continuous operations. As mining progresses the anticipated pit dewatering rates are not anticipated to rise significantly but will most likely increase from current pumping rates. El Crestón is planned to be excavated approximately 100 m deeper than the current depth and Veta Madre is planned to be excavated 42 m deeper.

Table 1-4: Mineral Reserves Statement

Classification	Zone	AuEq Cut-off (g/t)	Tonnes (kt)	Gold Grade (g/t Au)	Silver Grade (g/t Ag)	Contained Gold (koz)	Contained Silver (koz)
Probable	El Crestón	0.160	12,841	0.76	10.1	312	4,181
	Veta Madre	0.175	1,905	0.70	3.1	43	189
	La Chatarrera	0.164	3,413	0.20	6.4	22	704
	Total		***18,159***	***0.65***	***8.69***	***377***	***5,074***

Notes to accompany Mineral Reserves table:

1. Mineral Reserves are reported at the point of delivery to the process plant, using the 2014 CIM Definition Standards.
2. Mineral Reserves have an effective date of 30 November 2024. The Qualified Person for the estimate is Mr. Jeffrey Choquette, P.E., of Hard Rock Consulting.
3. A 0.16 g/t AuEq cut-off is used for reporting the Mineral Reserves at El Crestón, and a 0.175 g/t AuEq cut-off is used for reporting Mineral Reserves at Veta Madre. Cut-offs were calculated based on a gold price of US$1,900/oz Au, silver price of US$23/oz Ag, processing costs of US$5.87/t, general and administrative costs of US$1.15/t, refining and selling costs of US$0.66/t, gold recovery of 79% for El Crestón and 72% for Veta Madre and a silver recovery of 13% for El Crestón and 9% for Veta Madre. The AuEq cut-off for La Chatarrera is 0.164 g/t AuEq based on metal prices of US$1,900/oz Au, and US$23/oz Ag, processing costs of US$4.82/t, general and administrative costs of US$1.15/t, refining and selling costs of US$0.66/t, gold recovery of 66% and a silver recovery of 27%. The AuEq calculation uses the formula AuEq = (Au + Ag/equivalency factor) where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).
4. Mineral Reserves are reported within the ultimate reserve pit design. An external dilution factor of 10% and a metal loss of 5% were factored into the Mineral Reserves estimates.
5. Tonnage and grade estimates are in metric units.
6. Mineral Reserve tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.

The final El Crestón pit design was limited to a US$1,900/oz AuEq pit shell. The pit slopes were designed by geotechnical sector into two phases. The first phase targets higher-grade ore on the north side of the deposit. The Veta Madre pit was also limited to a US$1,900/oz AuEq pit shell, and based on the geotechnical recommendations, will be mined as a single phase.

Haul roads are designed at a width of 25 m, which provides a safe truck width to running surface width ratio of 1:3 with an additional 5 m for a berm and a drainage ditch. Maximum grade of the haul roads is 10%, except for the lower benches where the grade is increased to 12%, and the ramp width is narrowed to 15 m to minimize excessive waste stripping.

The Mineral Resource estimates for El Crestón and Veta Madre are considered to be internally diluted by compositing and the application of a percent dilution along the ore domains for the portion of the block that falls outside of the ore domains. However, based on past reconciliation reports the QP has also applied a 10% external dilution factor and a 5% metal loss factor in the Mineral Reserve estimates.

The cut design for the La Chatarrera material includes mining all of the Eldorado dump material but leaving a 0.5 m layer as a buffer above the tailings material that occurs in a layer at the base of the WRSF. Although the tailings material is mineralized, it is classified as waste for the current Mineral Reserve plan until more information is gathered on the potential metallurgical recoveries and processing of the tailings. The Argonaut layer that is on the top of the Eldorado material is below cut-off, is treated as waste in the mine schedule, and will be hauled to the Gran Central waste backfill facility.

Production of mineralized material from La Chatarrera and the open pits are driven by the nominal ore crusher capacity rate of 12,000 t/d, which is equivalent to 4.38 Mt/a, and results in a mine life of approximately 5.5 years with the inclusion of the two years of pre-production during which time the La Chatarrera material is processed.

During the mining of open pit ore, the peak mineralized material and waste production is capped at 40 Mt/a, with an overall average production rate of 78,000 t/d. The average life of mine (LOM) stripping ratio is estimated to be 7.3:1 with 132 Mt of waste and 18.1 Mt of ore.

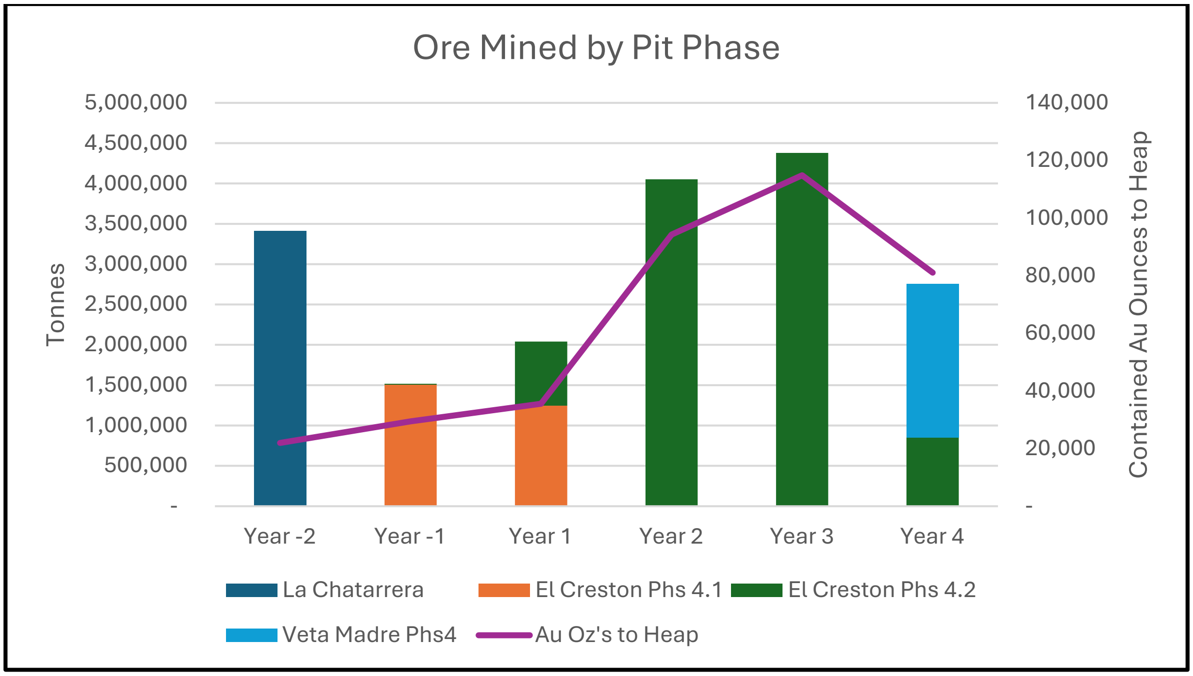
La Chatarrera is planned to be mined and processed during Year -2 of the pre-production period. The waste stripping for El Crestón Phase 4.1 is scheduled to begin in month eight of Year -2 and El Crestón Phase 4.2 is schedule to begin in Year 1. The mining of Veta Madre will be towards the end of the LOM plan with stripping in Year 3 and mining completed in Year 4. The heap leach pads will receive 3.9 Mt from La Chatarrera, 12.8 Mt from El Crestón and 1.9 Mt from Veta Madre (Figure 1-1).

1.15 Recovery Methods

La Colorada processed approximately 12,000 t/d of crushed (P80 9.5 mm) ore stacked onto a conventional single use leach pad until November 2023 when mining ceased. Leaching and gold/silver recovery has continued. Lime was added to the ore at an average rate of 4.6 kg/t the last year or so of operation for pH control. Dilute sodium cyanide leach solutions are treated with a single gravity cascade carbon column train of five columns with 6 t of carbon each. Loaded carbon is acid washed and stripped onsite with a standard pressure-Zadra desorption and electro-winning circuit. Carbon is regenerated every third pass. There is also a separate, nearly identical, stripping circuit that was used to process carbon from Heliostar's San Agustin and El Castillo Mines, both of which were on care and maintenance at the Report effective date. All metals were smelted on site at the La Colorada Mine, and poured into doré bars for shipment.

Overall, with respect to gold recovery, reagents usage, and stated gold inventory estimates, the La Colorada heap leach has performed consistently in line with expectations based upon metallurgical testwork and is well within industry norms and benchmarks for similar types of operations.

Figure 1-1: Ore Mined by Pit Phase



Note: Figure prepared by Hard Rock Consulting, 2024.

1.16 Project Infrastructure

All infrastructure required to support the LOM plan is in place, and includes:

- El Crestón and Veta Madre open pits;
- Gran Central Infill and Veta Madre North waste rock storage facilities;
- crusher stockpiles;
- Heap leach pad;
- Built infrastructure: administration building, assay and metallurgical laboratory, warehouse, crushers and conveyors, heap leach process facilities, precious metals smelter, crusher maintenance shop with field supervisor's offices, maintenance shop for auxiliary equipment, lunch room, change room, guard house;
- Fuel delivery and storage systems;
- Powerline;
- First-aid clinic;

- Raw water system;
- Sewage treatment systems.

Mining operations are conducted by a contractor. The contractor has the following facilities:

- 100 t truck shop that has overhead cranes and welding bay;
- Tire shop;
- Warehouse;
- Cafeteria;
- Offices;
- Long-term parking;
- Hazardous waste storage.

The only planned stockpile for the LOM plan is the crusher stockpile which will be used to balance consistent ore feed to the crusher.

Two WRSFs are planned. The Gran Central infill WRSF will receive all of the waste from La Chatarrera and the El Crestón pit. This facility has a design capacity of 145 Mt with 111 Mt scheduled to be placed in the WRSF over the LOM plan. The Veta Madre North WRSF will receive all of the waste from Veta Madre and has a capacity of 24.5 Mt. The LOM plan includes 15.5 Mt of waste to be delivered to this facility. There is sufficient capacity in the WRSFs for LOM planning purposes.

Water for operations comes from in-pit water and from wells. Any water taken from open pit operations, either in the form of groundwater or surface run-off, can be used without a special permit. The Project has permits for up to 360,000 m^3 of raw water on a yearly basis which is valid through the remaining mine life.

The La Colorada Mine is a zero-discharge operation, using lined process water ponds and ditches to convey cyanide solutions to and from the heap leach pads. Stormwater is managed through facility-specific diversion ditches, as necessary.

There is no camp site at the La Colorada Mine; all employees and contractors either live off-site in nearby towns or in Hermosillo.

The operations have a dedicated 33 KV power line and 10 MVA substation, with power supplied by the large state-owned electric company, Comisión Federal de Electricidad (CFE). No upgrade to the power infrastructure is required and the current supply will support the proposed LOM plan.

1.17 Environmental, Permitting and Social Considerations

1.17.1 Environmental Considerations

Environmental baseline data collection started at La Colorada to support environmental impact assessment applications that Minera Pitalla needed to permit the resumption of existing operations in 2012, and the expansion of the open pits, crusher, heap leach facilities, and waste rock disposal areas the following year. The most recent environmental impact assessment was for the Phase 1 expansion of the Veta Madre open pit, which was authorized by the Mexican environmental authority in December 2020. The environmental baseline studies included fauna, flora, water, and air quality. The existing mining operations and proposed Veta Madre Phase 2 expansion area are not within any federal zones under environmental protection. Minera Pitalla carries out routine monitoring twice annually and is required to prepare summary reports for the environmental authority.

Key monitoring areas include fauna, flora, soils, surface water and groundwater. Minera Pitalla also conducts voluntary PM_{10} monitoring weekly in three locations in the Town of La Colorada. There are currently no known environmental issues that could materially impact Minera Pitalla's ability to extract the Mineral Resources or Mineral Reserves. The site water quality data suggest continued possible seepage/leakage from the processing facilities, but this in and of itself is not likely to impact Minera Pitalla's ability to extract and process ore.

The operations at La Colorada generate the following mining waste streams:

- Waste rock from the mining operations;
- Spent ore from the heap leaching operations;
- Spent activated carbon from the hydrometallurgical processing operations.

A geochemical test program indicated that neither the mining waste nor the ore was expected to be acid generating or solubilize metals in concentrations that exceed Mexican standards. Waste characterization was carried out only on existing wastes, and does not include future planned wastes.

1.17.2 Closure and Reclamation Planning

An Asset Retirement Obligation (ARO) was prepared by Minera Pitalla in 2023 to define the closure liabilities associated with the La Colorada Project. The ARO closure methods were presented in general terms with assumptions that more detailed closure designs will be determined later. The closure cost estimate was based on unit costs of equipment, time and materials to carry out the closure activities, with 2.5 years of post-closure monitoring.

The 2023 Minera Pitalla estimate is MXN$130,980,405.22 (US$6,543,158 based on the exchange rate of 20.0179 MXN:US$1, based on the rate published by at www.xe.com on 1 November, 2024). Note that the 2023 estimate is based on the current closure liability, not the LOM plan as presented in this Report.

1.17.3 Permitting Considerations

Permitting of La Colorada has essentially been divided into two phases. A Preventative Notice was submitted by Minera Pitalla to the Secretariat of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, or SEMARNAT) in September 2011 as part of the restart of the La Colorada existing operations on previously disturbed ground and approved later that year, which allowed for the construction of new process water ponds (meeting both Mexican and international standards), a new heap leach pad onto which the previous ROM leach pad material was to be relocated, and a new plant site. The second permitting phase covered mining of new material from the open pits, a new crushing circuit, and the construction of new heap leach facilities and waste rock disposal areas. These actions resulted in the encroachment of the mine on the town, and the relocation and resettlement of several residences and public plaza.

As with the environmental impact assessment, the land use change for the Project was also separated into two phases. Land use change authorization for the relocated ROM heap leach pad and new process ponds was originally granted by SEMARNAT on September 15, 2011. Several additional land use changes authorizations were subsequently granted, including for an additional El Crestón pit expansion in 2015, construction of a new community access road in 2017, authorizations for the expansion of the Veta Madre Phase 1 open pit in 2020 and 2021, and the Veta Madre Phase 2 in 2022.

Minera Pitalla is evaluating continuation of the mining and leaching operations. A new or modified environmental impact assessment and a land use change will be required for these proposed activities. A permit for a land use change for expansion was applied for approximately three years ago but SEMARNAT has not replied to Minera Pitalla about the application. Lack of response is not uncommon, and under the current government administration environmental permitting has been severely delayed.

1.17.4 Social Considerations

The mining operations are located adjacent to the Town of La Colorada. A social baseline study was carried out in 2012 when Argonaut restarted the mining operations, and an updated social baseline study was conducted in 2023. The surveys indicated that the local government and Minera Pitalla joint social programs most recognized and of interest to community members were health programs (30%), education programs (20%) and urban development programs (17%). The surveys reported that impacts from mining on the quality of life were noted primarily as contamination, dust and allergies.

1.18 Markets and Contracts

Gold markets are mature, and global markets with reputable smelters and refiners are located throughout the world. Markets for doré are readily available.

A gold price of US$1,900/oz and a silver price of US$23/oz were used for estimation of Mineral Reserves to reflect a long-term conservative price forecast. The forecasts were based on the current market, historical prices, values used in other recent projects, and forecasts in the public domain.

Higher metal prices of US$2,150/oz Au and US$26/oz Ag were used for the Mineral Resource estimates to ensure the Mineral Reserves are a sub-set of, and not constrained by, the Mineral Resources, in accordance with industry-accepted practice.

La Colorada was a contract mining operation with an Owner-operated process facility. With restart of operations the mining, explosives and blasting and leach pad construction contracts will have to be negotiated. Contracts are entered into with third parties, where required. At the Report effective date, there were contracts in place to cover the mine contractor, diesel and fuel, gas, cyanide, lime, and core and RC drilling.

1.19 Capital Cost Estimates

Capital cost estimates were derived from Heliostar's 2024 operating budget, mining contract quotes, Hardrock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

The Project started operations in 2012, so all of the mining infrastructure and primary plant equipment are in place. A leach pad expansion is required for the LOM plan. The initial construction on the leach pad expansion is part of the initial capital costs as the current pad capacity will be used up by material from La Chatarrera. The first eight months of stripping of the El Crestón pit prior to ore production are also part of the initial capital along with the contractor mobilization. A 15% contingency has been added to the infrastructure items and a 10% contingency for equipment. The total initial capital for the Project is estimated at US$53.93 M.

KCA recommended using US$30/$m^2$, or US$11.1 M for the 37 ha of leach pad. This should be a conservative capital cost estimate and should have sufficient capital to add an additional storm event pond if needed.

Sustaining capital costs include a slope radar system for monitoring the pit slopes in the El Crestón and Veta Madre pits. The remaining costs for the leach pad expansion that are not completed during the first two years are also included in sustaining capital costs. In addition, the estimated closure costs of US$6.8 M are included as part of sustaining capital.

The total capital cost estimate is provided in Table 1-5.

Table 1-5: Capital Cost Summary

Capital Costs	Initial (US$ M)	Sustaining (US$ M)	Total LOM (US$ M)
Mine pre-production development	43.40	0.00	43.40
Contractor mobilization	0.21	0.00	0.21
Slope radar system	0.00	0.50	0.50
Leach pad expansion	8.97	2.13	11.10
Total direct costs	***52.58***	***2.63***	***55.21***
Owner costs and reclamation	0.00	6.80	6.80
Indirects and contingency	1.35	0.37	1.72
Total indirect costs	***1.35***	***7.17***	***8.52***
Total	***53.93***	***9.80***	***63.73***

1.20 Operating Cost Estimates

The operating costs include the ongoing cost of operations related to mining, processing, and general administration activities. Operating cost estimates were derived from actual historical costs, mining contract quotes, the Heliostar's 2024 operating budget, and Hard Rock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

Mine operating costs are calculated using recent mining contracts and quotes from Heliostar's operations in Mexico. Support services are estimated from historic actuals and from base principles for equipment, consumables, supplies, services and manpower requirements based on the mine schedule. Equipment fuel requirements are calculated based on required operating hours for each unit and haulage route profiles for the trucks. Diesel costs were estimated at US$1.10/L.

Process operating costs for the La Colorada Mine were estimated by KCA from first principles, with input from Heliostar on power costs, reagent supply costs and historic mine operating costs. Labour costs were estimated using Project-specific staffing, salary and wage and benefit requirements. Unit consumptions of reagents, materials, supplies and power were also estimated. The first principles operating costs were then compared against the historic process operating costs and budget operating estimates for reasonableness. Operating costs estimates consider fixed costs (labor, support equipment, etc.) which are expected to be the same regardless of the material type or tonnes being processed and variable costs (reagents, power, wear, etc.) which are expected to change based on material type or total tonnes being processed and have been estimated for the Veta Madre, El Crestón and La Chatarrera material.

General and administrative costs have been developed from the QP's knowledge and experience as well as historical costs from past operations. The major general and administrative cost component is staff and labor, but the general and administrative area also covers such items as security, office equipment, heat and lighting, communications, overtime, property insurance, office supplies, computer system license fees, admin building maintenance, janitorial services, outside services and allowances for travel and meetings.

Operating cost estimates use terms that are non-International Financial Reporting Standards measures:

- All-in sustaining costs (AISC): as set out in the 2018 World Gold Council guidance note. AISC are the sum of operating costs (as defined and calculated above), royalty expenses, sustaining capital, corporate expenses and reclamation cost accretion related to current operations. Corporate expenses include general and administrative expenses, net of transaction related costs, severance expenses for management changes and interest income. AISC excludes growth capital expenditures, growth exploration expenditures, reclamation cost accretion not related to current operations, interest expense, debt repayment and taxes;
- Cash operating costs: include mine site operating costs such as mining, processing and administration, but exclude royalty expenses, depreciation and depletion and share based payment expenses and reclamation costs.

The LOM average cash operating cost is projected to be US$1,501/oz AuEq sold. The AISC LOM average base case total operating cost (including royalties and production taxes) is expected to be US$1,549/oz AuEq. The total AISC summary per tonne of mill feed and per ounce of gold equivalent is expected to be US$28.90/t and US$1,763/oz AuEq respectively, as shown in Table 1-6.

1.21 Economic Analysis

1.21.1 Forward-Looking Information Note

Information that is forward-looking includes:

- Mineral Resource and Mineral Reserve estimates;
- Assumed commodity prices and exchange rates;
- Mine production plans;
- Projected recovery rates;
- Sustaining and operating cost estimates;
- Inputs to the economic analysis that supports the Mineral Reserve estimate
- Assumptions as to closure costs and closure requirements;
- Assumptions as to environmental, permitting and social risks.

Table 1-6: Total Operating Cost Summary

Operating Costs	Operating Cost ($/oz AuEq)	Operating Cost ($/t ore)	Operating Cost ($/t mined)
Total mining	1,038.63	17.02	2.06
Total processing	368.21	6.04	
Total site general and administrative	68.40	1.12	
Refinery and transport	26.37	0.43	
Cash operating costs	***1,501.61***	***24.61***	
Production taxes	27.14	0.44	
Royalties	20.00	0.33	
Total cash costs	***1,548.74***	***25.39***	
Capital costs	214.11	3.51	
Total AISC	***1,762.86***	***28.90***	

Additional risks to the forward-looking information include:

- Changes to costs of production from what is assumed;
- Unrecognized environmental risks;
- Unanticipated reclamation expenses;
- Unexpected variations in quantity of mineralized material, grade, or recovery rates;
- Geotechnical and hydrogeological considerations during mining being different from what was assumed;
- Failure of plant, equipment, or processes to operate as anticipated;
- Accidents, labour disputes, and other risks of the mining industry.

1.21.2 Economic Analysis

The Project was evaluated using a constant US dollar, after-tax discounted cashflow methodology based on a 5% discount rate. For personnel costs, and material sourced in Mexico, an exchange rate of 19 pesos per US dollar was assumed. This valuation method requires projecting material balances estimated from operations and calculating economic analysis.

Cashflows are calculated from sales of metal, less cash outflows such as operating costs, capital costs, working capital changes, royalties, any applicable taxes and reclamation costs. Resulting annual cash flows are used to calculate the net present value (NPV) and internal rate of return (IRR) of the Project.

Tax calculations involve complex variables that can only be accurately determined during operations, and as such, the actual post-tax results may differ from those estimated.

The economic analysis was performed assuming a base case gold selling price of US$2,150/oz for Year -2 (2025) and US$2,000/oz for Years -1 to Year 5 (2026–2031). Gold metal prices are elevated in the economic analysis to reflect current metal price trends and recognizes the short LOM period remaining. The base case silver selling price was assumed to be US$26/oz for Year -2 (2025) and US$29/oz for Years -1 to Year 5 (2026–2031).

No price inflation or escalation factors were taken into account. Commodity prices can be volatile, and there is the potential for deviation from the forecast.

The economic analysis also used the following assumptions:

- The production period will be two years, although La Chatarrera WRSF is planned to be processed during this time;
- The production life is 4.1 years, with residual leaching of gold and silver continuing into Year 5;
- Cost estimates are in constant Q4 2024 US dollars for capital and operating costs, with no inflation or escalation factors considered;
- Results are based on 100% ownership with a 1% government NSR on revenue from gold and silver production;
- Capital costs are funded with 100% equity (no financing assumed);
- All cash flows are discounted to the start of the construction period using a mid-period discounting convention;
- All metal products will be sold in the same year they are produced;

Project revenue will be derived from the sale of gold and silver doré.

The Project was assumed to be subject to the following tax regime:

- The Mexican corporate income tax system (Federal Income Tax) consists of 30% income tax. Federal income tax is applied on Project income after deductions of eligible expenses including depreciation of assets, earthworks and indirect construction costs, exploration costs, special mining tax, extraordinary mining duty and any losses carried forward;
- Mining tax in Mexico (Special Mining Tax) consists of 8.5% on earnings before interest, taxes, depreciation, and amortization. The special mining duty is applied on Project income after deduction of eligible exploration, earthworks and indirect costs expenses. Income subject to the special mining tax does not allow deductions for depreciation or allow losses carried forward.

At the forecast metal prices, total tax payments are estimated to be US$31.6 M over the LOM.

For the economic model, value-added tax is not considered in the capital or operating cost estimate as it is assumed that value-added tax paid will be credited in the year that it occurs (net zero impact).

Mexican tax law allows for the carry-forward of operating losses for the development of a property. The historic loss carry-forward is almost used up and is currently estimated at US$48,000 for the Mexican subsidiary company, Minera Pitalla.

Royalties payable for the La Colorada Mine include a 1.0% royalty due to the Mexican government as an “Extraordinary Mining Duty”, which represents US$5.9 M over the LOM and is included in the Project cashflow.

The financial analysis for the Project shows an after-tax net present value at a discount rate of 5% of US$25.93 M, an after-tax internal rate of return of 11.9%, and a payback period of 2.15 years. Table 1-7 summarizes the projected cashflow; net present value at varying rates; internal rate of return; years of positive cash flows to repay the negative cash flow (payback period); multiple of positive cash flows compared to the maximum negative cash flow (payback multiple) for the project on both an after-tax and before-tax basis.

The projected total lifespan of the Project is 4.1 years with two years of pre-production. Approximately 377,000 oz of gold is projected to be mined, with 287,000 oz recovered and produced for sale.

1.21.3 Sensitivity Analysis

A sensitivity analysis was performed on the base case to determine Project sensitivity to gold and silver price and grade, operating costs and capital costs.

The Project is most sensitive to changes in the gold price and grade. It is less sensitive to operating cost changes, and least sensitive to changes in capital costs. It is not sensitive to changes in the silver price and grade. This is illustrated in Figure 1-2 and Figure 1-3.

1.22 Risks and Opportunities

1.22.1 Risks

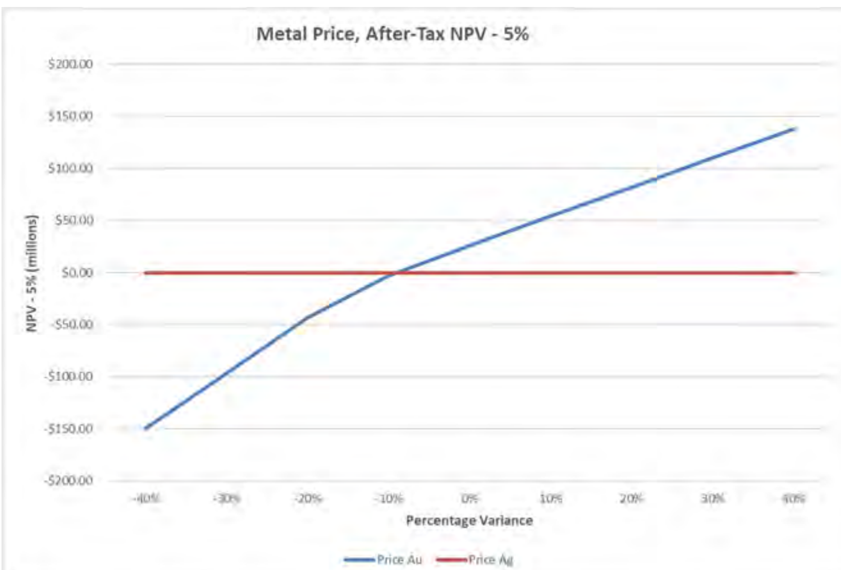
1.22.1.1 Mineral Resources

The Mineral Resources at La Colorada have been classified to the Indicated and Inferred categories. The QP has used the criteria that grade, tonnage and metal estimates should have a 90% confidence interval of ± 15% on an annual basis. As such, there is a risk that over shorter time periods, the tonnage, grade and metal production may fluctuate by more than 15%.

Table 1-7: Summary Economic Results

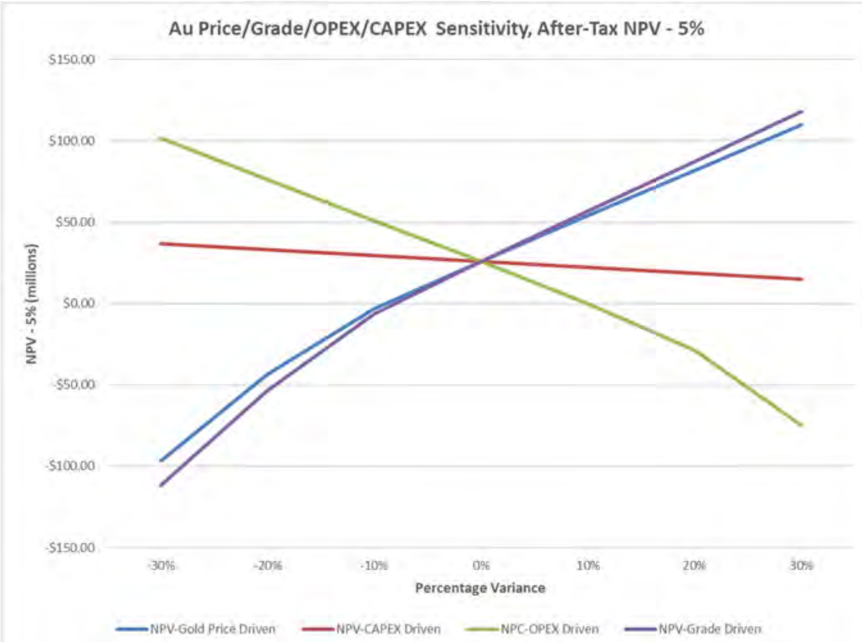
Project Valuation Overview	Units	After Tax	Before Tax
Total cashflow	US$ M	54.92	86.51
NPV @ 5.0% (base case)	***US$ M***	***25.93***	***49.77***
NPV @ 7.5%;	US$ M	14.99	35.82
NPV @ 10.0%;	US$ M	5.90	24.14
Internal rate of return	***%***	***11.9***	***17.2***
Payback period	Years	2.15	2.04
Payback multiple		1.35	1.55
Total initial capital	US$ M	53.93	53.93

Figure 1-2: Metal Price Sensitivity



Note: Figure prepared by Hard Rock Consulting, 2024.

Figure 1-3: Project Gold Price, Grade, Operating Cost and Capital Cost Sensitivity Analysis



Note: Figure prepared by Hard Rock Consulting, 2024. CAPEX = capital cost estimate; OPEX = operating cost estimate.

1.22.1.2 Mineral Reserves

The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report. Heliostar will also need to obtain access to a small wedge of private land for surface access. The Probable Mineral Reserves potentially affected in Phase 4 are estimated at 1.9 Mt at an average grade of 0.70 g/t Au and 3.1 g/t Ag.

1.22.1.3 Process

There is a risk that the estimated recoveries for Veta Madre, El Crestón and the La Chatarrera WRSF may be lower than expected. Additional testing is recommended. The testwork on samples from the La Chatarrera WRSF are still in progress and final results may be different than stated in this Report.

Sodium cyanide consumption for ore processed from El Crestón may be higher than estimated due to the potential higher cyanide soluble copper levels, which will lead to increased operating costs.

The estimated cost for the leach pad expansion is based on data in KCA files. A leach pad design was not conducted and material take-offs including quantities of earthworks, liners, piping and gravel were not determined. The estimated cost may be low.

A process water balance including the expanded leach pad was not conducted. Solution storage ponds are currently not part of the expanded layout based on information from Heliostar. If additional ponds are required, then the capital and operating costs may be low.

1.22.2 Opportunities

1.22.2.1 Mineral Resources

At El Crestón, there are a number of northwest striking mineralized structures which are not well-defined by the predominantly south-oriented drilling. This material has historically been recovered during mining.

As currently modelled, the Mineral Resources at El Crestón are limited at depth by a low-angle fault. It is possible that mineralization continues at depth below the fault.

1.22.2.2 Process

Currently, La Colorada is producing more gold than estimated from continued leaching of the heaps. This could be due to the slow leaching nature of ore containing some coarse gold. Therefore, gold recoveries could be higher than estimated due to extended leach times.

Results from site column leach tests and from past operations indicate relatively low cyanide consumptions. It is possible that the sodium cyanide consumption estimated for El Crestón may be lower than estimated, which will lead to lower operating costs.

The preliminary column leach test results on La Chatarrera composites are showing higher recoveries than the bottle roll tests. It is possible that gold recoveries could be higher than estimated.

The estimated cost for the leach pad expansion is based on data in KCA files. Leach pad design and estimates of material take-off quantities were not conducted. The estimated cost may be high.

1.23 Interpretation and Conclusions

An economic analysis was performed in support of estimation of the Mineral Reserves; this indicated a positive cash flow using the assumptions detailed in this Report.

1.24 Recommendations

A single phase work program is proposed for all disciplines other than exploration, where a two-phase program is recommended, and provided by discipline area. The total budget required to complete the suggestions is approximately US$9–US$9.7 M, depending on whether the work is completed internally or a consultant is used. The majority of the work can be conducted concurrently. The second work phase proposed for exploration would depend on the results of the proposed regional, grassroots exploration and geophysical survey program in the first exploration work phase.

Recommended exploration activities are divided into two work phases. The first work phase consists of drilling known prospects (WRSFs, and deposit extensions) and regional, grassroots exploration activities (geological mapping and rockchip/soil sampling, drone-mounted geophysical survey), and totals approximately US$7.7 M. The second work phase would consist of drill testing any areas of significant anomalism identified from the regional grassroots exploration and geophysical survey programs. The recommended budget is US$0.5 M.

The process recommendations comprise additional metallurgical testing to confirm metallurgical recoveries and reagent requirements for the Veta Madre and El Crestón material types. A design and capital cost for the leach pad expansion are required. A process water balance needs to be conducted to determine if additional solution storage is required due to storm events. These are estimated in total to require a budget of US$50,000.

Recommendations in the environmental discipline area include studies and improvements (bird deterrent studies, permitting to support the mine plan if advanced to execution, updating the closure plan and closure cost estimate, and improvements to the groundwater sampling program) and investigations and data collection (additional field work and evaluation of the continued presence of high concentrations of sulfates to identify the source(s), completion of an environmental geochemistry study, and development of an in-flow water model). These activities are estimated to cost approximately in the range of US$0.75–US$1.4 M.

2.0 INTRODUCTION

2.1 Introduction

Mr. Todd Wakefield, RM SME, Mr. David Thomas, P.Geo., Mr. Jeffrey Choquette, P.E., Mr. Carl Defilippi, RM SME and Ms. Dawn Garcia, CPG, prepared this technical report (the Report) for Heliostar Metals Ltd. on the La Colorada Operations (the La Colorada Mine or the Project, located in Sonora State, Mexico (Figure 2-1).

The La Colorada Mine is owned and operated by Minera Pitalla, S.A. de C.V. (Minera Pitalla), which is a wholly-owned Heliostar subsidiary.

Heliostar announced notice of the acquisition of the Project on July 17, 2024, from Florida Canyon Gold Inc., an interim successor to the former operator Argonaut Gold Inc. (Argonaut), and completed the acquisition on November 8, 2024.

2.2 Terms of Reference

The Report was prepared to support Heliostar's news release dated 13 January 2025 entitled "Heliostar Files Technical Reports on Mines and Development Project Recently Acquired in Mexico".

Mineral Resources and Mineral Reserves are reported for El Crestón, Veta Madre, and the La Chatarrera waste rock storage facility (WRSF). La Chatarrera has been referred to as the "Junkyard Stockpile" in some of Heliostar's public disclosures, as the area was formerly used to store broken-down mining equipment. This Report uses the Spanish name, La Chatarrera, rather than Junkyard Stockpile.

Mineral Resources are classified using the 2014 edition of the Canadian Institute of Mining and Metallurgy (CIM) Definition Standards for Mineral Resources and Mineral Reserves (the 2014 CIM Definition Standards).

All measurement units used in this Report are metric unless otherwise stated, and currency is expressed in United States (US) dollars unless stated otherwise. The Mexican currency is the Mexican peso. The Report uses Canadian English.

Figure 2-1: Project Location Plan

Note: Figure prepared by Argonaut, 2021.

2.3 Qualified Persons

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

- Mr. Todd Wakefield, RM SME, Manager and Principal Geologist, Mine Technical Services Ltd. (Mine Technical Services or MTS);
- Mr. David Thomas, P.Geo., Associate Mineral Resource Estimator, MTS;
- Mr. Jeff Choquette, P.E., Principal Mining Engineer, Hard Rock Consulting LLC (Hard Rock Consulting);
- Mr. Carl Defilippi, RM SME, Senior Engineer and Project Manager, Kappes, Cassiday & Associates (KCA);
- Ms. Dawn Garcia, CPG, Senior Associate, Hydrogeologist, Stantec Consulting Services Inc. (Stantec).

2.4 Site Visits and Scope of Personal Inspection

2.4.1 Mr. Todd Wakefield

Mr. Wakefield visited the La Colorada Project site on November 20, 2024. During his site visit Mr. Wakefield reviewed core and RC sampling practices; collar and downhole surveying procedures; blast hole sampling and grade control procedures in the El Crestón open pit; and reviewed drill core, RC cuttings, geological logging, and core sampling and QA/QC procedures at the La Colorada core logging facility. Mr. Wakefield visited the on site assay laboratory and reviewed the sample preparation, analytical, and QA/QC procedures used for the La Chatarrera RC samples.

2.4.2 Mr. David Thomas

Mr. Thomas completed a site visit on 20 November, 2024. During the site visit, he confirmed the rock types, alteration and mineralization exposed in the Gran Central, El Crestón and Veta Madre open pits. Mr. Thomas inspected drill core from the 2022 and 2024 El Crestón drilling (22LCDD-201, 22LCDD-210, 22LCDD-214, 24LCDD-254) and confirmed the presence of alteration and mineralization. Geological models were discussed with Heliostar staff.

2.4.3 Mr. Jeff Choquette

Mr. Choquette completed a site visit on 20 November, 2024. During the site visit, he toured the Gran Central in pit backfill, and the El Crestón and Veta Madre open pits. The El Crestón and Veta Madre pits are being dewatered during the care and maintenance period with active pumping in the bottoms of each pit. He reviewed the blast hole sampling and grade control procedures in the El Crestón open pit and reviewed mine plans with the onsite technical staff. Mr. Choquette also toured the La Chatarrera waste rock storage facility (WRSF), the mine laboratory, and reviewed assaying procedures, the process facilities, and the heap leach pad.

2.4.4 Mr. Carl Defilippi

Mr. Defilippi visited La Colorada for one day on 20 November 2024. He toured the mine and process facilities and had meetings with site personnel to discuss the project. He inspected the Chatarrera WRSF, where bulk samples and rotary drill samples were taken for testing at the site laboratory. He toured the laboratory and reviewed testing and assaying procedures with site personnel and found them to meet industry standards. Some time was also spent reviewing core from El Crestón.

2.4.5 Ms. Dawn Garcia

Ms. Garcia visited the site on 9 September 2024. During the site visit, she met with the environmental coordinator, and made a tour of parts of the Town of La Colorada and the mining operations.

2.5 Effective Dates

The Report has a number of effective dates including:

- Date of latest information on on-going drill program: 3 December, 2024;
- Close-out date for the database used in Mineral Resource estimation: 20 August, 2024;
- Date of Mineral Resource estimates: 31 October, 2024;
- Date of Mineral Reserve estimates: 3 December, 2024;

The overall Report effective date is the date of the Mineral Reserve estimates, and is 3 December, 2024.

2.6 Information Sources and References

The reports and documents listed in Section 2.7 and Section 27 of this Report were used to support the preparation of the Report.

Additional information was sought from Heliostar personnel where required.

2.7 Previous Technical Reports

Heliostar has not previously filed a technical report on the Project.

Prior to Heliostar's Project interest, the following technical reports had been filed:

- Arkell, B., Carron, J., and Defilippi, C., 2021: La Colorada Gold/Silver Mine, Sonora, Mexico, NI 43-101 Technical Report: report prepared for Argonaut Gold Inc., effective date 1 October, 2021;
- Lechner, M., Tinucci, J., Swanson, B., Olin, E., Osborn, J., and Willow, M.A., 2018: NI 43-101 Technical Report on Resources and Reserves, La Colorada Gold/Silver Mine, Hermosillo, Mexico: report prepared for Argonaut Gold Inc., effective date 8 December, 2017;
- Stryhas, B., Swanson, B., Orozco, A., Taylor, R.J., and Willow, M.A., 2011: NI 43-101 Preliminary Economic Assessment, La Colorada Project, Sonora, Mexico: report prepared for Argonaut Gold Inc., effective date 15 October, 2011;
- Stryhas, B., and Taylor, R.J., 2011: NI 43-101 Technical Report on Resources, La Colorada Project, Sonora, Mexico: report prepared for Argonaut Gold Inc., effective date 15 October, 2011.

3.0 RELIANCE ON OTHER EXPERTS

3.1 Introduction

The QPs have relied upon the following other expert reports, which provided information on mineral tenure, taxation and marketing assumptions.

3.2 Mineral Tenure, Surface Rights, and Royalties

The QPs have not independently verified the information on mineral tenure, surface rights, royalties. They have fully relied upon and disclaim responsibility for information derived from the following expert reportd:

- ALN Abogados, 2024: Legal Opinion on Compañía Minera Pitalla, S.A. de C.V. concession titles: legal opinion prepared by ALN Abogados for Heliostar, 6 November, 2024, 27 p.
- ALN Abogados, 2024b: Update on Non-Possessory Pledge Agreement: opinion prepared for ALN Abogados for Heliostar, 12 January 2025.
- Heliostar, 2025: Surface Rights, Royalties and Agreements Information, La Colorada Technical Report: letter prepared for the Qualified Persons, 12 January 2025, 7 p.

This information is used in Section 4 of the Report and supports the Mineral Resource estimates in Section 14, the Mineral Reserve estimates in Section 15, and the economic analysis in Section 22.

3.3 Taxation

The QP has not independently verified the information on taxation and royalties applied in the financial model. He has fully relied upon and disclaim responsibility for information derived from the following expert report:

- Heliostar, 2025: Contracts and Taxation Information, La Colorada Technical Report: letter prepared for Mr. Jeffrey Choquette, 10 January, 2025, 2 p.

This information is used in Section 22 of the Report, and supports the Mineral Reserve estimate in Section 15.

3.4 Contracts

The QP has not independently verified the information on taxation and royalties applied in the financial model. He has fully relied upon and disclaim responsibility for information derived from the following expert report:

- Heliostar, 2025: Contracts and Taxation Information, La Colorada Technical Report: letter prepared for Mr. Jeffrey Choquette, 10 January, 2025, 2 p.

This information is used in Section 19 of the Report, and supports the Mineral Reserve estimate in Section 15, and the economic analysis in Section 22.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The village of La Colorada and the La Colorada Mine are located 45 km southeast of the city of Hermosillo, in the State of Sonora, Mexico.

The Project centroid co-ordinates are latitude 28.842˚ N, longitude 110.566˚ W. The deposits with Mineral Resource estimates are located as follows:

- La Colorada: latitude 28.800˚ N, longitude 110.565˚ W;
- Veta Madre: latitude 28.799˚ N, longitude 110.549˚ W;
- La Chatarrera: latitude 28.795˚ N, longitude 110.575˚ W.

4.2 Project Ownership

The La Colorada Mine is 100% owned by Compañía Minera Pitalla S.A. de C.V. (Minera Pitalla), a wholly-owned Heliostar subsidiary.

4.3 Mineral Tenure

The La Colorada Project consists of 42 mineral titles (concessions) covering approximately 10,085 ha in four blocks that are separated by land held by third parties (Figure 4-1 and Figure 4-2). Table 4-1 lists the concessions and provides the individual areas and expiry dates for each.

Heliostar's concessions are valid in full force and effect. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area, though no known mineralization or Mineral Reserves occur within the concession boundary.

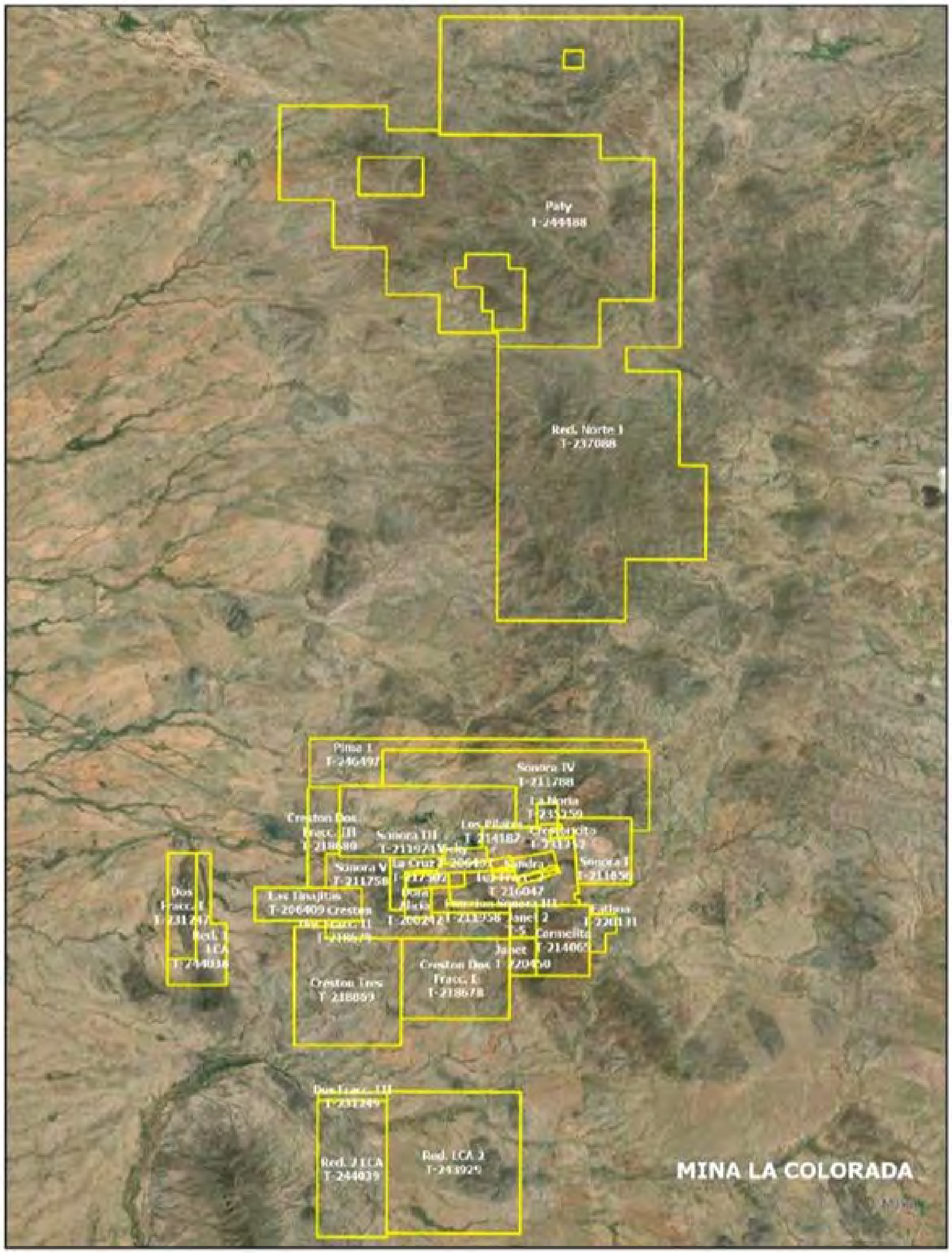
Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report.

The planned mining operations and the Mineral Resources and Mineral Reserves presented in this Report are located within the Project mineral concessions.

As per Mexican requirements for grant of tenure, the concessions were surveyed on the ground by a licensed surveyor.

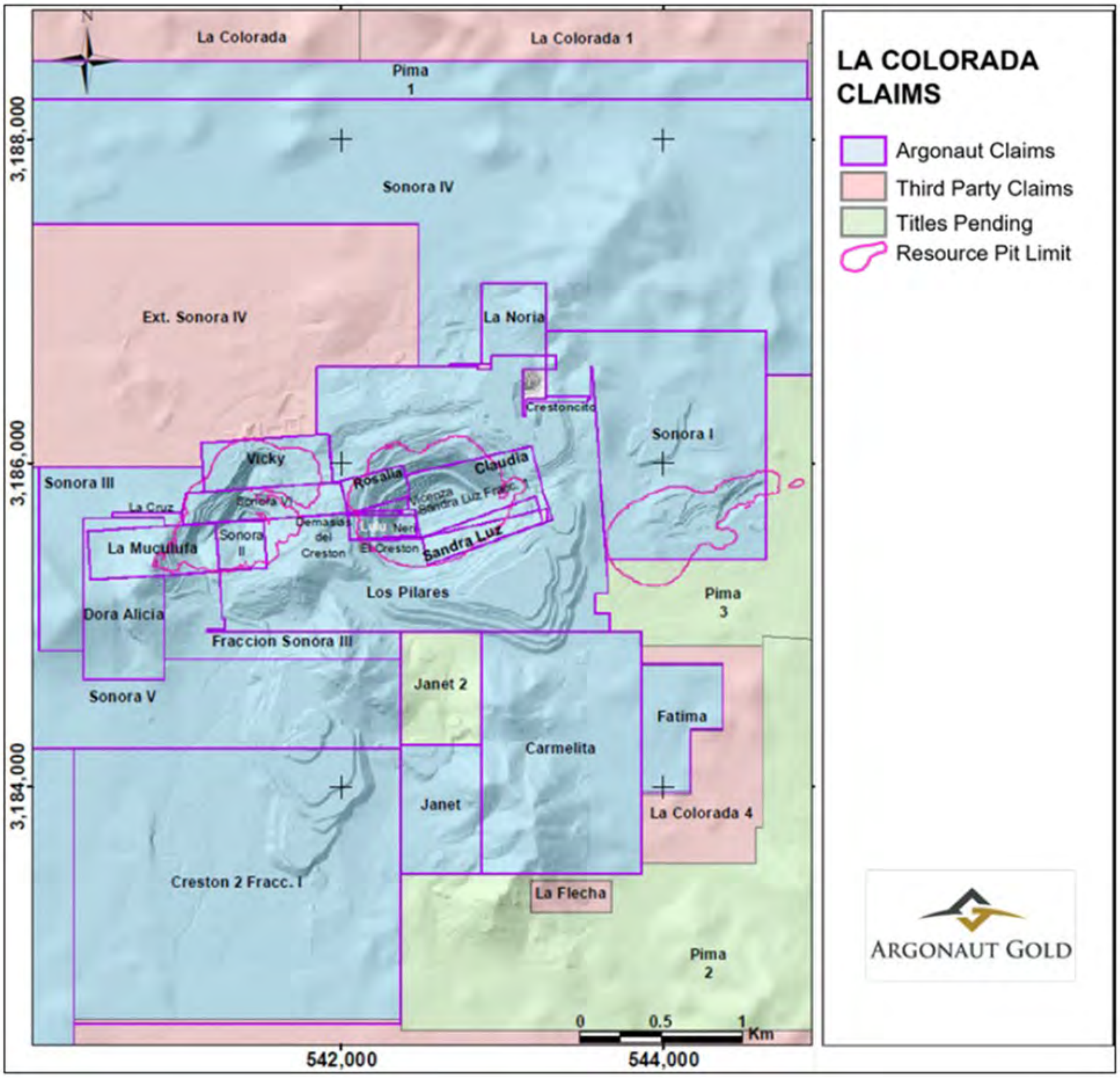
All applicable payments and reports were submitted to the relevant authorities, and the licenses were in good standing as at the Report effective date.

Figure 4-1: Mineral Concession Map



Note: Figure prepared by Argonaut, 2024

Figure 4-2: Mineral Concession Map Detail



Note: Figure prepared by Argonaut, 2021

Table 4-1: Mineral Tenure Summary Table

Concession	Title No.	Area (ha)	Valid Dates		Title Holder
			From	To	
Sonora II	187663	8.82	17 September, 1990	16 September, 2040	Minera Pitalla
Lulu	198975	5.87	11 February, 1994	10 February, 2044	Minera Pitalla
El Crestón	199424	0.13	19 April, 1994	18 April, 2044	Minera Pitalla
Sonora VI	199425	19.65	19 April, 1994	18 April, 2044	Minera Pitalla
Demasias del Crestón	199929	0.77	17 June, 1994	16 June, 2044	Minera Pitalla
Vicenza	211757	1.47	30 June, 2000	29 June, 2050	Minera Pitalla
Sonora V	211758	280.96	30 June, 2000	29 June, 2050	Minera Pitalla
Sonora IV	211788	554.46	28 July, 2000	27 July, 2050	Minera Pitalla
Sonora I	211856	157.99	28 July, 2000	27 July, 2050	Minera Pitalla
La Muculufa	211945	24.00	28 July, 2000	27 July, 2050	Minera Pitalla
Fracción Sonora III	211958	37.78	28 July, 2000	27 July, 2050	Minera Pitalla
Sonora III	211974	51.03	18 August, 2000	17 August, 2050	Minera Pitalla
La Cruz	217502	1.55	16 July, 2002	15 July, 2052	Minera Pitalla
Crestón Dos fracción I	218678	344.59	3 December, 2002	2 December, 2052	Minera Pitalla
Crestón Dos fracción II	218679	4.49	3 December, 2002	2 December, 2052	Minera Pitalla
Crestón Dos fracción III	218680	109.74	3 December, 2002	2 December, 2052	Minera Pitalla
Crestón Tres	218869	466.58	22 January, 2003	21 January, 2053	Minera Pitalla
Neri	232307	0.23	8 July, 2008	17 July, 2058	Minera Pitalla
Dora Alicia *	200242	35.77	29 July, 1994	28 July, 2044	Jesus W. Espinoza Garcia
Carmelita	214065	150.00	10 August, 2001	9 August, 2051	Minera Pitalla
Los Pilares	214187	249.03	10 August, 2001	9 August, 2051	Minera Pitalla
El Crestóncito	231252	1.17	25 January, 2008	24 January, 2058	Minera Pitalla
Sandra Luz	199219	12.95	16 March, 1994	15 March, 2044	Minera Pitalla
Vicky	206407	24.00	16 January, 1998	15 January, 2048	Minera Pitalla
Las Tinajitas	206409	140.00	16 January, 1998	15 January, 2048	Minera Pitalla
Claudia	213214	32.74	6 April, 2001	5 April, 2051	Minera Pitalla
Rosalia	213745	7.98	12 June, 2001	11 June, 2051	Minera Pitalla

Concession	Title No.	Area (ha)	Valid Dates		Title Holder
			From	To	
Sandra Luz fracción 1	216046	0.38	2 April, 2002	1 April, 2052	Minera Pitalla
Sandra Luz fracción 2	216047	0.02	2 April, 2002	1 April, 2052	Minera Pitalla
Fatima	220131	32.00	12 June, 2003	11 June, 2053	Minera Pitalla
Janet	220450	40.00	29 July, 2003	28 July, 2053	Minera Pitalla
Janet 2	Untitled	40.00	—	—	Under application
Dos fracción I	231247	117.85	25 January, 2008	24 January, 2058	Minera Pitalla
Dos fracción III	231249	22.76	25 January, 2008	24 January, 2058	Minera Pitalla
La Noria	235259	18.26	4 November, 2009	3 November, 2059	Minera Pitalla
Red Norte 1	237088	3,325.99	29 October, 2010	28 October, 2060	Minera Pitalla
Mabelina	237242	0.16	26 November, 2010	25 November, 2060	Minera Pitalla
RED. LCA 2	243929	750.00	16 January, 2015	15 July, 2058	Minera Pitalla
RED. 1 LCA	244038	145.15	13 February, 2015	Jan. 24, 2010	Minera Pitalla
RED. 2 LCA	244039	377.00	13 February, 2015	24 January, 2058	Minera Pitalla
Paty	244488	2,231.05	6 October, 2015	5 October, 2065	Minera Pitalla
Pima 1	246497	301.00	17 August, 2018	6 August, 2068	Minera Pitalla

Note: Minera Pitalla = Compañía Minera Pitalla, S.A. de C.V. Mineral concession areas have been rounded.

* Minera Pitalla has entered into an Assignment of Rights Agreement with the concession holder.

At the date of the legal opinion, selected concessions were subject to non-possessory pledge agreements executed between Minera Pitalla and Macquire Bank Limited, between Minera Pitalla and the Bank of Montreal, and a mortgage loan granted by Essa y N.M. Rothschild and Sons Limited (Rothschild and Sons). Subsequent to that opinion date, Heliostar's legal counsel advised that the executed non-possessory pledge agreements with Macquire Bank Limited and the Bank of Montreal had been terminated in their entirety. Depending on the concession, the termination registry has been recorded with the Public Mining Registry or is the registration of the termination record is pending. The Rothschild and Sons mortgage status was being checked at the Report effective date.

4.4 Surface Rights

Surface rights in Mexico are separate from mineral rights. Under the mining law, mining rights holders have the right to use and access areas that are planned for exploration or exploitation.

Heliostar holds the surface rights and legal access to 1,447 ha of the concession package. Of this total Heliostar holds title to 1,398 ha and has Temporary Occupation of one parcel of 49 ha. The surface rights details are shown in Table 4-2 and Figure 4-3.

4.5 Water Rights

The Project maintains water rights totaling 170,467 m^3/year from two underground aquifers. In addition, Heliostar is authorized to use 450,000 m^3/year from water stored in inactive open pits within the La Colorada Project. Authorization from CONAGUA is pending for the transfer of 100,000 m^3 of additional water rights

Additional information on water usage is provided in Section 18.6.

4.6 Royalties and Encumbrances

In 2013, the Mexican Federal government introduced a mining duty in the Federal Ley de Derechos. Effective January 1, 2014, the duty functions similar to an income tax collecting 8.5% of taxable earnings before interest and depreciation. In addition, precious metal mining companies must pay a 1% duty on revenues from gold, silver, and platinum.

All mining concessions at the La Colorada Mine are owned 100% by Minera Pitalla. There are no royalties for the La Colorada concession package.

4.7 Permitting Considerations

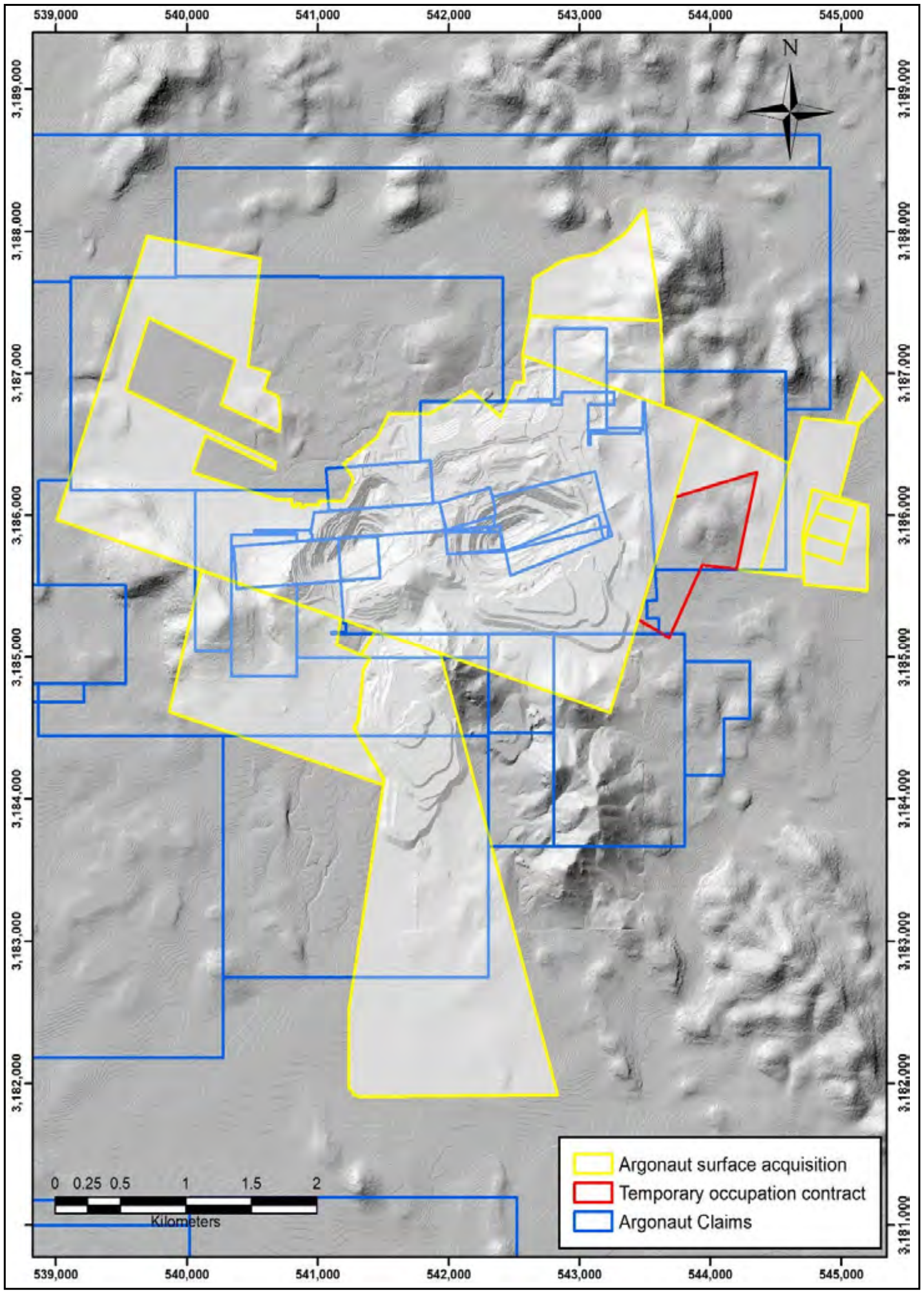
Permitting considerations are discussed in Section 20.

Table 4-2: Surface Rights

Land Owner	Area (ha)	Signing Date	Term (years)	Expiration Date
Minera Pitalla	720	11 November, 2008	N/A	N/A
Minera Pitalla	8	23 June, 2011	N/A	N/A
Minera Pitalla	329	26 August, 2011	N/A	N/A
Minera Pitalla	143	8 June, 2017	N/A	N/A
Minera Pitalla	45	30 November, 2018	N/A	N/A
Minera Pitalla	46	30 November, 2018	N/A	N/A
Minera Pitalla	38	30 November, 2018	N/A	N/A
Minera Pitalla	36	30 November, 2018	N/A	N/A
Minera Pitalla	18	16 December, 2020	N/A	N/A
Minera Pitalla	3	16 December, 2020	N/A	N/A
Minera Pitalla	3	16 December, 2020	N/A	N/A
Minera Pitalla	4	16 December, 2020	N/A	N/A
Minera Pitalla	5	9 September, 2021	N/A	N/A
Juan Carlos Casanova	49	24 June, 2020	6	23 June, 2026

Note: N/A = not applicable.

Figure 4-3: Surface Rights Location Map



Note: Figure prepared by Argonaut, 2021.

4.8 Environmental Considerations

Environmental considerations are discussed in Section 20.

4.9 Social License Considerations

Social licence considerations are discussed in Section 20.

4.10 QP Comments on Section 4

Information from legal and Heliostar experts support that the mining tenure held is valid and is sufficient to support declaration of Mineral Resources and Mineral Reserves.

Heliostar has sufficient rights to complete the current life-of-mine (LOM) plan with the exception of the final portions (Phase 4) of the Veta Madre open pit, where Heliostar will need to obtain a right-of-way to strip waste on the Pima 3 concession and access to a small wedge of private land prior to 2023.

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 Project that are not discussed in this Report.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

Access from Hermosillo to the Project area is via paved Highway 16, which continues east to the town of Yécora and the city of Chihuahua.

A port facility is located approximately 140 km south of the Project and rail is available in Hermosillo. Hermosillo has an international airport, and there are daily flights to Hermosillo from Mexico City and Phoenix.

5.2 Climate

The Project lies within the Sonora Desert climatic region. It has an arid climate, with summer temperatures sometimes exceeding 47°C. Winter temperatures vary from mild to cool in January and February.

Rainfall is affected by the North American Monsoon, with over two-thirds of the average rainfall, 19.3 cm, falling between the months of July and September.

Mining operations are conducted year-round.

5.3 Local Resources and Infrastructure

La Colorada is a mature open pit mine and heap leach facility that has been in operation since the late 1990s.

The village of La Colorada is located adjacent to the site and contains a small supply of labour (275 inhabitants) and some basic equipment.

The city of Hermosillo (over 900,000 inhabitants) is located 45 km from the site and has a large supply of skilled and unskilled labor, together with most supplies and contractors for construction and operations. Hermosillo is the major mining centre for northern Mexico with access to vendors, contractors and consultants for most reagents, supplies, equipment, or services need for exploration, construction, operations, and closure.

Equipment and reagents can be sourced through several major cities in the U.S., the closest of which is through Nogales, Arizona, 177 miles north of Hermosillo via Federal Highway 15.

Project infrastructure is discussed in more detail in Section 18. The local resources and infrastructure are adequate to support the current mining operation.

5.4 Physiography

The Project is located in the basin-and-range geological province which is dominated by alternating mountain ranges and valleys bounded by normal faults. This general geomorphology predominates in the La Colorada area with hills being easily identifiable by Tertiary volcanic rocks that were tilted about 15° to the west.

Elevations at La Colorada range between 400 masl and 650 masl. The area around the current operation is characterized by relatively subdued topographic relief.

Vegetation consists of extensive mesquite and paloverde trees, cactus, and sparse grass cover.

5.5 QP Comments on Section 5

Surface rights are discussed in Section 4.5.

In the opinion of the QPs, the existing and planned infrastructure, availability of staff, the existing power, water, and communications facilities, the methods whereby goods could be transported to any proposed mine, and any planned modifications or supporting studies are well-established, or the requirements to establish such, are well understood by Heliostar, and can support the estimation of Mineral Resources and Mineral Reserves.

6.0 HISTORY

6.1 Exploration History

The Project history is summarized in Table 6-1.

6.2 Production

During the main historic mining period from 1876–1914 production of more than 3 Moz Au was recorded. Only small-scale mining activity continued after that until exploration activity resumed in 1991.

During commercial production between 1994 and 2000, Explorations Eldorado, S.A. de C.V. (Eldorado) produced approximately 290,000 oz Au and about 1 M oz Ag. Grupo Minero FG S.A.de C.V. (Grupo FG) was estimated to have produced approximately 70,000 oz Au. Eldorado and Grupo FG production statistics are cited from Diaz (2007) and Herdrick (2007).

Argonaut restarted mining operations in 2012, and continued mining and processing operations through November 2023. Mining was discontinued at La Colorada/Gran Central in 2018. In November 2023 mining was discontinued at Veta Madre but leaching of the heap leach pads continued to the end of Argonaut's ownership of the Project.

Heliostar production started in November 2024 with continued leaching of the heap leach pads.

Table 6-2 summarizes mine production at the La Colorada operation since 2012.

Table 6-1: Exploration and Development History

Year	Operator	Work Completed
1740		Jesuit missionaries staked original claims
1790		Acquired by the Spanish
1860–1877	Unknown English company	Installed pumps and worked the concessions
1877	Crestón-Colorado Company	Acquired the mines
1888	Pan American Company	Acquired the mines
1895	London Exploration Company	Acquired the mines
1902	Mines Company of America	Acquired the mines
1916		During the Mexican Revolution, the mines closed and the onsite process facility was eventually dismantled.
Mid-1980s	Minerales de Sotula S.A. de C.V. and Industrias Peñoles, S.A.B. de C.V.	Commenced concession acquisition
1991	Cia. Minera Las Cuevas S.A. de C.V., a Noranda subsidiary	Option agreement
	HRC Development Corp and Rotor International S.A.	Formed a joint venture over the Project called Exploraciones Eldorado S.A. de C.V. (Eldorado)
Early 1990s	Compañía Minera Las Cuevas	Undertook exploration at La Colorada, including reverse circulation (RC) drilling.
1990s	Explorations Eldorado, S.A. de C.V. (Eldorado)	Carried out systematic exploration on the Project, focusing mostly on the El Crestón zone, but also investigating the La Colorada/Gran Central zones. Also explored the Veta Madre, La Verde, and Los Duendes areas. Conducted geological mapping, surface sampling of rock and soils, geophysical programs, trenching, and core and RC drilling. Other work included geotechnical studies for pit slope stability, metallurgical tests, and mineralogical and petrographical studies.
1993		Undertook a pilot heap leach test of 30,760 t of run-of mine (ROM) material, producing approximately 1,500 oz of gold. Following this, a positive feasibility study resulted in mine construction beginning in the same year. Commercial production started as a conventional open pit, ROM, cyanide heap leach operation with an activated carbon recovery process. The first gold from modern operations was poured in January 1994. During the second year of operations the carbon recovery process was replaced with a conventional Merrill-Crowe circuit. Next, a two-stage crushing circuit was installed to treat material from the La Colorada/Gran Central open pit. Construction of an

		expanded crushing circuit started during 1996 and the crushing circuit became fully operational in 1997. Approximately 30% of the ore was treated as run-of-mine (ROM) and truck-dumped directly onto the pads, with the remainder being crushed in the two-stage crushing plant to a nominal size of -¾ in. The leaching-Merrill Crowe circuit had a processing capacity of approximately 8,000 t of ore daily at its peak capacity. The mine operated an average of 315 days/year. Mining started in the El Crestón pit and in later years was undertaken in the La Colorada/Gran Central areas. Small-scale production also took place from the Los Duendes area, southeast of the El Crestón pit.
2001	Grupo Minero FG S.A.de C.V. (Grupo FG)	Acquired Project from Eldorado. Limited production.
2007–2010	Pediment Gold Corp. (Pediment Gold)	Optioned and eventually purchased the key concessions, surface ownership, and mine infrastructure from Exploraciones La Colorada. Additional key concessions were also acquired in 2008 and 2010 by Pediment Gold. In 2007, Pediment Gold began compiling the previous work accompanied by an exploration program that included surface sampling and mapping. A drill program commenced in 2008 focusing on known areas of mineralization at El Crestón, La Colorada/Gran Central, Veta Madre, and La Verde. These programs were followed up in 2009 by a +10,000 m drill program, which included both core and RC drilling with the main focus on Veta Madre.
2010–2024	Argonaut	Acquired Pediment Gold, including the La Colorada Project held under Pediment Gold's wholly-owned Mexican subsidiary, Minera Pitalla. Argonaut conducted significant infill and step- out drilling programs mainly within and adjacent to known mineralized areas. In 2011, Argonaut conducted rock and soil sampling programs around the El Crestón pit and the Veta Madre area. Annual drilling programs were conducted by Argonaut starting in 2011.
2024	Heliostar	Acquired Project from Argonaut

Table 6-2: Gold Production (2012–2024)

Year	Gold (oz)	Silver (oz)
2012	6,195	47,890
2013	22,234	173,751
2014	40,131	162,194
2015	54,979	193,029
2016	56,112	181,473
2017	31,550	130,803
2018	45,886	147,348
2019	53,208	159,737
2020	44,340	162,499
2021	64,860	178,821
2021	62,468	161,284
2022	42,082	103,709
2023	25,615	36,626
2024	12,003	29,926

Note: 2024 production is full year, January 1 to December 31 .

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The regional geology description was modified from McMillan (2009).

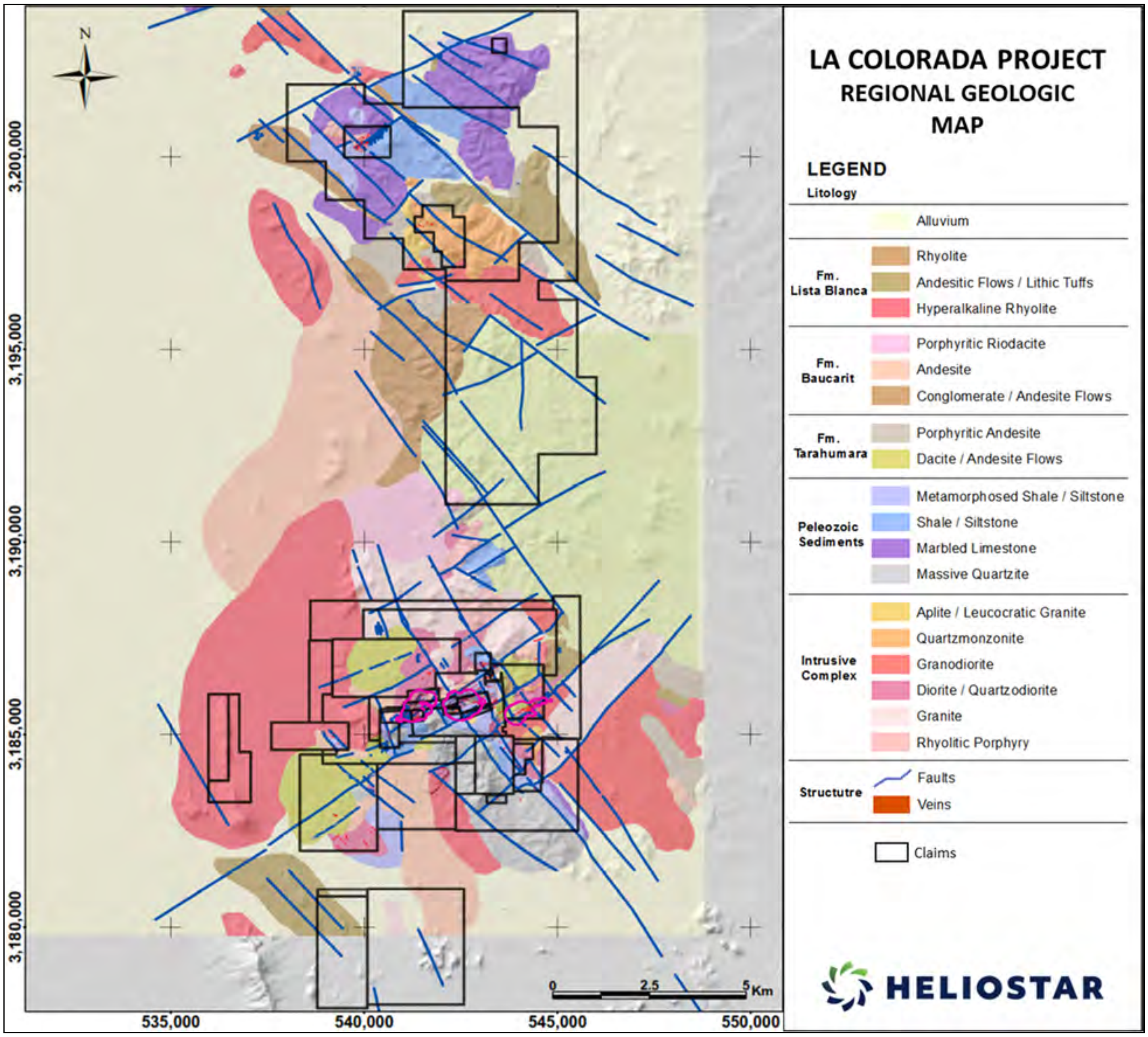
The La Colorada Project is located in the western foothills of the Sierra Madre Occidental (SMO) mountain chain, 110 km east of the Gulf of California. Tectonically, the Project is located at the boundary between the Sonoran Basin and Range Province and the Sierra Madre Occidental Province. Intrusive rocks are contiguous with a broad batholithic belt extending along the western margin of North America. West-directed folding and thrust faulting occurred during the Late Cretaceous Laramide Orogeny. Basin-and-range faulting followed in the Tertiary and constitutes the dominant structural event in the area.

Bedrock ranges in age from Ordovician through Cenozoic and includes high-grade metamorphic gneisses, shelf facies sedimentary strata, extensive andesitic to rhyolitic volcanic deposits and dioritic to granitic intrusive rocks. Upper Triassic clastic sedimentary strata (conglomerate, sandstone and siltstone) of the Barranca Group unconformably overlie the metamorphic basement rocks in scattered locations throughout east-central and southern Sonora. Late-Cretaceous to Tertiary volcanic rocks and associated continental clastic rocks unconformably overlie the Triassic and older rocks. These units thicken considerably eastward, where they form extensive sequences underlying the high plateau of the Sierra Madre Occidental Mountains. Here, two distinct divisions are apparent: a 100–45 Ma Lower Volcanic Complex composed mainly of andesite with interstratified rhyolitic ignimbrites and minor interstratified basalt and an overlying Upper Volcanic Complex that was dated at 34–27 Ma that consists of extensive rhyolite and rhyodacite ignimbrites with minor interstratified basalt. The upper sequence unconformably overlies the older sequence and infills deeply incised paleo-topography in older rocks that include Late Cretaceous to Early Tertiary plutonic rocks (diorite, granodiorite to granite) of the Sonoran Batholith.

On a regional scale, basin-and-range faults are characterized by north-northwest striking normal faults. Crustal blocks formed by the basin-and-range faults have moderate to steep regional dips. Steeply-dipping east-northeast trending regional faults transverse to the main trend are also common throughout Sonora.

Figure 7-1 is a regional geological map of the La Colorada Project showing the quartz vein/stockwork zones that characterize the various deposits.

Figure 7-1: Regional Geology Map



Note: Figure prepared by Heliostar, 2024

7.2 Project Geology

The Project geology description was modified from McMillan (2009).

The La Colorada area is locally covered by mid-Cambrian to lower Ordovician quartzites, marbles, carboniferous limestones, and sandstones. In addition, the district hosts Triassic oligomictic conglomerate, limestones, shales, and a turbiditic sedimentary sequence of the Porfuna Basin formed by an alternation of shales, carbonaceous shales, flint horizons and an upper body of massive quartzites several metres thick.

Upper Cretaceous volcanic tuffs range in composition from andesite to rhyolite. The older units are intruded by Paleocene to Oligocene age intrusive rocks that include granite, granodiorite, diorite, and andesitic porphyry. These intrusions are interpreted to be the result of an active continental margin and related subduction of the Farallon Plate beneath the North American plate. This was followed by continental extension rifting of the Basin-and-Range Province during the Tertiary. This latest event generated the youngest lithological units represented in the area. The base of this tectonic stage is represented in the region by the Early Miocene Báucarit Formation comprising continental conglomerates and sandstones interbedded with basaltic to andesitic volcanic rocks. These rocks are overlain by the Late Miocene Lista Blanca Formation comprising bimodal volcanism of rhyolitic tuff and andesite. The youngest Tertiary unit is an extension-related olivine basalt flow unit.

Alteration usually varies by rock type. In the diorite intrusive rocks, it is common to observe strong chloritization and secondary biotite abounds. In deeper drill holes potassium feldspar haloes are observed and some areas of sericite are evident. In the monzonite intrusive rocks at El Crestón an argillic halo is observed, especially at the top of the northern vein. In the sedimentary rocks silicification is observed, and close to some contacts with intrusive rocks there are some bands of skarn development. The rhyolitic porphyry rocks develop haloes of silicification. In the intermediate zone of La Colorada/Gran Central, molybdenum was identified in veinlets, hosted in diorite and rhyolitic porphyry rocks, sometimes with a halo of potassium feldspar and fine secondary biotite, especially in diorite rocks. Alteration can also be seen in the older metamorphic and intrusive units mostly as silicification, hematization, and argillization. The younger Tertiary volcanic rocks in the district are clearly post mineral and unaltered.

7.3 Deposit Descriptions

The El Crestón, La Colorada/Gran Central, and Veta Madre deposits have been mined using open pit methods. The following descriptions are modified from McMillan (2009).

7.3.1 El Crestón

The El Crestón veins constitute the largest vein system on the La Colorada Project.

7.3.1.1 Deposit Dimensions

Mineralization is approximately 1,000 m along strike, 250 m wide, and 250 m in vertical extent. Mineralization remains open along strike of the veins and to the north and south and at depth.

7.3.1.2 Lithologies

Lithologies in the El Crestón deposit include siltstone, shale, and chert of the Paleozoic Mine Sequence; diorite, monzonite and quartz feldspar porphyry of the intrusive suite; hornfels and skarn derived from the sedimentary sequence; and andesite (Lewis, 1995).

The sedimentary rocks occur as a roof pendant entirely surrounded by the intrusive suite rocks. Locally, skarn bands occur where the sedimentary rocks are in contact with the intrusive rocks.

7.3.1.3 Structure

Structurally, the Colorada Sur Fault is the main controlling feature. It has a variable easterly strike which has an average azimuth of 060° and dips vertically to steeply north. Steeply-dipping east–west and north–south-oriented faults are also important mineralization controlling structures. Low angle faults are visible in the pit walls and interpreted in geological modeling.

The veins generally strike east to east–northeast, dipping an average of 75° N (Lewis, 1995). The veins have well-defined contacts and below the 100 m level are simple with few spurs and parallel veins. Typically, the best metal grades are found where the veins are thickest. Although the veins represent distinct mineralized zones, they coalesce and bifurcate in a subparallel series of principal veins and associated stockworks. Pre-mineral faulting created open fractures that were later filled by the vein systems. Minor post-mineral fault offsets of a few metres are common.

This geological activity is associated with the extension of the Basin and Range and low-angle listric faulting that dislocates the main ore bodies.

7.3.1.4 Alteration

Alteration styles to varying degrees include hematization, the formation of manganese oxides, and silicification. Other reported alteration products include argillization, potassic alteration, sericitization, and chlorite alteration. Deep red hematite is a prominent and obvious feature of the mineralized system. Manganese oxides are reportedly associated with some of the higher gold values.

7.3.1.5 Mineralization

Mineralization is hosted by a system of veins and hydrothermal breccias having grey to green microcrystalline quartz, white crystalline, or banded drusy quartz. Occasionally barite and magnetite are identified. Sulphides identified include galena, sphalerite, pyrite, and traces of chalcopyrite. Gold occurs in quartz as electrum containing 70–75% gold and 25–30% silver. Silver-rich mineralization is associated with polymetallic veinlets of galena, sphalerite, argentite, and occasionally traces of chalcopyrite.

Figure 7-3 is a geological plan map of the El Crestón deposit showing three east–west-trending mineralized zones. A north–south section line (A-A') is shown in Figure 7-3 that references the cross section shown in Figure 7-4.

7.3.2 La Colorada/Gran Central

7.3.2.1 Deposit Dimensions

Mineralization is approximately 450 m along strike, 200 m wide, and 150 m in vertical extent. Mineralization remains open to the west at depth.

7.3.2.2 Lithologies

Mineralization is mainly hosted in a diorite stock which contains roof pendants of siltstone and lesser calc-silicate hornfels. Quartz feldspar porphyry dikes up to 2 m in width cut the diorite. The youngest rocks are a few pre-mineral mafic dikes up to 2 m in thickness. At the eastern end of the deposit, the diorite is in fault contact with and covered by andesite rocks. The andesite is less altered and oxidized than the underlying diorite and unmineralized (Lewis, 1995). The historical underground workings extend to a depth of 300 m.

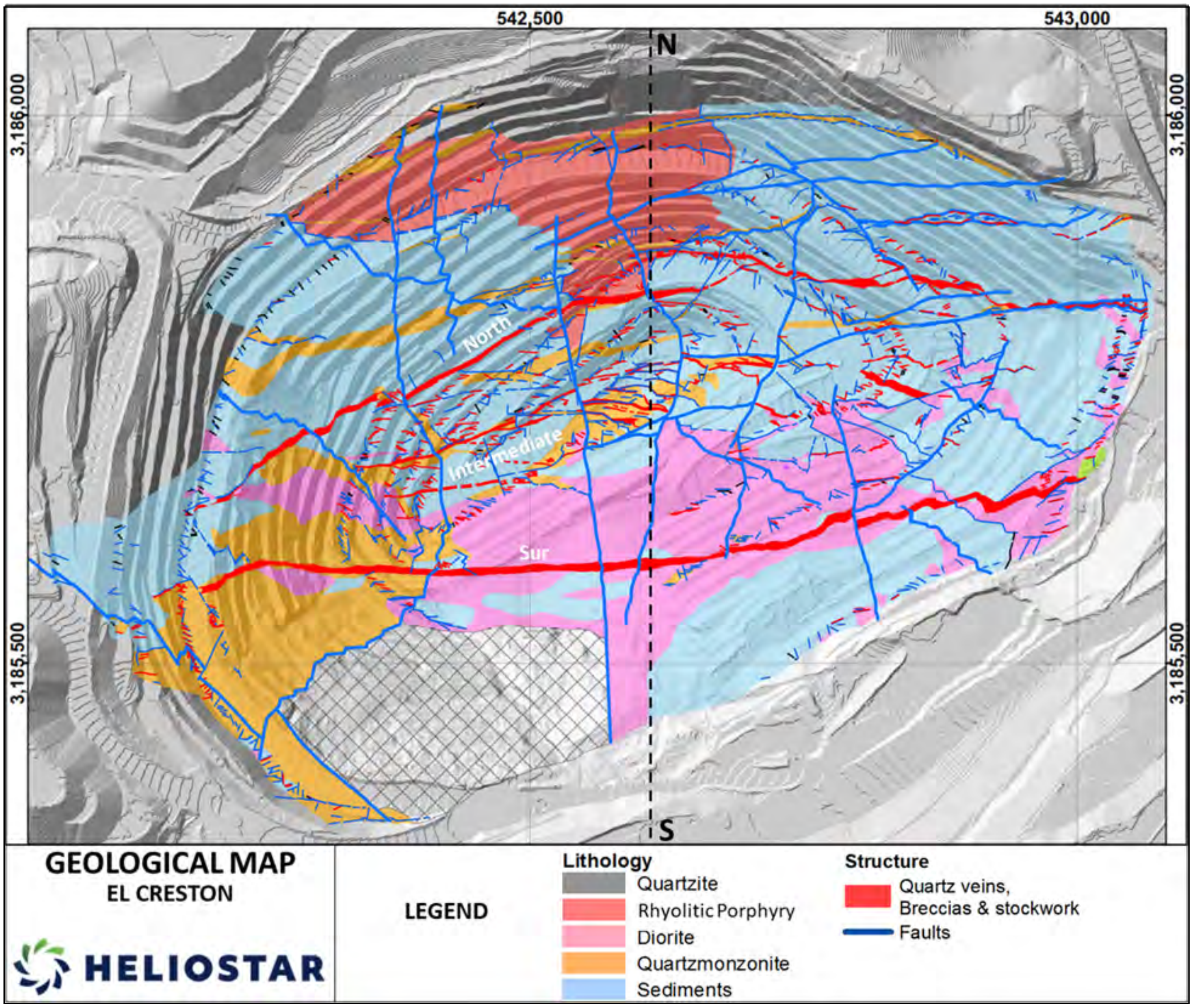
7.3.2.3 Structure

The east–west-trending Gran Central Fault is the main controlling structure and has a northerly dip, averaging 50°. The Gran Central Fault consists of several sub-parallel splays, where quartz veins, stockworks and breccia zones are often associated with clay–chlorite gouge.

7.3.2.4 Alteration

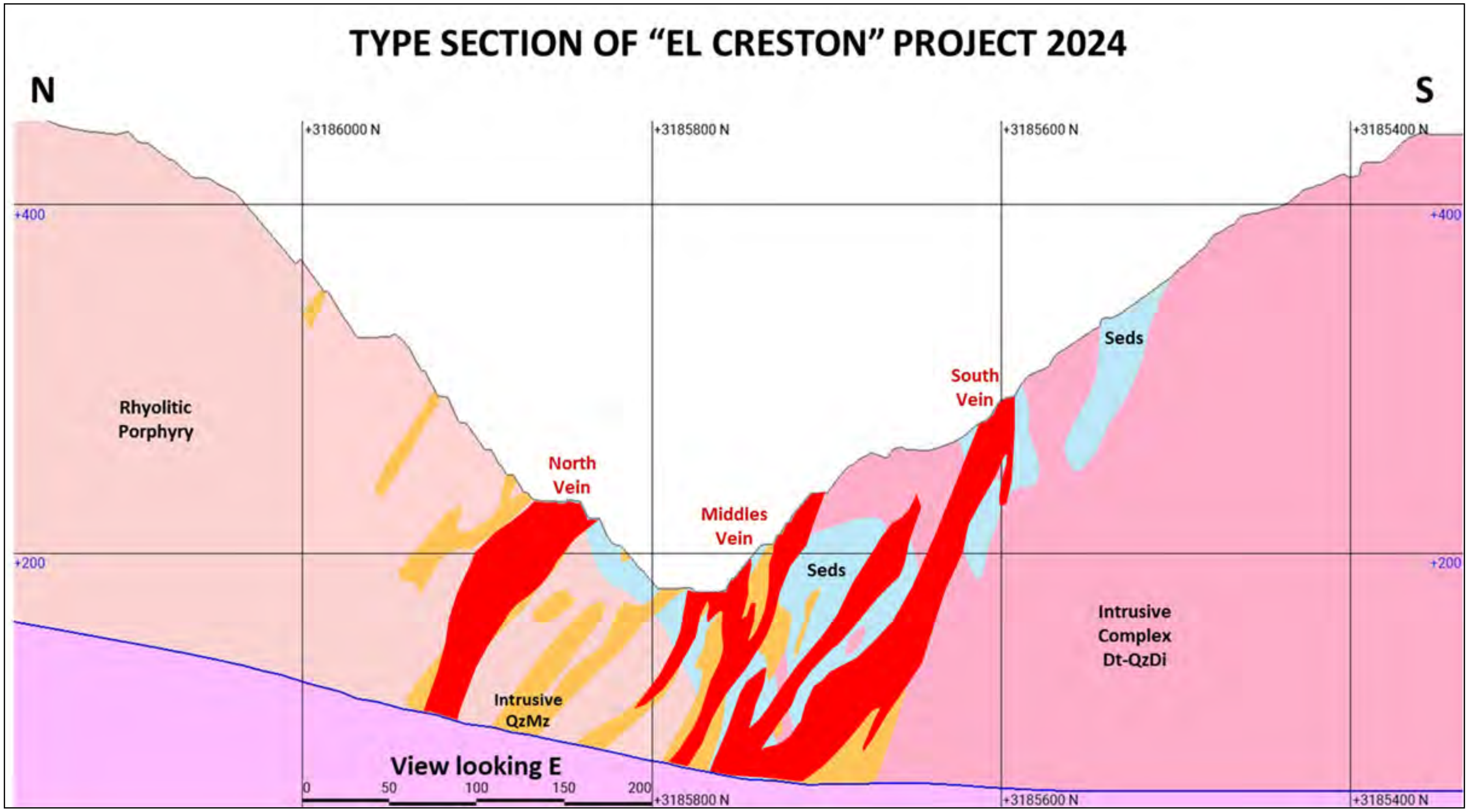
Alteration minerals are similar to those found at El Crestón; however, calcite is a common gangue mineral and siderite veins and local amethyst are present (Lewis, 1995). Footwall rocks tend to be more heavily altered than hanging wall rocks.

Figure 7-2: El Crestón Pit Area Geology



Note: Figure prepared by Heliostar, 2024

Figure 7-3: El Crestón North–South Cross Section



Note: Figure prepared by Heliostar, 2024. Figure looks east

7.3.2.5 Mineralization

Fine native gold is present in the deposit. Sulphide minerals range between 1% and 3% by volume and are distributed within the unoxidized portions of the deposit. Sulphides include galena, sphalerite, lesser chalcopyrite, minor tetrahedrite, and traces of chalcocite, covellite and molybdenite.

Gold-bearing quartz veins and stockworks within the La Colorada vein system are hosted in an east-west-striking fault zone with a north dip averaging 45°. Veining is hosted by rhyolite porphyry and diorite rocks and is within the same dioritic stock which hosts the Gran Central deposit. The zone averages about 20 m thick.

Lewis (1995) states that according to historical records, mineralization is terminated at a depth of approximately 200 m by a flat fault, below which non-mineralized granite is present.

Figure 7-4 is a geological plan map of the La Colorada/Gran Central open pit. The northeast striking quartz breccia–vein–stockwork zones are the main mineralization control in this deposit.

A cross-section through the deposit is provided in Figure 7-5.

7.3.3 Veta Madre

Veta Madre is located 1.5 km east of the El Crestón open pit.

7.3.3.1 Deposit Dimensions

Mineralization is approximately 500 m along strike, 200 m wide, and 200 m in vertical extent. Argonaut drill programs have determined that a down-faulted, and generally higher-grade, portion of the vein system continues a significant distance to the west. Mineralization remains open to the west down-plunge at depth and to the east near the surface.

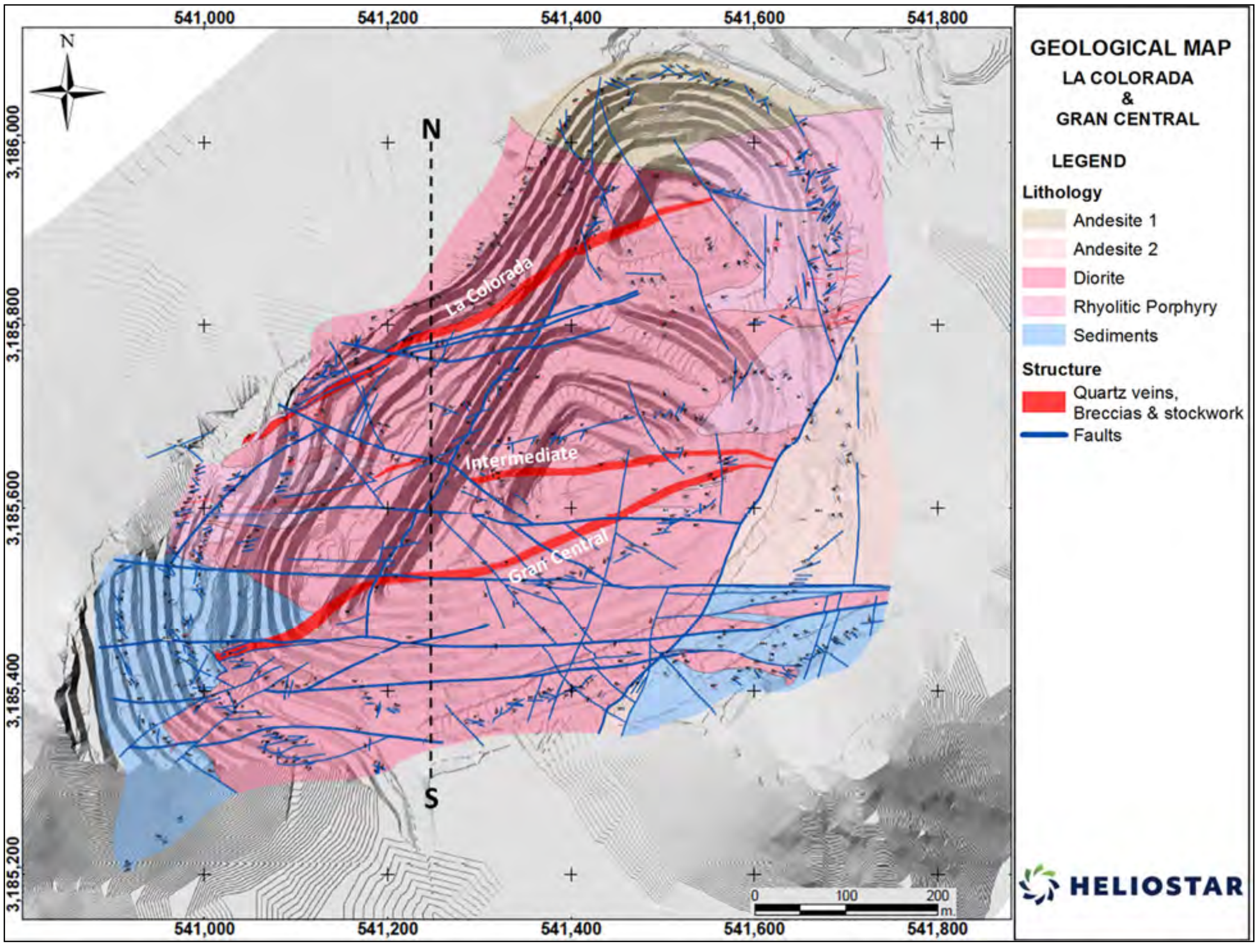
7.3.3.2 Lithologies

Rock types include siltstone, diorite, monzonite, granite, rhyolite feldspar porphyry, and dacite.

7.3.3.3 Structure

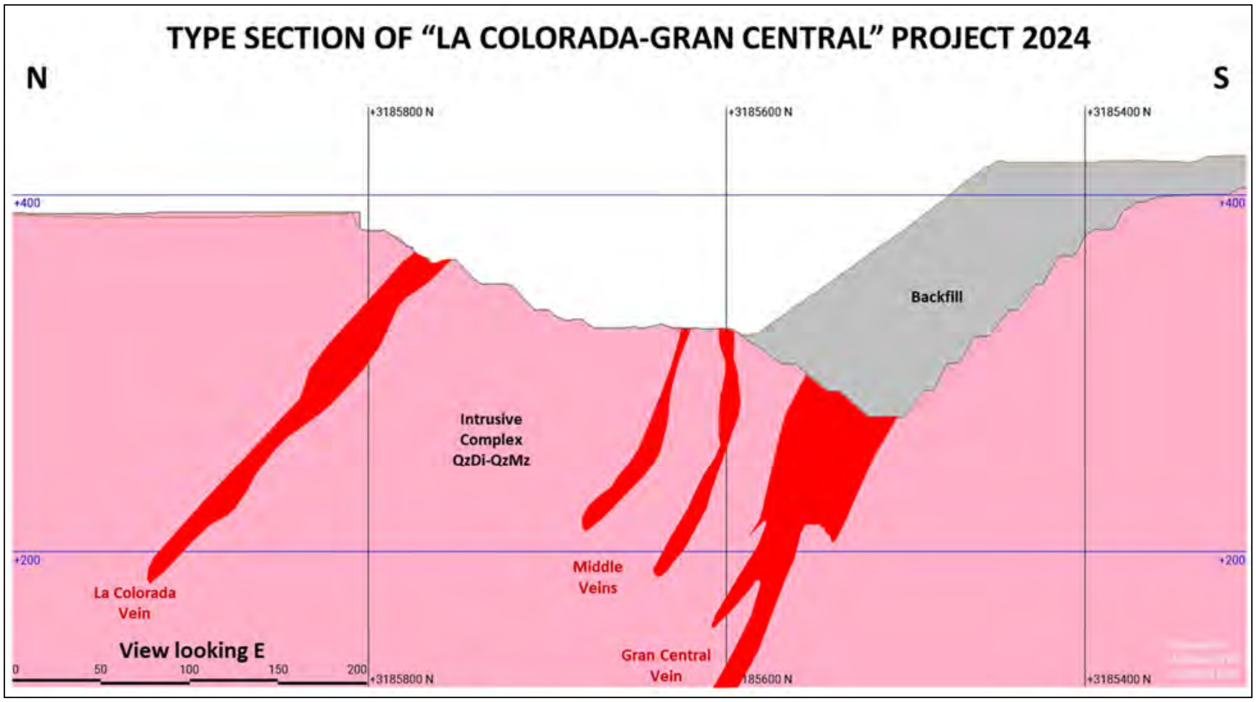
Veta Madre is a massive, mineralized body that differs from the El Crestón and La Colorada/Gran Central deposits, where the mineralization occurs in three main veins. Veta Madre is a vein-fill system with a preferred strike of N65E and a steep dip to the northwest. The thickness of the Veta Madre ore body varies; in the eastern and shallower zones, it measures only 10–15 m wide, while at greater depths and to the west, it can exceed 100 m in width.

Figure 7-4: La Colorada/Gran Central Pit Area Geology



Note: Figure prepared by Heliostar, 2024

Figure 7-5: La Colorada North–South Cross-Section



Note: Figure prepared by Heliostar, 2024. Figure looks east.

7.3.3.4 Alteration

The main alteration associated with mineralization is silicification related to the vein-fill system, with restricted propylitic halos, primarily composed of chlorite and calcite, with minor epidote. As a secondary event, intense oxidation is linked to the high degree of fracturing in the mineralized zone.

7.3.3.5 Mineralization

Veta Madre, like La Colorada/Gran Central and El Crestón, is part of a single mineralizing system. This system was formed as a vein-fill, located within a regional structure oriented approximately east–west and dislocated by multiple normal faulting events. This geological activity is associated with the extension of the Basin and Range and low-angle listric faulting that dislocates the main orebodies.

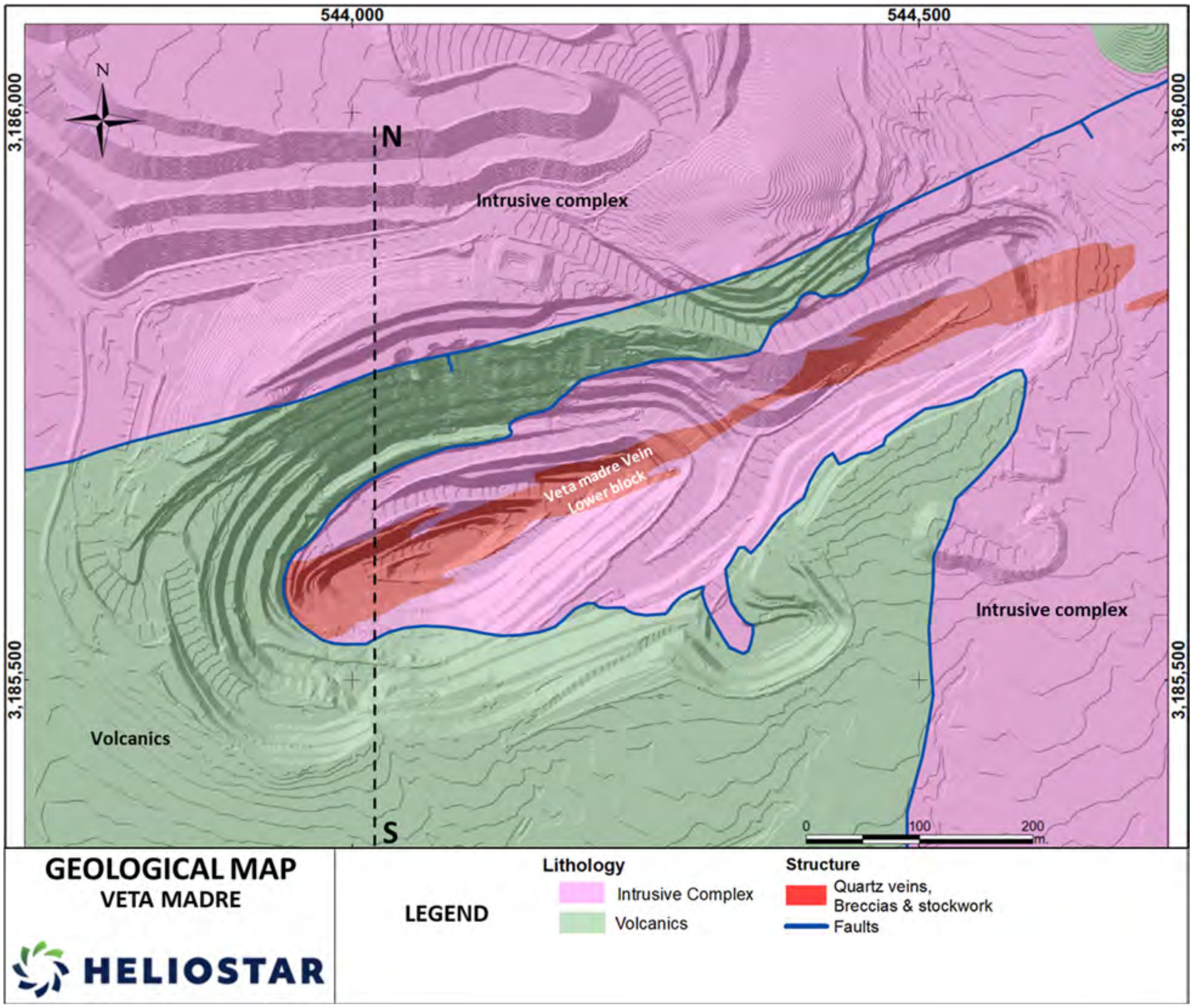
Veta Madre is characterized by the presence of breccias and multi-stage quartz veins, developing crustiform textures, banding, and blade textures. Veta Madre is mostly in an advanced state of oxidation, with occasional fresh pyrite and traces of galena and sphalerite observed. The mineralization is primarily associated with quartz veining that occurs in multiple stages, followed by the formation of hematite after the oxidation of sulphides. Occasionally, barite and magnetite are identified.

Gold occurs in quartz as electrum containing 70–75% gold and 25–30% silver. Silver-rich mineralization is associated with polymetallic veinlets of galena, sphalerite, argentite, and occasionally traces of chalcopyrite.

Figure 7-6 is a plan view of the geology in the Veta Madre area.

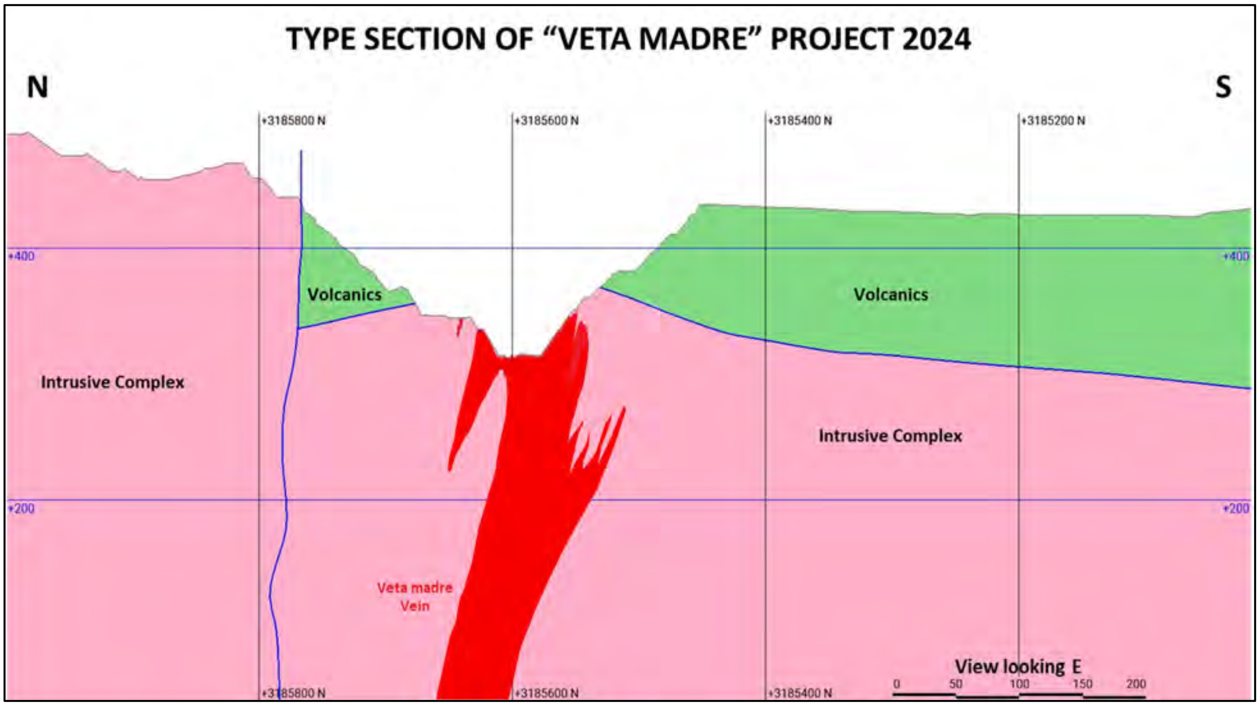
Figure 7-7 is a cross section view through Veta Madre looking northeast. The location of cross section A-A' is shown in Figure 7-6.

Figure 7-6: Veta Madre Pit Area Geology



Note: Figure prepared by Heliostar, 2024

Figure 7-7: Veta Madre North–South Cross Section



Note: Figure prepared by Heliostar, 2024. Section looks east.

8.0 DEPOSIT TYPES

8.1 Overview

The La Colorada deposit is an atypical gold–silver deposit located in the centre of Sonora. It is not similar to the typical epithermal systems of the Sierra Madre Occidental, with a marked northwest control and lesser northeast-trending structures. The deposit type is not well constrained and a number of deposit types have been suggested.

Epithermal-type gold–silver deposits in the Pacific Rim and in Eurasia were the source of much of the world's gold supply. This has resulted in an improved understanding of epithermal-type precious metal deposits and has allowed for construction of models which could be very useful in future exploration of the La Colorada Project. The following comments are based largely on papers by Hedenquist (2000) and Simmons (2005).

Epithermal deposits are found in the shallow parts of subaerial high-temperature hydrothermal systems and are very important in Tertiary to Recent calc-alkaline and alkaline volcanic rocks. Host rocks are variable and include volcanic and sedimentary rocks, diatremes, and domes. Structural controls include dilatant zones related to extensional faulting and favourable lithologies in permeable or brecciated host strata in the near-surface environment. Although some mineralization can be disseminated, most commonly mineralization is hosted by steeply-dipping vein systems.

Mineral textures include banded, crustiform–colliform and lattice textures composed of platey calcite sometimes pseudomorphed by quartz. An important feature of epithermal deposits is a pronounced vertical zonation, with quartz veins carrying base metal sulphide mineralization at depth, becoming silver-rich higher in the system and finally gold-rich near the top.

Low-sulfidation deposits typically range from veins, through stockworks and breccias to disseminated zones. Mineralized bodies in low-sulfidation systems are commonly associated with quartz and adularia, with carbonate minerals or sericite as the major gangue minerals. Major metallic minerals can include pyrite/marcasite, pyrrhotite, arsenopyrite and high-iron sphalerite. Less abundant metallic minerals include native gold and electrum, cinnabar, stibnite, gold-silver selenides, sulfosalts, galena, chalcopyrite and tetrahedrite/tennantite. Hedenquist (2000) stated that hot spring sinter can form above a low-sulfidation deposit and that the clay alteration associated with a deposit can extend above the deposit towards the surface and have an aerial extent significantly larger than the actual mineral deposit. In some cases, mercury mineralization, and/or geochemically anomalous arsenic, antimony, and tellurium are found near the top of the deposit and in the overlying siliceous sinter.

8.2 Features of the La Colorada Deposits

According to Herdrick (2007), the La Colorada Project area contains at least three parallel vein trends on which underground and open pit mining were conducted. Targeting of drill holes is based on structural analysis and vertical zoning recognized in the district, and fluid inclusion and alteration studies which indicate that gold mineralization exposed in the pits resulted from boiling in the epithermal system. The upper parts of a boiling system are typically recognized as barren alteration zones, overlying potentially gold bearing parts of the vein structure at depth. The higher barren levels of the La Colorada Mineral system, if they existed, have since been lost to erosion resulting in mineralization being well exposed at the surface.

Fluid inclusion studies by Albinson (1997) indicated mineralizing temperatures for the deposit were mostly in the high 200°C to mid-300°C range and the system was a relatively hot epithermal environment. Albinson classified the veining at La Colorada as either deep epithermal or high level magmatic–mesothermal in origin. He went on to state that the system was likely related to shallow level plutons emplaced above a copper porphyry system. His studies also identified two styles of mineralization. The first was the main structurally-controlled primary hydrothermal quartz vein system with associated gold–silver and base metal mineralization. The second represented an overprinting supergene enrichment of gold. This younger gold event is hosted by cross-cutting fractures with associated iron oxides. In the samples studied, he identified high-grade zones of coarse gold with oxides that filled cross cutting vugs and fractures. Albinson theorized that the gold was leached out of adjacent primary veins.

This observation was supported by Perez (2017) who also identified two phases of gold mineralization, including the late supergene enrichment. Perez's work was designed to characterize how gold occurred within the mineralized zone and how this ultimately related to gold recoveries. The study noted that the majority of primary gold was electrum with a ratio of 60% gold and 40% silver. Lesser amounts of microscopic gold occurred in pyrite and in association with galena and sphalerite. In confirming Albinson's recognition of a gold enrichment overprint, Perez also determined that the enriched zone was gold only, with little or no silver.

Zawalda et al., (2001) noted that, at El Crestón, the spatial relationship of the vein system to intrusive rocks, the relatively deep environment of formation, the presence of low to moderately high salinities, and the association of gold mineralization with base metals and quartz–carbonate veins suggest similarities with quartz–carbonate–basemetal–gold systems. These deposits can occur zoned in a distal position above porphyry copper–gold deposits. Thus, the El Crestón deposit appears to be situated between possible deeper copper porphyry mineralization and a near-surface epithermal environment.

To further characterize the La Colorada system, in the intermediate zone of La Colorada/Gran Central, molybdenum was identified in veinlets, hosted in diorite and rhyolitic porphyry, sometimes with a halo of potassium feldspar and fine secondary biotite, especially in diorite (Navarro, 2016). Copper porphyry type alteration, probably as an early event, is overprinted by structurally-controlled gold–silver veins with associated base metals occurring with the gold system and in late structural environments more distal to the porphyry centre. The La Colorada vein system is post-intrusive and post-skarn in age, and may be termed either deep epithermal or high-level magmatic–mesothermal in origin and developed above a copper porphyry system.

8.3 QP Comments on Section 8

Models that use a deeper epithermal or high-level magmatic–mesothermal concept are considered applicable to the Project area, and can be used for exploration vectoring.

9.0 EXPLORATION

9.1 Introduction

All of the exploration activity discussed in this Report section was completed prior to Heliostar's Project interest. Subsequent to acquisition, Heliostar has focused on verification and validation of the data provided by Argonaut.

9.2 Legacy Exploration Work

Work conducted prior to Argonaut's Project interest is referred to as legacy programs.

Legacy exploration work at La Colorada included mapping, surface geochemical sampling, trenching, and geophysical surveys. Table 9-1 summarizes the documented legacy exploration work conducted on the Project.

9.3 Grids and Surveys

Argonaut used the Universal Trans-Mercator (UTM) Zone 12 coordinate system and the North American Datum of 1927 (NAD27 UTM) for surveying. This spatial reference system was used in the location of drill holes, surface sampling, and geological mapping.

9.4 Geological Mapping

During 2013, Argonaut carried out geological mapping of the La Colorada/Gran Central and El Crestón open pits. The mapping was carried out at a scale of 1:1,000, and lithology, structures, alteration, and mineralization were recorded. The data were collected on paper and subsequently digitized. The digitized data were exported to three-dimensional (3D) modeling software.

The main contributions of the geological mapping campaign were to document the mineralization controls, direct the drilling programs, identify trends in mineralization, and identify structures that cut the Project area.

Geological mapping was also the main guide in identifying the main geotechnical risk areas of the pit slopes by detecting and projecting structures that form wedges.

9.5 Geochemical Sampling

During 2011, Argonaut's regional exploration program at La Colorada included soil sampling in the Veta Madre East and Los Duendes areas. Sampling was conducted on a 50 m by 100 m grid and samples were collected from the B and C soil horizons, with depths ranging from 20–45 cm. Detailed information for all samples was recorded in paper notebooks and later transferred to the surface sample database. All samples were placed in cloth bags. A total of 99 samples were collected in the Los Duendes area and 61 were collected in the Veta Madre East area.

Table 9-1: Legacy Exploration Work

Date	Description of Work
1990s	Eldorado conducted geological mapping, surface sampling of rock and soils, geophysical programs, and trenching.
2007	Pediment Gold conducted an exploration program that included surface sampling and mapping.

In 2008, 1,905 soil samples were collected along north-south lines spaced 100 m apart and with a sample spacing of 25 m. These samples outlined a 2.2 km-long northeast-trending gold-in-soil anomaly.

In 2012 and 2023, Argonaut conducted a mobile metal ion (MMI) soil survey in the Tinajitas, La Verde NE, and Veta Madre East areas. The 2012 survey consisted of 10 north–south lines spaced 150 m apart with a 25 m sample spacing and the 2023 survey comprised four additional north–south lines spaced 250 m apart with a 25 m sample spacing. A total of 488 samples were collected. Soil samples were submitted to SGS for MMI analysis. Interpretation of the MMI results helped to refine areas for additional exploration in these areas.

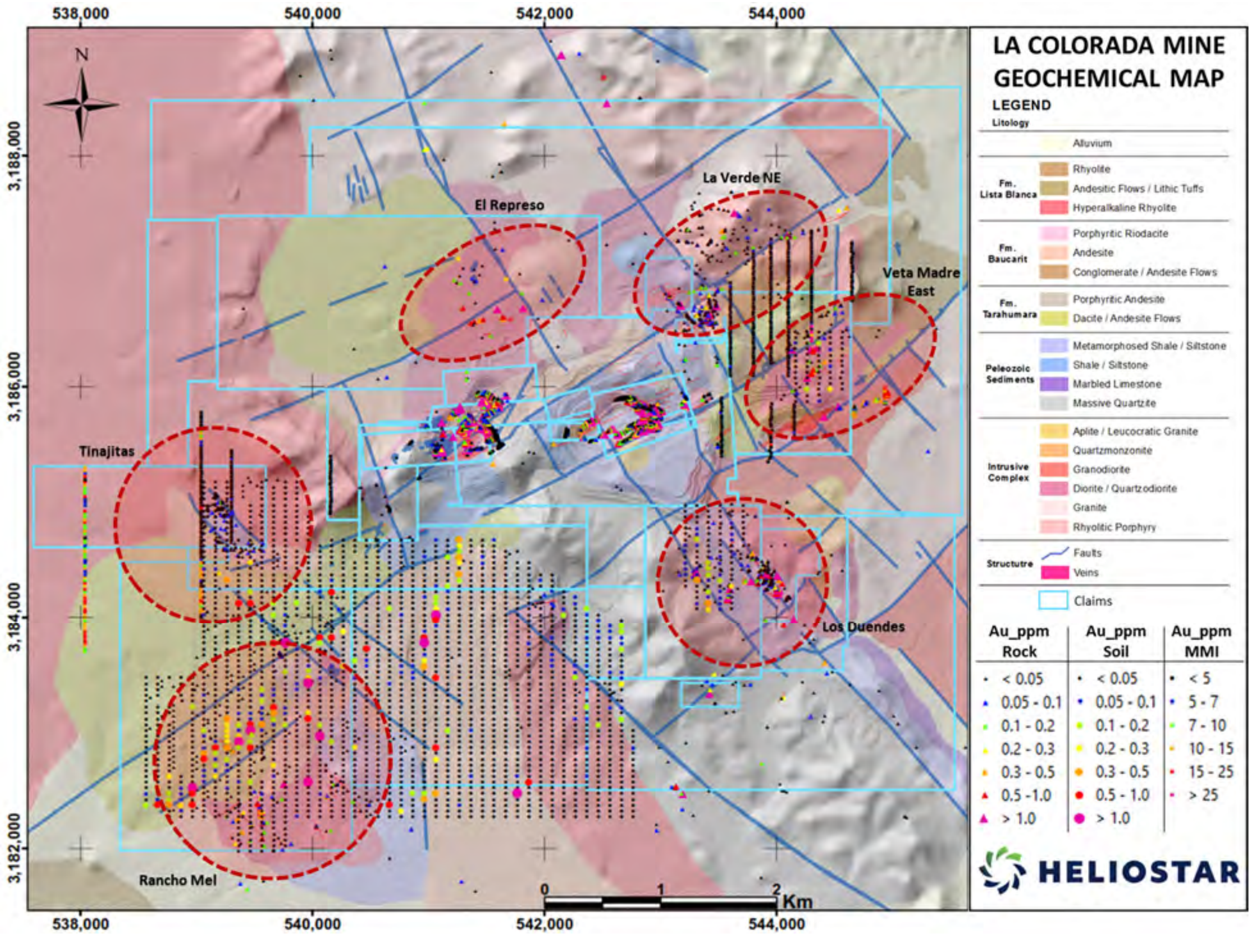
Argonaut geologists also collected surface rock samples and recorded associated geological and technical data in field books, including UTM coordinates, lithology, and mineralization style. The samples were placed in plastic sample bags, tagged, and the locations recorded in the surface sample database. The plastic bags were sealed using plastic ties and all samples were taken to the La Colorada office facilities.

In the Sombreretillo area to the northeast of the Veta Madre deposit, small outcrops were sampled that contained structures with quartz and oxide mineralization. These structures were hosted by dacitic rocks with abundant quartz veinlets and were oriented parallel to the mineralization trend in the Veta Madre area. A siltstone-hosted mineralized structure trending to the northwest was rock chip sampled in the Los Duendes area, and several rock samples reported anomalous gold grades.

General reconnaissance of two concessions, Red LCA 2 and Red 2 LCA, located to the south of the La Colorada Mine, was also carried out. Results from that work showed the presence of several north–south-trending mineralized veins and structures that retain exploration potential. Soil sampling results in both areas were positive.

Figure 9-1 shows soil and rock geochemical sampling carried out by Argonaut.

Figure 9-1: Argonaut Geochemical Sampling

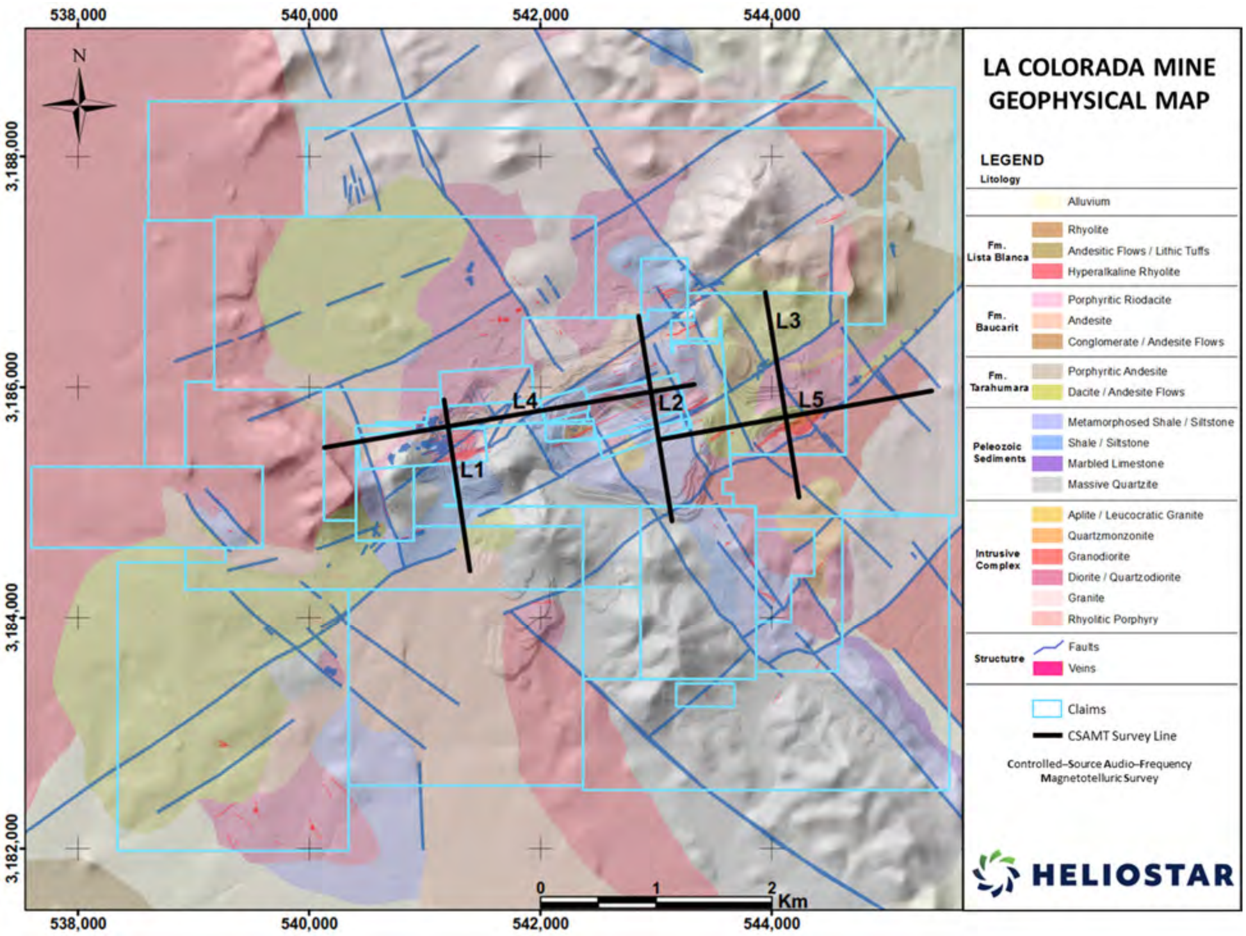


Note: Figure prepared by Heliostar, 2024

9.6 Geophysical Surveys

In 2012, Argonaut contracted the services of Zonge International Inc. to carry out a controlled source audio-frequency magnetotelluric (CSAMT) geophysical survey. The survey consisted of five lines, three perpendicular and two parallel to the main known mineralization trends (Figure 9-2). The objective was to test the sensitivity of the high-resolution CSAMT method for mapping subsurface resistivity and mineralized trends. The study was completed with excellent data quality and the results showed very good correlation with the mapped geology. In addition, the results showed some promising geophysical signatures in the lines completed east of the open pit areas.

Figure 9-2: 2012 Argonaut CSAMT Geophysical Survey



Note: Figure prepared by Heliostar, 2024

In May 2021, Argonaut contracted A-Geommining to conduct an induced polarization (IP) resistivity survey in the El Crestón area. Four lines between 190–295 m in length were surveyed on active benches at the bottom of the El Crestón open pit. Dipole spacing was 5 m (Figure 9-3). The objectives of the survey were to map faults and structures and determine the existence of historical workings in the immediate 60 m below the El Crestón open pit. Areas of structure and historical workings were identified that assisted in exploration and mining activities.

9.7 Petrology, Mineralogy, and Research Studies

In 2013, Argonaut carried out a geologic reinterpretation and geochronology study. Argonaut also carried out several petrographic, mineralogy, and characterization studies of gold and silver minerals. These studies helped to better understand the deposits, improve geological interpretations, and understand the metallurgical recoveries of the deposit.

Figure 9-3: Argonaut IP Resistivity Geophysical Survey

Note: Figure prepared by A-Geommining, 2021.

9.8 Geotechnical and Hydrological Studies

During 2015, Argonaut drilled five oriented core drill holes with a diameter of HQ (6.2 cm). The objective of this campaign was to evaluate the quality of the rock in the northwest wall of the El Crestón pit. This area was identified as potentially unstable, so the drill holes were designed to evaluate the extent of the issue. As a result of this drilling campaign, Argonaut concluded that the quality of the rock on the northwest wall was very poor and recommended that a special study be conducted to provide recommendations for potentially modifying the mine design.

9.9 Metallurgical Studies

From 2011–2012, Argonaut conducted a core drill hole program to collect samples and form composites for metallurgical tests. Ten composites were prepared to test the metallurgical behaviour of the three main deposits: La Colorada/Gran Central, El Crestón, and Veta Madre. Seven composites were collected from La Colorada/Gran Central, two composites were collected from Veta Madre, and one was collected from El Crestón. The samples were sent to Kappes, Cassiday & Associates (KCA) for study.

During 2019, Argonaut sampled three trenches in the eastern area of Veta Madre for metallurgical tests. The trenches were excavated with a Caterpillar D8-T tractor. The dimensions of the trenches were approximately 4.5 m wide by 20 m long (perpendicular to the mineralized structures) and had a variable depth no less than 2 m to avoid weathered rock. Three samples of approximately 5 t were collected to obtain a composite for each trench and were sent to the internal mine laboratory for study.

In 2020 and 2021, Argonaut drilled seven PQ size core drill holes (8.5 cm diameter) in the Veta Madre area to obtain samples for metallurgical testing. The entire volume of the mineralized core was consumed for metallurgical testwork. A composite was made from the material obtained from each drill hole and the composites were sent to the internal mine laboratory for study.

The metallurgical testwork from these programs is discussed in Section 13.

9.10 Exploration Potential

There are eight principal exploration opportunities at La Colorada.

9.10.1 Eldorado WRSFs

Modern mining at La Colorada began in the 1990s, when gold prices were much lower and mining cut-off grades were much higher. Consequently, the pits were smaller, and more of the material coming from the pits that was sent to the WRSFs was proximal to mineralization than was the case during Argonaut's operations. Material in the Eldorado WRSFs requires re-investigation for potential as heap leach feed material.

9.10.2 El Crestón Inpit Drilling

Within the ultimate pit design at El Crestón, large areas are modeled as unmineralized material because those areas have not been drilled. Heliostar believes that some of these areas may be mineralized. These areas are shown in red as extension targets in Figure 9-4. This concept is being partially tested by the 2024 drill program.

9.10.3 El Crestón Oxide Depth Potential

The oxide mineralized zones within the El Crestón pit remain open at depth and warrant additional investigation assuming both open pit and underground mining methods. These targets are shown as yellow depth targets in Figure 9-4, and are being partially tested by the 2024 drill program but remains substantially open.

9.10.4 Underground

Mining and ore control in all three pits indicate that there are mineralized zones that remain open at depth. An example of underground potential at Gran Central is shown in Figure 9-5. Argonaut internally evaluated the potential for underground mining operations below the open pits, and Heliostar plans to explore this opportunity.

9.10.5 Veta Madre Depth Potential

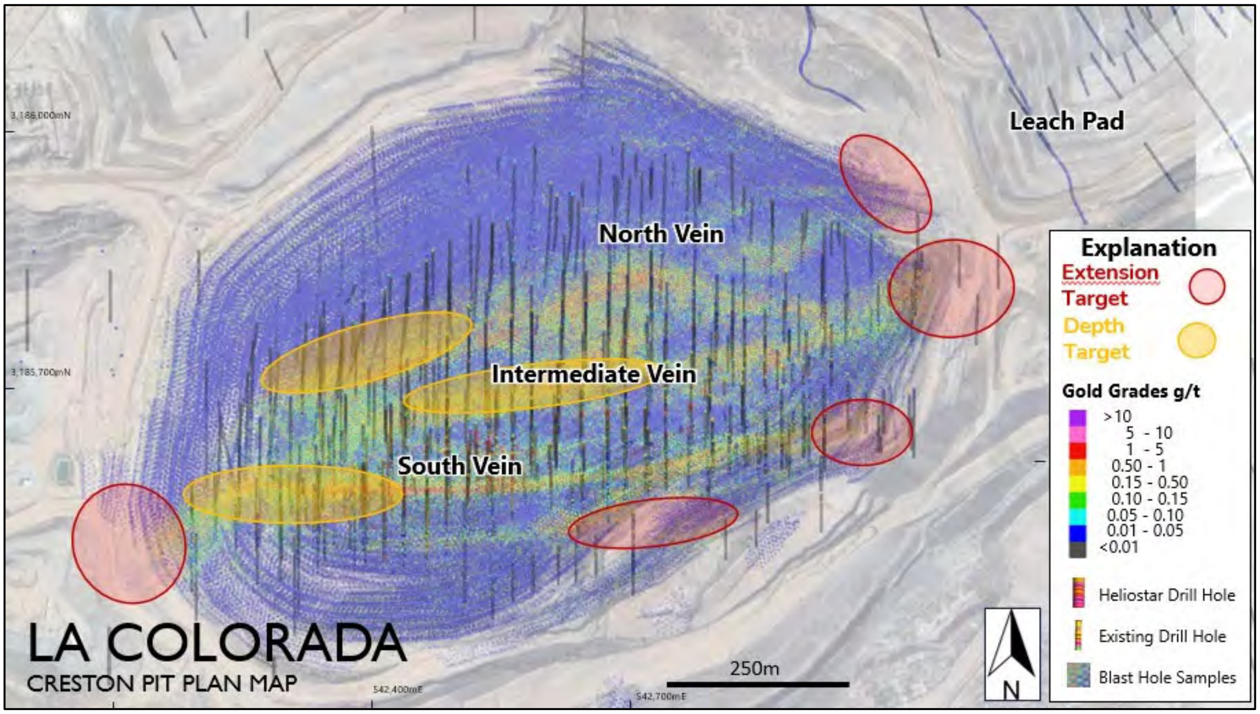
The mineralized zone at Veta Madre plunges moderately to the southwest and is open at depth and down plunge (Figure 9-6).

Drilling to the west demonstrates that mineralization continues but did not test the main mineralized corridor. Furthermore, trenching and rocks indicate the corridor continues to the east and may have parallel zones to the south.

9.10.6 Near Mine Strike Potential

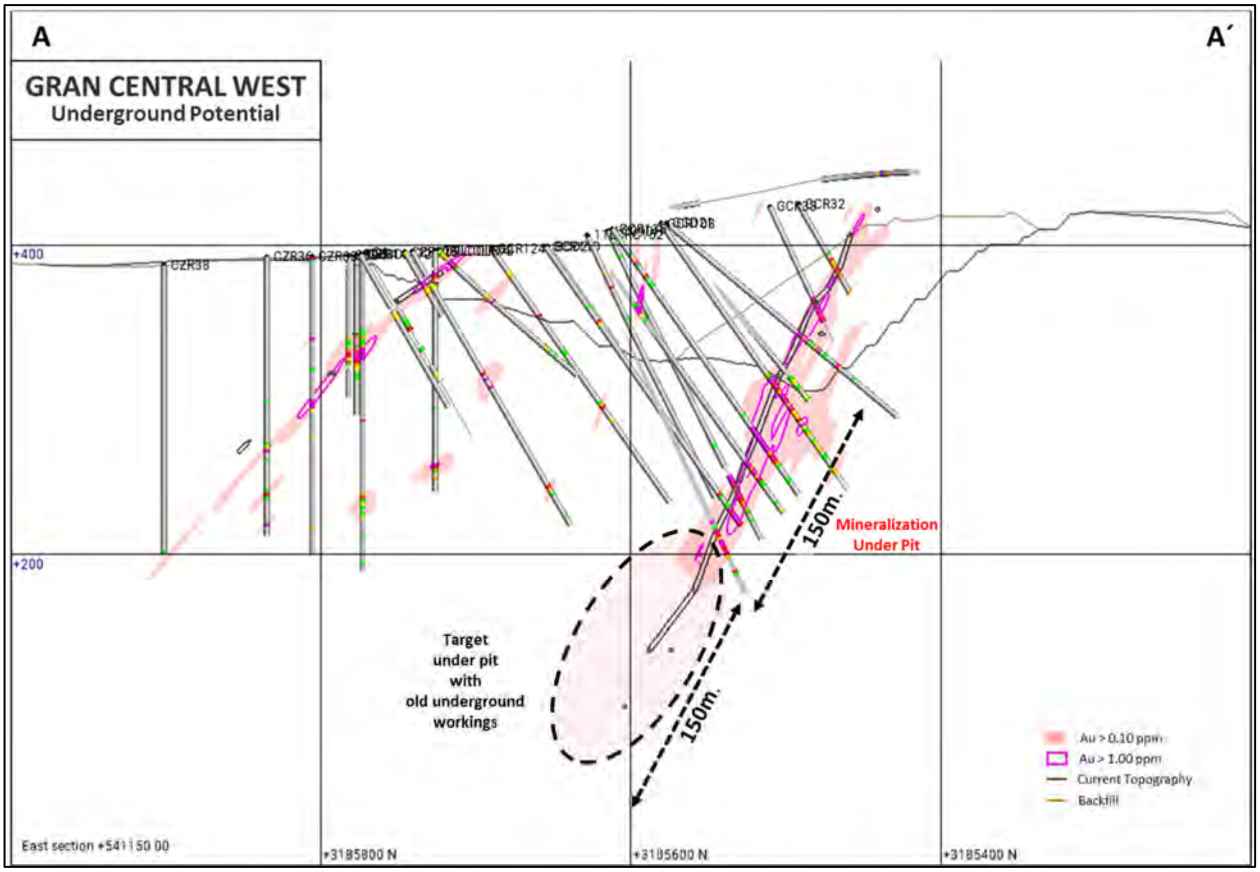
Many of the main mineralized corridors exploited by the La Colorada/Gran Central, El Crestón, and Veta Madre pits remain poorly tested along strike. These mineralized zones are hosted by large scale structural features that are believed to be laterally extensive. Many of these zones have been offset by later cross cutting faults. Only limited historical drilling has been completed to look for the continuation of the major mineralized corridors. Near mine targets along strike at El Crestón are shown in red as extension targets in Figure 9-4.

Figure 9-4: El Crestón Exploration Targets



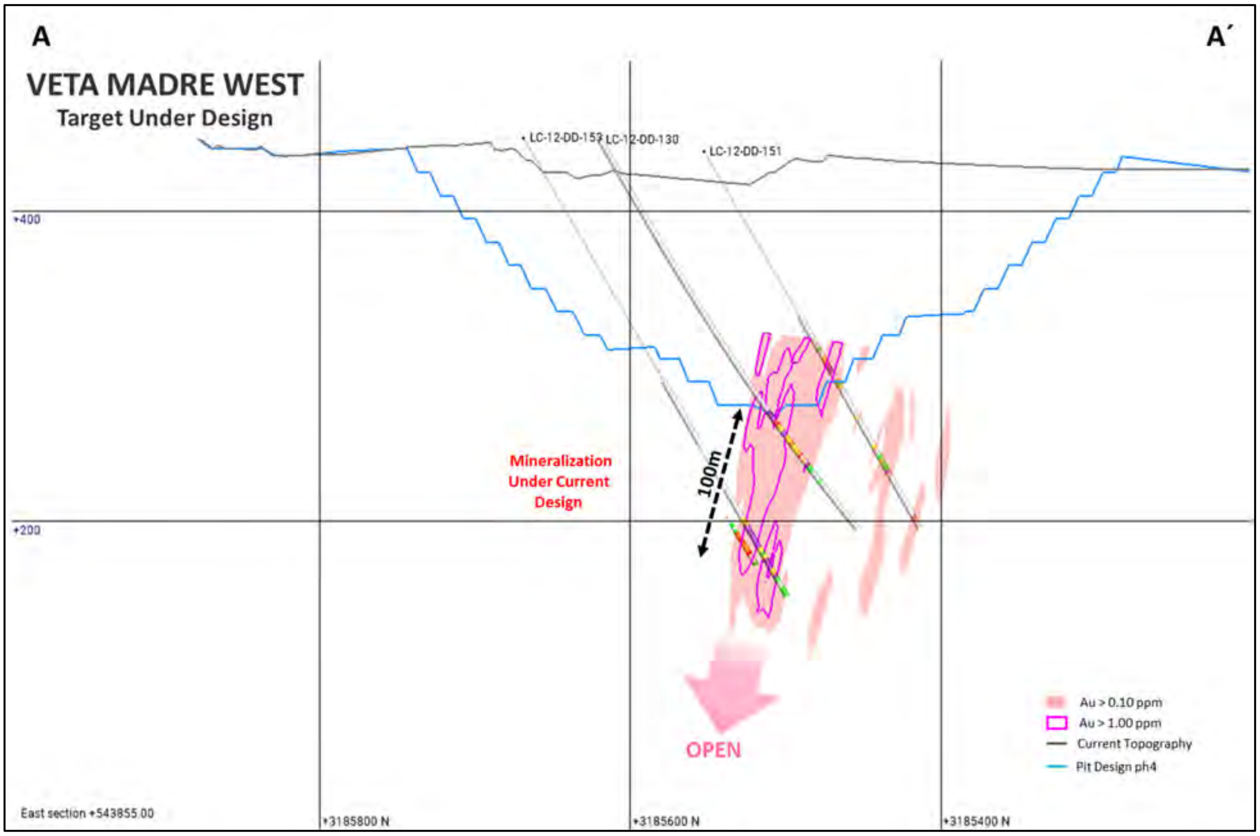
Note: Figure prepared by Heliostar, 2024

Figure 9-5: Gran Central Exploration Potential



Note: Figure prepared by Heliostar, 2024. Figure looks east.

Figure 9-6: Veta Madre Exploration Potential



Note: Figure prepared by Heliostar, 2024. Figure looks east.

9.10.7 District Exploration Southern Area

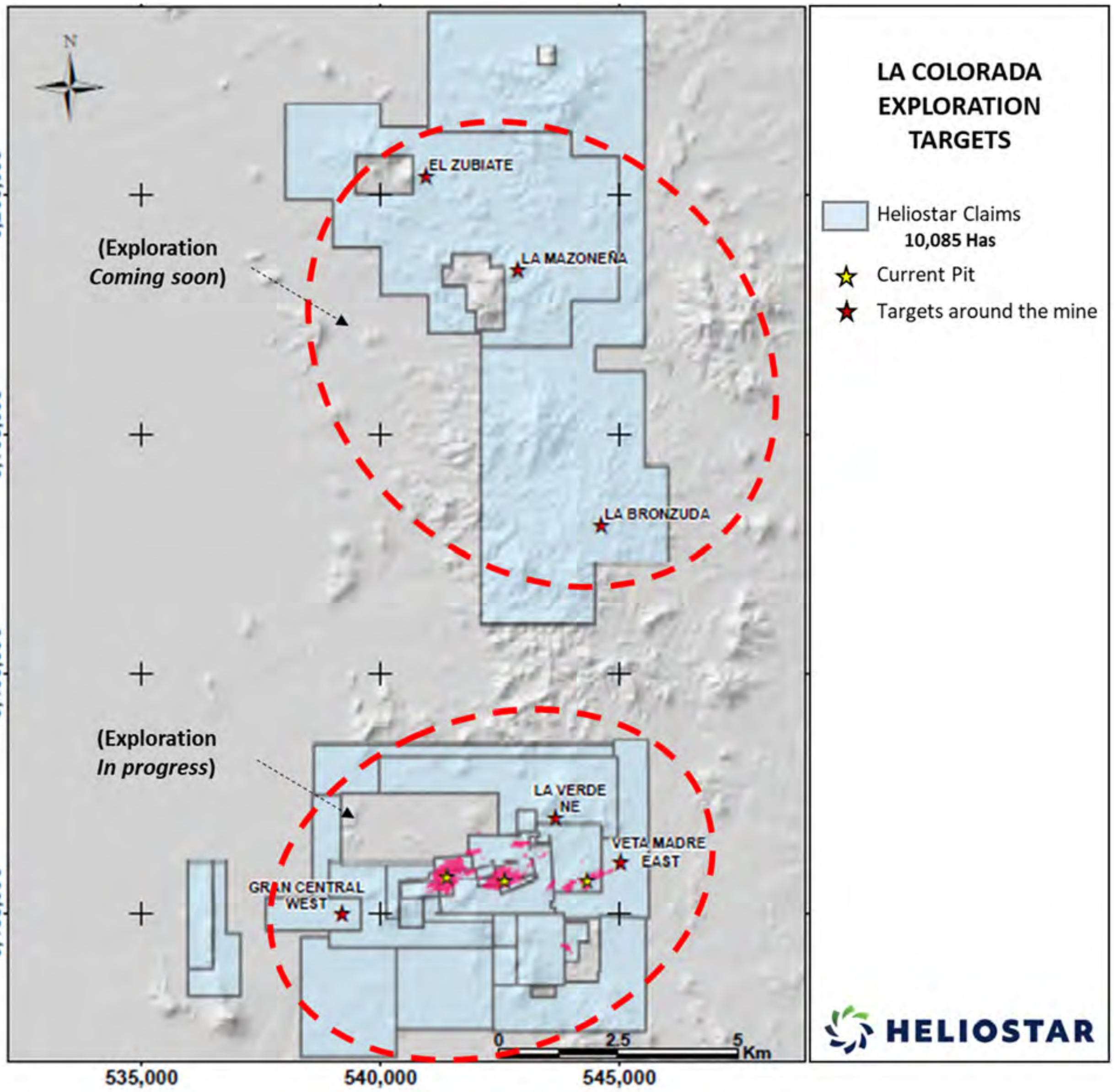
Historical rock and soil sampling campaigns in the areas surrounding the La Colorada mine have defined a number of prospects and targets that remain either undrilled or minimally drill tested (Figure 9-7). Examples include:

- Ranch Mel to the south where a gold in soils anomaly extends for more than 1.5 km and has not received follow-up mapping or drilling exploration;
- Los Duendes to the southeast where shallow vertical RC drilling defined a small oxide mineralized zone but angled core drilling, which is better suited for these systems, was never undertaken;
- Tinajitas, to the west, requires additional drilling to follow-up on historical mining and rock sample geochemistry anomalies;
- Additional targets include El Represo, La Verde, and Veta Madre East.

9.10.8 District Exploration Northern Area

Heliostar holds 10,085 ha of claims in the greater La Colorada land package. The northern portion of this land package has not been systematically explored (Figure 9-7). This should be systematically explored by sequenced sampling and mapping campaigns including bulk leach extractable gold (BLEG) stream sediment sampling, rocks and soils, and regional mapping and geophysics followed by focused mapping and sampling follow-up of prioritized targets.

Figure 9-7: Near-Mine and Regional Exploration Targets at La Colorada



Note: Figure prepared by Heliostar, 2024.

10.0 DRILLING

10.1 Project Drilling

Heliostar, Argonaut, Pediment Gold, and Eldorado conducted drill programs from the 1980s to 2024.

Drilling totals 1,977 holes for 250,057.47 m, consisting of 1,655 RC drill holes (196,245.83 m) and 322 core holes (53,811.64 m). A Project drill summary table is provided as Table 10-1, and a drill collar location plan in Figure 10-1.

10.2 Drilling Used in Mineral Resource Estimates

Drilling used in estimation consisted of 1,049 holes for 140,414.84 m, comprising 890 RC drill holes (108,522.84 m) and 159 core holes (31,892.00 m). A drill summary table for the drilling used in estimation is provided as Table 10-2. Collars are shown on Figure 10-2.

Table 10-3 summarizes the drilling used for the El Crestón estimate; Table 10-4 the drilling used in the Veta Madre estimate, and Table 10-5 the drilling used in the La Chatarrera estimate. Drill collar location plans are provided in Figure 10-3 (El Crestón), Figure 10-4 (Veta Madre), and Figure 10-5 (La Chatarrera).

A comparison of older RC drilling data by RMI in 2018 and Argonaut in 2022 resulted in 56 Eldorado RC drill holes being excluded from the El Crestón resource estimate. Most of the rotary drill holes were drilled early on by Eldorado and were primarily mined out by the earlier mining operation. Blasthole data from previous production operations were used to confirm the Mineral Resource estimation parameters.

There is more metreage drilled and assayed by RC drilling methods than by core drilling methods at Veta Madre. There are 19 surface rock chip trenches that have helped to identify the outcropping mineralized system, but trench assays were not included in the interpolation plan.

10.3 Drill Methods

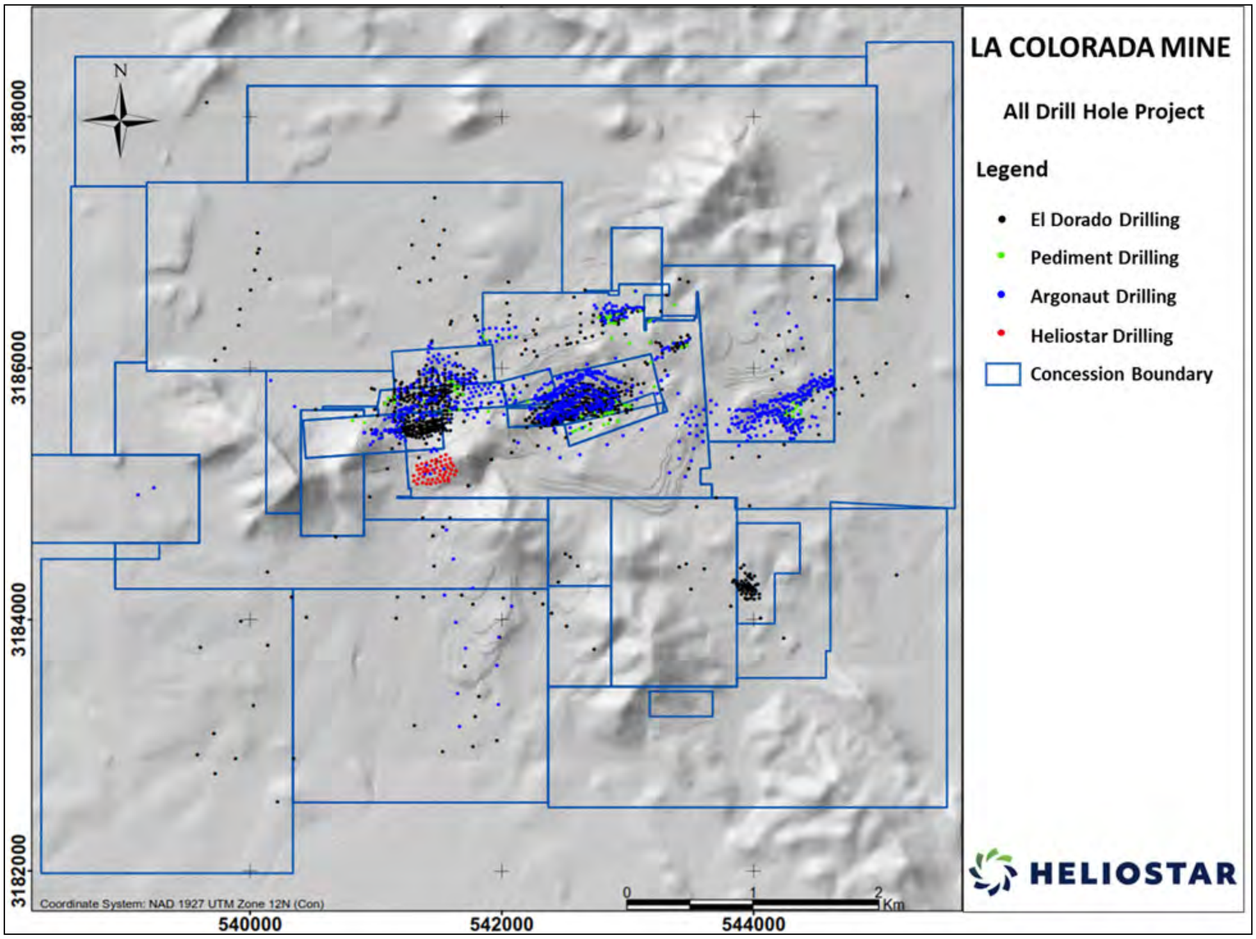
A summary of the drill contractors, where known, is provided in Table 10-6.

Core sizes were drilled at HQ size (63.5 mm core diameter) for exploration and resource drilling, and PQ (85 mm) for metallurgical purposes.

Table 10-1: Project Drill Summary Table

Year	Operator	Area	RC/Percussion Drill Holes		Core Drill Holes (includes RC pre-collar)	
			Number	Metres	Number	Metres
1991-2000	Eldorado	El Crestón, Gran Central, La Colorada, La Verde, NE Extension, Veta Madre, El Represo, Los Duendes, Colorada Norte, Colorada Sur	874	94,408.23	108	12,355.05
2008-2010	Pediment Gold	El Crestón, Gran Central, La Colorada, La Verde, NE Extension, Veta Madre, Leach Pads, Waste Pads	128	12,202.07	5	1,518.70
2011-2023	Argonaut	El Crestón, Gran Central, La Colorada, La Verde, NE Extension, Veta Madre, Leach Pads, Waste Pads	597	87,344.99	209	39,937.89
2024	Heliostar	La Chatarrera	56	2,290.54	0	0
Total			***1,655***	***196,245.83***	***322***	***53,811.64***

Figure 10-1: Project Drill Collar Location Plan

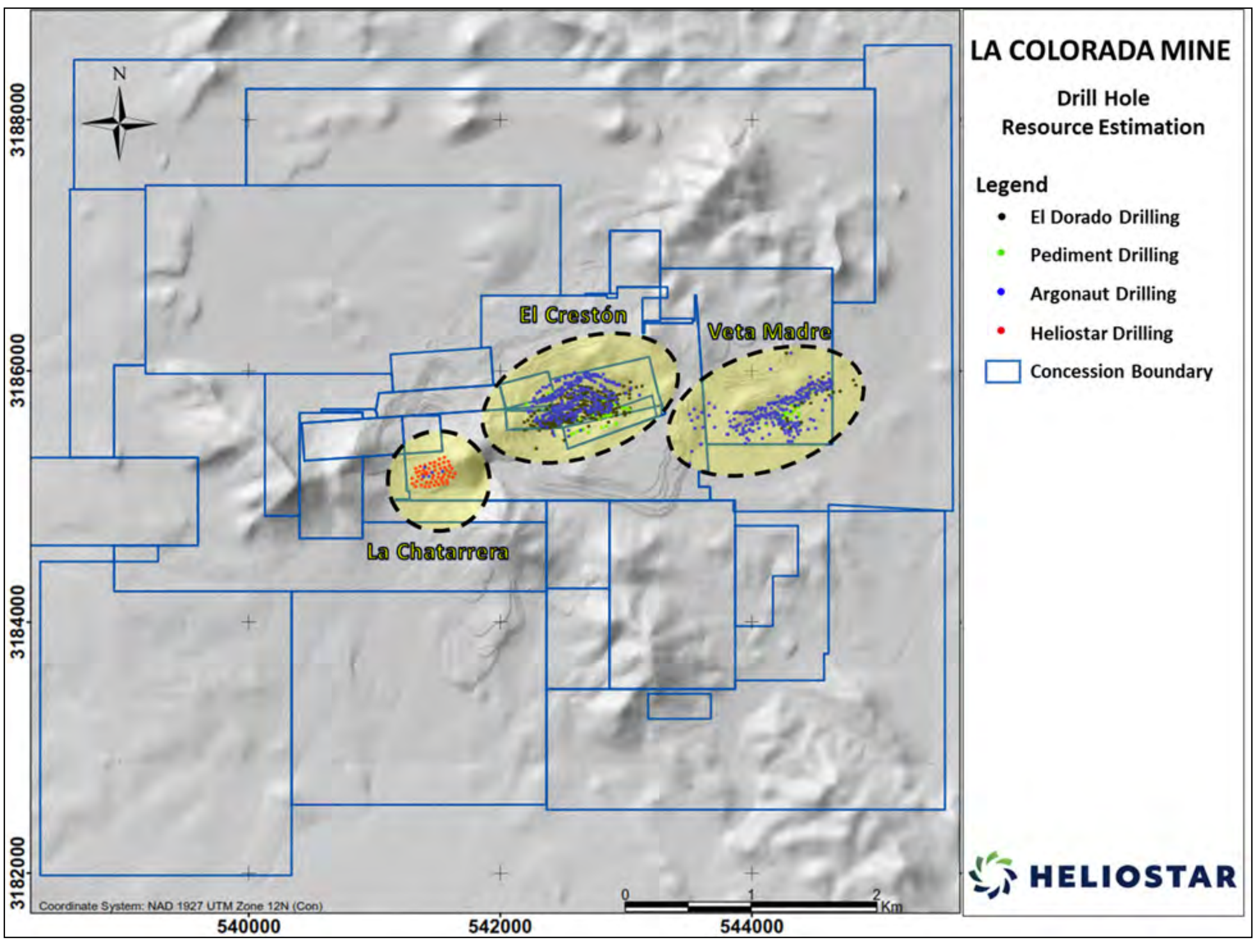


Note: Figure prepared by Heliostar, 2024

Table 10-2: Drilling Used In Mineral Resource Estimation

Year	Operator	Area	RC/Percussion Drill Holes		Core Drill Holes (includes RC pre-collar)	
			Number	Metres	Number	Metres
1991–2000	Eldorado	El Crestón, Veta Madre	334	32,726.62	26	3,327.85
2008–2010	Pediment Gold	El Crestón, Veta Madre	66	6,061.08	0	0
2011–2023	Argonaut	El Crestón, Veta Madre, La Chatarrera	434	67,444.64	133	28,564.16
2024	Heliostar	La Chatarrera	56	2,290.50	0	0
Total			***890***	***108,522.84***	***159***	***31,892.00***

Figure 10-2: Drill Collar Location Plan, Drilling Used In Mineral Resource Estimation



Note: Figure prepared by Heliostar, 2024

Table 10-3: Drill Hole Data Used In El Crestón Estimate

Drill Hole Type	Number of Drill Holes	Total Metres Drilled	Assayed Metres	
			Gold	Silver
Core	66	11,699	11,027	11,041
RC	588	75,914	67,533	67,533
Rotary	39	483	420	271
Total	***693***	***88,096***	***78,980***	***78,845***

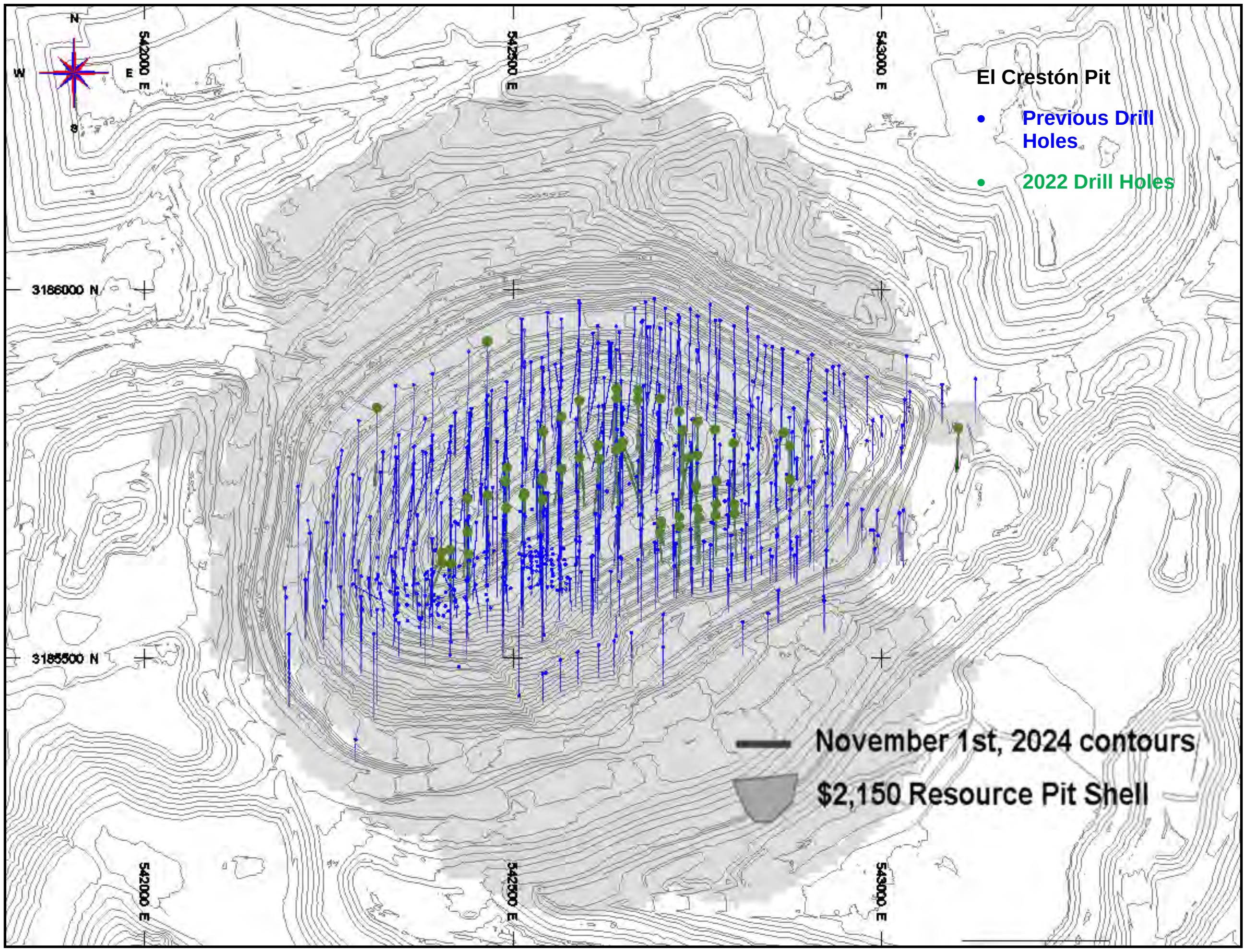
Table 10-4: Drill Hole Data Used In Veta Madre Estimate

Drill hole Type	Number of Drill Holes	Total Metres Drilled	Assayed Metres	
			Gold	Silver
Core	94	20,449	16,461	16,461
RC	205	30,259	26,032	26,032
Total	**299**	**50,708**	**42,493**	**42,493**

Table 10-5: Drill Hole Data Used In La Chatarrera Estimate

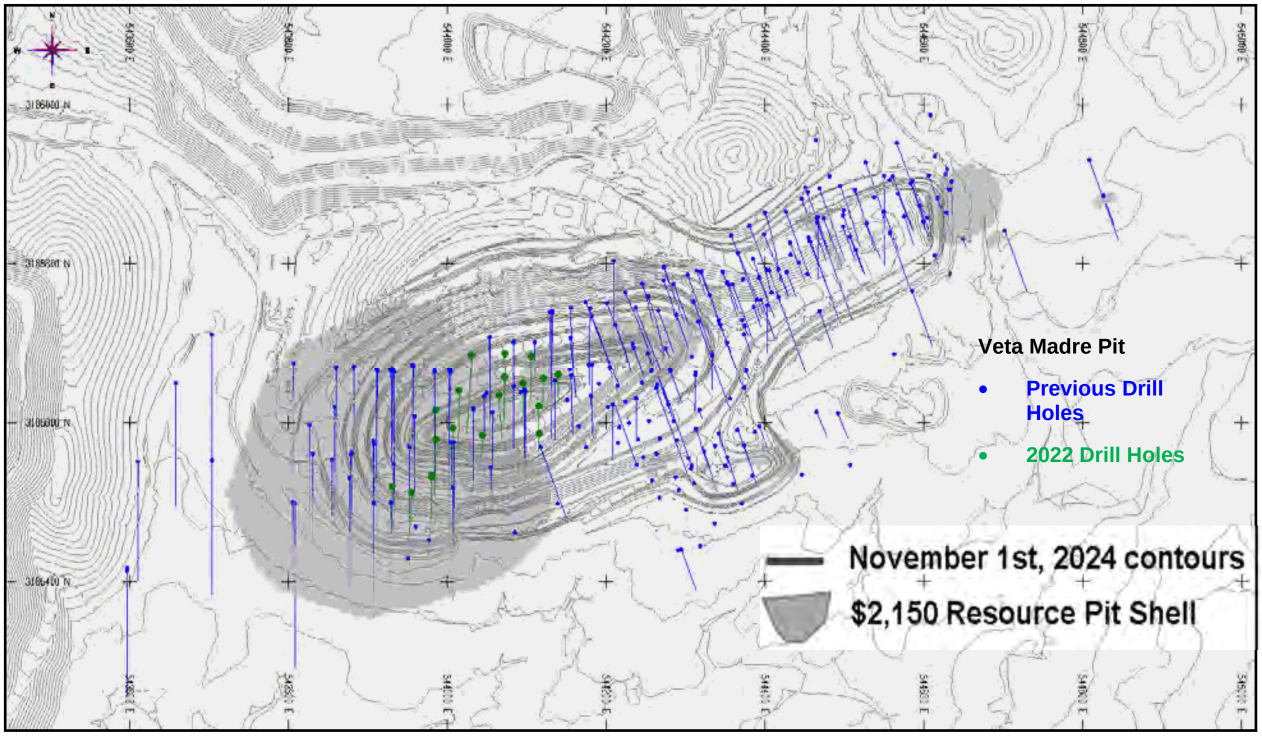
Total Drilling	2011		2012		2024		Total	
	Number	(m)	Number	(m)	Number	(m)	Number	(m)
Percussion	4	149.35	1	45.72	—	—	***5***	***195.07***
RC	—	—	—	—	56	2,290.50	***56***	***2,290.50***
Total	***4***	***149.35***	***1***	***45.72***	***56***	***2,290.50***	***61***	***2,485.57***

Figure 10-3: El Crestón Drill Collar Location Plan, Drilling Used in Estimation



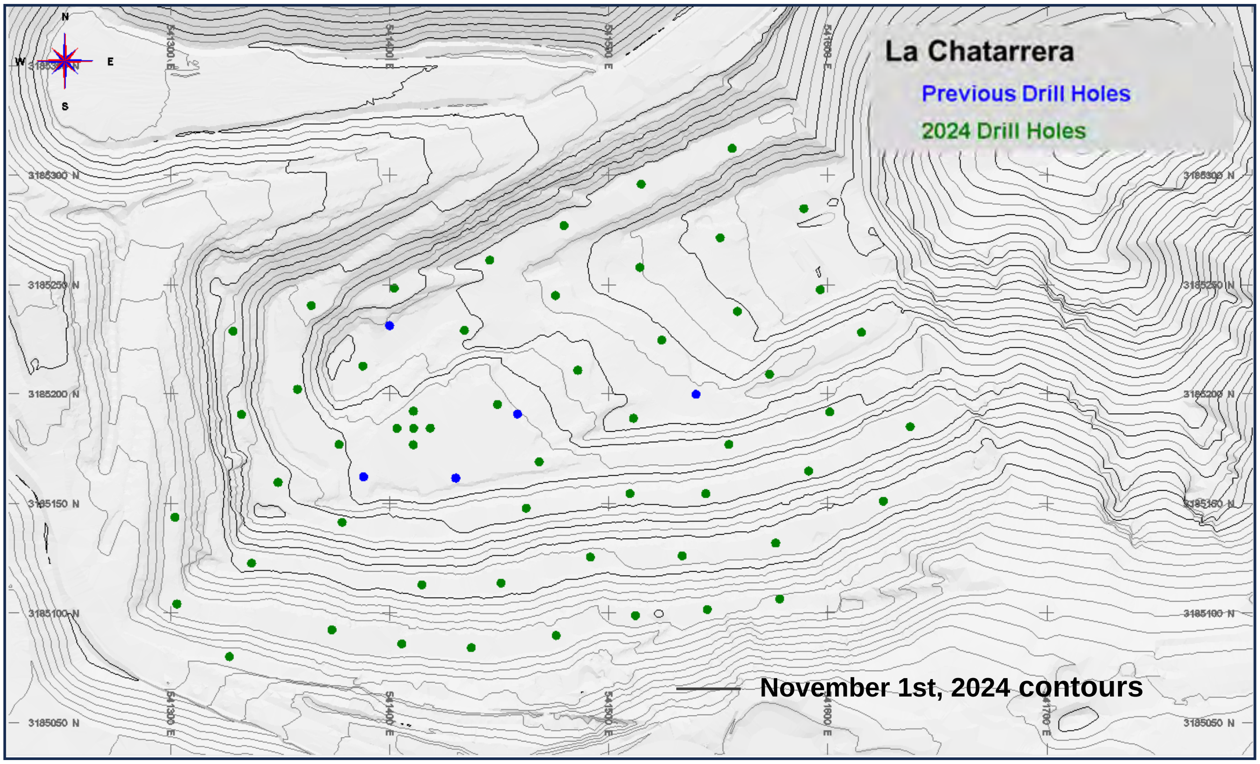
Note: Figure prepared by Heliostar, 2024

Figure 10-4: Veta Madre Drill Collar Location Plan, Drilling Used in Estimation



Note: Figure prepared by Heliostar, 2024

Figure 10-5: La Chatarrera Drill Collar Location Plan, Drilling Used in Estimation



Note: Figure prepared by Heliostar, 2024

10.4 Logging

No records regarding the logging methods used for the Eldorado drill holes remain.

Pediment Gold geologists logged RC cuttings concurrently with drilling using a hand lens and binocular field microscope. The Pediment Gold RC holes were logged for lithology, structure, mineralization, alteration, oxidation, mineralogy, recovery, chip size, and contamination.

During Argonaut programs, RC cuttings were logged concurrently with drilling using a hand lens and binocular field microscope. The Argonaut RC holes were logged for lithology, structure, alteration, oxidation, and mineralogy.

Table 10-6: Drill Contractors

Year/Program	Operator	Contractor	Rig Type	Note
2008–2010	Pediment Gold	Layne de México (Layne)		5⅛ in (130 mm) RC hole diameter
			Skid-mounted Cummins B-20 core drill rig	Used to drill five new drill holes, and two existing drill holes were re-entered.
		Globexplore Drilling S.A. de C.V. (Globexplore)		5.0 in (127 mm) RC hole diameter
2011–2012	Argonaut	Layne		5.0 in (127 mm) and 5⅛ in (130 mm) RC hole diameter
		Major Drilling de Mexico S.A, de C.V. (Major)		5.0 in (127 mm) and 5⅛ in (130 mm) RC hole diameter
		Landdrill International Mexico S.A. de C.V. and Falcon Perforaciones de Mexico S.A. de C.V. (Falcon) both of Hermosillo, Mexico and GDA Servicios Mineros S.A. de C.V. of Chihuahua, Mexico	Two drills were skid-mounted and two were buggy-mounted core drill rigs	Some of the drill holes were drilled using PQ diameter bits to obtain metallurgical samples and others used HQ diameter bits to obtain exploration samples
2013		Globexplore		5¼ in (133 mm) RC hole diameter
		Falcon		HQ diameter
2016–2022		Layne		4.75 in (121 mm), 5.0 in (127 mm) and 5⅛ in (130 mm) RC hole diameter and HQ and PQ diameter bits
2024	Heliostar	Canmex	Ingersoll Rand TH-100 reverse circulation drill rig	5.0 in (127 mm) RC hole diameter

Heliostar RC drill holes at La Chatarrera were logged for lithology concurrently with drilling, using a special set of codes for the materials encountered in drilling the WRSF (e.g. WD for waste dump, AL for alluvium, and TP for tailings). The presence of moisture was also logged.

Argonaut core was routinely delivered to a logging facility where Argonaut geologists inspected the core and recorded core recovery and rock quality designation (RQD) data. The Argonaut core holes were logged for lithology, alteration, mineralization, oxidation, and structure, and core was photographed.

10.5 Recovery

No records regarding sample recovery for the Eldorado drill holes remain.

Pediment Gold and Argonaut core drill holes were consistently logged for recovery and RQD; however, these data were not consistently captured in the drill hole database. RC drill holes were not logged for recovery, but sample weights were recorded prior to shipping samples to the assay laboratory for sample preparation and analysis.

Sample recovery was not determined for the Heliostar RC drill holes at La Chatarrera.

10.6 Collar Surveys

No records regarding the collar surveying methods used remain for the Eldorado programs.

A Brunton compass was initially used for marking the direction of drilling on the drill pads for the Pediment Gold programs. Subsequently, the initial drill pads were located using a handheld global positioning (GPS) system instrument. Upon completion, final surveying with differential GPS instruments (DGPS) was completed to obtain the exact drill hole coordinates. After completion of a drill hole, the site was monumented with PVC pipe encased in a cement block and labelled with the drill hole number.

Argonaut and Heliostar surveyed drill collars using a Trimble R8 global navigation satellite system (GNSS) receiver. Coordinates were surveyed using the UTM Zone 12 North NAD27 system.

10.7 Downhole Surveys

No records regarding the downhole surveying methods used remain for the Eldorado or Pediment Gold programs.

From 2011 to 2020 Argonaut surveyed holes using the Reflex single shot camera. Beginning in 2021 Argonaut surveyed holes using a Stockholm Precision Tools GyroMaster north-seeking gyroscopic instrument.

Heliostar drilling at El Crestón was surveyed down-hole using a Stockholm Precision Tools GyroMaster north-seeking gyroscopic instrument. An initial survey was conducted at 10 m depth and then additional surveys were conducted at 30 m intervals starting at 30 m.

Heliostar drill holes at La Chatarrera were not surveyed downhole because all drill holes were oriented vertically and were <65 m in total depth.

10.8 Geotechnical and Hydrological Drilling

In 2015, Argonaut completed a total of 497 m of HQ oriented core in five drill holes with depths ranging from 58 m to 120 m. The objective of the program was to obtain geotechnical information from the northwest walls of the El Crestón open pit, an area that was recognized as being geotechnically unstable and where an evaluation of the geotechnical condition of the rock was necessary for mine design and planning. This drilling was strictly for geotechnical purposes, so these drill holes were not used to estimate Mineral Resources.

In 2022–2023, Argonaut completed a drilling program of eight HQ oriented core drill holes totaling 2,672 m for a geotechnical evaluation of the planned Phase 4 pushback for the El Crestón pit. The program was jointly planned with Call & Nicholas of Tucson, Arizona. This drilling was strictly for geotechnical purposes, so these drill holes were not used to estimate Mineral Resources.

10.9 Metallurgical Drilling

Between 2020 and 2021, Argonaut completed two core drilling campaigns totaling 712 m. Seven drill holes were drilled with a PQ diameter with depths ranging from 35–178 m. The objective of the program was to obtain samples for metallurgical tests. The entire volume of the drill core was used for metallurgical studies so these drill holes were not used to estimate Mineral Resources.

10.10 Grade Control Drilling

Grade control drilling was conducted by the drilling contractor Construplan using an Epiroc DM-45 rotary tricone and down the hole hammer drill. Blast holes were drilled to 6 m depth (5 m bench height plus 1 m subdrill) on a nominal 4 m by 4 m grid pattern. Argonaut grade control technicians collected grade control samples and transported them to the La Colorada assay laboratory where they were prepared and analyzed.

During 2020 Argonaut drilled 98 m in three short drill holes with the objective of verifying three zones of mineralization encountered by three RC drill holes from a previous drill campaign. These three drill holes were drilled with PQ diameter core. The three drill holes met their objective and the areas of mineralization were confirmed with core samples, confirming the high grade and projected thickness of the area.

10.11 Drilling Since Database Close-Out Date

Heliostar initiated a drilling campaign in October 2024 at El Crestón and Veta Madre. At the Report effective date, 60 core, RC, and RC-pre-collar followed by core drill holes were completed at La Colorada for a total of 8,434.715 m. Four drill holes (834 m) were completed at Veta Madre for metallurgical purposes. Drilling is ongoing at the Report effective date.

The QP reviewed the La Colorada drilling against the block model and concluded that although a few of the post-resource drill holes may contribute to localized changes in resource grade estimation, the drill holes that are situated within the existing model should, in the QP's view, have no material effect on the overall tonnages and average grade of the current Mineral Resource estimate.

10.12 Sample Length/True Thickness

In La Colorada and Gran Central the drilling plan was designed on north-south oriented sections spaced every 25 m. Most of the drill holes had an azimuth of due south (180º) to intersect the structures which have an orientation of azimuth 070º and dipping to the north. Topography is irregular so the drill hole inclinations were variable, but they were designed to ensure even spacing between drill holes down dip. The true thickness of the intersections was mostly very similar to the drilled thickness due to the planning of the azimuth and inclination. Generally, widths reported in the drill holes of Gran Central, La Colorada, and El Crestón represent about 75% of the actual width.

Before 2019 most of the drilling at Veta Madre was oriented vertically. After 2019, with knowledge of the structural controls and post-mineral faults, drill holes were planned on cross sections spaced every 25 m and oriented with an azimuth of 180º and variable inclination. Drill hole inclination was varied to keep drill hole spacing no greater than 35 m in the dip direction. The mineralization is similar throughout the Veta Madre area with strong dips to the north, so drilled widths reported represent between approximately 70–80% of true thickness.

Cross sections showing drilling related to mineralization at La Colorada/Gran Central, El Crestón, and Veta Madre are shown in Figure 10-6, Figure 10-7, and Figure 10-8, respectively.

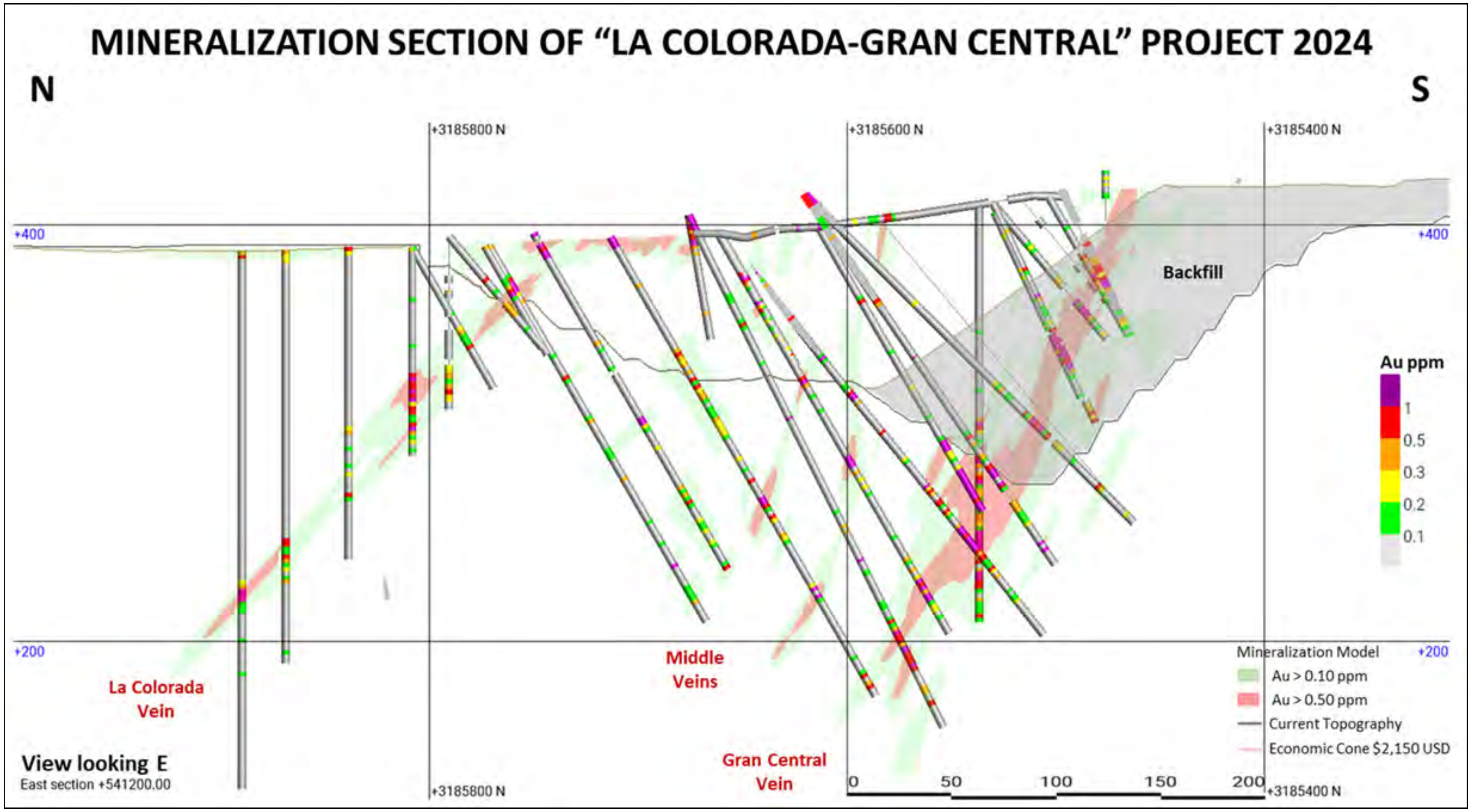
10.13 QP Comments on Section 10

In the QP's opinion the quantity and quality of the lithological, geotechnical, collar, and down- hole survey data collected in the exploration and infill drill programs are sufficient to support Mineral Resource estimation.

- Drilling was conducted in accordance with industry-standard practices;
- The drilling as performed provides suitable coverage of the zones of gold and silver mineralization;
- Collar and down hole survey methods used generally provide reliable sample locations;
- Logging procedures provide consistency in descriptions;
- The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposits;
- Drill orientations are generally appropriate for the mineralization style for the bulk of the deposit area.

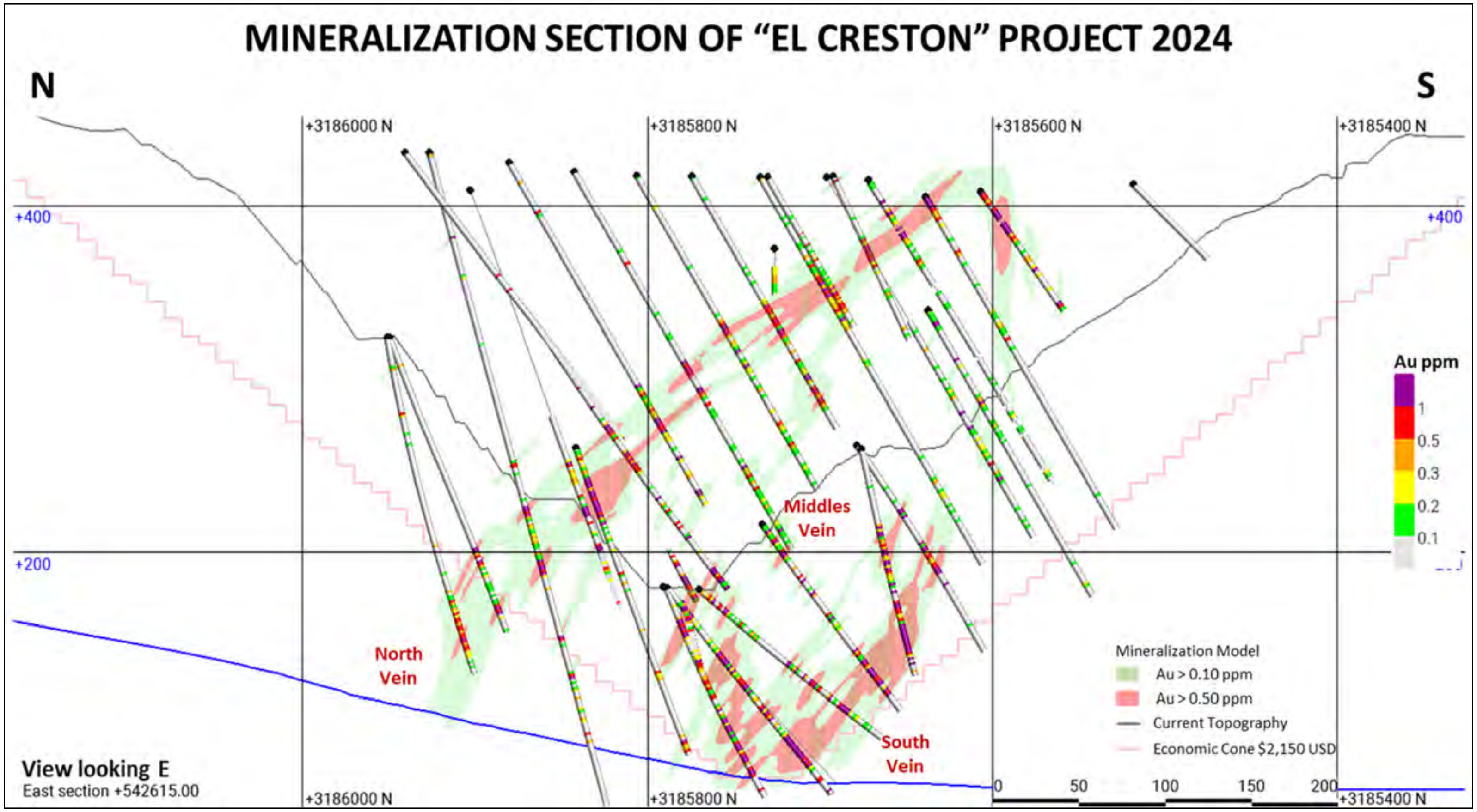
There are no known sampling or recovery factors with these programs that could materially impact the accuracy and reliability of the results.

Figure 10-6: La Colorada – Gran Central Mineralization Cross Section



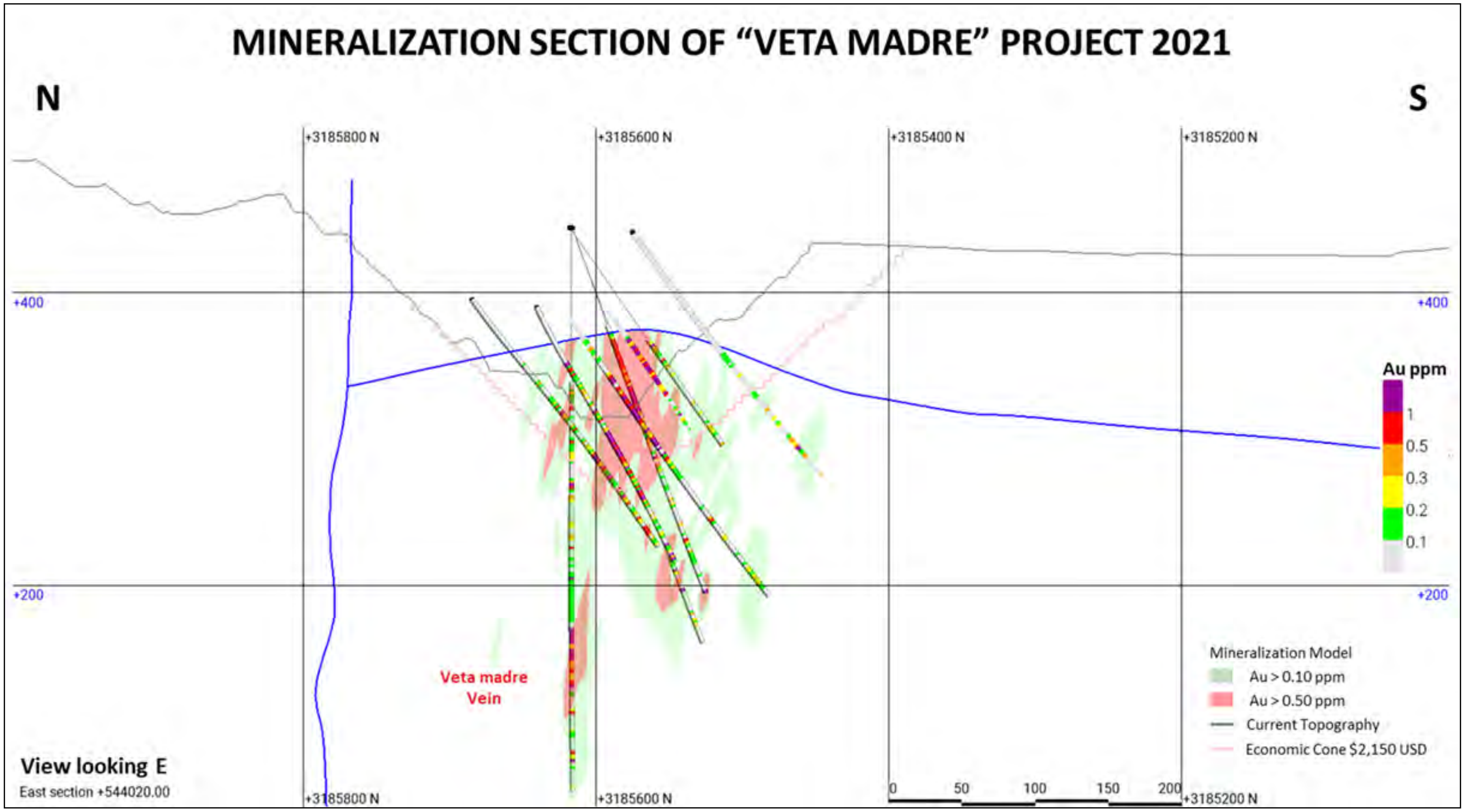
Note: Figure prepared by Heliostar, 2024. Figure looks east.

Figure 10-7: El Crestón Mineralization Cross Section



Note: Figure prepared by Heliostar, 2024. Figure looks east.

Figure 10-8: Veta Madre Mineralization Cross Section



Note: Figure prepared by Heliostar, 2024. Figure looks east.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sampling

11.1.1 Legacy Drilling

No records regarding the sampling methods used remain for the Eldorado or Pediment Gold programs.

11.1.2 Argonaut RC Drill Cuttings

Argonaut RC samples were collected every 5 ft (1.52 m). The rig was equipped with a cyclone with both a vertical and a lateral discharge. Material from the vertical discharge passed through a second splitter to obtain two samples. One of the splits was discarded and the other was split again to obtain two new samples. These final two samples were bagged in previously-marked plastic (dry material) or micropore bags (wet material) and sealed with plastic pull ties. One of the bags was weighed and collected for assay, while the other reject was stored at the La Colorada warehouse as a duplicate in case further checks were required.

QA/QC field duplicates were prepared by splitting the reject once, keeping one half for storage, and splitting the other half again and bagging it as a field duplicate to go for assay. The sampling process was performed by trained workers under the supervision of a sample foreman and geologist. At the end of the day or shift, all sample bags for assay were taken to the La Colorada office and organized there, inserting the corresponding QA/QC samples containing blanks and standard reference materials (standards).

11.1.3 Argonaut Drill Core

After logging the drill core, the geologist marked out sampling intervals which typically ranged between 1–2 m in length. Samples for precious metal analysis were marked by Argonaut's geologist and then the drill core was cut longitudinally with a diamond saw, creating two half core samples. In the case of field duplicates, the samples were sawn twice, creating two ¼ core samples, one for an initial sample and the other as a duplicate sample leaving ½ of the core interval as a record. Weights for all samples were recorded prior to sending to the laboratory. Sample splitting was performed by local trained workers under the supervision of Argonaut's qualified geologist. Core boxes were stored at a warehouse in La Colorada using plastic boxes which are properly marked with drill hole number and intervals contained in metres.

The plastic sample bags were secured with zip ties, stored in a secure Argonaut warehouse until a commercial laboratory representative picked the samples up and transported them for sample preparation. The same control sample submission described for RC drilling was used for drill core except for the duplicate field sample which consisted of ¼ core splits for the original and duplicate samples.

11.1.4 Heliostar RC Drill Cuttings

Heliostar RC samples were collected in 1.52 m (5 ft) intervals. Cuttings were split into quarters at the drill rig using a Gilson splitter. Two splits were transferred into plastic bags labeled with the sample number and the remaining cuttings were discarded. The first split was designated for analysis and the second split was designated as a field duplicate for future purposes. Each split weighed between 7–10 kg. Bags were sealed with plastic zip ties and transferred by the drilling contractor to the core logging facility at the end of each shift.

At the core logging facility, Heliostar geologists ordered the first set of RC samples, inserted QA/QC samples and transported batches of samples to the La Colorada laboratory for sample preparation and analysis. The second set of RC samples were archived at the core logging facility.

11.2 Density Determinations

In 2011, Argonaut conducted a density testing program on 136 samples from a wide range of locations and rock types at La Colorada/Gran Central. The average density from the testwork was 2.694 g/cm^3. This testwork correlated very well with the historical density testwork report by McMillan (2009) which estimated an average density of 2.62 g/cm^3.

In 2012, Argonaut conducted density determinations on 75 samples from Veta Madre. The determinations were evaluated by primary lithologic unit and in the case of intrusive rocks, whether mineralized or not (Table 11-1).

In 2023, Argonaut conducted a density study based on 144 mineralized samples from 28 core drill holes completed at El Crestón from 2021 to 2023 (A-Geommining, 2023). Density determinations were completed by A-Geommining in Hermosillo, Sonora, Mexico on HQ diameter (6.35 cm) half-core ranging in length from 0.1–0.26 m. Core provided by Argonaut was broken into three equal pieces and density was determined on each piece by the water immersion method (no wax coat). Density values obtained ranged from 2.42–2.97 g/cm^3 with an average density of 2.62 g/cm^3.

As part of their geotechnical stability analysis completed in 2023, Call & Nicholas determined bulk density on 69, 15 cm HQ diameter whole core samples from El Crestón (Call & Nicholas, 2023). Density values were determined by dividing the mass of the dried sample by the volume of the sample, calculated by multiplying the measurements of the area of the core by its length. Density values obtained ranged from 2.41–3.23 g/cm^3 with an average density of 2.70 g/cm^3.

Heliostar conducted a density sampling program of seven surface exposures of historic tailings material in La Chatarrera. Density was determined by Heliostar staff by the excavation method using a 0.25 m cube. Dry bulk density values obtained ranged from 1.31–1.72 g/cm^3 with an average density of 1.50 g/cm^3.

Table 11-1: Veta Madre Bulk Density Values

Lithology	Bulk Density (g/cm^3)
Rhyolite porphyry	2.64
Mineralized intrusive rocks	2.51
Unmineralized intrusive rocks	2.65

11.3 Sample Preparation and Analytical Laboratories

The laboratory used by Eldorado is unknown.

From 2008 until 2015, Pediment Gold and Argonaut used the Inspectorate laboratory in Hermosillo, Mexico (Inspectorate Hermosillo, now Bureau Veritas) for sample preparation. Analysis was completed at the Inspectorate laboratory in Reno, Nevada (Inspectorate Reno). The laboratories were and are independent of Argonaut, Pediment Gold, and Heliostar. Both laboratories are currently ISO/IEC 17025 certified. Prior to 2015, Inspectorate was not an ISO certified laboratory.

Beginning in 2016, Argonaut used ALS Chemex Laboratories in Hermosillo (ALS Hermosillo) for sample preparation. Analysis was completed at the ALS facilities in Vancouver, Canada (ALS Vancouver). The laboratories were and are independent of Argonaut, Pediment Gold, and Heliostar. Both laboratories are currently ISO/IEC 17025 certified.

Heliostar used the La Colorada assay laboratory located at the mine for sample preparation and analysis of the La Chatarrera RC samples. The laboratory is not independent of Heliostar and the laboratory is not certified by any international standards organizations.

11.4 Sample Preparation

11.4.1 Pediment Gold and Argonaut

Samples prepared by Inspectorate were dried, crushed to 80% <2 mm or better, split using a Jones riffle splitter until up to 250 g sample remained, and pulverized to 85% passing 200 mesh (75 µm) or better at Inspectorate Hermosillo.

As part of its routine procedures, Inspectorate Hermosillo uses barren wash material between sample preparation batches and, where necessary, between highly mineralized samples. This cleaning material is tested before use to ensure no contaminants are present and results are retained for reference.

11.4.2 Heliostar

RC samples prepared at the La Colorada laboratory were crushed to 85% passing 10 mesh and riffle split to produce a 200 g subsample that was pulverized to 85% passing 200 mesh.

11.5 Analysis

11.5.1 Pediment Gold and Argonaut

MMI is a proprietary analytical method developed by SGS that includes specific sampling, sample preparation and weak leaching of the sample. It was used for soil samples collected in 2012 and 2023.

Pulps were sent from Inspectorate Hermosillo to Inspectorate Reno, where gold and silver were assayed by fire assay of a 50 g subsample using atomic absorption spectrometry (AAS) finish. Thirty additional elements were determined by aqua regia digestion of the subsample and read by inductively coupled plasma atomic emission spectrometry (ICP-AES).

At ALS Vancouver, gold was assayed by fire assay of a 30 g subsample with AAS finish (ALS method code Au-AA23). Samples reporting > 10 ppm were re-assayed by fire assay followed by gravimetric finish (ALS method code Au-GRA21). Silver was determined by aqua regia digestion of a 1–5 g pulp followed by ICP-AES finish (ALS method code ME-ICP41).

11.5.2 Heliostar

At the La Colorada laboratory, gold and silver were determined by conventional fire assay on a 30 g subsample. Silver was finished by gravimetry and gold was finished by AAS following acid dissolution of the doré bead. The lower detection limit of the gold method is 0.02 g/t Au and samples reporting >10 g/t Au were re-assayed by fire assay followed by gravimetric finish. The lower detection limit of the silver method is 1.0 g/t Ag.

11.6 Quality Assurance and Quality Control

11.6.1 Argonaut

Argonaut inserted various control samples (standards, blanks, and duplicates) into the sample stream sent to commercial laboratories. Since 2012, Argonaut inserted barren material (blank samples) at a frequency of one blank for approximately every 25 regular samples. Certified commercial standards were submitted at a frequency of about one standard for every 25 to 27 samples. Field duplicate samples were submitted at a frequency of one duplicate for about every 30 regular samples. The RC duplicate samples consisted of a duplicate sample collected with a riffle splitter at the drill rig. Duplicate core samples were created by generating ¼ samples with a diamond saw.

For barren or blank material, Argonaut used a certified blank obtained from Rocklabs (Au Blank 24). Commercial certified standards were obtained from Rocklabs and routinely submitted to the commercial laboratories.

Argonaut's technical staff developed a Microsoft Visual Basic macro that runs inside Microsoft Excel (Excel) that allows users to access various QA/QC data from the Microsoft Access (Access) drill hole database and generate a variety of charts to evaluate the performance of the QA/QC samples for specific drill holes or dates. These charts showed isolated cases where a control sample was found to be outside of expected value ranges.

11.6.2 Heliostar

Heliostar inserted standards, blanks, and field duplicates into the batches of La Chatarrera RC samples sent to the La Colorada laboratory for analysis. Control samples were inserted at a rate of about one control samples per 10 RC samples.

Heliostar sent 179 field duplicate samples from the La Chatarrera drill program to ALS Hermosillo to check the quality of the La Colorada laboratory gold and silver assays. Samples were prepared at ALS Hermosillo and assayed at ALS Vancouver. Standards, blanks, and field duplicates were submitted with the check assay samples to check the quality of the ALS assays.

11.7 Databases

Since 2024, La Colorada drilling information has been managed in a GeoSequel database (GeoSequel). As of the Report effective date, Heliostar are migrating all legacy drill hole data to GeoSequel from the Microsoft Access database managed by Argonaut.

Geological logging is performed using the GeoSequel Logger interface where geologists directly enter all geological information into the database, including preliminary collar coordinates, azimuth, dip, and hole depth. The preliminary information is replaced once the final coordinates and downhole survey measurements are received.

Assay data are imported directly from digital laboratory certificate files using GeoSequel Tools, retaining the original laboratory codes. QA/QC procedures are performed within the program. After the QA/QC validation, the information is available for reporting.

An Access file is connected to the GeoSequel database, from which tables for collars, surveys, assays, lithology, minerals, and structures are exported in comma-separated value (CSV) format. These tables are then imported into MinePlan software using MinePlan Drillhole Manager version 7.1.1.2062 for visualization and modeling purposes.

11.8 Sample Security

All Argonaut drill and surface samples were stored and secured in the on-site offices. Typically, the drill hole samples were transported from the mine site to the commercial laboratories by trucks owned and operated by the commercial laboratory. Sample shipments were typically completed three times a week during infill drilling campaigns. The commercial laboratory representative certified receipt of the samples after the samples were loaded onto the truck, then the samples were delivered to the commercial preparation facility located in nearby Hermosillo, Mexico. The commercial preparation laboratory then shipped prepared pulps for assay to their facility located in either Reno, Nevada or Vancouver, British Columbia.

Heliostar RC drill samples were transported directly from the drill rig to the core logging facility by the drilling contractor at the end of each shift. At the core logging facility, Heliostar geologists organized RC samples into batches, inserted QA/QC samples, and transported the batches of samples to the La Colorada laboratory for sample preparation and analysis.

11.9 Sample Storage

Drill core, RC cuttings, and sample pulps from the Project are stored in a warehouse located approximately 3 km northwest of the mine site and adjacent to the core logging facility. The warehouse is located within a fenced compound and the fence and warehouse are locked and guarded when not being used.

11.10 QP Comments on Section 11

The sampling method and sample preparation, analysis, and QA/QC programs used by Eldorado are unknown. The sampling method and QA/QC programs used by Pediment Gold are unknown. No original records for collar surveys or assays are available to Heliostar for the Eldorado and Pediment Gold drilling campaigns.

Comparison of the exploration drilling with blasthole data from mine production concluded that the Eldorado and Pediment Gold data compare well with the blasthole data and are acceptable for inclusion in Mineral Resource estimation.

The QP is of the opinion that the sample preparation, sample security, and analytical procedures undertaken by Argonaut and Heliostar for the La Colorada Project are acceptable. The QA/QC procedures and subsequent results demonstrate that the drill hole data are reasonable and suitable for estimating Mineral Resources.

In the opinion of the QP, the sample preparation, security, and analysis are appropriate to support Mineral Resource estimation.

12.0 DATA VERIFICATION

12.1 Argonaut Data Verification

Argonaut managed the data for the La Colorada Operations using an Access database. The geologic data were captured using Excel logging templates. These standardized digital logs were sent from the geologists to the database management team for QA/QC verification.

A system of macros within Excel were developed to check for quality on a range of items including drill hole identification numbers, maximum drill hole depth, sample interval overlapping, sample identification numbers, control sample insertions, collar location, and survey information.

Assays were received from the laboratory in an Excel file (CSV format), accompanied by a certificate of analysis (PDF format). These files were processed in an Excel file with macros, which allowed for the extraction of the sample intervals and matching of sample identification numbers to assign the proper assay. In the case of tests with an overlimit, the gravimetric results were processed in the same manner and overrode the fire assay for use in Mineral Resource estimation. Multi-element geochemical data were also verified, compiled, and entered into the Access database for storage and use. Laboratory certificates were stored on Argonaut servers for future verification against the database.

Beginning in 2022, geological logging was conducted using the GeoSequel Logger interface where geologists directly enter all geological information into the database, including preliminary collar coordinates, azimuth, dip, and hole depth. The preliminary information is replaced when the final coordinates and downhole survey measurements are received.

12.2 Heliostar Data Verification

Heliostar data validation includes automatic validation of sample numbers and analytical methods in received analytical certificates in GeoSequel. Before the analytical results are imported, a validation report is generated indicating any discrepancies between sample numbers and requested analysis compared to the sample dispatch. Any inconsistencies are corrected by the database manager. When there are no discrepancies, the data is consistent is imported and results are available in the database.

Geological logging continued using the GeoSequel Logger interface under Heliostar.

12.3 Third-Party Consultant Data Verification

Over the Project history, a number of third parties have completed data verification in support of technical reports and mining studies (Table 12-1).

The QPs reviewed the findings of, and information in, these reports and studies as part of their data verification steps.

12.4 Data Verification Performed by the QPs

12.4.1 Mr. Todd Wakefield

Mr. Wakefield conducted a site visit, see Section 2.4.1.

He conducted an audit of the drilling database used to estimate Mineral Resources at La Colorada. A total of 62 drill holes were randomly selected from a list of 622 drill holes material to resource estimation at El Crestón, Veta Madre, and La Chatarrera and database entries were checked against original records.

Collar coordinates for 30 of the 62 selected drill holes matched the original survey coordinates exactly. The remaining drill holes were not audited because Heliostar does not have the original collar survey records for the Eldorado, Pediment Gold, or early Argonaut drill campaigns. One discrepancy was found between the database values and the original survey records out of 332 downhole survey values audited for an error rate of 0.3%. An error rate of <1.0% is considered acceptable in the industry.

Lithology codes in the database were checked against the original geological logs for the 56 selected drill holes. A total of 16 data entry errors were found out of 3,251 lithology codes audited for an error rate of 0.5%.

Database assay values for gold and silver were compared to original assay certificates for 42 of the 56 selected drill holes. The remaining drill holes were not audited because Heliostar does not have the original assay certificates for the Eldorado and Pediment Gold drill campaigns. No data entry errors were found for gold and silver assay values for 4,241 samples audited.

Mr. Wakefield finds the El Crestón, Veta Madre, and La Chatarrera drilling databases to be acceptably accurate to support Mineral Resource estimation. However, no original records for collar surveys or assays are available to Heliostar for the Eldorado and Pediment Gold drilling campaigns and these data are considered less reliable than the Argonaut drilling data.

Mineralized RC assay intercepts were checked for signs of downhole contamination and no systemic contamination was observed. Some decay of gold assay values downhole from high-grade intercepts (>5 g/t Au) were observed for some drill holes, however most was restricted to one to three sample intervals grading 0.1–0.3 g/t Au.

Table 12-1: Third-Party Data Verification

Year	Company/Author	Purpose	Notes
2009	R.H. McMillan Ltd.	Witness sampling	Collected 11 character samples including seven rock chip samples from exposures in the El Crestón, La Colorada, and Gran Central open pits and four coarse reject samples from Pediment Gold RC drill holes. Sample weights ranged from 0.64–6.03 kg and averaged 2.0 kg. Samples were collected by McMillan and taken directly to the ALS sample preparate facility in Hermosillo, Mexico where they were prepared and sent to Vancouver, Canada for analysis of gold by 30 g fire assay with gravimetric finish. ALS gold results from the samples ranged from 0.014–4.71 g/t Au. McMillan reported that the ALS results showed good correlation with the Pediment Gold assays for the RC coarse rejects and poorer correlation for the rock chip samples.
2011	RMI	Database review	Examined about two thirds of the pre-Argonaut drill hole data with the conclusion that the drill hole data were adequate to support estimation of Mineral Resources
2018	RMI	Audit of 2011–2017 drill hole database	Approximately 15% of the gold and silver assays from those drill campaigns were compared against electronic data files that were provided from ALS and Inspectorate. RMI randomly selected 109 drill holes from the 2011–2017 drill campaigns. Approximately 200 digital assay certificates containing about 8,500 assay intervals were merged and compared against the electronic drill hole database that Argonaut used to estimate Mineral Resources. The majority (85%) of the certificates were from ALS and the remainder from Inspectorate. RMI put more emphasis on verifying the 2016–2017 drill hole data from the El Crestón deposit which was put back into production after a hiatus of open pit mining. RMI found no errors in approximately 8,500 gold and the same number of silver assays. RMI also verified downhole surveys to original data and no errors were found. RMI analyzed older Eldorado RC drilling results from the El Crestón deposit. Based on comparisons with nearby core and newer RC drilling, it was determined that the results from 51 RC drill holes totaling about 9,000 m were suspect.

12.4.2 Mr. David Thomas

Mr. Thomas performed a site visit (Section 2.4.2).

The Mineral Resource estimate for the La Colorada Mineral deposits relies partly on RC and core drilling completed by previous operators. Limited information is available regarding the sampling and analytical procedures of the legacy drill programs. The QA/QC programs conducted by Eldorado and Pediment Gold are unknown.

Resource Modeling Inc. (RMI) analyzed older Eldorado RC drilling results from the El Crestón deposit (Lechner, 2018). Based on comparisons with nearby core and newer RC drilling, it was determined that the results from 51 RC drill holes totaling about 9,000 m were suspect. RMI believed that those drill holes experienced downhole contamination. Those drill holes were not used to estimate Mineral Resources that are the subject of this Report, and were replaced by subsequent El Crestón drilling campaigns.

Mr. Thomas completed comparisons of the exploration drilling with the blasthole data collected during mine production. A gold grade block model (5 x 5 x 5 m) using blastholes was prepared using an average of the closest four blastholes. He estimated nearest-neighbor gold grade models using 6 m composites from Argonaut data and historical data in each of the deposit areas. Blocks were selected falling within 3 m of an exploration drill hole. The results of the comparisons are shown in Table 12-2. A quantile–quantile plot of the blastholes against historical data at El Crestón is shown in Figure 12-1.

The exploration drill hole data consistently show higher average gold grades than the blastholes. At Gran Central, the historical data show a somewhat (approximately 9%) larger difference in average gold grade compared to the blastholes. At El Crestón, the magnitude of the difference in the means is similar when using Argonaut data or historical data. There are too few historical drill holes at Veta Madre to make a meaningful comparison.

Mr. Thomas concluded that at El Crestón, the historical data do not show any statistical difference compared to the Argonaut data and are suitable for use in Mineral Resource estimation. He recommended that the historical data at Gran Central be reviewed for possible downhole contamination.

12.4.3 Mr. Jeff Choquette

Mr. Choquette performed a site visit, see Section 2.4.3.

He checked the geotechnical studies to make sure they met industry standards and practices. Reconciliation reports were checked to test the performance of the resource estimates and determine appropriate dilution and ore loss parameters. Actual operating and capital cost reports were reviewed and used in the forecasting of the ongoing Project costs.

Mr. Choquette concluded that the data were acceptable for use in Mineral Reserve estimation, mine planning and in the cashflow analysis.

12.4.4 Mr. Carl Defilippi

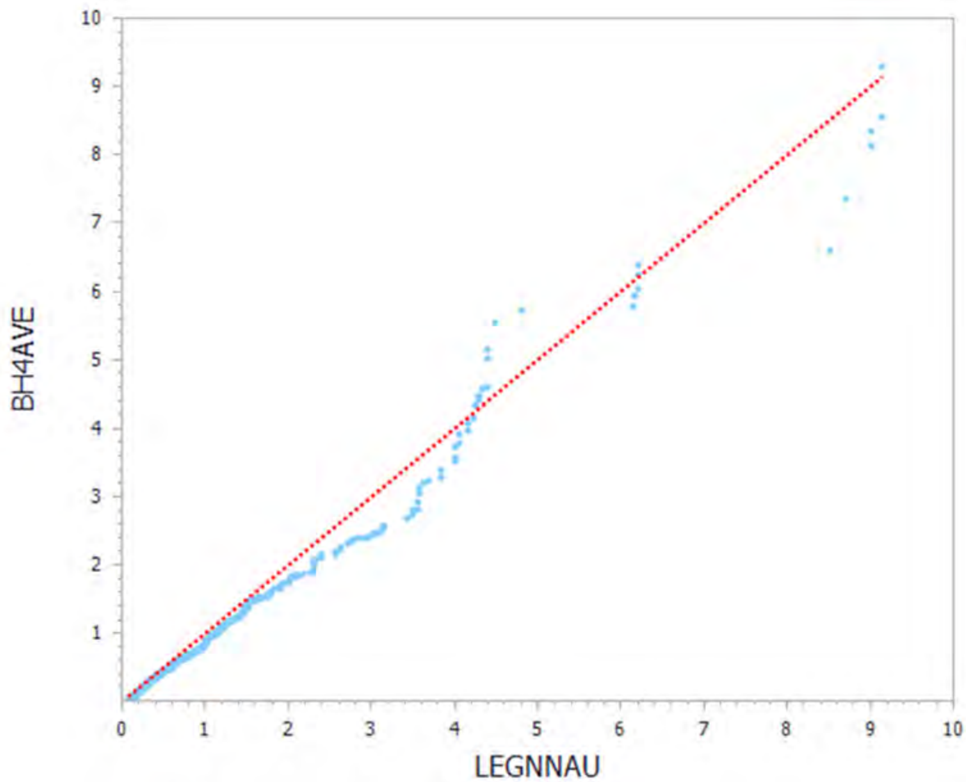
Mr. Defilippi performed a site visit, see Section 2.4.4.

Mr. Defilippi checked the metallurgical test procedures and results to ensure they met industry standards. Metallurgical sample locations from the Chatarrera WRSF and future ore to be mined were reviewed to ensure that there was material from throughout the resource area and that the samples were reasonably representative with regards to material type and grade with the material planned to be processed so as to support the selected process method and assumptions regarding recoveries and costs.

Table 12-2: Comparisons of Blasthole Averages with Exploration Drilling

Mine Area	Blasthole			Argonaut		
	Number of Blocks	Mean (g/t)	CV	Mean	CV	% Difference in Mean
Gran Central	1,822	0.67	1.57	0.79	1.50	18
El Crestón	2,944	0.78	1.44	0.90	1.37	15
Veta Madre	2,217	0.47	1.15	0.51	1.48	7
Mine Area	**Blasthole**			**Historical**		
	Number of Blocks	**Mean (g/t)**	**CV**	**Mean**	**CV**	**% Difference in Mean**
Gran Central	1,822	0.67	1.57	0.85	1.37	27
El Crestón	1,827	0.69	1.54	0.78	1.43	14
Veta Madre	138	0.34	0.71	0.51	0.94	49

Figure 12-1: Quantile–Quantile Plot of Blastholes Against Historical Data Nearest–Neighbor, El Crestón



Note: Figure prepared by MTS, 2024.

12.4.5 Ms. Dawn Garcia

Ms. Garcia performed a site visit, see Section 2.4.5.

She received copies of key environmental permitting documents and recent environmental monitoring laboratory reports during the site visit.

The documents and laboratory reports were selectively reviewed and used to support the environmental, permitting and social conditions descriptions.

There are currently no environmental or social issues known to the QP that could materially impact Minera Pitalla's ability to extract the Mineral Resources or Mineral Reserves. The permit boundary should be updated to include the disturbance area outside of the current permit boundary; however, it is unlikely to have an impact on the mine's ability to extract the Mineral Resources or Mineral Reserves.

Should the mine plan in this Report be advanced to execution, the current permits for land use and environmental impact will need to be modified or new permits obtained. There is no certainty on when, or if, the permitting will be successful under the current government administration, which would be a material risk to the mine plan.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Extensive metallurgical studies were conducted by KCA over the period from 2011–2012 on test composites from different deposit areas from the La Colorada Project. These metallurgical studies included bottle roll testwork followed by column leach tests over a range of crush sizes and included agglomeration and permeability studies. These earlier tests were used as the basis for Argonaut to re-start operations, add a crushing/stacking circuit, and expand the existing recovery plant.

In 2021, Argonaut conducted in-house metallurgical testwork on material from El Crestón and Veta Madre. Site production column tests were also conducted on a monthly basis.

Rodrigo Carneiro of RCarneiro Mineral Engineering & Consulting (RCMEC) provided oversight and review of a metallurgical testing program on core samples from El Crestón in 2023. The program was conducted by Laboratorio Technologico de Metallurgia (Laboratorio Technologico), an ISO 9001-certified laboratory located in Hermosillo, Mexico. Site production column tests were also conducted on a monthly basis.

Coarse bottle roll tests on samples from the La Chatarrera WRSF were completed at the site laboratory. Column leach tests are currently being conducted by the site laboratory on trench samples from the La Chatarrera WRSF.

13.2 Veta Madre and El Crestón Metallurgical Testwork

13.2.1 Kappes, Cassiday & Associates 2011–2012 Testwork

Test composites were compiled for the KCA metallurgical programs to represent material from the different deposit areas within the Project. The areas represented and the tests completed are summarized in Table 13-1.

Table 13-1: Completed Metallurgical Testwork

Area	Purpose	Comment
Gran Central, Gran Central West, La Colorada, and La Colorada West	Evaluate gold and silver extraction versus crush size	Crush sizes ranged from 8–25 mm.
La Colorada West	Characterization analysis	Analyzed for gold, silver, carbon, sulfur, and mercury; multi-element suite using ICP–OES on composites and whole rock analysis; cyanide-soluble assays; head screen analyses with assays by size fraction for gold and silver.
	Column tests	Crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 x 1,800 mm) columns for 161 days.
Intermediate and Intermediate West	Characterization analysis	Analyzed for gold, silver, carbon, sulfur, and mercury; multi-element suite using ICP–OES on composites and whole rock analysis; cyanide-soluble assays; head screen analyses with assays by size fraction for gold and silver.
	Column tests	Crush sizes of 100% passing 12.5 mm and 8 mm in 6 in diameter x 6 ft high (150 x 1,800 mm) columns for a period of 107 days.
Veta Madre West	Characterization analysis	Analyzed for gold, silver, carbon, sulfur, and mercury; multi-element suite using ICP–OES on composites and whole rock analysis; cyanide-soluble assays; head screen analyses with assays by size fraction for gold and silver.
	Column tests	Crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 x 1,800 mm) columns for 171 days
Veta Madre East	Characterization analysis	Analyzed for gold, silver, carbon, sulfur, and mercury; multi-element suite using ICP–OES on composites and whole rock analysis; cyanide-soluble assays; head screen analyses with assays by size fraction for gold and silver.
	Column tests	Crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 x 1,800 mm) columns for a period of 171 days.
El Crestón	Characterization analysis	Analyzed for gold, silver, carbon, sulphur, and mercury; multi-element suite using ICP-OES on composites and whole rock analysis; cyanide-soluble assays; head screen analyses with assays by size fraction for gold and silver.
	Column tests	Crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 x 1,800 mm) columns for 155 days.
	Bottle roll	High grade material from -10 mesh (-1.7 mm) production drill cuttings were tested in-house by Argonaut. Tests ran for 7 days. High-grade material from -10 mesh (-1.7 mm) production drill samples, crushed (P80 9.5 mm) samples from the conveyor belt autosampler, and manual samples from the crusher circuit belt were tested in-house by Argonaut. Tests ran for 11 days.

Area	Purpose	Comment
Run-of-mine	Production column tests	Monthly production composites are subjected to column testing (120–160 days) at the La Colorada on-site laboratory.

13.2.1.1 Veta Madre West

The Veta Madre West test composite was formulated from nine separate drill core drill holes from the Veta Madre West area. Portions of the head material were assayed for the following:

- Gold and silver content;
- Semi-quantitative ICP-OES for a series of elements and whole rock constituents;
- Quantitative analysis for carbon, sulfur, and mercury;
- Cyanide-soluble analyses;
- Head screen analyses with assays by size fraction for gold and silver.

The results of the head analyses for gold and silver are shown in Table 13-2.

Column leach tests were conducted at crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 mm x 1,800 mm) columns for a period of 171 days. The results of these tests are summarized in Table 13-3 and Table 13-4.

Gold extraction increased from 79% at a 19 mm crush size to 84% at the 9.5 mm crush size. Silver extraction was very low and ranged from 6–10% over the crush sizes tested. Sodium cyanide consumption ranged from 1.35–1.71 kg/t and lime consumption was 2.0 kg/t. At the 9.5 mm crush size, the material was agglomerated with cement at 2.0 kg/t to ensure permeability.

13.2.1.2 Veta Madre East

The Veta Madre East test composite was formulated from 10 separate drill core drill holes from the Veta Madre East area.

Portions of the head material were assayed for the following:

- Gold and silver content;
- Semi-quantitative ICP-OES for a series of elements and whole rock constituents;
- Quantitative analysis for carbon, sulfur, and mercury;
- Cyanide-soluble analyses;
- Head screen analyses with assays by size fraction for gold and silver.

The results of the head analyses for gold and silver are shown in Table 13-5.

Table 13-2: Veta Madre West Composite Head Analyses

KCA Sample No.	Head Gold (g/t)	Head Silver (g/t)	Head Copper (g/t)
63022	0.831	14.45	78

Table 13-3: Veta Madre West Gold Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Gold (g/t)	Extraction Gold (%)	Days of Leach	Consumption NaCN (kg/t)	Lime (kg/t)	Cement (kg/t)
63044	19	0.743	79	171	1.35	2.04	0.00
63047	12.5	0.716	83	171	1.45	2.03	0.00
63050	9.5	0.732	84	171	1.71	0.00	2.02

Table 13-4: Veta Madre West Silver Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Silver (g/t)	Extraction Silver (%)	Days of Leach	Consumption NaCN (kg/t)	Lime (kg/t)	Cement (kg/t)
63044	19	15.75	6	171	1.35	2.04	0.00
63047	12.5	16.17	6	171	1.45	2.03	0.00
63050	9.5	16.47	10	171	1.71	0.00	2.02

Table 13-5: Veta Madre East Composite Head Analyses

KCA Sample No.	Head Gold (g/t)	Head Silver (g/t)	Head Copper (g/t)
63018	0.385	3.86	106

Column leach tests were conducted at crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 mm x 1,800 mm) columns for a period of 171 days. The results of these tests are summarized in Table 13-6 and Table 13-7.

Gold extraction ranged from 79–87% over the crush sizes tested. Silver extraction ranged from 16% to 31% over the crush sizes tested. Sodium cyanide consumption ranged from 1.16–1.52 kg/t and lime consumption was 2.0 kg/t. At the 9.5 mm crush size, the material was agglomerated with cement at 2.0 kg/t to ensure permeability.

13.2.1.3 El Crestón

The El Crestón test composite was formulated from eight separate core drill holes from the El Crestón deposit area. Portions of the head material were assayed for the following:

- Gold and silver content;
- Semi-quantitative ICP-OES for a series of elements and whole rock constituents;
- Quantitative analysis for carbon, sulfur, and mercury;
- Cyanide-soluble analyses;
- Head screen analyses with assays by size fraction for gold and silver.

The results of the head analyses for gold and silver are shown in Table 13-8.

Column leach tests were conducted at crush sizes of 100% passing 19 mm, 12.5 mm, and 9.5 mm in 6 in diameter x 6 ft high (150 mm x 1,800 mm) columns for a period of 155 days. The results of these tests are summarized in Table 13-9 and Table 13-10.

Gold extraction was found to be relatively independent of crush size over the range tested. At a 19 mm crush size gold extraction was 79% and at a crush size of 9.5 mm gold extraction was 81%. Silver extraction was somewhat dependent upon crush size and increased from 19–25% as the crush size became finer. Sodium cyanide consumption ranged from 0.98–1.46 kg/t and lime consumption was 2.0 kg/t. At the 9.5 mm crush size, the material was agglomerated with cement at 2.0 kg/t to ensure permeability.

El Crestón High Grade Bottle Roll Tests

During February 2021, El Crestón high-grade material from -10 mesh (-1.7 mm) production drill cuttings were tested in-house by Argonaut. As-is drill cuttings and fully pulverized cuttings were tested by bottle roll for seven days using a sodium cyanide concentration of 1,000 ppm. These results are presented in Table 13-11. Gold recovery on the -10 mesh (-1.7 mm) drill cuttings ranged from 44–67% and silver recovery ranged from 26–34%. The fully pulverized samples showed gold recovery ranged from 79–84% and silver recovery ranged from 67–74%.

Table 13-6: Veta Madre East Gold Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Au (g/t)	Extraction Au (%)	Days of Leach	Consumption NaCN (kg/t)	Lime (kg/t)	Cement (kg/t)
63035	19	0.337	79%	171	1.16	2.02	0.00
63038	12.5	0.341	86%	171	1.52	2.02	0.00
63041	9.5	0.333	87%	171	1.29	0.00	1.97

Table 13-7: Veta Madre East Silver Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Ag (g/t)	Extraction Ag (%)	Days of Leach	Consumptio n NaCN (kg/t)	Lime (kg/t)	Cement (kg/t)
63035	19	1.18	26%	171	1.16	2.02	0.00
63038	12.5	2.22	16%	171	1.52	2.02	0.00
63041	9.5	1.06	31%	171	1.29	0.00	1.97

Table 13-8: El Crestón West Composite Head Analyses

KCA Sample No.	Head Gold (g/t)	Head Silver (g/t)	Head Copper (g/t)
63053	0.543	29.21	280

Table 13-9: El Crestón West Gold Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Au (g/t)	Extraction Au (%)	Days of Leach	Consumption NaCN (kg/t)	Hydrated Lime (kg/t)	Cement (kg/t)
63064	19	0.55	79	155	0.98	2.02	0.00
63067	12.5	0.54	76	155	0.97	2.02	0.00
63070	9.5	0.51	81	155	1.46	0.00	2.00

Table 13-10: El Crestón West Silver Column Test Results

KCA Test No.	Crush Size (mm)	Calc. Head Ag (g/t)	Extraction Ag (%)	Days of Leach	Consumption NaCN (kg/t)	Hydrated Lime (kg/t)	Cement (kg/t)
63064	19	32.2	19	155	0.98	2.02	0.00
63067	12.5	32.0	20	155	0.97	2.02	0.00
63070	9.5	27.9	25	155	1.46	0.00	2.00

Table 13-11: El Crestón High-Grade 7-Day Bottle Roll Test Results

Size	Sample	Head		Tail Assay		Reagent Consumption		Extraction (mg)			Recovery (%)	
		Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	NaCN (kg/t)	CaO (kg/t)	Au	Ag	Cu	Au	Ag
-10 mesh	Geology	5.095	411.3	1.705	304.3	0.870	4.530	3.492	110.2	48.6	66.54	26.02
Pulverized		5.654	349.0	1.083	93.7	0.957	5.120	13.850	773.6	91.9	80.84	73.15
		5.973	357.0	1.235	100.1	1.010	4.752	23.216	1,258.8	93.4	79.33	71.96
-10 mesh	High-grade	14.170	526.1	7.870	346.2	1.010	4.800	6.647	189.8	27.3	44.46	34.19
Pulverized		13.769	596.8	2.169	195.1	1.143	5.363	32.828	1,136.8	165.0	84.25	67.31
		14.946	597.7	3.046	196.5	1.180	5.298	60.690	2,046.1	77.7	79.62	67.12

Minus 10 mesh (-1.7 mm) production drill samples and crushed (P80 9.5 mm) samples from the conveyor belt autosampler and manual samples from the crusher circuit belt were taken. These were run for 11-day bottle roll tests. These results are presented in Table 13-12.

The 11-day bottle rolls yielded 50% to 71% gold recovery and 4% to 40% silver recovery on the crushed ore samples.

13.2.2 Veta Madre Test Internal Programs, 2019–2021

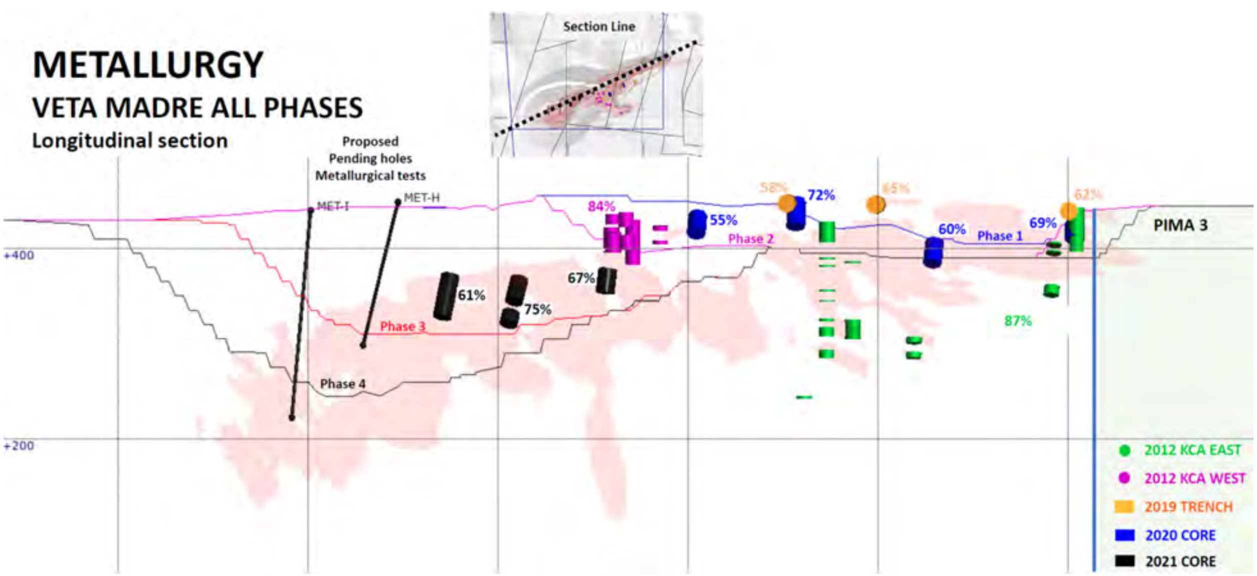
The Veta Madre material was tested in four programs consisting of KCA work in the previous sub-section, and three internal programs of trench samples taken in 2019 and core samples in 2020 and 2021.

Three trench samples were collected in 2019 to confirm previous metallurgical estimates and test the material recovery at ROM sizes. The samples were collected at 6–27 m depths. Core samples were composited from 2020–2021 metallurgical drill programs. The sample distribution from these programs is presented in Figure 13-1.

Table 13-12: El Crestón High-Grade 11-Day Bottle Roll Test Results

Size	Sample	Calculated Head		Tail Assay		Reagent Consumption		Extraction (mg)			Recovery (%)	
		Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	NaCN (kg/t)	CaO (kg/t)	Au	Ag	Cu	Au	Ag
-10 mesh	Pit	14.224	305.8	5.937	284.0	1.160	3.030	9.033	23.8	10.5	58.3	7.1
		15.033	289.2	6.838	267.3	1.220	2.900	7.785	20.8	10.9	54.5	7.6
	Sampler	3.155	89.8	1.117	70.2	0.980	2.540	1.991	18.2	11.1	64.1	20.6
		3.388	94.3	1.409	76.2	0.990	2.550	1.996	18.5	11.2	58.6	19.5
	Belt	2.414	56.6	0.732	38.3	0.980	2.140	1.724	18.8	11.2	69.7	32.4
		2.397	73.6	0.740	55.1	1.040	2.080	1.690	18.9	11.0	69.1	25.1
-3/8 inches	Pit	9.533	216.8	4.777	196.9	0.620	3.200	4.732	19.7	30.0	49.9	9.1
	Sampler	2.623	374.8	0.916	358.3	0.580	3.260	1.835	17.7	60.2	65.1	4.4
	Belt	1.503	41.1	0.437	24.5	0.830	3.500	1.162	18.0	60.5	70.9	40.3

Figure 13-1: Veta Madre Metallurgical Sample Distribution



Note: Figure prepared by Heliostar, 2024.

Each of these composite samples was used for column leach test work. The trench samples were leached at run-of-mine (ROM) sizes while the others were crushed to a nominal 9.5 mm. The results of these column leach tests are presented in Table 13-13.

13.2.3 Laboratorio Technologico Testwork, El Crestón, 2023

Eleven composite samples from the El Crestón deposit were tested by Laboratorio Technologico in 2023. The samples consisted of three oxide, two sulphide and six mixed composites. The test work carried out included bottle rolls, static leach testing, agitated leach testing, gravity recoverable gold and column leach test work. The head analysis on the composite samples is presented in Table 13-14.

13.2.3.1 Whole Ore Bottle Roll Leach Tests

Cyanide bottle roll leach tests were conducted on the composite samples at 100% passing 10 mesh for 72 hours. A second series of bottle roll tests were conducted at 80% passing 200 mesh. The results of the whole ore bottle roll leach tests are summarized in Table 13-15.

These bottle roll tests show a clear recovery advantage at the finer grind size where almost all of the gold is cyanide soluble.

13.2.3.2 Gravity Recoverable Gold

Gravity recoverable gold testing was conducted on the composite samples using progressive grinding for three sequential stages of liberation and recovery. The tailings from this gravity recoverable gold test work were subject to agitated leach testing at 80% passing 200 mesh. A second round of composites were tested for gravity recoverable gold at 80% passing 100 mesh and the tails were subject to cyanide leaching. The staged gravity recoverable gold results are summarized in Table 13-16. The gravity recoverable gold and tailings leach test work is summarized in Table 13-17.

The average gravity recoverable gold for the composites is 77%, which strongly indicates that a gravity circuit would be beneficial if milling is selected. The gold recovery has marginal gains at the finer grind but the silver recovery shows a significant increase.

13.2.3.3 Column Leach Tests

Cyanide column leach testing was conducted on the composites at a 3/8” crush size and NaCN Solution concentration of 1 g/L. Each composite was leached for 65 days followed by three days of wash cycle and three days of drain cycle. Composite 2_N had an unexpected low recovery and a duplicate column test was conducted on site with a 95 day leach. The column leach test results are summarized in Table 13-18.

Table 13-13: Veta Madre Internal Column Test Results

Program	Composite	Crush Size (mm)	Calc. Head Au (g/t)	Extraction Au (%)	Days of Leach	Consumption NaCN (kg/t)	Lime (kg/t)
2019 trench	19-LCTR-01	ROM 2.079	0.70	58.0	163	0.52	0.47
	19-LCTR-02	ROM 1.529	0.50	64.5	163	0.56	0.48
	19-LCTR-03	ROM 1.351	0.66	62.5	163	0.51	0.46
2020 core	COMET (20-LCMET-01)	0.423	0.38	59.5	70	1.03	0.90
	COMET (20-LCMET-02)	0.385	0.70	69.3	70	1.08	0.385
	COMET (20-LCMET-03)	0.423	0.78	71.7	70	1.06	0.423
	COMET (20-LCMET-04)	0.386	1.39	55.2	70	1.06	0.386
2021 core	LCMET (21-Nucleo-05)	0.357	1.16	60.8	197	1.03	2.76
	LCMET (21-Nucleo-06)	0.333	0.71	74.6	197	1.11	2.68
	LCMET (21-Nucleo-07)	0.358	0.37	67.1	197	0.98	2.65

Table 13-14: El Crestón Composite Head Analysis

Sample ID	Oxidation	Hole Length			Weighted Head Assays		
		From (m)	To (m)	Avg (m)	Au (g/t)	Ag (g/t)	Cu (g/t)
Composite 1_N	Mixed	151.6	199.2	175.4	0.666	89.51	316.71
Composite 2_N	Oxide	105.2	173.4	139.3	1.361	8.597	280.58
Composite 3_I	Oxide	31.7	57.1	44.4	4.494	12.641	428.34
Composite 4_I	Mixed	1.8	26.7	14.2	1.984	80.269	631.62
Composite 5_I	Mixed	28.3	83.6	55.9	2.385	13.719	368.24
Composite 6_S	Mixed	65.0	79.6	72.3	1.327	41.241	217.97
Composite 7_S	Mixed	71.3	91.7	81.5	7.637	101.518	317.55
Composite 8_S	Sulphide	108.7	145.9	127.3	9.829	8.391	220.26
Composite 9_S	Sulphide	80.1	169.5	124.8	0.926	9.446	236.76
Composite 10_S	Oxide	49.1	70.9	60.0	2.198	10.571	1,052.1
Composite 11_S	Mixed	88.9	116.9	102.9	1.346	5.367	157.99

Table 13-15: Laboratorio Technologico Whole Ore Bottle Roll Leach Tests

Sample ID	Crush Size	Extraction (%)			Reagent Consumption (kg/t)	
		Au	Ag	Cu	NaCN	CaO
Composite 1_N	P100 10 mesh	85.4	55.0	42.4	0.85	0.91
Composite 2_N		89.8	35.1	8.6	0.67	1.04
Composite 3_I		90.8	60.8	30.1	0.88	0.79
Composite 4_I		79.8	48.3	53.1	1.34	1.80
Composite 5_I		88.8	78.2	26.5	0.62	1.64
Composite 6_S		92.5	76.1	70.6	0.79	1.78
Composite 7_S		79.1	66.2	73.4	1.09	0.94
Composite 8_S		67.3	99.9	23.1	1.14	1.89
Composite 9_S		71.2	99.8	58.3	1.41	0.53
Composite 10_S		76.9	35.8	10.0	1.49	1.01
Composite 11_S		77.3	99.6	32.3	1.02	0.22
Composite 1_N	P80 200 mesh	94.4	74.4	43.4	1.50	0.98
Composite 2_N		96.3	55.2	10.6	0.91	1.93
Composite 3_I		99.6	99.9	34.7	1.32	0.73
Composite 4_I		95.0	91.1	67.2	1.35	1.08

Sample ID	Crush Size	Extraction (%)			Reagent Consumption (kg/t)	
		Au	Ag	Cu	NaCN	CaO
Composite 5_I		97.4	99.9	44.6	1.56	0.40
Composite 6_S		95.0	100.0	85.2	1.51	0.50
Composite 7_S		97.7	95.3	83.0	1.34	0.92
Composite 8_S		99.3	99.9	34.2	1.12	1.91
Composite 9_S		97.2	99.9	63.1	1.12	0.68
Composite 10_S		96.9	61.3	9.8	0.84	1.47
Composite 11_S		99.6	99.8	36.5	0.79	0.91
10 mesh average		***81.7***	***68.6***	***38.9***	***1.03***	***1.14***
200 mesh average		***97.1***	***88.8***	***46.6***	***1.21***	***1.05***

Table 13-16: Laboratorio Technologico Gravity Recoverable Gold Testwork Summary

Sample ID	Grind Size		p80 70 mesh			p80 100 mesh			p80 200 mesh			Au GRG	Ag GRG
	Met. Products		Pan Con	Mid	Tails	Pan Con	Mid	Tails	Pan Con	Mid	Tails		
Composite 1_N	Au	Assay (g/t)	48.1	4.6	0.6	19.66	3.29	0.69	13.4	3.28	0.50	24.5	21.0
		Distribution (%)	5.8	4.49	2.78	6.14	2.72	3.22	2.97	2.41	69.46		
	Ag	Assay (g/t)	6501.8	334.57	82.62	2033.01	272.57	79.3	2030.72	375.17	68.71		
		Distribution (%)	6.1	2.69	2.96	4.9	1.74	2.84	3.47	2.13	73.20		
Composite 2_N	Au	Assay (g/t)	774.0	13.48	0.43	52.01	5.97	0.35	22.61	2.34	0.28	77.6	12.0
		Distribution (%)	57.8	7.32	1.05	6.16	2.81	0.85	2.23	1.19	20.55		
	Ag	Assay (g/t)	566.4	27.64	8.18	116.37	16.94	77.91	58.84	14.83	6.47		
		Distribution (%)	5.5	1.94	2.56	1.79	1.03	24.38	0.75	0.98	61.08		
Composite 3_I	Au	Assay (g/t)	1568.6	38.91	0.51	129.86	10.49	0.44	147.24	3.78	0.34	92.5	37.6
		Distribution (%)	79.9	4.35	0.34	5.2	1.31	0.29	1.36	0.38	6.87		
	Ag	Assay (g/t)	1227.6	52.29	7.97	279.93	49.09	9.08	451.37	25.95	7.06		
		Distribution (%)	25.4	2.38	2.16	4.55	2.5	2.46	1.7	1.07	57.80		
Composite 4_I	Au	Assay (g/t)	734.8	29.66	1.14	127.83	5.41	0.82	38.55	5.48	0.56	74.9	12.4
		Distribution (%)	37.7	8.91	1.52	17.95	1.29	1.09	8.03	1.03	22.53		
	Ag	Assay (g/t)	1384.8	132.31	71.55	630.34	88.09	71.75	598.61	216.23	63.68		
		Distribution (%)	2.3	1.27	3.05	2.84	0.67	3.05	4	1.3	81.55		
Composite 5_I	Au	Assay (g/t)	879.0	15.52	0.73	102.27	4.98	0.39	52.52	5.48	0.32	85.3	57.2
		Distribution (%)	64.5	4.51	0.99	10.45	1.32	0.53	2.89	1.6	13.20		
	Ag	Assay (g/t)	1043.3	30.86	7.65	410.34	31.61	2.39	512.08	216.23	3.83		
		Distribution (%)	19.3	2.26	2.63	10.57	2.12	0.82	7.1	15.89	39.30		
Composite 6_S	Au	Assay (g/t)	237.2	16.96	0.88	102.33	6.95	0.6	17.46	3.58	0.50	72.4	25.9

Sample ID	Grind Size		p80 70 mesh			p80 100 mesh			p80 200 mesh			Au GRG	Ag GRG
	Met. Products		Pan Con	Mid	Tails	Pan Con	Mid	Tails	Pan Con	Mid	Tails		
		Distribution (%)	35.7	5.46	1.47	24.05	2.02	1.01	4.12	1.06	25.14		
	Ag	Assay (g/t)	1112.3	103.3	39.25	613.98	171.4	33.52	664.74	28.9	29.58		
		Distribution (%)	7.7	1.54	3.05	6.66	2.3	2.61	7.24	0.39	68.50		
Composite 7_S	Au	Assay (g/t)	2685.8	112.45	4.73	350.44	48.34	3.33	219.91	4.41	2.31	63.9	35.1
		Distribution (%)	25.1	12.62	2.19	9.59	4.81	1.55	11.45	0.3	32.35		
	Ag	Assay (g/t)	7717.5	384.52	86.09	4427.55	503.88	73.62	3141.37	236.24	56.39		
		Distribution (%)	5.4	3.25	3	9.12	3.77	2.57	12.3	1.21	59.36		
Composite 8_S	Au	Assay (g/t)	6696.3	253.98	3.36	979.37	51.26	1.37	236.55	47.07	0.53	95.5	99.1
		Distribution (%)	60.1	11.85	0.72	15.11	2.24	0.3	4.08	2.13	3.45		
	Ag	Assay (g/t)	3709.0	138.13	3.06	615.63	31.71	0.01	171.59	603.91	0.01		
		Distribution (%)	40.8	7.9	0.81	11.64	1.7	0	3.63	33.43	0.08		
Composite 9_S	Au	Assay (g/t)	487.6	7.1	0.39	48.67	7.56	0.24	61.14	6.85	0.14	85.9	97.0
		Distribution (%)	53.6	4.69	1.19	13.6	4.23	0.71	5.96	3.77	12.25		
	Ag	Assay (g/t)	501.2	12.5	0.19	240.71	30.82	1.67	275.62	64.38	0.01		
		Distribution (%)	25.4	3.81	0.26	31.03	7.96	2.33	12.41	16.36	0.42		
Composite 10_S	Au	Assay (g/t)	1192.3	25.81	0.56	74.7	9.55	0.42	16.25	1.48	0.34	80.7	9.2
		Distribution (%)	60.9	9.45	0.98	3.67	3.66	0.72	2.64	0.38	17.56		
	Ag	Assay (g/t)	663.9	29.01	11.13	55.23	23.19	12.19	20.34	20.19	11.43		
		Distribution (%)	4.8	1.51	2.75	0.39	1.26	3.02	0.47	0.74	85.04		
Composite 11_S	Au	Assay (g/t)	1105.4	29.07	0.35	55.05	4.98	0.15	96.74	2.35	0.08	95.0	92.6
		Distribution (%)	63.9	11.44	0.63	7.64	1.89	0.28	9.32	0.88	4.08		
	Ag	Assay (g/t)	764.8	19.8	0.01	90.25	13.49	4.27	326.17	4.72	0.01		
		Distribution (%)	39.8	7.01	0.02	11.28	4.6	6.93	28.3	1.6	0.49		

Sample ID	Grind Size		p80 70 mesh			p80 100 mesh			p80 200 mesh			Au GRG	Ag GRG
	Met. Products		Pan Con	Mid	Tails	Pan Con	Mid	Tails	Pan Con	Mid	Tails		
Average	***Au***	***Assay (g/t)***	***1491.7***	***49.8***	***1.2***	***185.7***	***14.4***	***0.8***	***83.9***	***7.8***	***0.5***	***77.1***	***45.4***
		Distribution (%)	***49.5***	***7.7***	***1.3***	***10.9***	***2.6***	***1.0***	***5.0***	***1.4***	***20.7***		
	Ag	***Assay (g/t)***	***2290.2***	***115.0***	***28.9***	***864.8***	***112.1***	***33.2***	***750.1***	***164.3***	***22.5***		
		Distribution (%)	***16.6***	***3.2***	***2.1***	***8.6***	***2.7***	***4.6***	***7.4***	***6.8***	***47.9***		

Note: GRG = gravity-recoverable gold; Pan Con = pan concentrate.

Table 13-17: Laboratorio Technologico Combined Gravity Recoverable Gold and Tails Leach Summary

Sample ID	GRG Grind (p80 mesh)	Leach Grind (p80 mesh)	Gravity Recovery		Leach Recovery		Leach Time (hr)	Total Recovery	
			Au (%)	Ag (%)	Au (%)	Ag (%)		Au (%)	Ag (%)
Composite 1_N	100	100	24.7	12.5	66.8	44.02	72	91.5	56.5
Composite 2_N	100	100	37.6	5.7	59.5	37.73	8	97.1	43.4
Composite 3_I	100	100	89.9	22.9	9.4	64.75	6	99.2	87.7
Composite 4_I	100	100	84.5	6.7	10.4	51.31	24	94.9	58.0
Composite 5_I	100	100	89.5	31.8	9.3	62.05	6	98.8	93.9
Composite 6_S	100	100	63.7	16.4	32.5	64.08	24	96.1	80.4
Composite 7_S	100	100	71.1	38.4	23.3	40.66	48	94.4	79.0
Composite 8_S	100	100	85.1	60.0	13.1	27.39	48	98.1	87.4
Composite 9_S	100	100	83.9	16.6	13.7	62.98	72	97.5	79.6
Composite 10_S	100	100	78.5	4.6	17.3	17.9	72	95.8	22.5
Composite 11_S	100	100	91.6	32.3	5.6	19.91	72	97.2	52.2
Composite 1_N	70, 100, 200	200	24.9	20.9	67.0	64.98	4	91.9	85.9
Composite 2_N	70, 100, 200	200	77.9	15.2	20.9	72.58	4	98.8	87.8
Composite 3_I	70, 100, 200	200	92.7	38.0	7.2	61.96	6	99.8	99.9
Composite 4_I	70, 100, 200	200	75.9	12.3	21.6	82.41	6	97.5	94.7
Composite 5_I	70, 100, 200	200	85.8	58.0	13.9	41.93	6	99.8	99.9
Composite 6_S	70, 100, 200	200	73.1	25.1	25.6	74.88	6	98.7	100.0
Composite 7_S	70, 100, 200	200	64.9	34.2	33.4	49.39	6	98.4	83.6
Composite 8_S	70, 100, 200	200	96.3	99.8	3.4	0.09	6	99.7	99.9
Composite 9_S	70, 100, 200	200	86.7	99.1	12.1	0.47	24	98.8	99.6
Composite 10_S	70, 100, 200	200	81.2	9.0	18.1	50.65	4	99.2	59.6
Composite 11_S	70, 100, 200	200	95.6	98.9	3.9	0.57	6	99.5	99.5
100 mesh average			***72.7***	***22.5***	***23.7***	***44.8***	***41.1***	***96.4***	***67.3***
200 mesh average			***77.7***	***46.4***	***20.6***	***45.4***	***7.1***	***98.4***	***91.8***

Table 13-18: Laboratorio Technologico Column Leach Test Results

Sample ID	Weighted head Assays			Leach Cycle (days*)	Calc. Head			Extraction			Reagent Consumption	
	Au (g/t)	Ag (g/t)	Cu (g/t)		Au (g/t)	Ag (g/t)	Cu (g/t)	Au (%)	Ag (%)	Cu (%)	NaCN (kg/t)	CaO (kg/t)
Composite 1_N	0.666	89.51	316.71	74	0.617	94.82	130.9	78.4	24.4	27.7	4.28	2.95
Composite 2_N	1.361	8.597	280.58	74	1.458	13.71	127.7	55.9	9.7	4.9	4.10	3.24
Composite 2_N (Site)	1.361	8.597	280.58	95	1.07	15.83		78.8	9.1		2.08	1.43
Composite 3_I	4.494	12.641	428.34	74	3.323	20.72	210.4	92.3	31.4	15.0	4.11	2.88
Composite 4_I	1.984	80.269	631.62	74	1.787	93.02	454.4	66.7	24.5	37.6	4.35	3.61
Composite 5_I	2.385	13.719	368.24	74	2.028	12.70	180.8	82.8	36.7	0.3	4.19	4.70
Composite 6_S	1.327	41.241	217.97	74	1.085	53.63	115.2	79.2	33.1	40.9	4.29	4.38
Composite 7_S	7.637	101.518	317.55	74	6.849	81.61	150.0	51.2	43.2	53.0	4.17	3.66
Composite 8_S	9.829	8.391	220.26	74	4.979	8.99	85.3	84.9	36.8	3.5	4.25	3.37
Composite 9_S	0.926	9.446	236.76	74	0.907	9.96	123.2	72.0	40.0	50.7	4.21	2.41
Composite 10_S	2.198	10.571	1052.1	74	1.812	19.42	466.1	91.8	5.4	5.7	4.26	2.71
Composite 11_S	1.346	5.367	157.99	74	1.428	5.07	87.5	81.8	23.9	27.6	4.17	2.77
N average					***1.048***	***41.45***	***129.3***	***71.0***	***14.4***	***16.3***	***3.49***	***2.54***
I average					***2.379***	***42.15***	***281.9***	***80.6***	***30.9***	***17.6***	***4.22***	***3.73***
S average					***2.843***	***29.78***	***171.2***	***76.8***	***30.4***	***30.2***	***4.23***	***3.22***
Oxide average					***1.916***	***17.42***	***268.0***	***79.7***	***13.9***	***8.5***	***3.64***	***2.57***
Mixed average					***2.299***	***56.81***	***186.5***	***73.3***	***31.0***	***31.2***	***4.24***	***3.68***
Sulphide average					***2.943***	***9.47***	***104.3***	***78.5***	***38.4***	***27.1***	***4.23***	***2.89***
Overall average					***2.388***	***37.60***	***193.8***	***76.1***	***28.1***	***24.3***	***4.22***	***3.33***

It appears that the mixed has the lowest gold recovery while the oxide has the highest recovery with the lowest head grade. The sulphide material has a notably low silver grade.

The column tests completed by Laboratorio Technologico had a notably higher cyanide consumption than the historical test work. These tests averaged 4.22 kg NaCN/t consumption. The duplicate column conducted on site had a lower consumption of 2.08 kg NaCN/t. Due to this higher cyanide consumption, copper was reviewed on the column tests. The previous El Crestón sample had 280 ppm copper while the new samples ranged from 158–1,052 ppm copper, with an average concentration of 384 ppm. The copper didn't balance well in the columns and the calculated heads were consistently lower than the assay heads. There was no observable trend in copper concentration and cyanide consumption.

The pregnant solutions were also reviewed for copper content and the cumulative copper grade of solution for these columns ranged from 8–71 ppm with seven of the tests having between 1–12 days with >100 ppm Cu in pregnant solutions.

13.2.4 Production Column Tests

Monthly production composite samples are subjected to column leach testing at the La Colorada on-site laboratory. The gold recovery for the column leach tests are plotted over time in Figure 13-2. The figure shows that the recovery was consistent for the majority of operations and started to taper off at the end when only Veta Madre material was processed.

The monthly column composites were compared against the actual production data, as presented in Figure 13-3. This comparison leads KCA towards a gold recovery deduction of 2% between the column results and field production.

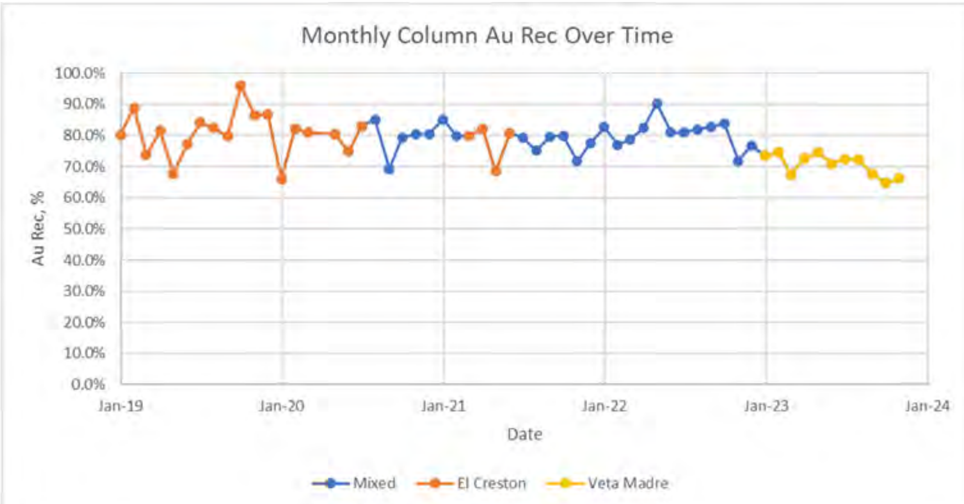
There were multiple months of production where there was only El Crestón material or only Veta Madre East material. The 21 monthly column leach tests that represent El Crestón material are summarized in Table 13-19. The 11 monthly column leach tests that represent Veta Madre East material are summarized in Table 13-20.

These column tests do not show a dependence of recovery on the feed grade of the material (Figure 13-4).

With the same 2% deduction developed from the model comparison these site monthly column results in an estimated field gold recovery of 78% for El Crestón and 69% for Veta Madre East.

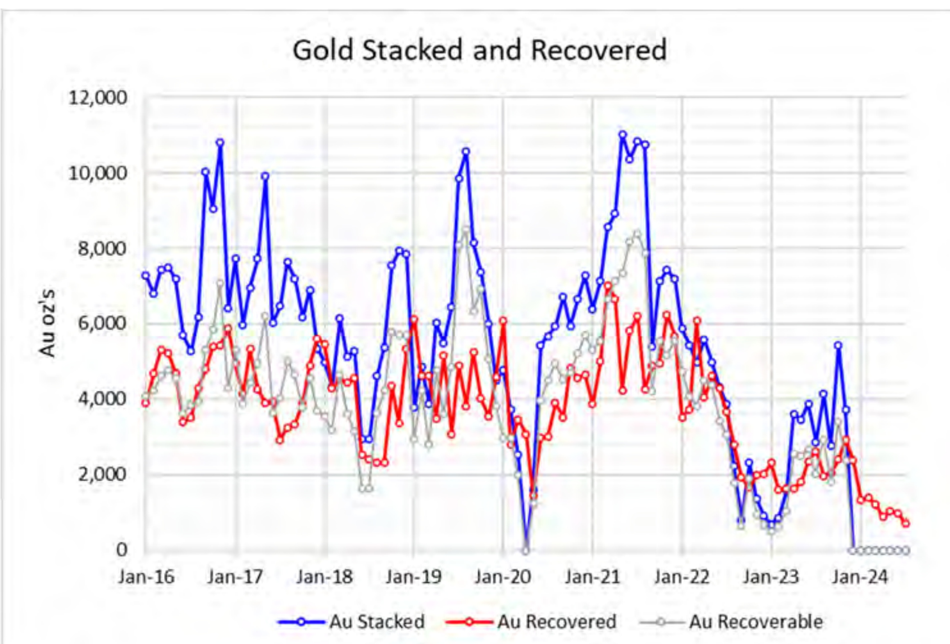
Sodium cyanide consumption was estimated from the site monthly column tests data using the closest data point to the nominated crush size of P80 -⅜ in (9.5 mm) and divided by three (laboratory to field general principle) when significant silver is present, yielding an estimate of 0.5 kg/t sodium cyanide consumption. Lime consumption averaged at 3.6 kg/t in the laboratory tests.

Figure 13-2: Operational Column Recovery Over Time



Note: Figure prepared by KCA, 2024

Figure 13-3: Column Recovery Against Actual Production



Note: Figure prepared by KCA, 2024.

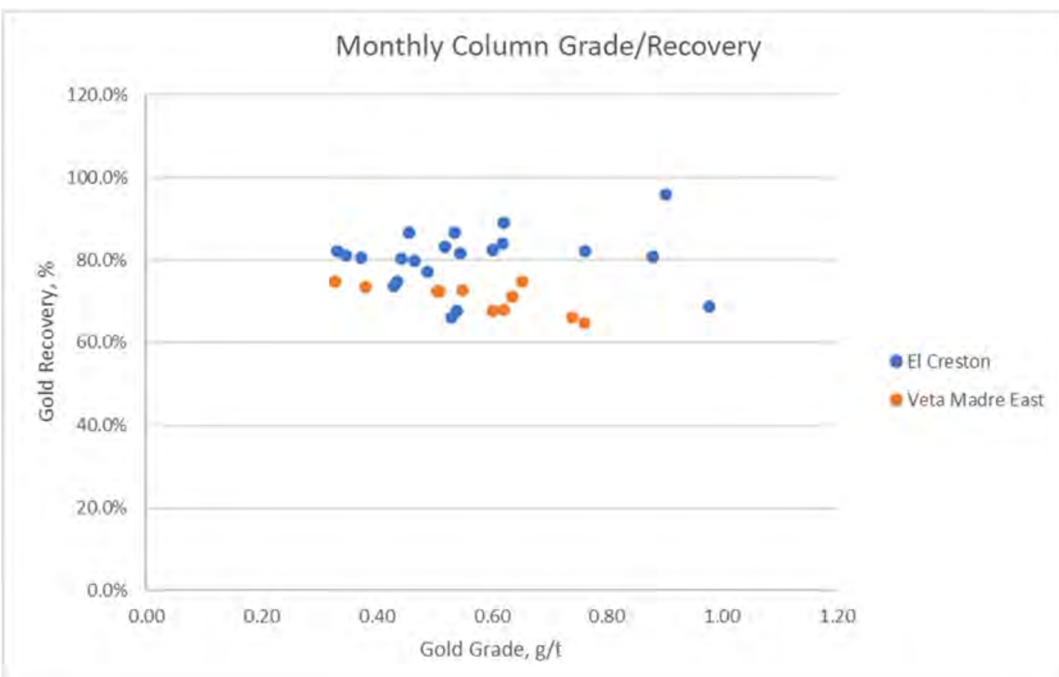
Table 13-19: El Crestón Monthly Column Leach Tests

Date	Head Au (g/t)	Head Ag (g/t)	Au Rec (%)	Ag Rec (%)	NaCN (kg/t)	Lime (kg/t)
Jan-19	0.44	13.0	80.2	14.0	1.1	3.9
Feb-19	0.62	10.1	88.8	20.7	1.5	4.7
Mar-19	0.43	11.7	73.7	20.1	1.2	4.6
Apr-19	0.54	20.3	81.5	19.9	1.3	4.8
May-19	0.54	22.0	67.7	33.4	1.4	4.9
Jun-19	0.49	23.8	77.2	17.4	1.3	4.8
Jul-19	0.62	17.6	84.0	22.8	2.5	4.3
Aug-19	0.60	23.9	82.4	10.7	2.4	4.4
Sep-19	0.47	9.5	79.8	30.1	2.2	4.1
Oct-19	0.90	15.3	95.9	17.9	1.2	2.8
Nov-19	0.54	22.6	86.6	10.4	1.0	2.6
Dec-19	0.46	12.5	86.6	23.1	0.9	2.7
Jan-20	0.53	17.1	66.0	26.8	1.2	2.8
Feb-20	0.33	17.7	82.2	24.4	1.2	2.5
Mar-20	0.35	9.0	81.0	38.4	1.2	2.5
May-20	0.37	14.6	80.4	21.0	1.5	2.6
Jun-20	0.44	9.8	74.8	17.4	1.2	2.3
Jul-20	0.52	13.2	83.1	34.6	0.9	2.9
Apr-21	0.76	24.2	82.1	37.3	1.6	3.2
May-21	0.98	33.2	68.6	33.4	2.2	3.6
Jun-21	0.88	25.2	80.8	34.7	2.0	3.4
Average	***0.56***	***17.4***	***80.2***	***24.2***	***1.5***	***3.5***

Table 13-20: Veta Madre East Monthly Column Leach Tests

Date	Head Au (g/t)	Head Ag (g/t)	Au Rec (%)	Ag Rec. (%)	NaCN (kg/t)	Lime (kg/t)
Jan-23	0.38	12.2	73.4	3.2	2.2	4.3
Feb-23	0.33	6.8	74.6	6.0	1.6	4.0
Mar-23	0.60	13.7	67.5	5.9	1.8	4.1
Apr-23	0.55	6.5	72.6	8.4	1.7	4.3
May-23	0.65	12.0	74.6	4.3	1.6	3.3
Jun-23	0.63	7.3	70.9	7.1	1.5	3.2
Jul-23	0.51	6.0	72.5	6.3	1.6	3.0
Aug-23	0.51	8.2	72.3	7.7	1.7	3.5
Sep-23	0.62	8.9	67.8	7.7	1.3	3.2
Oct-23	0.76	10.0	64.8	7.6	1.6	3.2
Nov-23	0.74	9.9	66.2	6.8	1.0	3.0
Average	***0.57***	***9.2***	***70.7***	***6.5***	***1.6***	***3.5***

Figure 13-4: Monthly Column Grade Versus Gold Recovery



Note: Figure prepared by KCA, 2024

13.3 La Chatarrera Metallurgical Test Work

The following sub-sections provide a summary of the testing results from metallurgical tests conducted on the La Chatarrera WRSF at La Colorada.

13.3.1 Bottle Roll Tests on WRSF Drill Hole Samples

Cuttings from approximately 6 m intervals of 51 drill holes at the locations on the WRSF shown in Figure 10-5 were crushed to -3/8". This resulted in a total of 138 samples at varying depths across the facility, which were then leached in bottle roll tests for gold and silver extraction. Conditions of the bottle roll testing were as follows:

- 72 hours duration;
- ~1.9 kg sample and 4,000 mL solution;
- Starting NaCN concentration of 1,000 ppm;
- Quicklime (CaO) addition for pH control.

Results from the 138 tests are shown individually in Figure 13-5 and summarized in Table 13-21.

Gold extraction from the bottle roll tests averaged 66.6% and silver extraction averaged 27.4%. The average cyanide consumption was 0.34 kg/t and the average quicklime consumption was 1.19 kg/t. In these tests, the free gold as recovered by Ro-tap averaged 71.2% of the calculated gold value and the free silver averaged 103.4% of the calculated silver value. When comparing assayed head grades of gold and silver with the calculated gold and silver head grades, the variance between the two values was large ranging from -68.8% to 1,323.2% for gold and -87.6% to 17,774.7% for silver. This large range in variance is indicative of the presence of significant quantities of coarse or free gold and silver.

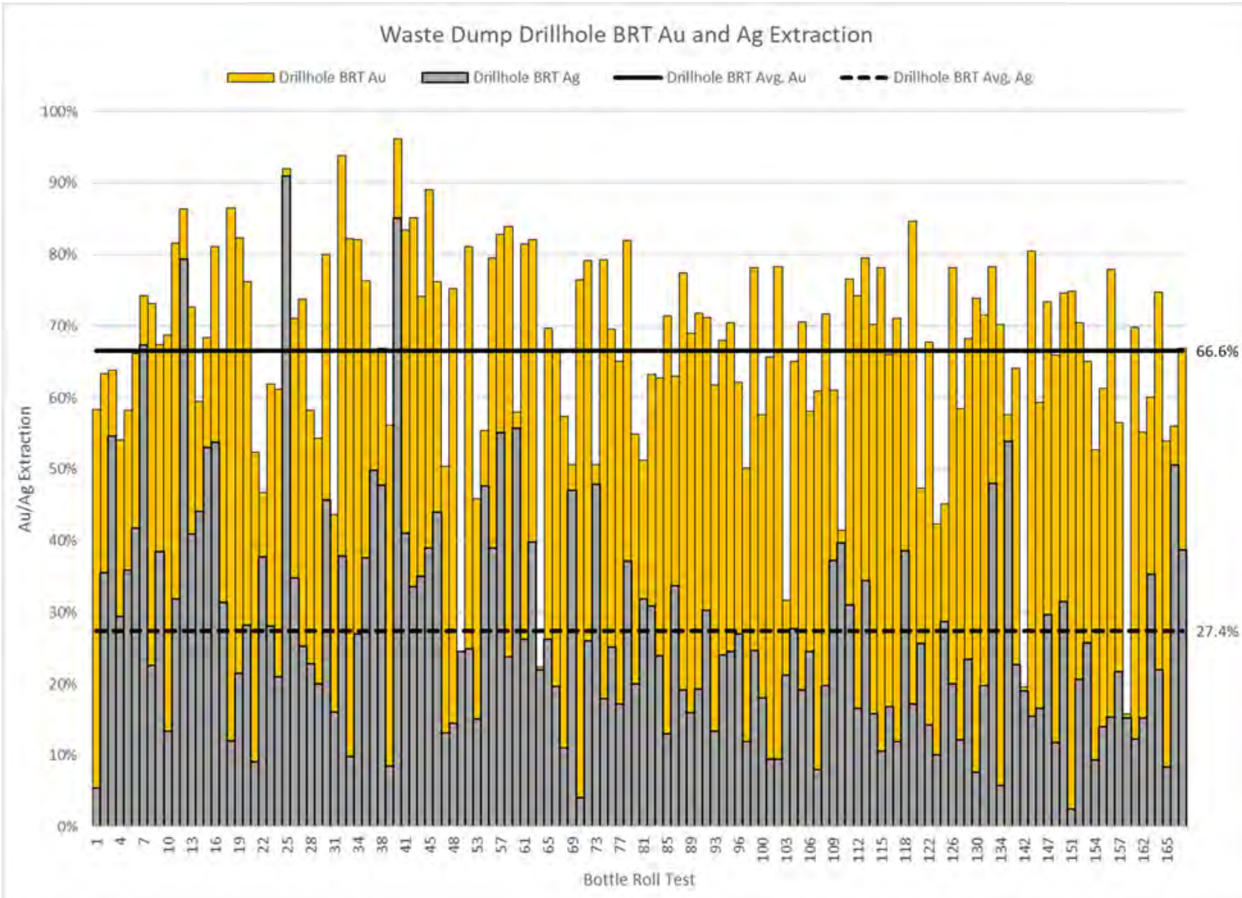
13.3.2 Bottle Roll Tests on WRSF Trench Samples

Trench samples were taken from the WRSF using a backhoe to a depth of 6 m as close to select drill holes as possible. The trenches were dug in approximately 3 x 3 x 6 m dimensions with a 'column' of material extracted and spread out and sampled in channels throughout to representatively sample the mass extracted. The locations of the trench samples are shown in Figure 13-6, overlaying the locations of the drill holes.

The trench samples were each crushed to 3/8" and subjected to bottle roll tests using the same conditions as the bottle roll tests on drill holes, resulting in 10 bottle roll tests.

Results from the 10 individual bottle roll tests are shown in Table 13-22 and summarized in Table 13-23.

Figure 13-5: La Chatarrera WRSF Bottle Roll Test Results, Drill Holes

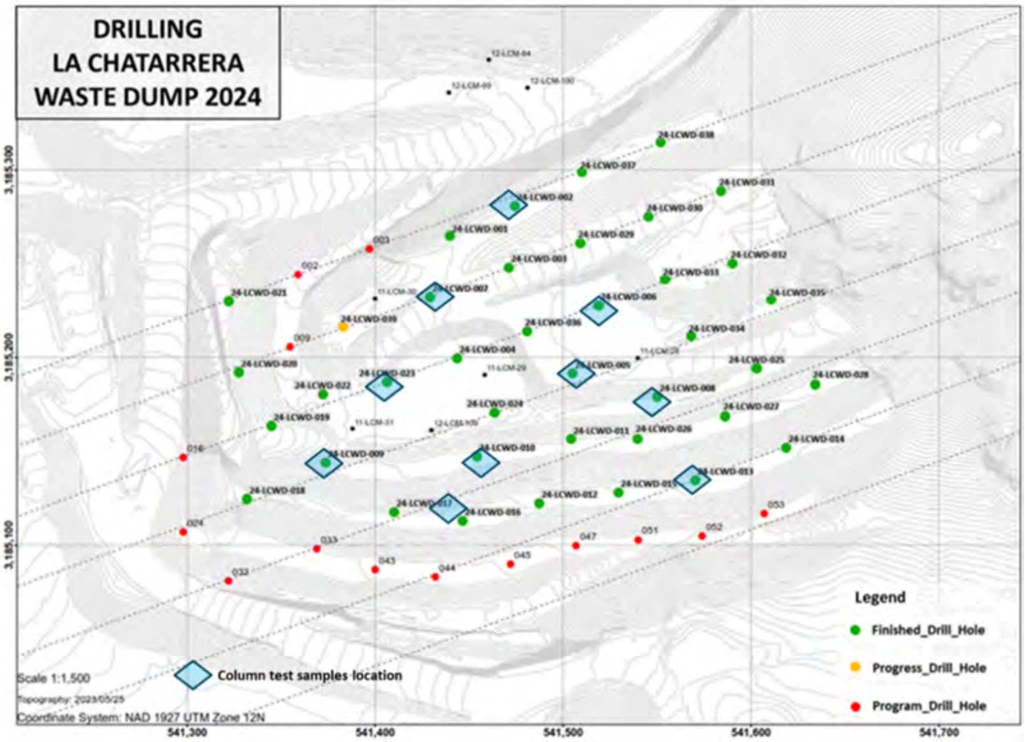


Note: Figure prepared by KCA, 2024

Table 13-21: La Chatarrera WRSF, Summary Bottle Roll Tests, Drill Holes

	Assayed Free Au (g/t)	Assayed Free Ag (g/t)	Calculated Head Au (g/t)	Calculated Head Ag (g/t)	Assayed Tail Au (g/t)	Assayed Tail Ag (g/t)	Au Extraction (%)	Ag Extraction (%)	Reagent Consumption	
									NaCN (kg/t)	CaO (kg/t)
Average	0.260	10.760	0.365	10.404	0.134	7.309	66.6	27.4	0.34	1.19
Median	0.180	8.248	0.260	8.094	0.081	5.849	68.1	24.5	0.29	1.17
Maximum	1.409	75.962	2.425	77.417	2.043	35.336	96.2	90.9	1.47	2.83
Minimum	0.048	1.685	0.085	2.051	0.023	0.000	15.7	2.5	0.09	0.24
Standard Dev.	0.237	9.221	0.324	8.666	0.216	5.683	14.2	15.8	0.20	0.45

Figure 13-6: La Chatarrera WRSF Trench Sample Locations Superimposed Over Drill Hole Locations



Note: Figure prepared by Heliostar, 2024.

Table 13-22: La Chatarrera WRSF Individual Bottle Roll Test Results, Trench Samples

Trench Sample Proximal Hole	Assayed Free Au (g/t)	Assayed Free Ag (g/t)	Calculated Head Au (g/t)	Calculated Head Ag (g/t)	Assayed Tail Au (g/t)	Assayed Tail Ag (g/t)	Au Extraction (%)	Ag Extraction (%)	Reagent Consumption	
									NaCN (kg/t)	CaO (kg/t)
24-LCWD-002	0.149	6.597	0.304	5.532	0.104	4.430	65.9	19.9	0.58	1.33
24-LCWD-005	0.131	5.965	0.171	12.64	0.044	11.453	74.1	9.4	0.47	1.41
24-LCWD-006	0.726	30.226	1.003	36.818	0.277	6.156	72.4	83.3	0.69	2.1
24-LCWD-007	0.315	5.837	0.34	15.901	0.168	14.985	50.4	5.8	0.41	1.65
24-LCWD-008	0.088	4.095	0.195	2.784	0.052	1.364	73.2	51.0	0.33	1.75
24-LCWD-009	0.074	9.189	0.123	3.783	0.029	2.608	76.6	31.1	0.39	1.81
24-LCWD-010	0.945	10.249	2.053	7.742	1.071	4.591	47.9	40.7	0.39	1.9
24-LCWD-013	0.232	10.116	0.245	6.289	0.140	5.126	42.8	18.5	0.41	1.38
24-LCWD-016	0.216	4.934	0.591	5.265	0.193	3.443	67.4	34.6	0.55	1.56
24-LCWD-023	0.511	11.875	0.437	10.087	0.155	7.605	64.4	24.6	0.44	1.46

Table 13-23: La Chatarrera WRSF Summary Bottle Roll Test Results, Trench Samples

	Assayed Free Au (g/t)	Assayed Free Ag (g/t)	Calculated Head Au (g/t)	Calculated Head Ag (g/t)	Assayed Tail Au (g/t)	Assayed Tail Ag (g/t)	Au Extraction (%)	Ag Extraction (%)	Reagent Consumption	
									NaCN (kg/t)	CaO (kg/t)
Average	0.339	9.908	0.546	10.684	0.223	6.176	63.5	31.9	0.47	1.64
Median	0.224	7.893	0.322	7.016	0.148	4.859	66.6	27.8	0.43	1.61
Maximum	0.945	30.226	2.053	36.818	1.071	14.985	76.6	83.3	0.69	2.10
Minimum	0.074	4.095	0.123	2.784	0.029	1.364	42.8	5.8	0.33	1.33
Standard Dev.	0.280	7.204	0.559	9.530	0.292	3.969	11.5	21.6	0.10	0.24

Gold extraction from the bottle roll tests averaged 63.5% and silver extraction averaged 31.9%. The average cyanide consumption was 0.47 kg/t and the average quicklime consumption was 1.64 kg/t. In these tests, the free gold assays averaged 62.1% of the calculated gold value and the free silver averaged 92.7% of the calculated silver value. When comparing assayed head grades of gold and silver with the calculated gold and silver head grades, the variance between the two values was large ranging from -14.6% to 237.7% for gold and -37.6% to 207.1% for silver again indicating the presence of significant quantities of coarse or free gold and silver.

13.3.3 Column Tests on WRSF Trench Samples

The material collected from the trench samples were used to conduct two column tests per sample. These column tests were conducted at 3/8" crush size with a 6" diameter column. Irrigation rate was 10 $L/h/m^2$. The cyanide concentration of the applied solution was 300 ppm. The quicklime addition was 2.5 kg/t for one split and 5.0 kg/t for the other split of each set of two columns. At the Report effective date, the column tests were still underway. As of the date of the last available data, 3 December, 2024, the results of the individual column tests are shown in Table 13-24.

At the time of these latest data, the column tests averaged 98.0% gold extraction and 27.2% silver extraction. Reagent consumption averaged 0.88 kg/t NaCN and 3.61 kg/t quicklime. It is important to note that the extractions of these columns are based on the assayed head samples and final extractions will be determined upon assay of the final column tails when leaching is terminated.

13.3.4 WRSF Metallurgical Testing Conclusions

The following discusses the input for the Report as a result of the analysis of the metallurgical results from the testing described in the previous sub-sections.

13.3.4.1 Gold and Silver Recovery

For the recovery values associated with gold and silver, on a preliminary basis, it is recommended to assign the average recoveries from the drill hole bottle roll testing on the La Chatarrera WRSF. These are as follows:

- 66% for gold;
- 27% for silver.

Upon completion and assay of the column tests, these values will be re-assessed. As shown in the column testing data, the active leach extractions of gold are significantly higher than what are shown in both their corresponding trench sample bottle roll tests as well as the overall average of the drill hole bottle roll tests. Therefore, the drill hole bottle roll average gold extractions are likely conservative estimates of what the final column extractions will be and are recommended at this stage of the analysis.

Table 13-24: La Chatarrera WRSF Individual Column Tests Results (Ongoing), Trench Samples

Trench Sample Proximal Hole	Lime Dosage (kg/t)	Assayed Head Au (g/t)	Assayed Head Ag (g/t)	Irrigation Days	Au Extraction (%)	Ag Extraction (%)	Reagent Consumption	
							NaCN (kg/t)	CaO (kg/t)
24-LCWD-002	2.5	0.149	6.597	79	95.8	13.3	1.20	2.98
24-LCWD-002	5.0	0.149	6.597	79	94.6	13.4	1.09	4.83
24-LCWD-005	2.5	0.131	5.965	79	96.3	25.9	1.10	2.90
24-LCWD-005	5.0	0.131	5.965	79	101.4	24.8	1.02	4.57
24-LCWD-006	2.5	0.726	30.226	69	98.1	84.8	0.99	2.88
24-LCWD-006	5.0	0.726	30.226	69	90.2	85.4	0.90	4.56
24-LCWD-007	2.5	0.315	5.837	69	90.8	24.5	0.95	2.78
24-LCWD-007	5.0	0.315	5.837	69	90.2	19.4	0.84	4.65
24-LCWD-008	2.5	0.088	4.095	69	108.1	35.0	0.97	2.81
24-LCWD-008	5.0	0.088	4.095	69	105.6	37.4	0.86	4.53
24-LCWD-009	2.5	0.074	9.189	64	87.5	12.9	0.88	2.65
24-LCWD-009	5.0	0.074	9.189	64	98.6	13.9	0.68	4.31
24-LCWD-010	2.5	0.945	10.249	64	125.9	32.2	0.83	2.63
24-LCWD-010	5.0	0.945	10.249	64	125.9	30.8	0.71	4.14
24-LCWD-013	2.5	0.232	10.116	64	72.7	12.7	0.82	2.60
24-LCWD-013	5.0	0.232	10.116	64	71.8	11.9	0.67	4.36
24-LCWD-016	2.5	0.216	4.934	64	99.4	11.6	0.83	2.62
24-LCWD-016	5.0	0.216	4.934	64	105.9	13.4	0.68	4.45
24-LCWD-023	2.5	0.511	11.875	64	119.1	21.0	0.87	2.64
24-LCWD-023	5.0	0.511	11.875	64	81.9	20.7	0.77	4.40

The additional leach duration of the column tests is likely to contribute to the increased gold extraction in comparison to the bottle roll tests as shown in Figure 13-7. In the bottle roll tests, several of the tests appear to show potential for increased gold extraction above that which was achieved after 72 hours when the tests were terminated. Silver extraction of the columns to date on the other hand is much closer to the bottle roll extractions. This is shown in Figure 13-8, where significantly more of the bottle roll test silver extractions have flatlined by the 72-hour mark, indicating low potential for further silver extraction with extended testing duration.

Upon completion of the column testing (including final tails assays), the final gold and silver extraction results will be compared with their corresponding bottle roll tests. Correlations developed between the column tests and the bottle roll tests will then be used to inform gold and silver recovery characterization of the entire La Chatarrera WRSF based on the drill hole sampling.

13.3.4.2 Reagent Consumption

For the consumption of cyanide, it is recommended to assign the average cyanide consumption from the preliminary column leach test results and factor by approximately 33%. The average quicklime addition in the bottle roll tests was approximately 1.2 kg/t. Lime addition in the column leach tests averaged 3.6 kg/t. However, lime addition in the field at La Colorada has exceeded test results. Therefore, an average field lime consumption of 4.6 kg/t is recommended to be used for the WRSF material. These are as follows:

- 0.3 kg/t sodium cyanide;
- 4.6 kg/t quicklime.

The drill hole bottle roll testing average cyanide consumption was 0.34 kg/t, which agrees fairly well with the factored column test cyanide consumption.

13.4 Recovery Estimates

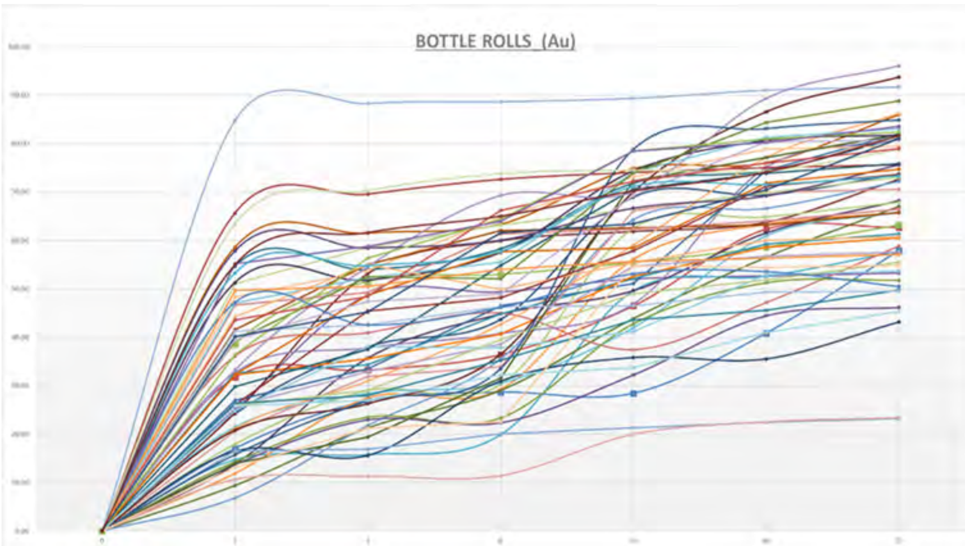
13.4.1 Operational Performance

Overall gold recovery as of the end of October 2024 since inception of operations was 69.8% and overall silver recovery was 10.7%. This is consistent with recovery models developed from original column testwork with refinements and adjustments throughout the Project life to predict gold and silver recovery.

Actual metals stacked onto the leach pads and metals recovered are shown in Figure 13-9 and Figure 13-10 for gold and silver, respectively.

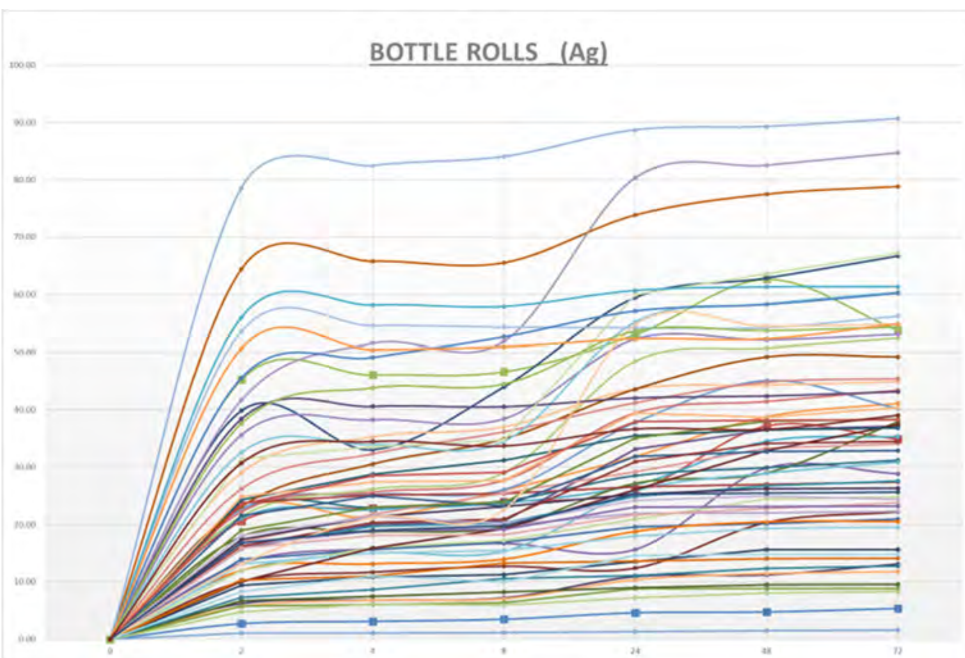
The actual Project-to-date gold and silver recovery and assumed endpoint recovery through end of October 2024 for La Colorada are presented in Figure 13-11 and Figure 13-12 for gold and silver, respectively.

Figure 13-7: WRSF Gold Extraction Drill Hole Bottle Roll Tests



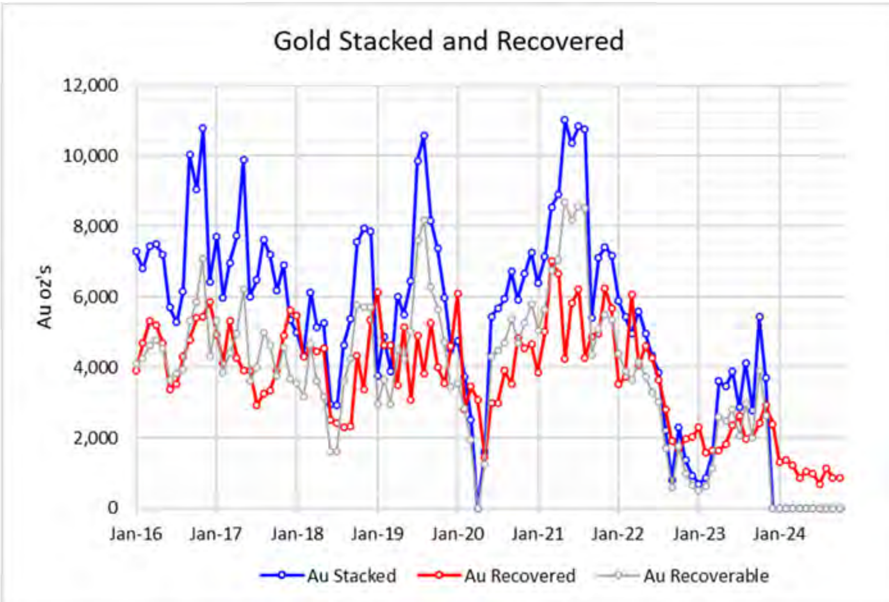
Note: Figure prepared by KCA, 2024

Figure 13-8: WRSF Silver Extraction, Drill Hole Bottle Roll Tests



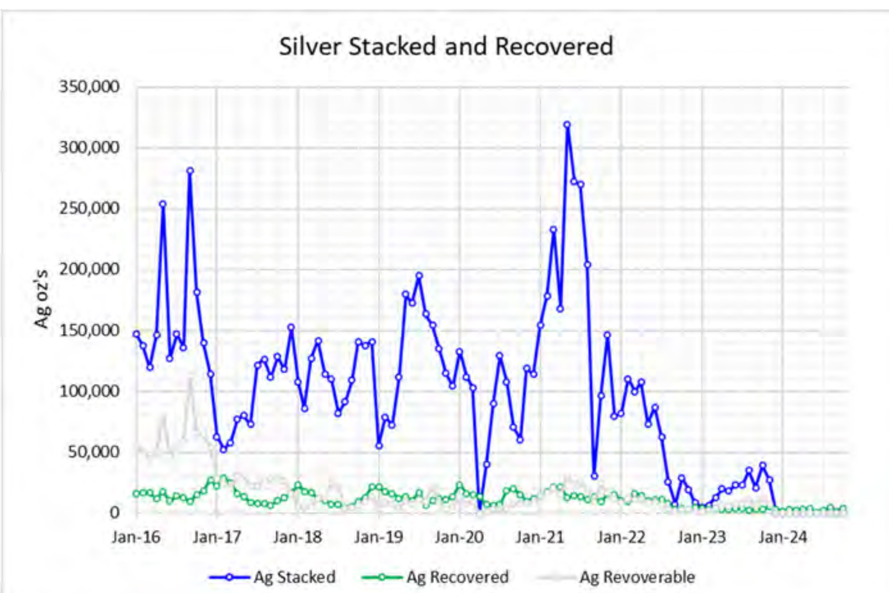
Note: Figure prepared by KCA, 2024

Figure 13-9: Gold Stacked and Recovered (2016–December 2023)



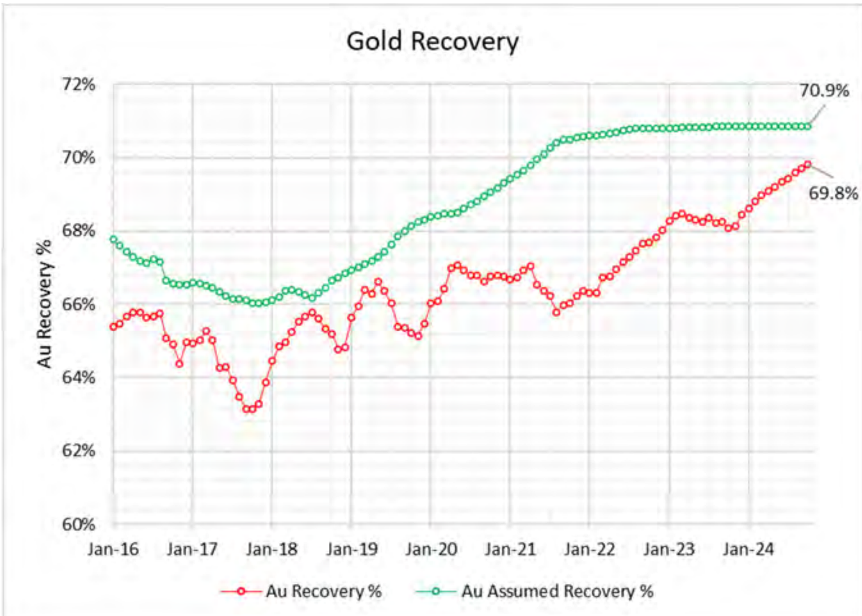
Note: Figure prepared by KCA, 2024

Figure 13-10: Silver Stacked and Recovered (2016–December 2023)



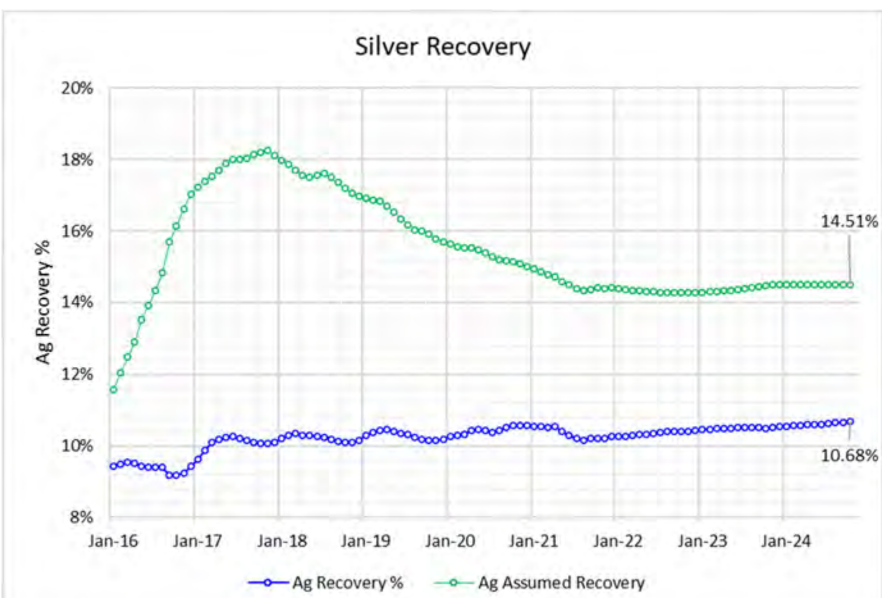
Note: Figure prepared by KCA, 2024

Figure 13-11: Actual Project-to-Date Gold Recovery and Assumed Recovery



Note: Figure prepared by KCA, 2024

Figure 13-12: Actual Project-to-Date Silver Recovery and Assumed Recovery



Note: Figure prepared by KCA, 2024

13.4.2 Life-of-Mine Forecast

Since the stacking on the heap was halted in November of 2023, the gold production from the heap has continued. The continued production since stacking ceased through October 2024 is presented in Figure 13-13.

A typical heap can economically produce for between two and three years after stacking is complete, so an exponential curve was fitted to the data. The exponential reduction estimates approximately 8,000 ounces production (inventory as of the end of October 2024) in the next two to three years. If realized, then ultimate recovery for gold stacked to date will be approximately 71%, which agrees with the assumed ultimate gold recovery of 70.9%.

13.4.3 Pit Expansion Recovery and Reagent Estimates

13.4.3.1 El Crestón

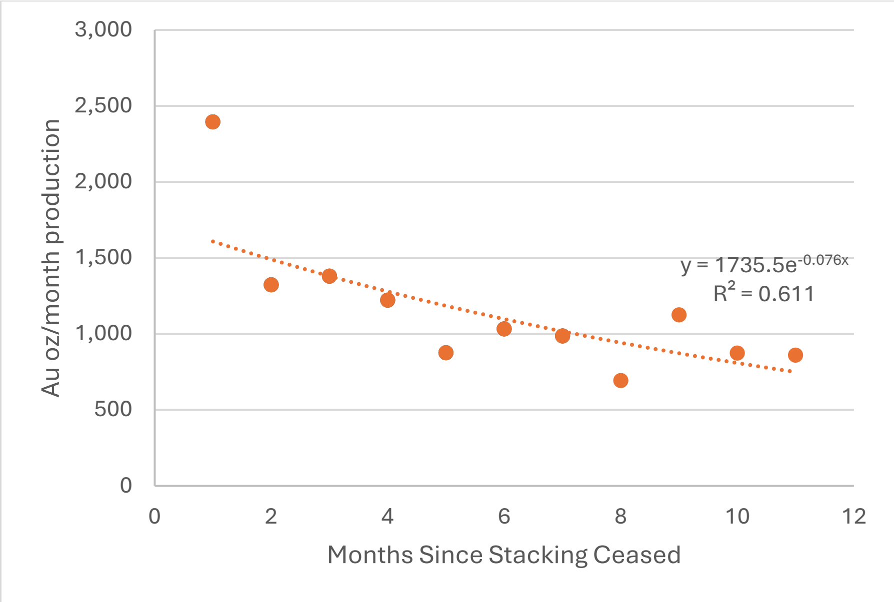
The column leach tests completed by Laboratorio Technologico on composites are the only samples that represent yet to be mined material for El Crestón. The site duplicate test was included in this analysis alongside the original on Composite 2N. Composite 6 and Composite 7 were excluded from this review as they are outside the planned pit shell. These tests indicated an average laboratory recovery of 78.5%, which is lower than the 80% observed in the production column tests and the 81% recovery observed in the early KCA tests. The average silver recovery from these tests is 24.2%. These results are summarized in Table 13-25. It is unclear if there is a geological reason for the lower column recoveries at depth, but there was more copper at depth and there were different recoveries observed by oxidation state in the Laboratorio Technologico test work.

All 32 column leach tests at the 9.5 mm crush size were also reviewed for El Crestón, as seen in Table 13-26. These tests gave an average gold recovery of 79.7% and an average silver recovery of 24.2%.

The tests completed by Laboratorio Technologico on future material would take a minimal deduction as the historical 80% gold recovery and coarse gold need to be considered, giving an estimated field gold recovery of 78%. Taking the standard 2% deduction from the average of all El Crestón column tests also gives the same 78% gold recovery. The silver recovery for El Crestón averaged 24.2% in the Laboratorio Technologico test work and including all tests, with a 5% silver recovery deduction this gives a field silver recovery of 19%.

The Laboratorio Technologico El Crestón column leach tests on future material showed cyanide consumptions ranging from 3.6 kg/t on oxides to 4.2 kg/t on mixed and sulphides with an overall average of 4.0 kg/t. Historically, El Crestón columns tests do not show this high of a cyanide consumption and one on site column duplicate test on Composite 2 showed a consumption of 2.1 kg/t. The average cyanide consumption for all El Crestón columns is 2.3 kg/t.

Figure 13-13: Production After Stacking Ceased



Note: Figure prepared by KCA, 2024

Table 13-25: Laboratorio Technologico El Crestón Columns

Sample ID	Extraction			Reagent Consumption	
	Au (%)	Ag (%)	Cu (%)	NaCN (kg/t)	CaO (kg/t)
Composite 1_N	78.4	24.4	27.7	4.28	2.95
Composite 2_N	55.9	9.7	4.9	4.10	3.24
Composite 2_N (Site)	78.8	9.1		2.08	1.43
Composite 3_I	92.3	31.4	15.0	4.11	2.88
Composite 4_I	66.7	24.5	37.6	4.35	3.61
Composite 5_I	82.8	36.7	0.3	4.19	4.70
Composite 8_S	84.9	36.8	3.5	4.25	3.37
Composite 9_S	72.0	40.0	50.7	4.21	2.41
Composite 10_S	91.8	5.4	5.7	4.26	2.71
Composite 11_S	81.8	23.9	27.6	4.17	2.77
N average	***67.1***	***17.0***	***16.3***	***4.19***	***3.10***
I average	***80.6***	***30.9***	***17.6***	***4.22***	***3.73***
S average	***82.6***	***26.5***	***21.9***	***4.22***	***2.57***
Overall average	***78.5***	***24.2***	***19.2***	***4.00***	***3.01***

Table 13-26: All El Crestón Columns for Recovery Estimate

Test	Head Au (g/t)	Head Ag (g/t)	Au Rec. (%)	Ag Rec. (%)	NaCN (kg/t)	Lime (kg/t)
Crestón	0.51	37.9	81.0	25.0	1.7	2.0
Jan-19	0.44	13.0	80.2	14.0	1.1	3.9
Feb-19	0.62	10.1	88.8	20.7	1.5	4.7
Mar-19	0.43	11.7	73.7	20.1	1.2	4.6
Apr-19	0.54	20.3	81.5	19.9	1.3	4.8
May-19	0.54	22.0	67.7	33.4	1.4	4.9
Jun-19	0.49	23.8	77.2	17.4	1.3	4.8
Jul-19	0.62	17.6	84.0	22.8	2.5	4.3
Aug-19	0.60	23.9	82.4	10.7	2.4	4.4
Sep-19	0.47	9.5	79.8	30.1	2.2	4.1
Oct-19	0.90	15.3	95.9	17.9	1.2	2.8
Nov-19	0.54	22.6	86.6	10.4	1.0	2.6
Dec-19	0.46	12.5	86.6	23.1	0.9	2.7

Test	Head Au (g/t)	Head Ag (g/t)	Au Rec. (%)	Ag Rec. (%)	NaCN (kg/t)	Lime (kg/t)
Jan-20	0.53	17.1	66.0	26.8	1.2	2.8
Feb-20	0.33	17.7	82.2	24.4	1.2	2.5
Mar-20	0.35	9.0	81.0	38.4	1.2	2.5
May-20	0.37	14.6	80.4	21.0	1.5	2.6
Jun-20	0.44	9.8	74.8	17.4	1.2	2.3
Jul-20	0.52	13.2	83.1	34.6	0.9	2.9
Apr-21	0.76	24.2	82.1	37.3	1.6	3.2
May-21	0.98	33.2	68.6	33.4	2.2	3.6
Jun-21	0.88	25.2	80.8	34.7	2.0	3.4
Composite 1_N	0.62	94.8	78.4	24.4	4.3	3.0
Composite 2_N	1.46	13.7	55.9	9.7	4.1	3.2
Composite 2_N (Site)	1.07	15.8	78.8	9.1	2.1	1.4
Composite 3_I	3.32	20.7	92.3	31.4	4.1	2.9
Composite 4_I	1.79	93.0	66.7	24.5	4.4	3.6
Composite 5_I	2.03	12.7	82.8	36.7	4.2	4.7
Composite 8_S	4.98	9.0	84.9	36.8	4.3	3.4
Composite 9_S	0.91	10.0	72.0	40.0	4.2	2.4
Composite 10_S	1.81	19.4	91.8	5.4	4.3	2.7
Composite 11_S	1.43	5.1	81.8	23.9	4.2	2.8
Average	**0.99**	**21.8**	**79.7**	**24.2**	**2.3**	**3.3**

Due to the unknown cause for higher consumption in future material as compared to the historically lower cyanide test consumptions, KCA used a lower than typical scale factor to estimate field cyanide consumption from that observed in the test work, giving an expected consumption of 0.9 kg/t. Cyanide consumption in the Laboratorio Technologico bottle roll tests on composites crushed to -10 mesh and -200 mesh averaged 1.0 kg/t and 1.2 kg/t, respectively.

13.4.3.2 Veta Madre

The early KCA work on Veta Madre showed column gold recoveries of 84% and 87% for West and East, respectively. The core composites tested in 2020 and 2021 averaged 65.5% gold recovery and do not separate West from East. The monthly column tests that represented only Veta Madre East material had an average recovery of 71%. The monthly column tests include the last material that was stacked on the heap. All of the tests should be relevant as the pit will lay back and access material of all types. A summary of all of the Veta Madre column tests is presented in Table 13-27.

Table 13-27: Veta Madre Columns for Recovery Estimate

Date	Au Rec (%)	Ag Rec (%)	NaCN (kg/t)	Lime (kg/t)	Cement (kg/t)
Veta Madre East	87.0	31.0	1.3		2.0
Veta Madre West	84.0	25.0	1.7		2.0
COMET (20-LCMET-01)	59.5		1.0	0.9	
COMET (20-LCMET-02)	69.3		1.1	0.4	
COMET (20-LCMET-03)	71.7		1.1	0.4	
COMET (20-LCMET-04)	55.2		1.1	0.4	
LCMET (21-Nucleo-05)	60.8		1.0	2.8	
LCMET (21-Nucleo-06)	74.6		1.1	2.7	
LCMET (21-Nucleo-07)	67.1		1.0	2.7	
Jan-23	73.4	3.2	2.2	4.3	
Feb-23	74.6	6.0	1.6	7.9	
Mar-23	67.5	6.0	1.8	4.1	
Apr-23	72.6	8.4	1.7	4.4	
May-23	74.6	4.3	1.6	3.3	
Jun-23	70.9	7.1	1.5	3.2	
Jul-23	72.5	6.3	1.6	3.0	
Aug-23	72.3	7.7	1.7	3.5	
Sep-23	67.8	7.7	1.3	3.2	
Oct-23	64.8	7.6	1.6	3.2	
Nov-23	66.2	6.8	1.0	3.0	
Average	**70**	**10**	**1.4**	**3.0**	

The average gold recovery for all of the Veta Madre columns is 70.3%. The 2% deduct from this column recovery gives 68% recovery for Veta Madre. The average silver recovery for the available Veta Madre columns is 10%, with a 5% standard silver deduction this gives an estimated field silver recovery of 5%.

The cyanide consumption for the Veta Madre columns averaged 1.4 kg/t NaCN. With a standard 0.3 scaling factor applied, the field consumption is estimated at 0.4 kg/t.

The lime consumption in the column leach tests for El Crestón averaged 3.2 kg/t, while the lime consumption for Veta Madre averaged 3.0 kg/t. Lime was budgeted throughout the life of the project at 5 kg/t, but was rarely added at that rate. From 2021 through 2023, actual lime addition averaged 4.6 kg/t. This historically higher field lime addition is probably due to acid generation within the heap due to past processing of mixed ore and will likely be required in the future.

13.4.3.3 Conclusions

The material from El Crestón and Veta Madre have both been successfully leached in a heap and the test work indicates that the future material is also amenable to heap leaching. There is also potential for crushing and heap leaching the material in the La Chatarrera WRSF.

Laboratory results indicate that cyanide consumptions are higher in the future El Crestón material, possibly due to higher copper concentrations in the ore.

The column tests indicate field lime requirements of around 1 kg/t, but the operating heap has required additional lime addition to maintain pH levels. This is likely due to sulphides contained in the material stacked.

The recovery and reagent estimates for future mining and heap leaching are presented in Table 13-28.

13.5 Metallurgical Variability

Samples taken for testing purposes are reasonably representative of the different ore types processed and of the various deposits. Several drilling campaigns were conducted and bulk surface samples were taken for metallurgical sampling and test programs. These sampling and testing programs generally support the crusher ore samples taken during production and subsequent site monthly column leach tests results.

13.6 Deleterious Elements

Testwork indicates that there may be elevated copper levels in deeper parts of the El Crestón pit which led to higher cyanide consumptions in Laboratorio Technologico’s testing results. The potential higher copper levels do not appear to affect gold recovery. There are no other deleterious elements that adversely affect either mining or processing.

Table 13-28: Gold Recovery and Reagent Estimates for Future 9.5 mm Crush Ore

Deposit	Au Rec (%)	Ag Rec (%)	NaCN (kg/t)	Lime (kg/t)
El Crestón	78%	19%	0.9	4.6
Veta Madre	68%	5%	0.4	4.6
La Chatarrera WRSF	66%	27%	0.3	4.6

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

Mineral Resources were estimated for El Crestón and Veta Madre at the La Colorada Project. Separate block models were constructed for each deposit.

The El Crestón block model was estimated by Argonaut staff in May 2023. The Veta Madre block models was estimated by Heliostar staff in October 2024. A detailed review of each block model was performed by the QP.

In November 2024, the QP completed a Mineral Resource estimate for La Chatarrera, which is located to the south of the Gran Central open pit.

14.2 El Crestón

Argonaut technical staff updated the block model in May 2023, incorporating 46 RC and 17 core drill holes that were drilled in 2022.

14.2.1 Drill Hole Data

Drill hole data for the El Crestón deposit are stored in a GeoSequel database. CSV files representing collar locations, downhole surveys, assays, lithology, oxidation, and structure were imported into Leapfrog Geo and Mineplan for subsequent modelling.

14.2.2 Geological Model

A geological model was constructed for the El Crestón deposit using Leapfrog software. Lithological units modelled included overburden, intrusive rocks, and sedimentary rocks, and the wireframes were used to code the block model. A 0.1 g/t Au grade envelope was developed by Argonaut technical staff to sub-divide the deposit into mineralized and non-mineralized populations. The mineralized wireframes represent a series of northerly-dipping mineralized structures.

The mineralized wireframes were sub-divided into three domains (north, south and central) with the north and south domains further sub-divided based on changes in the strike and dip of the mineralized structures. The strike of the mineralized structures varies between 75–90° and the dip changes from 40° on the west end of the deposit to 85° on the east end.

14.2.3 Exploratory Data Analysis, Grade Capping and Compositing

Cumulative probability plots were generated from the raw gold and silver assays for the mineralized and non-mineralized populations sub-divided by each of the three domains. Capping limits were chosen based on breaks in the probability distribution of grade. In addition, the influence of higher-grades (outlier restriction) was restricted with parameters selected based on mine production reconciliation. Gold and silver capping limits are summarized in Table 14-1. The QP notes that the amount of metal removed by capping is high (17–29%); however, this is consistent with the erratic nature of the gold distribution.

The average assay sample length was approximately 1.8 m long with many of the RC intervals being 1.52 m (5 ft) or 2 m long. The capped drill hole intervals were composited into 6 m long fixed length composites without honoring the grade shell envelopes.

The grade shell boundary was not honored in order to avoid the potential bias (over-estimating grade, under-estimating tonnes) associated with the use of a grade shell and a hard boundary. The composite length was selected to reduce the number of original data intervals being split and to conform to the bench height that will be mined.

14.2.4 Density

Bulk density determinations were collected many years ago for the Eldorado operation, but given the considerable previous operating experience in very similar rocks at this mining complex, a bulk density of 2.69 g/cm^3 was assigned to all bedrock (intrusive and sedimentary rocks) material in the block model. Alluvium and backfill materials were assigned a bulk density of 2.00 g/cm^3.

14.2.5 Variogram Analysis

Gold grade correlograms were generated firstly for the production blast-hole data and then for the 6 m composite resource data (once the 2022 drilling was completed) located within the 0.1 g/t Au mineralized interpretation.

As previously described, the differing grade orientations by structural domain are supported; the variography shows correlation directions varying in the strike direction from 075–090° and from 45–85° in the dip direction. As with the blasthole correlograms, the south domain shows the lowest nugget effect and most continuous grade correlation.

The correlogram models were used as the basis for guiding the estimation search ellipses and estimation input parameters.

The QP used blasthole indicator variograms above incrementally higher cut-offs to confirm the outlier grade thresholds and distances chosen to restrict their influence on the grade estimates (Table 14-6). Generally, the grades and distances chosen coincide with a deterioration in the grade continuity displayed by the indicator variograms.

Table 14-1: El Crestón Capping Parameters

Domain	Gold Capping Threshold (g/t)	Silver Capping Threshold (g/t)
North (1)	23.0	153.0
Central (2)	23.0	250.0
South (3)	20.0	200.0

Table 14-2: Summary Length Weighted Gold Assay Statistics, El Crestón

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Uncapped Mean (g/t)	Uncapped CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed By Capping (%)
North	1	4,432	0.00	519.00	1.52	6.77	1.20	2.31	31	21.1
Central	2	4,865	0.00	624.00	1.58	8.18	1.13	2.38	39	28.9
South	3	3,424	0.00	189.50	1.42	4.04	1.18	2.24	32	16.9

Table 14-3: Summary Length Weighted Silver Assay Statistics, El Crestón

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Uncapped Mean (g/t)	Uncapped CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed by Capping (%)
North	1	4,417	0.1	1,255.0	20.8	2.6	17.8	1.6	85	14.8
Central	2	4,857	0.0	1,365.0	22.0	2.2	20.8	1.7	34	5.5
South	3	3,421	0.0	834.0	20.4	2.1	19.1	1.5	25	6.1

Table 14-4: Summary Length Weighted Gold Composite Statistics, El Crestón

Vein/Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV
North	1	1,785	0.01	193.72	1.39	4.49	1.08	1.84
Central	2	1,993	0.01	195.88	1.35	5.07	0.95	1.78
South	3	1,271	0.01	117.43	1.32	3.37	1.06	1.81

Table 14-5: Summary Length Weighted Silver Composite Statistics, El Crestón

Vein/Structure	Code	Number	Minimum	Maximum	Mean	CV	Capped Mean	Capped CV
North	1	1,773	0.2	669.8	20.1	2.2	16.8	1.5
Central	2	1,991	0.0	481.0	19.5	1.7	18.3	1.5
South	3	1,271	0.2	507.6	18.8	1.7	17.7	1.4

Table 14-6: El Crestón Blasthole Outlier Restriction Results

Dataset	North		Central		South	
	Threshold (g/t)	Distance (m)	Threshold (g/t)	Distance (m)	Threshold (g/t)	Distance (m)
Blastholes	5.0	15	4.0	10	9.0	15

14.2.6 Block Model

Table 14-7 summarizes the extent and block dimensions of the El Crestón block model.

14.2.7 Grade Estimation Methods

Block grades were interpolated by structural domain both inside and outside of the 0.1 g/t Au mineralized interpretation. The percentage of each block within the 0.1 g/t Au envelope was stored in each block.

For each case, a multi-pass ordinary kriging (OK) estimation method was used. The mineralized block estimate was accomplished using only drill hole composites located inside of the gold grade interpretation; likewise, for the non-mineralized blocks the estimate was accomplished using only drill hole composites located outside of the gold grade interpretation.

Table 14-8 to Table 14-10 summarize the gold and silver estimation parameters that were used for the mineralized and non-mineralized blocks relative to the gold envelopes.

For blocks on the contact of the mineralized interpretation, final block gold and silver grades were calculated by weighting the mineralized and non-mineralized block percentages and estimated mineralized and non-mineralized block grades.

Limiting the spread of the higher grades was achieved by grade capping in the first instance. Higher grades are, however, an important component of the mineralization. This was preserved in the block estimate by using restricted searches and multiple estimation passes. Where drill density is higher, the first pass serves to localize and preserve the highest grades with a higher restricted grade, fewer composites and a smaller search. Subsequent passes use more composites and larger search ellipses. The directions of variogram anisotropy form the basis for the orientation of the search ellipsoids and the variogram ranges formed the basis for the search distances.

The QP reviewed Argonaut's grade estimation parameters and found that the outlier restriction thresholds restrict the influence of grades above 5 g/t Au to 10 g/t Au to a maximum of 10 m. The results of the QP's assessment of outlier restriction (shown in Table 14-6) using blasthole indicator variogram ranges indicate similar thresholds with a slightly higher distance of 15 m. The QP concludes that Argonaut's selection of outlier restriction parameters is appropriate.

Table 14-7: El Crestón Block Model Limits

Parameter	Minimum	Maximum	Extent (m)	Block Size (m)	Number
Easting	542,000	543,200	1,200	5	240
Northing	3,185,200	3,186,200	1,000	5	200
Elevation	50	525	475	5	95

Table 14-8: El Crestón Estimation Parameters for Mineralized Blocks

Structural Domain	Estimation Pass	Number of Composites Used			Composite Search Distances (m)			Trend Plane Orientation (degrees)		Outlier Restriction	
		Min	Max	Max per Drill Hole	Along Strike	Along Dip	Normal to Strike	Strike	Dip	Cut-off (Au g/t)	Distance (m)
1 North	1	4	6	2	70	60	5	75	-45	7	10
	2	10	10	2	35	25	15	75	-45	1	10
	3	10	20	2	70	60	35	75	-45	1	10
	4	10	20	2	140	120	70	75	-45	1	10
2 Central	1	6	6	2	80	40	5	80	-60	5	10
	2	10	10	2	40	20	10	80	-60	1	10
	3	10	20	2	80	40	15	80	-60	1	10
	4	10	20	2	160	80	30	80	-60	1	10
3 South	1	6	6	2	80	70	10	90	-65	10	10
	2	6	6	2	30	30	10	90	-65	1	10
	3	6	16	2	80	70	20	90	-65	1	10
	4	6	16	2	160	140	40	90	-65	1	10

Table 14-9: El Crestón Estimation Parameters for Partial Blocks

Structural Domain	Estimation Pass	Number of Composites Used			Composite Search Distances (m)			Trend Plane Orientation (º)	
		Min	Max	Max per Drill Hole	Along Strike	Along Dip	Normal to Strike	Strike	Dip
1 North	1	5	10	2	35	25	15	75	-45
	2	5	20	2	70	60	35	75	-45
	3	5	20	2	140	120	70	75	-45
2 Central	1	5	10	2	40	20	10	80	-60
	2	10	20	2	80	40	15	80	-60
	3	5	20	2	160	80	15	80	-60
3 South	1	4	8	2	30	30	10	90	-85
	2	4	16	2	80	70	20	90	-85
	3	4	16	2	160	140	40	90	-85

Table 14-10: El Crestón Estimation Parameters for Non-mineralized Blocks

Structural Domain	Estimation Pass	Number of Composites Used			Composite Search Distances (m)			Trend Plane Orientation (º)	
		Min	Max	Max per Drill Hole	Along Strike	Along Dip	Normal to Strike	Strike	Dip
1 North	1	1	12	1	5	5	5	75	-45
	2	1	12	1	10	5	5	75	-45
2 Central	1	1	12	1	5	5	5	80	-60
	2	1	12	1	10	5	5	80	-60
3 South	1	1	12	1	5	5	5	90	-85
	2	1	12	1	10	5	5	90	-85

A fourth estimation process was completed for blocks located outside of the 0.1 g/t Au envelope using the parameters summarized in Table 14-6. Final block gold and silver grades were calculated for whole blocks using a weighting of mineralized and non-mineralized block percentages and estimated mineralized and non-mineralized block grades.

14.2.8 Model Validation

The El Crestón block model was validated by visual and statistical methods. Block gold and silver grades were compared against drill hole composite grades in cross section and plan views. Figure 14-1 and Figure 14-2 show a typical cross section and a plan view through the deposit respectively, with drill hole composites and estimated block gold grades.

The QP concludes that the estimated block grades accurately reflect the drill hole composite data.

NN model comparisons show that the OK gold grades are globally 1.5–2.0% lower than the NN model grades. Local differences exist between the models. Comparisons between the OK block grades versus the NN grades at a zero cut-off grade are summarized in Table 14-11.

The Mineral Resource block model was compared with the mine production blasthole block model. The comparison shows good agreement in tonnes and gold grade between the Mineral Resource model and the mine production blasthole model on a yearly basis (Table 14-12).

Based on visual and statistical reviews, it is the opinion of the QP that the El Crestón model provides a robust Mineral Resource estimate.

14.2.9 Classification of Mineral Resources

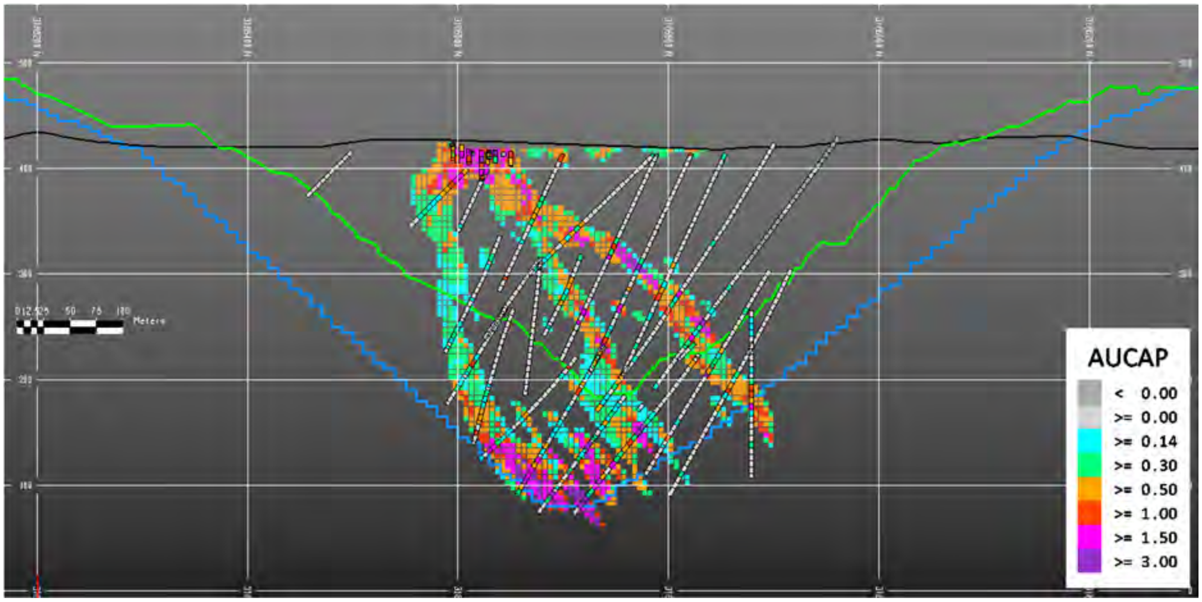
As a part of Mineral Resource classification, the QP used the criteria that grade, tonnage and metal estimates should have a 90% confidence interval of ± 15%. Measured Mineral Resources consider a quarterly production increment while Indicated Mineral Resources consider an annual production increment. The drill hole spacing study for the resource model used the kriged estimation of grade within a quarterly production panel.

The results based on estimation of gold grades suggest that a drill grid with a spacing of 40 m (east–west) x 40 m (north–south) is sufficient to classify Indicated mineral resources and a drill hole spacing of 15 m would be required to classify Measured Mineral Resources.

Based on the drill hole spacing study results and the results of reconciliation with the blasthole model, the estimated block grades for the El Crestón model were classified into Indicated and Inferred Mineral Resource categories. A drill hole spacing of ≤45 m (blocks with three drill holes falling within 45 m) was used to classify model blocks as Indicated Mineral Resources. The estimated blocks outside the wireframe were classified as Inferred Mineral Resources.

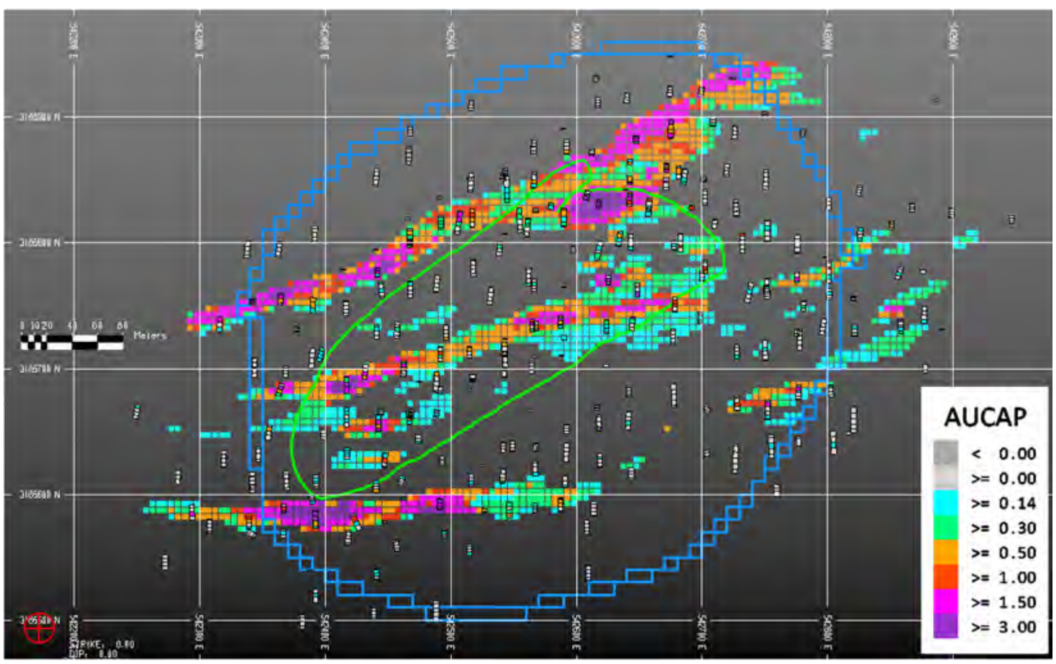
The reconciliation results shown in Table 14-12 demonstrate that grade, tonnage and metal estimates fall within an interval of ±15% on a yearly basis.

Figure 14-1: El Crestón 542,560 East, North–South Cross Section



Note: Figure prepared by MTS, 2024. June 2024 surface shown as a green line; Mineral Resource pit shell shown as a blue line. Figure looks west.

Figure 14-2: El Crestón Bench 230 m Elevation Map



Note: Figure prepared by MTS, 2024. June 2024 surface shown as a green line; original topography shown as a black line; Mineral Resource pit shell shown as a blue line.

Table 14-11: El Crestón Nearest Neighbor Grade Comparisons

Estimation Method	Au (g/t)	Ag (g/t)
Ordinary kriging	0.824	15.0
Nearest neighbor	0.837	15.3
% difference	-1.55	-1.96

Table 14-12: El Crestón Exploration Model and Blasthole Model Comparison

Year	% Relative Difference		
	Tonnes	Au Grade	Ag Grade
2018	-2.1	-7.5	16.6
2019	-1.2	-3.8	13.3
2020	-1.3	10.3	-39.0
2021	1.0	-1.0	-1.1
2022	-3.6	-8.0	0.7
Total	-1.0	-2.1	0.2

14.2.10 Reasonable Prospects of Eventual Economic Extraction

A conceptual pit was generated using the MineSight MS Economic Planner procedure using the Lerchs–Grossmann (LG) algorithm. Table 14-13 summarizes the parameters that were used to generate the conceptual pit. Silver recoveries are significantly lower than gold recoveries by area of the pit. Gold equivalency (AuEq) grades were calculated for each model block using ratios of metal prices and metal recoveries in the following equation:

- AuEq = (Au + Ag/equivalency factor)

Where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).

The gold:silver equivalency factor is listed in Table 14-13.

Table 14-13: El Crestón Conceptual Pit Parameters

Parameter	Units	Value
Gold price	US$/oz	2,150.00
Silver price	US$/oz	26.00
Mining cost rock average	US$/t mined	2.44
Mining cost dumps	US/t mined	1.75
Crushing and conveying	US$/t processed	1.33
Process and leaching	US$/t processed	4.54
General and administrative	US$/t processed	1.15
Selling cost	US$/t processed	0.66
Gold recovery	%	79
Silver recovery	%	13
Refining and selling	$/t mineralization	0.66
Total cost	$/t mineralization	7.68
Pit slope angles rock	º	35–42
Pit slope angles fill and old pad	º	22
Au–Ag equivalency factor	ratio	502.51
AuEq cut-off	g/t AuEq	0.14

14.3 Veta Madre

The Veta Madre resource model was completed by Argonaut technical staff in 2022, incorporating an additional 19 RC infill drill holes completed in 2022 in the southwestern part of the Veta Madre pit. In October 2024, Heliostar staff modified the resource model to include additional contact dilution and more robust grade estimation parameters.

14.3.1 Drill Hole Data

Drill hole data for the Veta Madre deposit are stored in a GeoSequel database. CSV files representing collar locations, downhole surveys, assays, lithology, oxidation, and structure were imported into Leapfrog software for subsequent modelling efforts.

14.3.2 Geological Model

A geological model was constructed by creating wireframes, based on geologic logging and pit wall surface mapping, for each of the geological units and known faults which resulted in four domains (two lithologies and two gold grade shell mineralization wireframes). The model was constructed using Leapfrog software. A cut-off grade of 0.1 g/t Au was used to construct the gold mineralization wireframes. Mineralization is primarily hosted in volcanic rocks in the Upper Zone

(Domain 3) and is hosted in intrusive diorite and granites in the Lower Zone (Domain 8). The Upper Zone is offset to the southeast of the Upper Zone by a low-angle fault (dipping to the west) along the contact between the volcanic and intrusive host rocks.

14.3.3 Exploratory Data Analysis, Grade Capping and Compositing

Argonaut undertook a review of cumulative probability plots of gold and silver assays to determine grade capping limits. Gold and silver assay grades were capped at 7 g/t and 40 g/t respectively and were composited into nominal 5 m length intervals using the gold grade shell domains to split the composites (Table 14-14 to Table 14-17). Approximately 23 gold and 35 silver samples were capped resulting in approximately 11% and 10% metal loss by capping, respectively.

The composite length was selected to reduce the number of original data intervals being split and to conform to the bench height that will be mined.

The QP agrees with the compositing strategy and capping limits.

14.3.4 Density

Argonaut obtained 75 bulk density determinations for Veta Madre in 2012. Those determinations were evaluated by primary lithologic unit and in the case of intrusive rocks, whether mineralized or not. Based on those averages, bulk density values assigned by lithology in the block model are shown in Table 14-18.

14.3.5 Variogram Analysis

In 2018, RMI generated and interpreted both grade and grade indicator variograms using 5 m long drill hole composites. For the gold and silver indicator variograms, cut-off grades of 0.1 g/t and 5.0 g/t, respectively, were used. Variograms oriented along the predominant plane of the mineralized system generated the longest ranges.

RMI generated gold and silver correlograms from 5 m long composites located inside of the 0.1 g/t Au wireframe. These correlograms showed best continuity along strike and down plunge of the northeast striking, northwest dipping mineralized system.

The QP used blasthole indicator variograms above incrementally higher cut-offs to confirm the outlier grade thresholds and distances chosen to restrict their influence on the grade estimates. Generally, the grades and distances chosen coincide with a deterioration in the grade continuity displayed by the blasthole indicator variograms.

14.3.6 Block Model

The 2024 Heliostar block model was completed using Leapfrog and Mineplan software packages. Table 14-19 summarizes the areal extent and block dimensions of the Veta Madre block model.

Table 14-14: Summary Length Weighted Gold Assay Statistics, Veta Madre

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Uncapped Mean (g/t)	Uncapped CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed by Capping (%)
Lower	3	5284	0.00	176.50	0.56	6.00	0.46	1.88	34	18.0
Upper	8	1002	0.00	25.30	0.51	2.33	0.48	1.62	3	5.4

Note: CV = co-efficient of variation

Table 14-15: Summary Length Weighted Silver Assay Statistics, Veta Madre

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Uncapped Mean (g/t)	Uncapped CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed by Capping (%)
Lower	3	5,284	0.0	113.0	3.3	1.9	3.2	1.6	26	3.0
Upper	8	1,002	0.0	100.0	4.1	1.6	4.0	1.3	3	2.8

Note: CV = co-efficient of variation

Table 14-16: Summary Length Weighted Gold Composite Statistics, Veta Madre

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV
Lower	3	1,615	0.00	53.21	0.56	3.41	0.46	1.37
Upper	8	302	0.00	6.83	0.51	1.36	0.48	1.04

Note: CV = co-efficient of variation

Table 14-17: Summary Length Weighted Silver Composite Statistics, Veta Madre

Vein/ Structure	Code	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV
Lower	3	1,615	0.0	55.9	3.3	1.6	3.3	1.5
Upper	8	302	0.1	59.0	4.1	1.3	4.0	1.1

Note: CV = co-efficient of variation

Table 14-18: Veta Madre Bulk Density Values

Lithology	Bulk Density (g/cm^3)
Rhyolite porphyry	2.64
Mineralized intrusive rocks	2.51
Unmineralized intrusive rocks	2.65

Table 14-19: Veta Madre Block Model Limits

Parameter	Minimum (m)	Maximum (m)	Extent (m)	Block Size (m)	Number
Easting	543,500	544,900	1,400	5	280
Northing	3,185,100	3,186,200	1,100	5	220
Elevation	0	500	500	5	100

14.3.7 Grade Estimation Methods

Gold and silver grades were interpolated using OK methods. Blocks with centroids falling within the 0.1 g/t gold grade shell were coded. The coded blocks were estimated using OK methods and estimation was restricted to using only drill hole composites contained inside the gold wireframe. A three-pass interpolation plan was used with successively longer search distances for each pass. Table 14-20 summarizes the parameters used to krige grades into the block model.

Gold and silver block grades were estimated using the same search ellipse dimensions, search directions, and number of composites. An outlier restriction method was used to cap high grade gold composites used in estimation to 3 g/t Au where the distance from the block centroid was greater than 50% of the maximum search ellipse dimension. The results of the QP's assessment of outlier restriction (shown in Table 14-21) using blasthole indicator variogram ranges indicate a higher-grade threshold (4 g/t Au instead of 3 g/t Au) with a shorter distance of 10 m. The QP concludes that Argonaut's selection of outlier restriction parameters is appropriate.

For blocks on the contact of the mineralized interpretation, final block gold and silver grades were calculated by weighting the mineralized and non-mineralized block percentages and estimated mineralized and non-mineralized block grades.

14.3.8 Validation

The Veta Madre block model was validated by visual and statistical methods. Block gold and silver grades were compared against drill hole composite grades in cross section and plan views. Production data and reconciliation analysis were also used to validate gold estimation. Figure 14-3 shows a typical cross section through the deposit showing drill hole composites and estimated block gold grades.

Figure 14-4 shows a plan map drawn at the 330 m elevation level through the deposit comparing drill hole composite and block grades. It is the opinion of the QP that there is good agreement between the estimated block grades and the drill hole data.

NN model comparisons show that the OK gold and silver grades compare reasonably well with NN grades. Comparisons between the kriged block grades versus NN grades at a zero cut-off grade are summarized in Table 14-22.

The Mineral Resource block model was compared with the mine production blasthole block model. The Mineral Resource model shows good agreement with the mine production blasthole model on a yearly basis to within 15% on tonnage and gold grade (Table 14-23).

Based on visual and statistical reviews, it is the opinion of the QP that the Veta Madre model provides a robust Mineral Resource estimate.

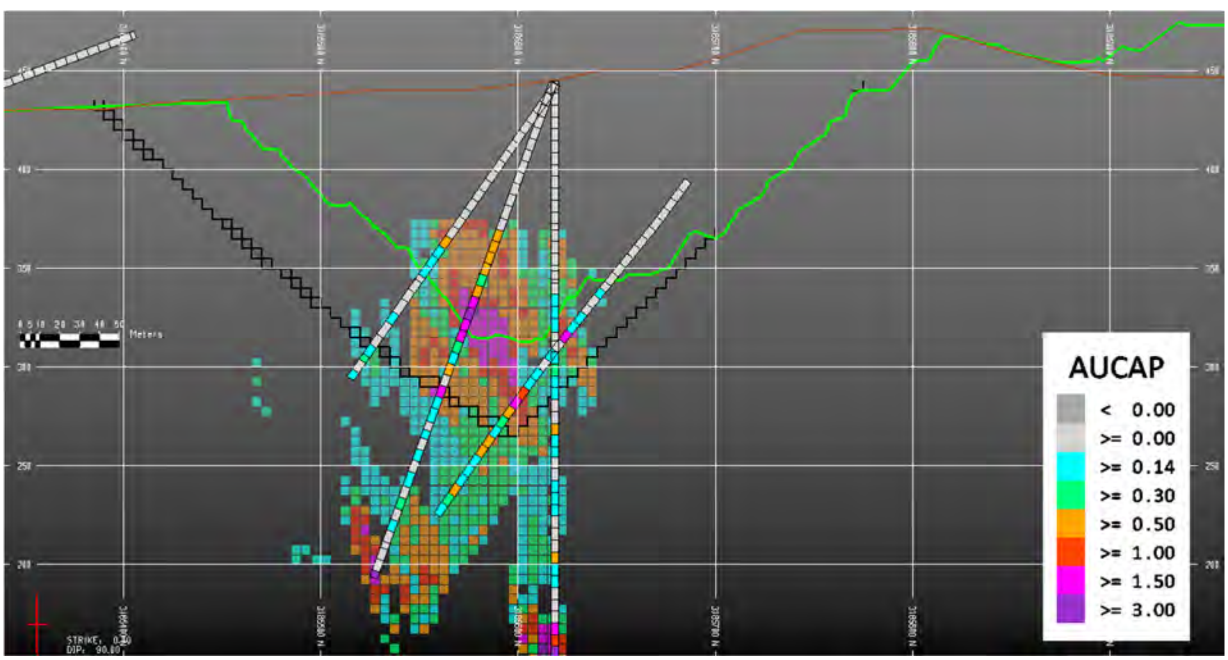
Table 14-20: Veta Madre Kriging Parameters Inside of Gold Wireframe

Domain	Estimation Pass	Search Ellipse Dimensions (m)			Search Directions (º)			Composites Used		
		Major (Y)	Intermediate (X)	Minimum (Z)	Z Rotation (LHR)	X Rotation (RHR)	Y Rotation (LHR)	Minimum Number	Maximum Number	Maximum Per Drill Hole
Upper	1	35	35	15	70	0	-78	3	8	2
	2	55	55	15	70	0	-78	3	8	2
Lower	1	35	35	15	70	0	-78	3	8	2
	2	55	55	15	70	0	-78	3	8	2

Table 14-21: Veta Madre Blasthole Outlier Restriction Results

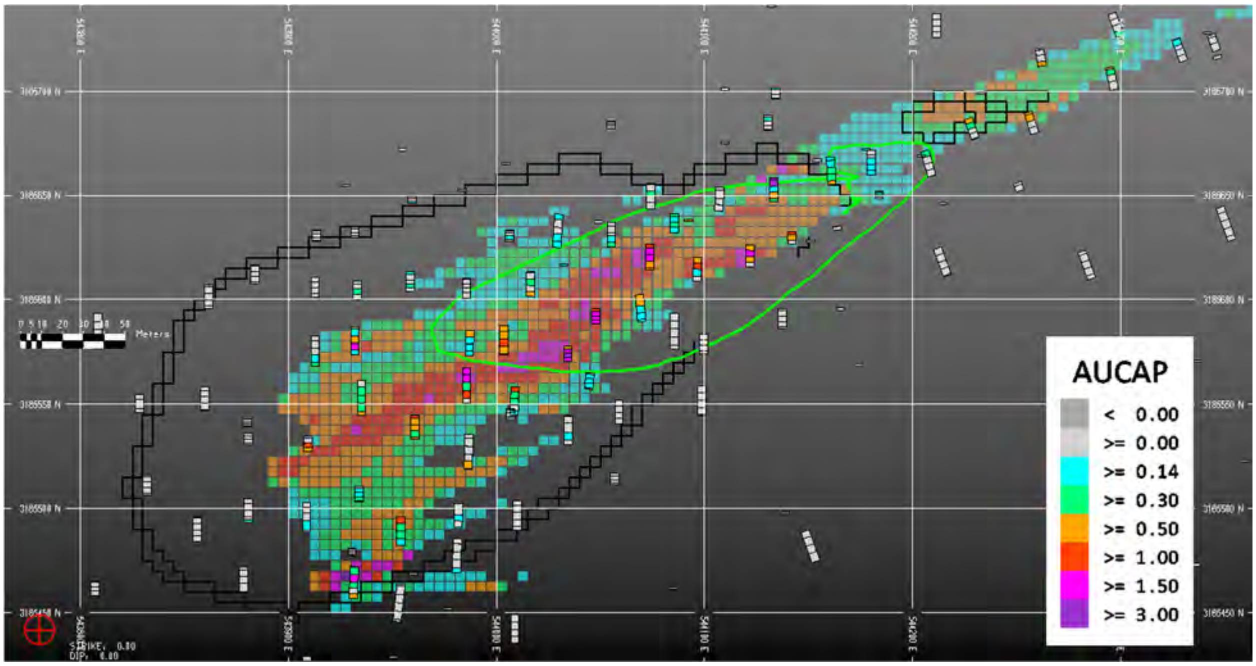
	Lower Domain		Upper Domain	
Dataset	Threshold (g/t)	Distance (m)	Threshold (g/t)	Distance (m)
Blastholes	4.0	10	4.0	10

Figure 14-3: Veta Madre 544,025 East North-South Cross Section Looking West



Note: Figure prepared by MTS 2024; June 2024 topography shown as a green line; original topography shown as a brown line; Mineral Resource pit shell shown as a black line.

Figure 14-4: Veta Madre Bench 330 m Elevation, Plan Map



Note: Figure prepared by MTS 2024; June 2024 topography shown as a green line; original topography shown as a brown line; Mineral Resource pit shell shown as a black line.

Table 14-22: Veta Madre Nearest Neighbor Grade Comparisons

Estimation Method	Au (g/t)	Ag (g/t)
Ordinary kriging	0.608	3.04
Nearest neighbor	0.639	3.07
% Difference	5.1	1.0

Table 14-23: Veta Madre Exploration Model and Blasthole Model Comparison

Period	% Relative Difference		
	Tonnes	Au Grade	Ag Grade
2020–2021	-10.0	12.5	141.3
2021–2022	-14.2	2.7	160.0
2022–2023	-10.8	5.1	30.1
Total	***-11.7***	***6.4***	***87.5***

14.3.9 Classification of Mineral Resources

Based on the results of reconciliation with the blasthole model, the estimated block grades for the Veta Madre model were classified into Indicated and Inferred Mineral Resource categories. A wireframe was designed around drill hole data with an approximate spacing of 35 m and was used to classify model blocks as Indicated Mineral Resources. The estimated blocks outside the wireframe were classified as Inferred Mineral Resources.

The reconciliation results shown in Table 14-23 demonstrate that gold grade, tonnage and gold metal estimates fall within an interval of approximately ± 15% on a yearly basis.

14.3.10 Reasonable Prospects of Eventual Economic Extraction

A conceptual pit was generated using the MineSight MS Economic Planner procedure using the LG algorithm. Table 14-24 summarizes the parameters that were used to generate the conceptual pit. Silver recoveries are significantly lower than gold recoveries by area of the pit.

Gold equivalent grades were calculated for each model block using ratios of metal prices and metal recoveries in the following equation:

- AuEq = (Au + Ag/equivalency factor)

Where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).

The gold:silver equivalency factor is listed in Table 14-24.

14.4 La Chatarrera Waste Rock Storage Facility

The QP completed a Mineral Resource estimate for La Chatarrera, which is located to the south of the Gran Central open pit. The area contains low-grade mineralized material dumped by previous operators, primarily Eldorado. There is a layer of higher-grade tailings material from the older underground operations underneath the WRSF.

14.4.1 Drill Hole Data

Drill hole data for the La Chatarrera area are stored in a GeoSequel database. CSV files representing collar locations, downhole surveys, assays, lithology, oxidation, and structure were imported into Mineplan software for subsequent modelling efforts.

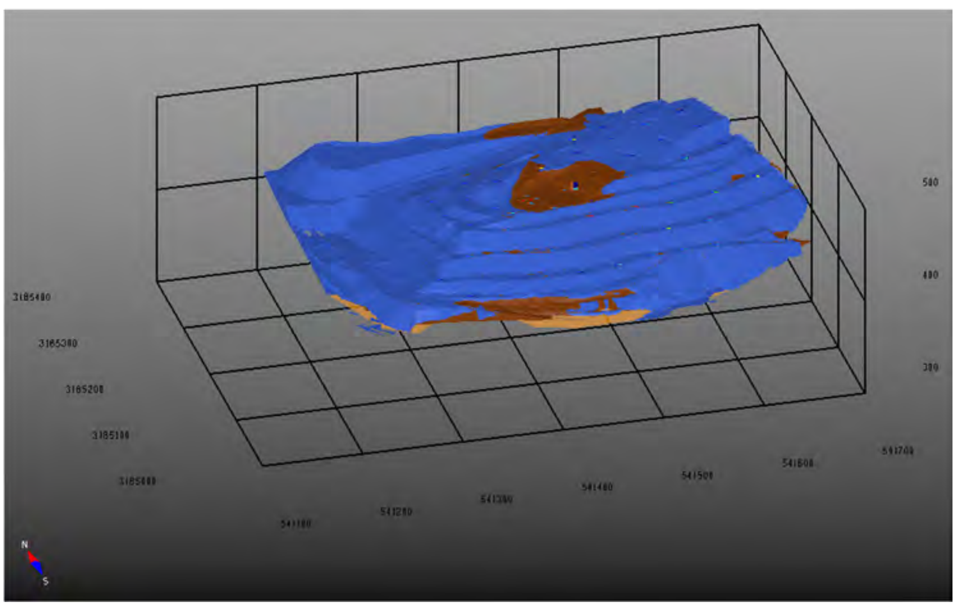
14.4.2 Three-Dimensional Model

The La Chatarrera three-dimensional model consists of layers representing topography during time periods representing the ground surface at the start of material dumping by Eldorado, the start of dumping by Argonaut and the current topography (Figure 14-5).

Table 14-24: Veta Madre Conceptual Pit Parameters

Parameter	Units	Value
Gold price	US$/oz	2,150.00
Silver price	US$/oz	26.00
Crushing and conveying	US$/t processed	1.33
Mining cost rock average	US$/t mined	2.44
Mining cost dumps	US$/t mined	N/A
Process and leaching	US$/t processed	4.54
General and administrative	US$/t processed	1.15
Selling cost	US$/t processed	0.66
Gold recovery	%	72
Silver recovery	%	9
Refining and selling	$/t mineralization	0.66
Total cost	$/t mineralization	7.68
Pit slope angles	º	45
Au–Ag equivalency factor	ratio	661.54
AuEq cut-off	g/t AuEq	0.15

Figure 14-5: La Chatarrera Surface Models



Note: Figure prepared by MTS, 2024; blue wireframe represents Argonaut material, dark brown wireframe represents Eldorado material and orange wireframe represents the tailings material.

An additional layer below the Eldorado surface represents the top of bedrock or the bottom of the tailings pile intersected by the RC drilling. The QP constructed this surface using Mineplan's implicit modelling module.

The WRSF material covers an area of approximately 400 m in an east–west direction and 280 m in a north–south direction. The Argonaut material generally forms a thin skin of approximately 1 m in thickness on the southern slope of the WRSF. In the remainder of the facility the Argonaut material averages 10–15 m in thickness.

The Eldorado material averages 25 m in thickness on the slopes of the WRSF and averages 50 m in thickness in the central part of the facility.

The tailings pile material varies between 5–10 m in thickness.

Wireframe solids were created by intersecting the surfaces to produce cut volumes from the difference in surface elevations.

14.4.3 Exploratory Data Analysis, Grade Capping and Compositing

The assay database was coded with a string code representing each layer of the WRSF. These alphanumeric codes were assigned an integer code for further exploratory data analysis.

The QP completed a statistical study on the assays falling within each layer of the WRSF. Histograms, probability plots (normal and log-scaled) were used to evaluate grade capping thresholds for each layer. The capping thresholds are shown in Table 14-25. Summary statistics for the assays, including the number of assays capped and the capped mean grades are shown in Table 14-26 and Table 14-27.

The QP composited the assays into 3 m lengths broken on the changes in the assay layer codes. Summary statistics are shown in Table 14-28 and Table 14-29.

The final 3 m composites have CV values of around 1 for the Argonaut and Eldorado layers. The tailings pile material has a low CV of 0.5 which reflects the consistently mineralized character of this layer.

14.4.4 Density

The density of the Argonaut and Eldorado layers are assumed to be 1.8 t/m^3. This is based on mine reconciliation and truck counts of waste material over the producing life of the mine.

In October 2024, Heliostar collected seven samples from the tailings pile material. The samples were collected from excavations at the base of the WRSF where the tailings are exposed. A hole was excavated and the material was carefully collected and weighed (both moist and dry). The excavation was lined with a thin plastic lining and was filled with water. The volume of the water was then measured by using a volumetric beaker.

Table 14-25: La Chatarrera Assay Capping Thresholds

Layer	Code	Gold Capping Threshold (g/t)	Silver Capping Threshold (g/t)
Argonaut	1	1.10	35.0
Eldorado	2	2.50	65.0
Tailings	3	2.00	105.0

Table 14-26: Summary Length Weighted Gold Assay Statistics, La Chatarrera

Domain	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed (%)
Argonaut	0.02	2.31	0.16	0.02	1.85	0.15	1.58	4	7.9
Eldorado	0.00	9.87	0.23	0.00	2.54	0.21	1.51	9	10.9
Tailings	0.02	16.33	0.69	0.02	1.62	0.62	0.60	3	10.9

Note: CV = co-efficient of variation

Table 14-27: Summary Length Weighted Silver Assay Statistics, La Chatarrera

Domain	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV	Number Capped	Metal Removed (%)
Argonaut	174	0.0	64.3	7.1	1.4	6.6	1.3	5	6.6
Eldorado	1,106	0.0	189.2	6.4	1.8	6.2	1.5	7	3.6
Tailings	240	0.5	169.6	51.1	0.6	50.6	0.5	7	1.0

Note: CV = co-efficient of variation

Table 14-28: Summary Length Weighted Gold Composite Statistics, La Chatarrera

Domain	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV
Argonaut	99	0.02	1.15	0.16	1.35	0.15	1.20
Eldorado	567	0.02	5.08	0.23	1.74	0.21	1.09
Tailings	126	0.02	9.19	0.69	1.28	0.62	0.54

Note: CV = co-efficient of variation

Table 14-29: Summary Length Weighted Silver Composite Statistics, La Chatarrera

Domain	Number	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	CV	Capped Mean (g/t)	Capped CV
Argonaut	99	0.0	39.9	7.1	1.1	6.6	1.0
Eldorado	567	0.3	96.6	6.4	1.4	6.2	1.2
Tailings	126	0.9	115.6	51.1	0.5	50.6	0.5

Note: CV = co-efficient of variation

The bulk density was then derived directly from the sample mass divided by the volume. The average of the seven samples gave a bulk density of 1.47 t/m^3. The QP used a bulk density of 1.5 t/m^3 for the Mineral Resource estimate.

14.4.5 Variogram Analysis

The QP attempted to model correlograms from the 3 m composites. There are an insufficient number of composites (<1,000) to enable calculation of a reliable variogram.

14.4.6 Block Model

The block model was completed using the Mineplan software package. Table 14-30 summarizes the areal extent and block dimensions of the La Chatarrera block model.

14.4.7 Grade Estimation Methods

The QP used an inverse distance (squared) weighting method (IDW2) to estimate gold and silver grades in the block model. Mineplan's dynamic unfolding was used to mimic the curved shape of the Argonaut material (draping over the Eldorado material) and the layering of mineralization within the Eldorado layer. The search ellipse major and intermediate axes are oriented in the plane of the surface representing the trend in the orientation of the mineralization. The minor axis is oriented perpendicular to the surface.

A large number of composites were used to provide smoothed estimates in the blocks. No or very little grade control or mining selectivity is envisaged during mining.

Outlier restriction was used to control the over-projection of composites with grades significantly higher than the mean grade of each layer.

The QP's grade estimation parameters are shown in Table 14-30: Block Model Layout, La Chatarrera

Parameter	Minimum (m)	Maximum (m)	Extent (m)	Block Size (m)	Number
Easting	541,200	541,740	540	6	90
Northing	3,184,950	3,185,370	420	6	70
Elevation	380	500	120	6	20

Table 14-31.

Table 14-30: Block Model Layout, La Chatarrera

Parameter	Minimum (m)	Maximum (m)	Extent (m)	Block Size (m)	Number
Easting	541,200	541,740	540	6	90
Northing	3,184,950	3,185,370	420	6	70
Elevation	380	500	120	6	20

Table 14-31: Gold and Silver Grade Estimation Parameters, La Chatarrera

Layer	Code	Search Ellipse Dimensions (m)			Composites Used			Gold Outlier Restriction		Silver Outlier Restriction	
		Major (Y)	Intermediate (X)	Minimum (Z)	Minimum Number	Maximum Number	Maximum per Hole	Threshold (g/t)	Distance (m)	Threshold (g/t)	Distance (m)
Argonaut	1	200	200	100	3	16	2	0.3	12	20.0	12
Eldorado	2	200	200	100	4	24	3	0.8	12	40.0	12
Tailings	3	200	200	100	4	24	3	None	N/A	None	N/A

14.4.8 Model Validation

The QP completed validation of the block model by:

- Visual inspection of vertical cross-sections and plans displaying the grades of the composites and the blocks;
- Comparison of the estimated IDW2 grades with a nearest-neighbor (NN) model estimated from 6 m composites (as a check for global bias);
- Inspection of swath plots along model northings, eastings and elevation displaying average grades of the IDW2, NN and composites (a check for local bias).

The results of the validation show that the block grades accurately reflect the grades of the composites used to estimate the blocks.

Figure 14-6 shows a typical cross section through the deposit showing drill hole composites and estimated block gold grades. Summary statistics of the comparison between IDW2 and NN models are shown in Table 14-32. The results show that there is no significant bias in the IDW2 capped/outlier restricted gold grades.

14.4.9 Classification of Mineral Resources

The tonnage of the WRSF material is sufficient to provide material for approximately one year of leach pad stacking. The QP therefore assessed confidence limits on the average grade of each layer in the WRSF.

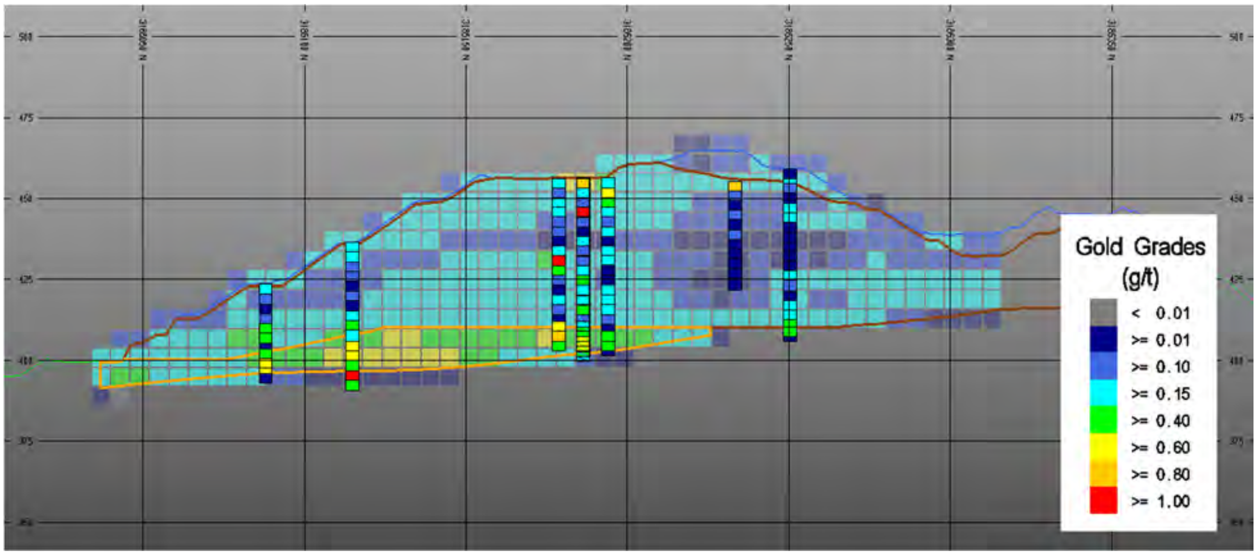
The QP completed a bootstrap on the mean grade of each WRSF layer. Monte Carlo simulation was used to randomly draw the actual number of composites from the composite distribution and the mean was re-calculated. This was performed 100 times to give 100 mean grades. The 90% confidence interval in the mean grade was then given by multiplying the CV of the mean by 1.645 (assuming a normal distribution of errors).

The bootstrap method assumes that the grades of each composite are independent from one another (i.e. assuming there is no spatial correlation). This is a reasonable assumption for a WRSF with randomly distributed fragments of mineralized material.

The results of the bootstrap are shown in Table 14-33. The Argonaut layer has a 90% confidence close to 15%.

The results of the bootstrap support the classification of the WRSF materials as Indicated Mineral Resources. Blocks with an approximate 50 m drill spacing were classified to the Indicated category (the closest drill hole falling within a 40 m distance and the second closest drill hole within a 55 m distance).

Figure 14-6: La Chatarrera Model and Composites Cross- Section



Note: Figure prepared by MTS, 2024. Orange line represents the tailings pile; a brown line represents the Eldorado material; a blue line represents the Argonaut material, and the green line is the topographic surface.

Table 14-32: IDW2 and NN Model Comparison, La Chatarrera

Number of Blocks	IDW2				NN				% Difference			
	Au (g/t)	Capped Au (g/t)	Ag (g/t)	Capped Ag (g/t)	Au (g/t)	Capped Au (g/t)	Ag (g/t)	Capped Ag (g/t)	Au	Capped Au	Ag	Capped Ag
18,886	0.26	0.22	12.84	11.96	0.25	0.22	12.83	12.13	2.9	-2.8	0.1	-1.4

Table 14-33: Gold Mean Grade Bootstrap Results, La Chatarrera

Layer	Code	Number of Simulations	Minimum (g/t)	Maximum (g/t)	Mean (g/t)	Standard Deviation (g/t)	Coefficient of Variation	90% Confidence Interval (%)
Argonaut	1	100	0.12	0.21	0.16	0.02	0.11	17.6
Eldorado	2	100	0.19	0.22	0.21	0.01	0.04	6.5
Tailings	3	100	0.54	0.68	0.61	0.03	0.05	8.2

The QP reviewed the available metallurgical testwork for the WRSF materials. There is insufficient metallurgical testwork on the tailings pile material to have confidence in the metallurgical recovery. The tailings pile material is classified to the Inferred category.

14.4.10 Reasonable Prospects of Eventual Economic Extraction

The WRSF material is considered to have reasonable prospects of eventual economic extraction as the average grade is higher than the break-even grade needed to pay the costs of loading, trucking, crushing/conveying, processing, general and administrative, and sales. No mineralized material–waste selectivity is anticipated during mining. Assumptions used are summarized in Table 14-34.

Gold equivalent grades were calculated for each model block using ratios of metal prices and metal recoveries in the following equation:

- AuEq = (Au + Ag/equivalency factor)

Where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).

The gold:silver equivalency factor is listed in Table 14-34.

14.5 Mineral Resource Statement

Mineral Resources are reported insitu (El Crestón, Veta Madre) or in stockpiles (La Chatarrera), using the 2014 CIM Definition Standards, and are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The effective date for the estimates is October 31, 2024.

The Qualified Person for the estimate is Mr. David Thomas, P.Geo., Associate Mineral Resource Estimator with MTS.

Mineral Resources for El Crestón are summarized in Table 14-35, reported inside a conceptual pit using a 0.14 g/t AuEq cut-off grade.

Mineral Resources for Veta Madre are summarized in Table 14-36, reported inside a conceptual pit using a 0.15 g/t AuEq cut-off grade.

Mineral Resources for La Chatarrera are summarized in Table 14-37, and reported as a stockpile using a 0.17 g/t AuEq cut-off grade.

Table 14-34: Metal Prices, Costs, Metallurgical Recoveries, and Cut-off Grade, La Chatarrera

Parameter	Units	Value
Gold price	US$/oz	2,150.00
Silver price	US$/oz	26.00
Stockpile rehandling	US$/t mined	1.30
Crushing and conveying	US$/t processed	1.72
Process and leaching	US$/t processed	3.10
General and administrative	US$/t processed	1.15
Selling cost	US$/t processed	0.66
Gold recovery	%	66.0
Silver recovery	%	27.0
Au–Ag equivalency factor	ratio	202.14
Au equivalent cut-off	g/t AuEq	0.174

Table 14-35: El Crestón Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	12,393	0.91	11.94	364	4,758
Inferred	202	0.70	6.07	5	39

Notes to accompany El Crestón Mineral Resource table:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, and have an effective date of 31 October, 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are constrained by a conceptual pit shell using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; rock mining cost of US$2.66/t mined; backfill mining cost of US$2.00/t mined; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 79%; silver metallurgical recovery of 13%; and pit slope angles from 22º (pad), 35–42º (pit)..
5. Mineral Resources are reported at a gold equivalent cut-off of 0.14 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)) results in the Au:Ag ratio of 1:502.51.
6. Totals may not sum due to rounding.

Table 14-36: Veta Madre Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	2,724	0.73	3.5	64	309
Inferred	77	0.53	2.5	1	6

Notes to accompany Veta Madre Mineral Resource table:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, and have an effective date of 31 October, 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are constrained by a conceptual pit shell using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; mining rock cost of US$2.44/t mined; crushing and conveying cost of US$1.33/t processed; process and leaching cost of US$4.54/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 72%; silver metallurgical recovery 9.0%; and pit slope angles averaging 45º.
5. Mineral Resources are reported at a gold equivalent cut-off of 0.15 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)) results in a Au:Ag ratio of 1:661.54.
6. Totals may not sum due to rounding.

Table 14-37: La Chatarrera Mineral Resource Statement

Category	Tonnes (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Gold Contained Metal (koz)	Silver Contained Metal (koz)
Indicated	3,504	0.20	6.8	23	763
Inferred	1,220	0.41	33.29	16	1,305

Notes to accompany La Chatarrera Mineral Resource table:

1. Mineral Resources are reported in stockpiles, using the 2014 CIM Definition Standards, and have an effective date of 31 October, 2024. The Qualified Person for the estimate is Mr. David Thomas, P.Geo., of Mine Technical Services.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resource estimates use the end of month October 2024 topography.
4. Mineral Resources are reported using the following assumptions: a gold price of US$2,150/oz Au; a silver price of US$26/oz Ag; a stockpile rehandle cost of US$1.30/t mined; crushing and conveying cost of US$1.72/t processed; process and leaching cost of US$3.10/t processed; general and administrative cost of US$1.15/t processed; selling cost of US$0.66/t processed; gold metallurgical recovery of 66%; and a silver metallurgical recovery of 27%.
5. Mineral Resources are reported at a gold equivalent cut-off of 0.17 g/t AuEq, using AuEq = (Au + Ag/equivalency factor), where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)) results in the Au:Ag ratio of 1:202.14.
6. Totals may not sum due to rounding.

14.6 Factors that May Affect the Mineral Resource Estimates

Areas of uncertainty that may materially impact the Mineral Resource estimate include:

- Changes to the long-term gold and silver prices and exchange rates;
- Changes in interpretation of mineralization geometry and continuity of mineralization zones;
- Changes to design parameter assumptions that pertain to the conceptual pit design that constrains the Mineral Resources;
- Modifications to geotechnical parameters and mining recovery assumptions;
- Changes to metallurgical recovery assumptions;
- Changes to environmental, permitting, and social license assumptions;
- Ability to obtain or maintain land access agreements, including specifically for the Pima 3 concession at Veta Madre.

14.7 QP Comments on Section 14

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.

There is upside potential for the estimates if mineralization that is currently classified as Inferred can be upgraded to higher-confidence Mineral Resource categories.

15.0 MINERAL RESERVE ESTIMATES

15.1 Introduction

Mineral Reserves were estimated for three separate deposits at the La Colorada Project which is an open pit operation with a heap leach pad and carbon adsorption–desorption–recovery (ADR) plant for processing which is currently on care and maintenance.

The Mineral Reserves are based on layback pit designs developed by the QP for the El Crestón pit and the Veta Madre pit which were both previously mined in three phases. Mineral Reserves are also estimated based on the Mineral Resources estimated for La Chatarrera, which is a historic WRSF located to the south of the Gran Central open pit. The area contains low-grade mineralized material dumped by previous operators, primarily Eldorado.

Gold equivalency (AuEq) grades were calculated using ratios of metal prices and metal recoveries in the following equation:

- AuEq = (Au + Ag/equivalency factor)

Where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).

15.2 El Crestón Estimation Parameters

The El Crestón deposit was mined from 2018–2022 with three open pit phases. A fourth phase is planned, and has been split into two laybacks in order to spread out the stripping requirements.

The open pit designs completed on the El Crestón deposit were evaluated with the updated Measured and Indicated Mineral Resources and were demonstrated to be economically viable, therefore Measured and Indicated Mineral Resources within the pit designs have been converted to Proven and Probable Reserves. All Inferred material was classified as waste and scheduled to the appropriate WRSF.

The Mineral Reserves are reported using a 0.16 g/t AuEq cut-off inside the pit designs, which are discussed in more detail in the following sub-sections together with the pit deign parameters.

15.2.1 Pit Slopes

The pit slopes follow recommendations provided by Call & Nicholas Inc. (Call & Nicholas); see discussion in Section 16.2.1.

For the purpose of the pit optimizations, the inter-ramp slope angle in the bedrock varied from 34° to 41° which were on average 5° flatter than the final inter-ramp slope angle to account for the inclusion of haulage ramps. Pit slopes in the historic WRSF and leach pads were limited to 22°.

15.2.2 Ore Loss and Dilution

Ore loss and dilution are discussed in Section 16.5.

15.2.3 Pit Optimization

The Mineral Resources for the deposit were evaluated using an L–G pit optimizer to generate optimized pit shells. Pit shells were generated based on varying metal prices, with base prices of US$1,900/oz Au and US$23/oz Ag. Starting with the current topography from a June 2024 survey, a total of 51 pit shells were generated to determine optimal break points for developing pit phases and for determining the ultimate final pit phase for the deposit.

Table 15-1 shows the cost and slope parameters used for each optimization. The operating costs were determined based on historical costs provided by Heliostar, and Hard Rock Consulting's and KCA's industry knowledge and prior experience.

Figure 15-1 shows the optimization results for the Measured and Indicated material within the resource model for El Crestón. Values in the figure are based on optimized pit shells before the design process, and do not include the haulage ramps and catch benches.

The final pit was limited to a US$1,900/oz AuEq pit shell. The pit was designed as two phases for the Mineral Reserve evaluation, with the first phase targeting the higher-grade ore on the north side of the deposit.

15.2.4 Cut-off

The Mineral Reserves are reported using a 0.16 g/t AuEq cut-off inside the final El Crestón pit design, which includes the estimated plant operating costs, all general and administrative costs, and refining and selling costs during pit operations as shown in Table 15-2.

For the Mineral Reserves, the gold:silver equivalency factor results in a Au:Ag ratio of 1:502.

15.3 Veta Madre Estimation Parameters

The Veta Madre deposit was mined from 2020–2023, with three open pit phases. Similar to El Crestón, a fourth phase is planned for Veta Madre; however, to mine Phase 4, Heliostar must acquire access to a small parcel of private land and acquire the Pima 3 concession or a right-of-way to strip waste on the Pima 3 concession.

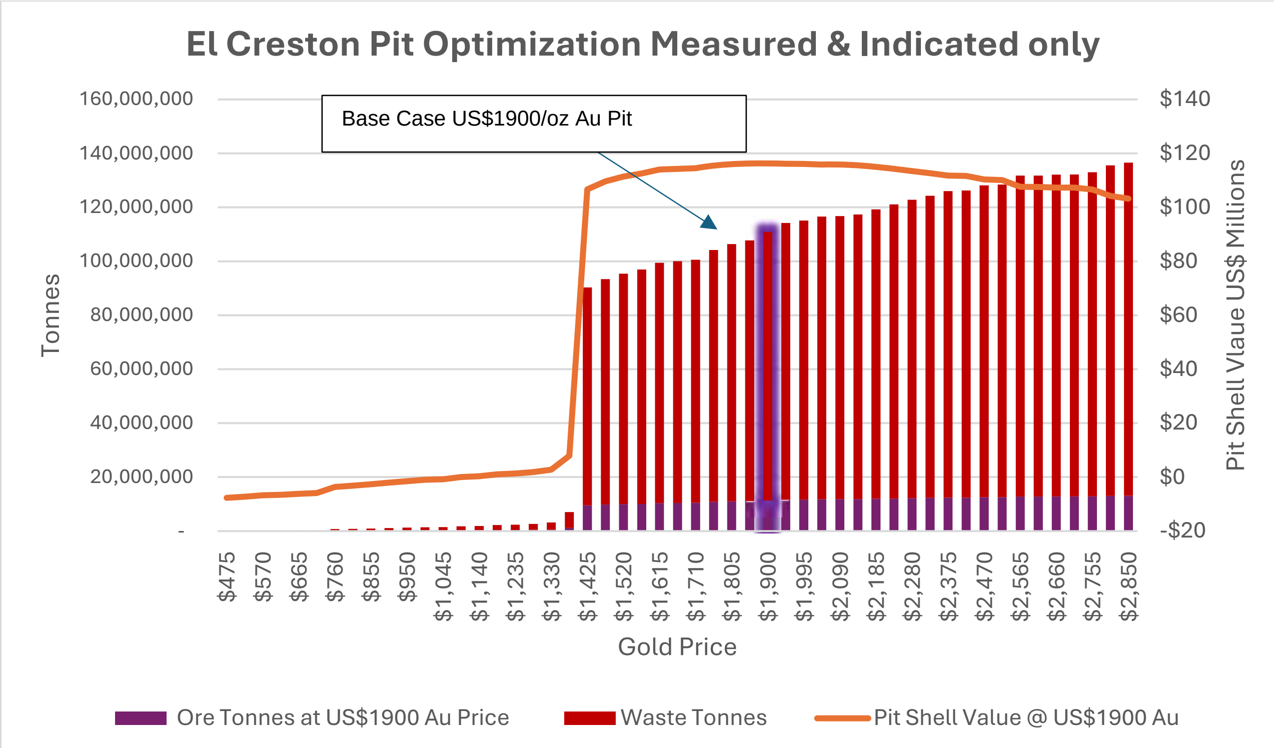
Heliostar has a plan and timeline in place to obtain both the surface access and the legal right-of-way to the Pima 3 area and the QP considers it a reasonable expectation that both will be acquired within the required timeframe.

The open pit design completed on the Veta Madre deposit was evaluated with the updated Measured and Indicated Resources and was demonstrated to be economically viable, therefore Measured and Indicated Mineral Resources within the pit designs were converted to Proven and Probable Mineral Reserves. All Inferred material was classified as waste and scheduled to the appropriate WRSF.

Table 15-1: El Crestón Reserve Pit Optimization Parameters

Item	Unit	Value
Metal Prices		
Base metals		Gold and silver
Gold price	US$/oz	1,900
Silver price	US$/oz	23.00
Costs		
Mining cost rock average (see below for variable calculation)	US$/t mined	2.44
Mining cost WRSFs	US$/t mined	1.75
Crushing and conveying	US$/t processed	1.33
Process and leaching	US$/t processed	4.54
General and administrative	US$/t processed	1.15
Selling/finishing	US$/t processed	0.66
Total ore costs	US$/t processed	7.68
Process Recoveries		
Gold	%	79
Silver	%	13
Mining Cost		
Mining cost, surface	US$/t mined	2.00
Mining cost, incremental increase for each 5 m depth	US$/t mined	0.014

Figure 15-1: El Crestón Pit Optimization Results



Note: Figure prepared by Hard Rock Consulting, 2025.

Table 15-2: El Crestón Mineral Reserve Cut-off

Item	Unit	Value
Gold price	$/oz	1,900
Silver price	$/oz	23.00
Cost Centre		
Crushing leaching	$/ore tonne	1.33
Processing	$/ore tonne	4.54
General and administrative	$/ore tonne	1.15
Au recovery	%	79.0
Ag recovery	%	13.0
Refining and selling	$/ore tonne	0.66
Total cost	$/ore tonne	7.68
Gold selling price	$/oz	1,900
Cut-off Grade AuEq	***g/t AuEq***	***0.16***

The final open pit reserves are reported using a 0.175 g/t AuEq cut-off inside the pit designs, which are discussed in more detail in the following sub-sections together with the pit deign parameters.

15.3.1 Pit Slopes

A 2021 geotechnical study conducted by A-Geommining for the Veta Madre open pit was performed to establish the pit design parameters and the geotechnical bases that ensure minimum deviations during its construction; see discussion in Section 16.2.2.

For the purpose of the pit optimizations the inter-ramp slope angles in the bedrock were set at 42° for all sectors to account for the inclusion of haulage ramps.

15.3.2 Ore Loss and Dilution

Ore loss and dilution are discussed in Section 16.5.

15.3.3 Pit Optimization

The Mineral Resources for the deposit were evaluated using a L–G pit optimizer to generate optimized pit shells. Pit shells were generated based on varying metal prices with base prices of US$1,900/oz Au and US$23/oz Ag.

Starting with the current topography from a June 2024 survey, a total of 51 pit shells were generated to determine optimal break points for developing pit phases and for determining the ultimate final pit phase for the deposit.

Table 15-3 shows the cost and slope parameters used for each optimization. The operating costs were determined based on historical costs provided by Heliostar and Hard Rock Consulting's and KCA's industry knowledge and prior experience.

15.3.4 Cut-off

The Mineral Reserves are reported using a 0.175 g/t AuEg cut-off inside the final Veta Madre pit design, which includes the estimated plant operating costs, all general and administrative costs, and refining and selling costs during pit operations as shown in Table 15-4.

For the Mineral Reserves, the gold:silver equivalency factor results in a Au:Ag ratio of 1:660.

Figure 15-2 shows the optimization results for the Measured and Indicated material within the resource model Veta Madre. Values in Figure 15-2 are based on optimized pit shells before the design process and do not include the haulage ramps and catch benches. The pit design was limited to the US$1,900/oz AuEq pit shell and includes only one phase.

15.4 La Chatarrera Estimation Parameters

Conversion from Mineral Resources to Mineral Reserves is relatively straightforward for the La Chatarrera material.

Given the nature of the reclaimed material within the WRSF and the method of mining, the assumption is that all of the Eldorado Indicated material will be mined and sent to the heap leach pad for processing.

The Argonaut layer is on top of Eldorado material, and averages 10–15 m in thickness. Given the Argonaut material is below cut-off, all of this material is planned to be hauled to the WRSF backfill in the Gran Central pit.

The tailings layer at the bottom of the WRSF is also not included in the Mineral Reserves and a 0.5 m thick layer of Eldorado material covering the tailings surface is planned to be left in place.

Given the lack of continuity at La Chatarrera, no mineralized material–waste selectivity is anticipated during mining; however, the average grade of all of the Indicated material from the Eldorado phase was evaluated to make sure it was above the calculated Mineral Reserve cut-off for the material.

The cut-off calculation includes the estimated metallurgical recoveries, estimated plant operating costs, all general and administrative costs, and refining and selling costs during operations as shown in Table 15-5.

For the Mineral Reserves the gold:silver equivalency factor results in a Au:Ag ratio of 1:202 for La Chatarrera.

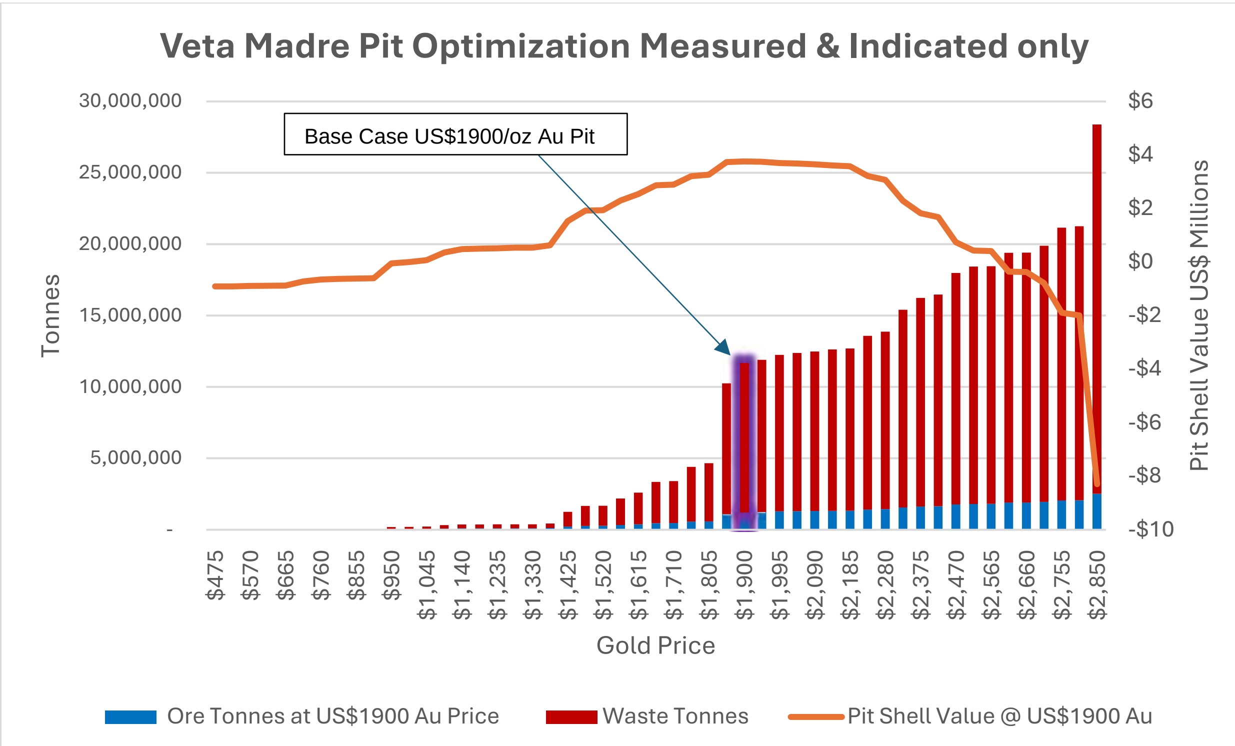
Table 15-3: Veta Madre Reserve Pit Optimization Parameters

Item	Unit	Value
Metal Prices		
Base metals		Gold and silver
Gold price	US$/oz	1,900
Silver price	US$/oz	23.00
Costs		
Mining cost rock average (see below for variable calculation)	US$/t mined	2.18
Mining cost WRSFs	US$/t mined	NA
Crushing and conveying	US$/t processed	1.33
Process and leaching	US$/t processed	4.54
General and administrative	US$/t processed	1.15
Selling/finishing	US$/t processed	0.66
Total ore costs	US$/t processed	7.68
Process Recoveries		
Gold	%	72
Silver	%	9
Mining Cost		
Mining cost, surface	US$/t mined	2.10
Mining cost, incremental increase for each 5 m depth	US$/t mined	0.014

Table 15-4: Veta Madre Mineral Reserve Cut-off

Item	**Unit**	**Value**
Gold price	$/oz	1,900
Silver price	$/oz	23.00
Cost Centre		
Crushing leaching	$/ore tonne	1.33
Processing	$/ore tonne	4.54
General and administrative	$/ore tonne	1.15
Au recovery	%	72.0
Ag recovery	%	9.0
Refining and selling	$/ore tonne	0.66
Total cost	$/ore tonne	7.68
Gold selling price	$/oz	1,900
Cut-off Grade AuEq	***g/t AuEq***	***0.175***

Figure 15-2: Veta Madre Pit Optimization Results



Note: Figure prepared by Hard Rock Consulting, 2025.

Table 15-5: La Chatarrera Mineral Reserve Cut-off

Item	Unit	Value
Gold price	$/oz	1,900
Silver price	$/oz	23.00
Cost centre		
Crushing leaching	$/ore tonne	1.72
Processing	$/ore tonne	3.10
General and administrative	$/ore tonne	1.15
Au recovery	%	66.0
Ag recovery	%	27.0
Refining and selling	$/ore tonne	0.66
Total cost	$/ore tonne	6.63
Gold selling price	$/oz	1,900
Cut-off grade AuEq	***g/t***	***0.164***

15.5 Mineral Reserves Statement

The Mineral Reserve estimates are reported using the 2014 CIM Definition Standards. The QP for the estimate is Mr. Jeffrey Choquette P.E., of Hard Rock Consulting. Mineral Reserves are reported at the point of delivery to the process plant and have an effective date of 30 November, 2024.

The Mineral Reserves are reported using gold equivalent cut-offs inside of the final pit designs for each deposit as shown in Table 15-6.

15.6 Factors that May Affect the Mineral Reserves

The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report. Heliostar will also need to obtain access to a small wedge of private land for surface access. The Probable Mineral Reserves potentially affected in Phase 4 are estimated at 1.9 Mt at an average grade of 0.70 g/t Au and 3.1 g/t Ag.

Other areas of uncertainty that may materially impact the Mineral Reserves include the following:

- Variations in the forecast commodity price;
- Variations to the assumptions used in the constraining L–G pit shells, including mining loss/dilution, metallurgical recoveries, geotechnical assumptions including pit slope angles, and operating costs;
- Variations in assumptions as to permitting, environmental, and social license to operate.

15.7 QP Comments on Section 15

Mineral Reserves are reported using the 2014 CIM Definition Standards.

The QP identified certain land access risks associated with the final phase of the Veta Madre pit which could, if not resolved, prevent mining and require Heliostar to retract the Phase 4 Mineral Reserves (as discussed further in Section 4.3, and Section 15.6).

As the economic analysis in Section 22 used higher metal prices than were used in the Mineral Reserve estimates, the QP performed a check to ensure that the Mineral Reserves returned positive economics at the Mineral Reserve commodity pricing. The results showed a positive after tax cashflow, thus verifying the 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.

Table 15-6: Mineral Reserves Statement

Classification	Zone	AuEq Cut-off (g/t AuEq)	Tonnes (kt)	Au g/t	Ag g/t	Contained Gold (koz)	Contained Silver (koz)
Probable	El Crestón	0.160	12,841	0.76	10.1	312	4,181
	Veta Madre	0.175	1,905	0.70	3.1	43	189
	La Chatarrera	0.164	3,413	0.20	6.4	22	704
	Total		***18,159***	***0.65***	***8.69***	***377***	***5,074***

Notes to accompany Mineral Reserves table:

1. Mineral Reserves are reported at the point of delivery to the process plant, using the 2014 CIM Definition Standards.
2. Mineral Reserves have an effective date of 30 November, 2024. The Qualified Person for the estimate is Mr. Jeffrey Choquette, PE, of Hard Rock Consulting.
3. A 0.16 g/t AuEq cut-off is used for reporting the Mineral Reserves at El Crestón, and a 0.175 g/t AuEq cut-off is used for reporting Mineral Reserves at Veta Madre. Cut-offs were calculated based on a gold price of US$1,900/oz Au, silver price of US$23/oz Ag, processing costs of US$5.87/t, general and administrative costs of US$1.15/t, refining and selling costs of US$0.66/t, gold recovery of 79% for El Crestón and 72% for Veta Madre and a silver recovery of 13% for El Crestón and 9% for Veta Madre. The AuEq cut-off for La Chatarrera is 0.164 g/t AuEq based on metal prices of US$1,900/oz Au, and US$23/oz Ag, processing costs of US$4.82/t, general and administrative costs of US$1.15/t, refining and selling costs of US$0.66/t, gold recovery of 66% and a silver recovery of 27%. The AuEq calculation uses the formula AuEq = (Au + Ag/equivalency factor) where equivalency factor = ((Au price in US$/g * Au recovery) / (Ag price in US$/g * Ag recovery)).
4. Mineral Reserves are reported within the ultimate reserve pit design. An external dilution factor of 10% and a metal loss of 5% were factored into the Mineral Reserves estimates.
5. Tonnage and grade estimates are in metric units.
6. Mineral Reserve tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.

16.0 MINING METHODS

16.1 Overview

The La Colorada Mine contains several deposits with mineralization at or near the surface that is ideal for open pit mining methods. The mine is currently on care and maintenance but mine plans have been developed for restarting the operation from three separate areas of the mine.

La Chatarrera, which is a historic WRSF located to the south of the Gran Central open pit is planned to be mined first and sent to the heap leach pad for processing. This area contains low-grade mineralized material dumped by previous operators, primarily Eldorado.

The El Crestón and Veta Madre pits, which were both previously mined in three phases, are both planned to be mined with additional laybacks on these deposits.

No future open pit mining is planned at the La Colorada/Gran Central pit which discontinued operations in 2018. The mine plan does include the backfilling of the La Colorada/Gran Central pit with waste generated from the El Crestón pit.

As was used in the past operations, the mine plan includes a conventional truck and loader open pit operation. The major production unit operations will include drilling, blasting, loading, hauling, and dumping. These activities are planned to be completed with a contractor fleet. Ore will be delivered to the crusher at 12,000 t/d and conveyed by overland conveyor to a mobile conveyor stacking system on the leach pad where the ore will be stacked in 10 m lifts. The mine plan is based on Proven and Probable Mineral Reserves only.

A total of 18.1 Mt will be processed during the 5.5-year mine life. A total of 132 Mt will be sent to the waste rock storage facilities which results in an overall LOM plan strip ratio of 6.5:1.

Heliostar has retained the majority of the mine planning and operational staff at La Colorada, so the restart of the operations should be a smooth transition. Strategic planning is also carried out in the Heliostar corporate office located in Hermosillo, Mexico.

16.2 Geotechnical Considerations

16.2.1 El Crestón

For the El Crestón pit design the slopes follow recommendations provided by Call & Nicholas. Call & Nicholas provided a geotechnical evaluation of the planned phase 4 pushback in 2023.

The goal of the study was to provide recommendations regarding the design of the El Crestón pit slopes, including slope angles and bench configurations. The El Crestón pit stability is structurally controlled due to long steep fault/joints; these structures govern the inter-ramp stability of the pit. The El Crestón pit is comprised primarily of two rock types: metasediments in the north and diorite in the south, which is medium to moderately fractured rock.

Call & Nicholas performed the following geotechnical stability analyses on the phase 4 LOM pit:

- Catch bench: small-size, structurally-controlled failure on a catch-bench-scale. The phase 3 pit slope audit was used to determine back break;
- Inter-ramp: intermediate-sized, structurally-controlled failure on a multi-bench-scale. Analyzed the kinematics of wedge, plane shear, and toppling mechanisms;
- Overall: large-sized rock-mass strength-controlled failures. Analyzed the overall stability using limit equilibrium methods.

Six design sectors were created by Call & Nicholas based on rock type, modeled faults, and wall orientation, as shown in Figure 16-1.

Table 16-1 summarizes the Call & Nicholas-recommended bench heights, bench face angles, catch bench widths, and the inter-ramp slope angles.

The maximum achievable inter-ramp slope angle based on bench-scale and inter-ramp-scale analysis is listed for all domains under current mining practices. The domain 1 and 4 maximum inter-ramp slope angle recommendations can be achieved based on the results of inter-ramp and overall stability analyses. However, bench construction should be tested and inspected to evaluate successful achievement of bench face angles and catch bench width criteria for these two sectors.

Call & Nicholas noted that to achieve the slope angle recommendations, practices must be implemented to minimize blast damage to benches because bench damage will result in flatter bench face angles and narrower catch bench widths. This could include using controlled blasting techniques and highwall scaling.

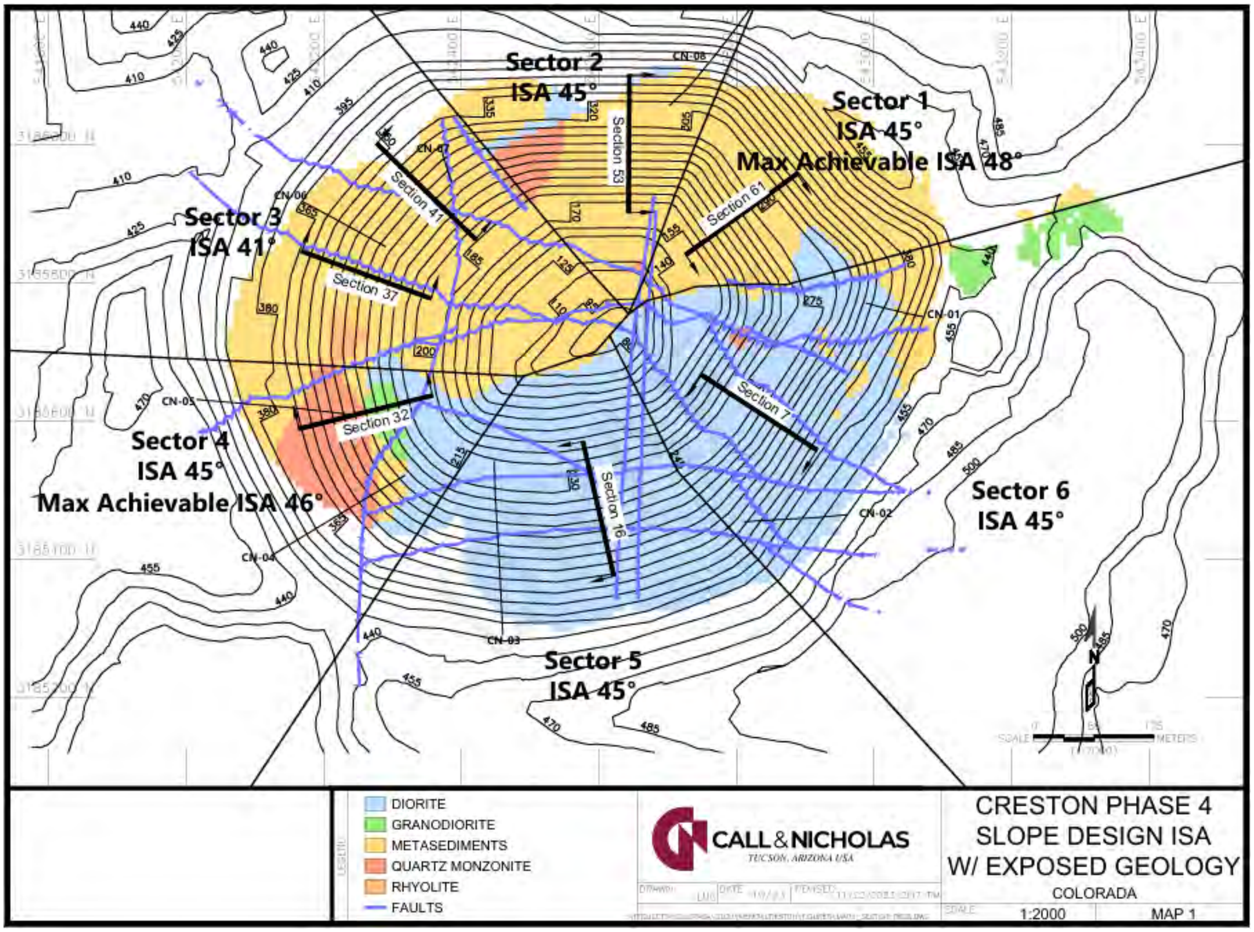
Sector 1 is made up mainly of metasediments. Call & Nicholas reported that an inter-ramp slope angle of 48º should be the target for the construction of the final wall of this sector, but to achieve this inter-ramp slope angle, the reliability of benches with a 65º bench face angle should be tested and evaluated prior to construction of the final wall.

Sector 2 is limited to a 45º inter-ramp slope angle due to structural factors, including toppling and wedge instability.

Sector 3 has been limited to 41º inter-ramp slope angle due to toppling and weak rock mass. This area has been historically problematic but an inter-ramp slope angle of 41º has worked reliably.

Sector 4 is made up of quartz monzonite, metasediments, and some diorite. Plane shear and wedge geometries are the main mechanisms of instability in this sector. The sector has a max achievable inter-ramp slope angle of 46º and a bench face angle of 62º determined by structural wedge analysis. An inter-ramp slope angle of 46º should be the final wall target for this sector. To achieve this inter-ramp slope angle, construction of a 65º bench face angle should be tested in-pit prior to construction of the final wall.

Figure 16-1: El Crestón Pit Slope Design Sectors



Note: Figure prepared by Call and Nicholas, 2023. ISA = inter-ramp slope angle.

Table 16-1: El Crestón Phase 4 Pit Slope Recommendations

Sector	Location	BH (m)	CBW (m)	BFA (º)	ISA (º)	Max BFA (º) [1]	Max ISA (º) [1]
1	Northeast	15	6.5	60	45	65	48
2	North	15	6.5	60	45	—	—
3	Northwest	15	7.5	57	41	—	—
4	Southwest	15	6.5	60	45	62	46
5	South	15	6.5	60	45	—	—
6	Southeast	15	6.5	61	45	—	—

Note: Table prepared by Call & Nicholas. BH = bench height; CBW = catch bench width; BFA = bench face angle; ISA = inter-ramp slope angle. 1 = Max BFA and ISA are maximum bench face angles and inter-ramp slope angles that can be achieved under special considerations.

Sector 5 is comprised entirely of diorite. The recommended inter-ramp slope angle is limited to 45º due to wedge structure. A large slope failure occurred in this sector in the phase 3 pit in 2021. The south wall slope displacements were caused by the intersection of continuous west-striking structures, which define the structural fabric of the deposit, and a south-striking fault. The intersection of these structures defines a daylighted plane shear and side releases, which trend northwest (315º) and dip at 40º.

Sector 6 falls in the 300º–340º DDR (northwest), which is unfavourable for pit design due to structure persistence. This orientation is also historically unfavourable as demonstrated by a pit wall failure in 2021 at El Crestón failure and a failure in 2023 at Veta Madre. A back analysis of the 2021 El Crestón failure was conducted, and an inter-ramp slope angle of 45º achieved a factor of safety of 1.27.

16.2.2 Veta Madre

A 2021 geotechnical study conducted by A-Geommining for the Veta Madre open pit was performed to establish the pit design parameters that were used for the phase 4 Veta Madre pit design.

The geotechnical analysis was oriented to define the bench-berm configuration that complies with safety criteria and establishes the maximum possible bench face and interburden angles for the slopes in the different design zones of the open pit. The minimum requirement for rockfall retention capacity and bench face angle achievement was set at 75%. To evaluate the berm bench design, a kinematic-probabilistic analysis was performed with a bench height of 15 m, iterating for bench face angles of 67°, 70°, and 75°. The resulting inter-bank angle was required to have a minimum reliability of 92%, 94%, and 98%, given the probability of a structural failure at inter-bank scale of two, four, and six benches, respectively.

To analyze the stability of the slopes at different angles and inter-ramp heights, 2D geotechnical sections representative of the base pit design were constructed. The results of the berm bench analysis were incorporated into these sections. For each section, a configuration of design parameters (bench face angle, angle, and inter-bank height) was obtained for each section that meets the safety and stability acceptability criteria. The results indicated that all slopes in static and pseudo-static operational condition meet the acceptability criteria expressed in terms of safety factors and probability of failure. To evaluate limit equilibrium stability, an extreme case was analyzed, assuming a large magnitude earthquake with a seismic coefficient of KH = 0.16. The results indicated that all of the slopes met the standard safety criteria.

Table 16-2 summarizes the results of the berm bench analysis, the structural geometric review and the limit equilibrium stability analysis, four design zones were defined for the phase 4 pit. Figure 16-2 shows the distribution of the design zones and proposed parameters.

16.3 Hydrogeological Considerations

The La Colorada Mine is located within the Matape river basin. The climate in this sector is dry, with an average annual rainfall of 342 mm (the heaviest rainfall occurs in summer), with significant evaporation rates.

From the hydrogeological point of view, very little information has been collected. Both the El Crestón and Veta Madre pits have intercepted the ground water table at the current depths.

The use of in-pit sumps and pumps are used to collect and remove the water from the open pit to permit continuous operations. As mining progresses the anticipated pit dewatering rates are not anticipated to rise significantly but will most likely increase from current pumping rates.

As each pit is advanced, additional studies should be completed to get a better understanding of the pit dewatering requirements that will be required to reach the ultimate depths of each pit. El Crestón is planned to be excavated approximately 100 m deeper than the current depth and Veta Madre is planned to be excavated 42 m deeper.

16.4 Pit Designs

The cut design for La Chatarrera includes mining all of the Eldorado material but leaves a 0.5 m layer as a buffer above the tailings material that occurs in a layer at the base of the WRSF. Although the tailings material is mineralized, it is classified as waste for the current Mineral Reserve plan until more information is gathered on the potential recoveries and processing of the tailings. The Argonaut layer of material that is on the top of the Eldorado material is below cut-off and is treated as waste in the mine scheduled and hauled to the Gran Central waste backfill facility. The layout for the La Chatarrera cut design is shown in Figure 16-3.

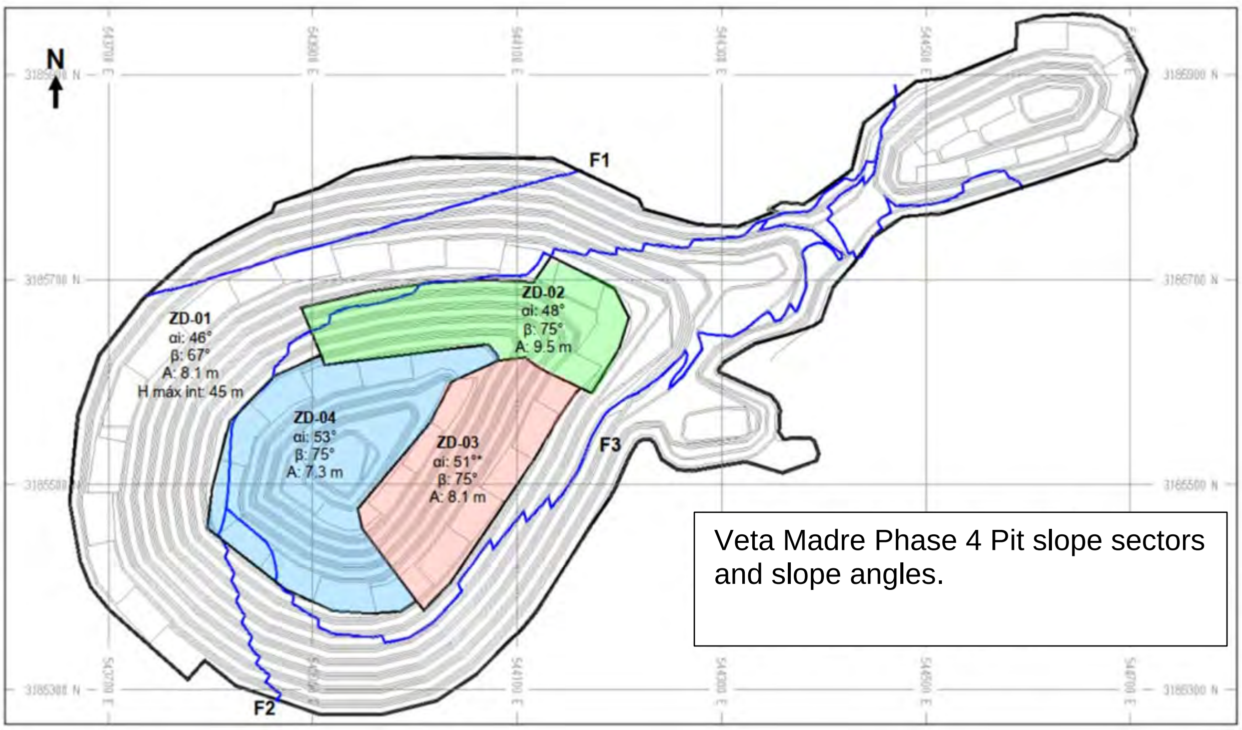
As discussed in Section 15.2.3, the final El Crestón pit design was limited to a US$1,900/oz AuEq pit shell. The pit slopes were designed by geotechnical sector as outlined in Table 16-1. The pit was designed into two phases for the Mineral Reserve evaluation with the first phase targeting higher-grade ore on the north side of the deposit. Pit Phase 4.1 is shown in Figure 16-4 and the final pit Phase 4.2 is shown in Figure 16-5.

Table 16-2: Veta Madre Phase 4 Pit Slope Design Parameters

Sector	BH (m)	CBW (m)	BFA (º)	ISA (º)
ZD-01	15	8.1	67	46
ZD-02	15	9.5	75	48
ZD-03	15	8.1	75	51
ZD-04	15	7.3	75	53

Note: BH = bench height; CBW = catch bench width; BFA = bench face angle; ISA = inter-ramp slope angle.

Figure 16-2: Veta Madre Pit Slope Design Sectors



Note: Figure prepared by A-Geommining, 2021

Figure 16-3: La Chatarrera Cut Design

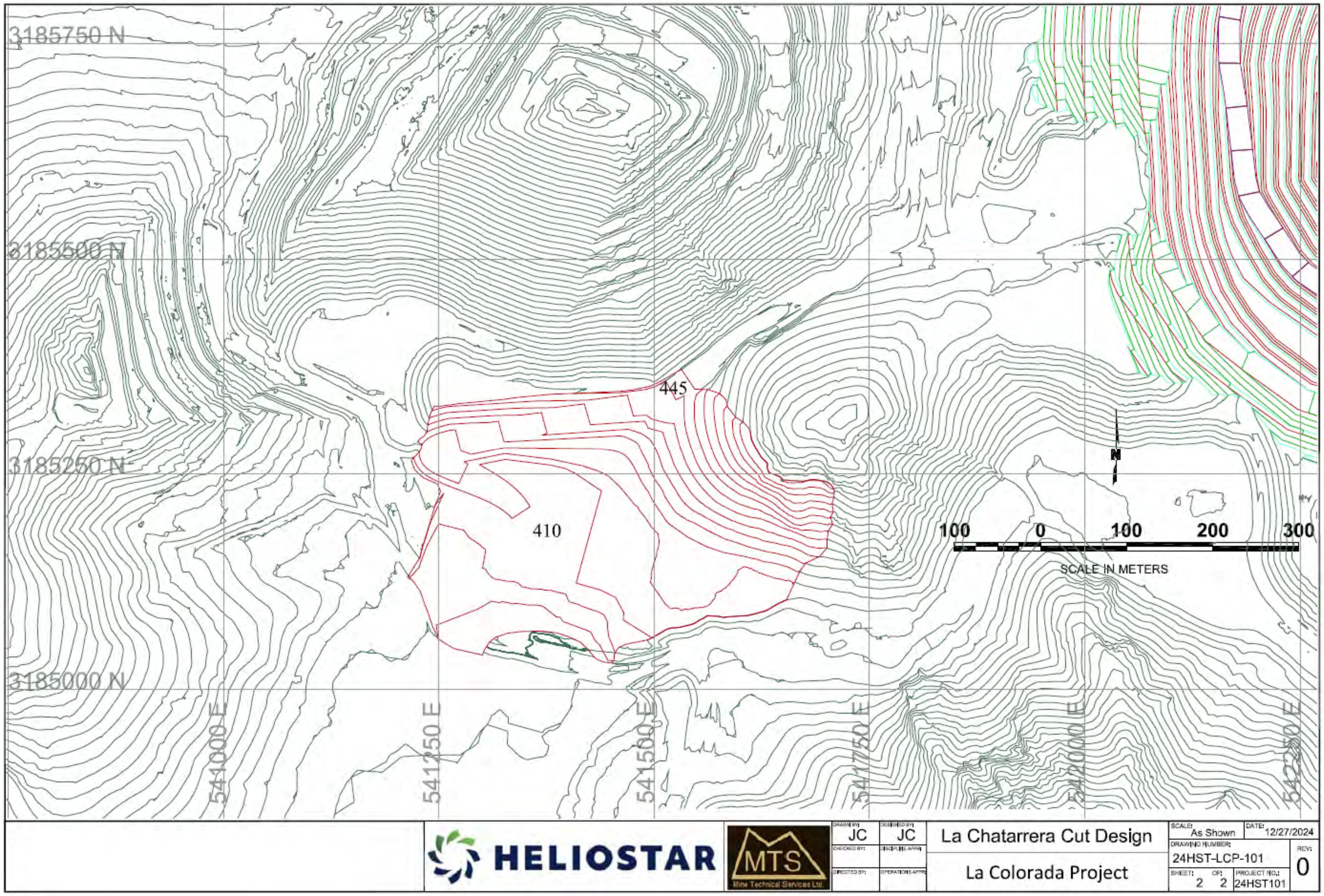


Figure 16-4: El Crestón Phase 4.1 Pit Design

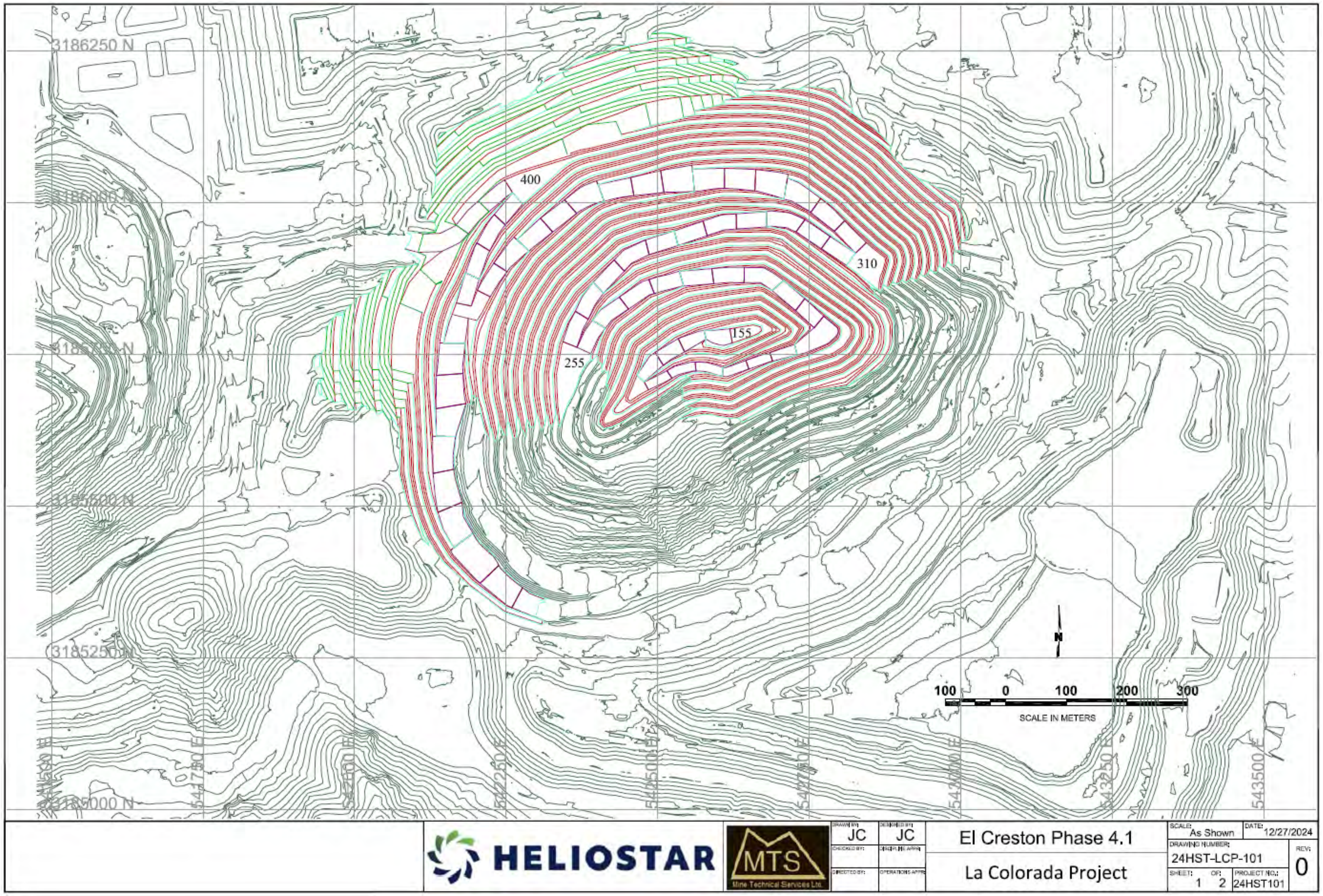
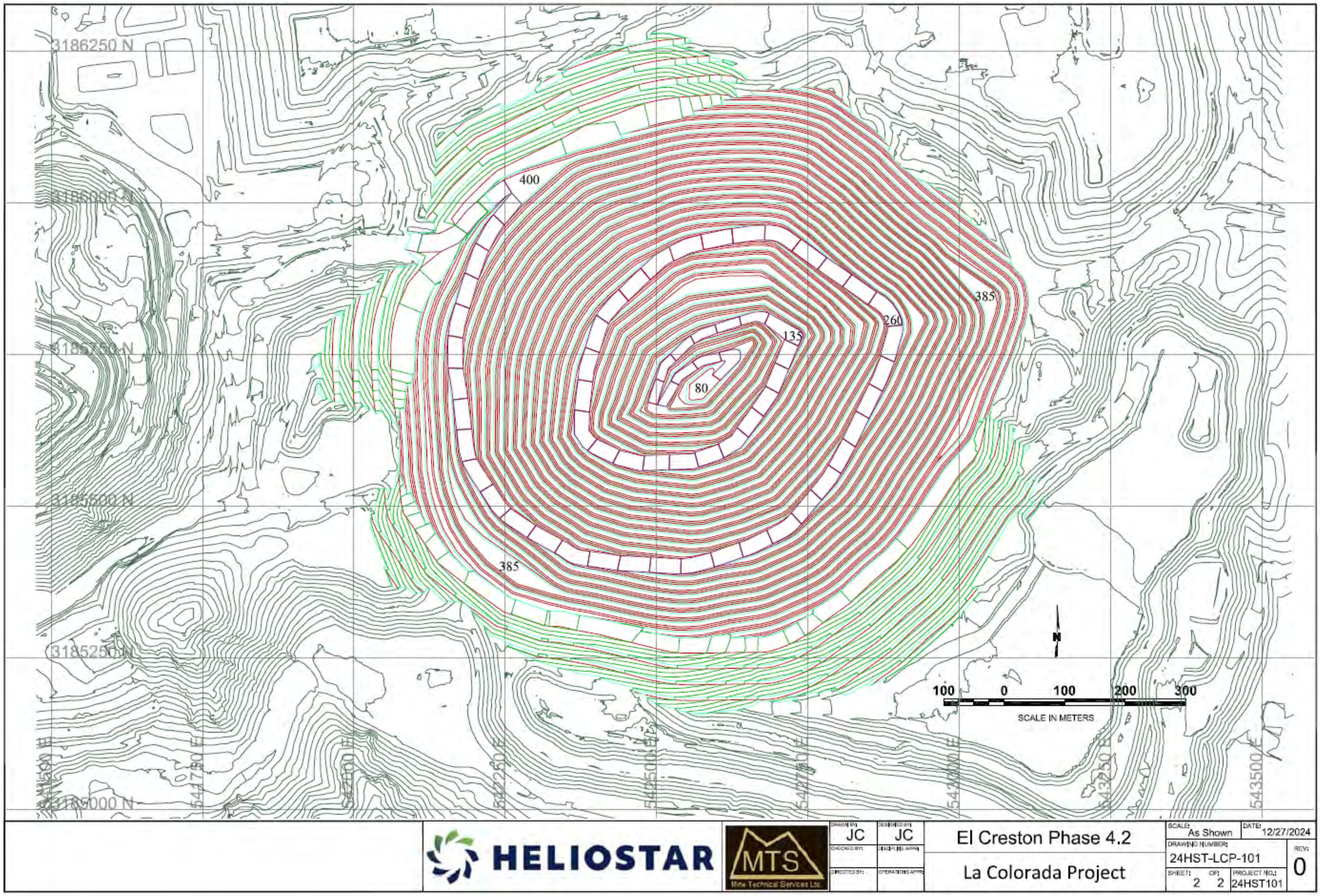


Figure 16-5: El Crestón Phase 4.2 Pit Design



The Veta Madre pit was also limited to a US$1,900/oz AuEq pit shell. The pit slopes were designed by geotechnical sector as outlined in Table 16-2. The pit was designed in one phase and is shown in Figure 16-6.

For both pit designs, haul roads are designed at a width of 25 m, which provides a safe truck width (6.7 m wide for Caterpillar (Cat) 777 size truck) to running surface width ratio of 1:3 with an additional 5 m for a berm and a drainage ditch. Maximum grade of the haul roads is 10%, except for the lower benches where the grade is increased to 12%, and the ramp width is narrowed to 15 m to minimize excessive waste stripping. The pit design criteria are presented in Table 16-3.

16.5 Dilution and Mining Losses

The Mineral Resource estimates for El Crestón and Veta Madre are considered to be internally diluted by compositing and the application of a percent dilution along the ore domains for the portion of the block that falls outside of the mineralized domains.

However, based on past reconciliation reports, the QP has also applied a 10% external dilution factor and a 5% metal loss factor in the Mineral Reserve estimates to better align with reported crusher tonnages and grades from the previously-mined portions of both deposits.

16.6 Mine Production Schedule

Production of mineralized material from the La Chatarrera stockpile and open pits are driven by the nominal ore crusher capacity rate of 12,000 t/d, which is equivalent to 4.38 Mt/a, and results in a mine life of approximately 5.5 years with the inclusion of the two years of pre-production during which time La Chatarrera is processed.

During the mining of pit ore, the peak mineralized material and waste production is capped at 40 Mt/a, with an overall average production rate of 78,000 t/d. The average LOM stripping ratio is estimated to be 7.3:1 with 132 Mt of waste and 18.1 Mt of ore. The 132 Mt of total waste includes 5.8 Mt of spent ore within the heap leach pad that has to be relocated on the north side of the El Crestón pit and 6.2 Mt of waste rock from the WRSF to the south of the El Crestón pit. The total tonnes of ore and waste that will be mined during the life of the Project are summarized in Table 16-4.

La Chatarrera is planned to be mined and processed during Year -2 of the pre-production period. The waste stripping for El Crestón Phase 4.1 is scheduled to begin in month eight of Year -2 and El Crestón Phase 4.2 is schedule to begin in Year 1. The mining of Veta Madre is towards the end of the LOM plan, with stripping in Year 3 and pit completion in Year 4. The annual ore production schedule by mine area and pit phase is shown in Figure 16-7. A total of 3.9 Mt will be delivered to the heap from La Chatarrera, 12.8 Mt from El Crestón and 1.9 Mt from Veta Madre.

Figure 16-6: Veta Madre Phase 4 Pit Design

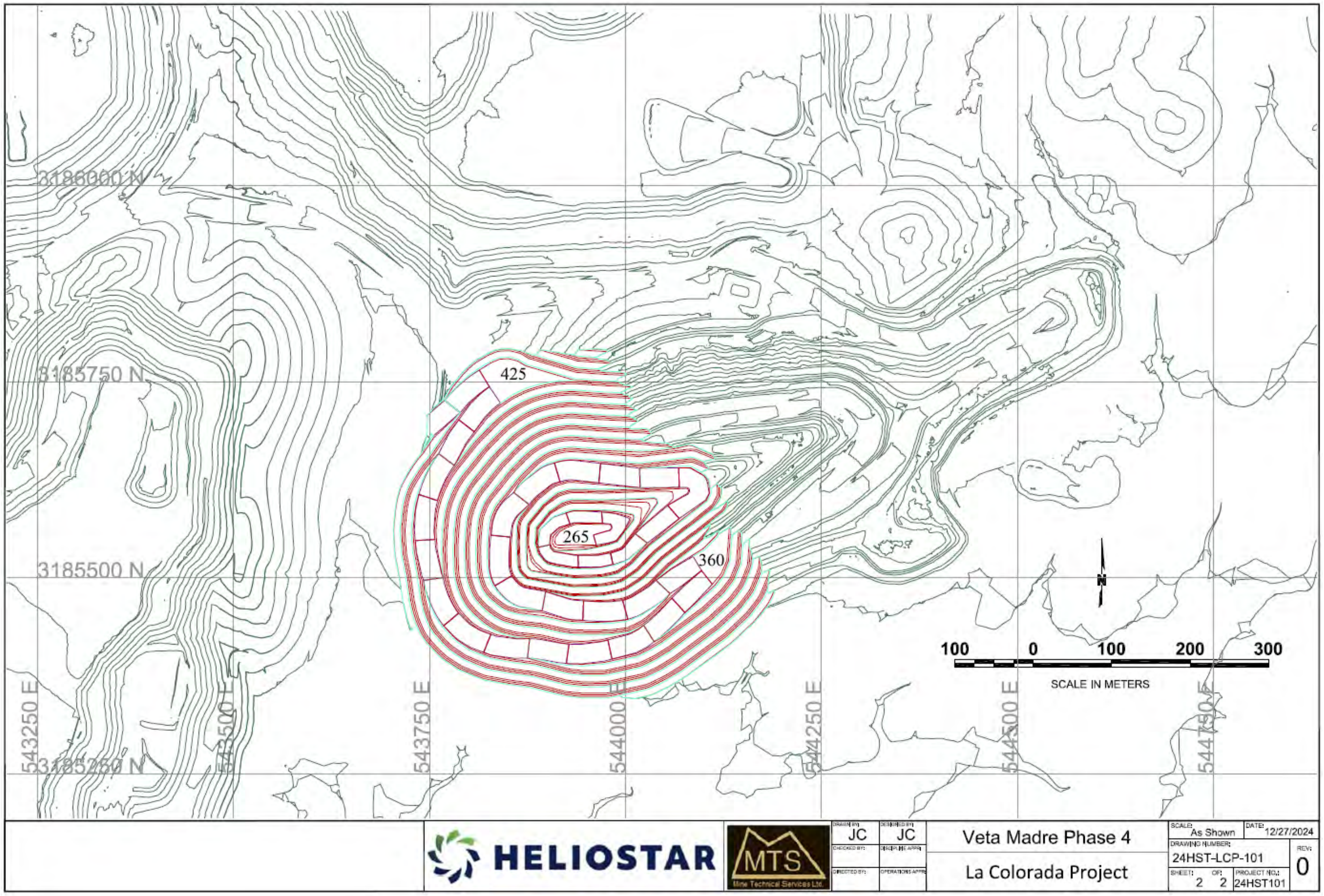


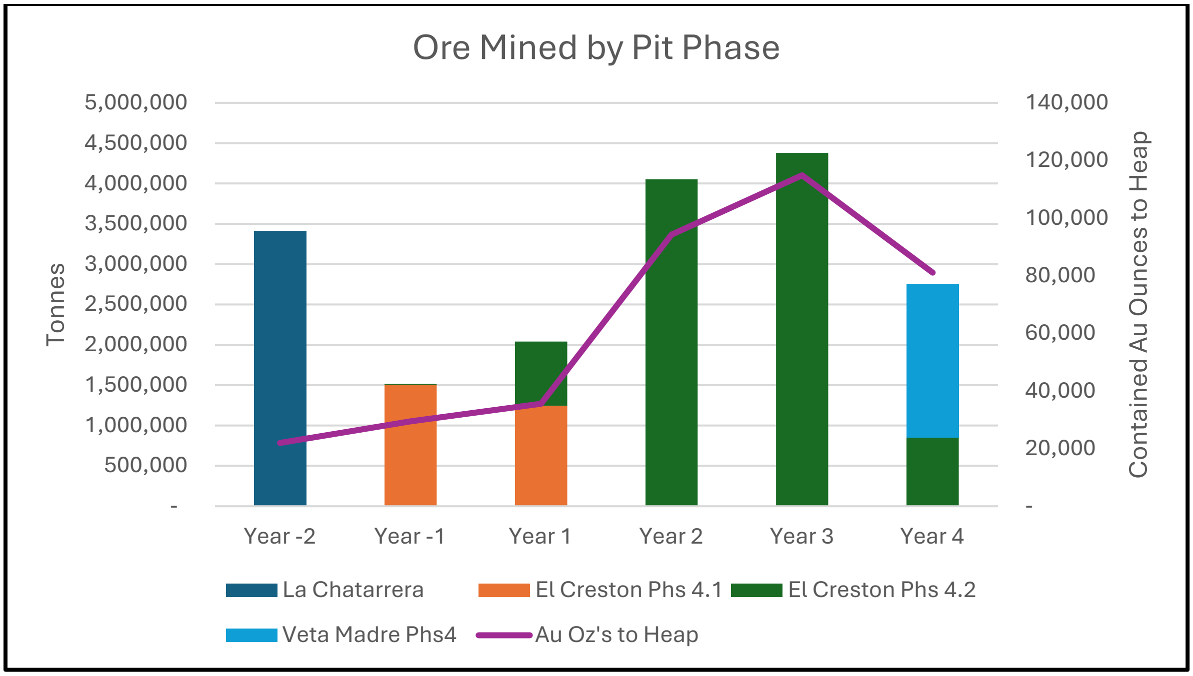
Table 16-3: Pit Design Criteria

Category	Unit	Value
Ramp widths	m	25
Ramp grade	%	10
Ramp widths pit bottom	m	15
Ramp grade pit bottom	%	12
Mining level heights	m	5

Table 16-4: Annual Mine Production Schedule Forecast

Item	Units	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	LOM
Mine Production								
El Crestón ore mined	kt	0	1,517	2,040	4,052	4,380	853	12,841
Ag grade	g/t	0.00	12.03	10.79	11.41	8.80	5.87	10.13
Au grade	g/t	0.00	0.61	0.54	0.72	0.82	1.39	0.76
Veta Madre ore mined	kt	0	0	0	0	0	1,905	1,905
Ag grade	g/t	0.00	0.00	0.0	0.0	0.0	3.1	3.08
Au grade	g/t	0.00	0.00	0.00	0.00	0.00	0.70	0.70
La Chatarrera ore mined	kt	3,413	0	0	0	0	0	3,413
Ag grade	g/t	6.41	0.00	0.0	0.0	0.0	0.0	6.41
Au grade	g/t	0.20	0.00	0.00	0.00	0.00	0.00	0.20
Fill	kt	6,788	6,336	35	159	(0)	(0)	13,317
Waste	kt	7,708	32,237	36,160	20,803	11,479	10,303	118,691
Total Tonnes Mined	*kt*	*17,909*	*40,090*	*38,235*	*25,014*	*15,859*	*13,060*	*150,167*
Strip ratio	*ratio*	*4.2*	*25.4*	*17.7*	*5.2*	*2.6*	*3.7*	*7.3*
Other tonnes	*kt*	120	120	200	120	120	90	770
Total tonnes moved	*kt*	***18,029***	***40,210***	***38,435***	***25,134***	***15,979***	***13,150***	***150,937***
Process Production								
Ore to Heap	***kt***	***3,413***	***1,504***	***2,052***	***4,052***	***4,380***	***2,757***	***18,159***
Au grade	g/t	0.20	0.61	0.54	0.72	0.82	0.91	0.65
Ag grade	g.t	6.41	12.01	10.82	11.41	8.80	3.94	8.69

Figure 16-7: Annual Ore Schedule Forecast



Note: Figure prepared by Hard Rock Consulting, 2024.

Figure 16-8 shows the annual waste production schedule by mine area and pit phase. A total of 1.2 Mt of waste is scheduled to be mined from the La Chatarrera and delivered to the Gran Central WRSF. An additional 33.4 Mt of waste is planned to be mined from El Crestón Phase 4.1 and 76 Mt of waste from El Crestón Phase 4.2, all of which will be delivered to the Gran Central WRSF. Veta Madre includes 15.5 Mt of waste which will be delivered to the Veta Madre North WRSF.

The WRSF designs are of sufficient size for disposal of the waste material defined in the La Colorada LOM plan. Additional information on the WRSFs is provided in Section 18.4.

16.7 Mining Equipment

As with the past operations at La Colorada the mining equipment is planned to be supplied by a mining contractor. All loading, hauling, drilling, basting and support services are planned to be included within the mining contract.

The previous contractor used Caterpillar 777 size haul trucks, Caterpillar 992 class front-end loaders, and support equipment. The current designs have been developed, assuming a similar sized mining fleet will be used for the LOM plan.

Figure 16-8: Annual Waste Schedule

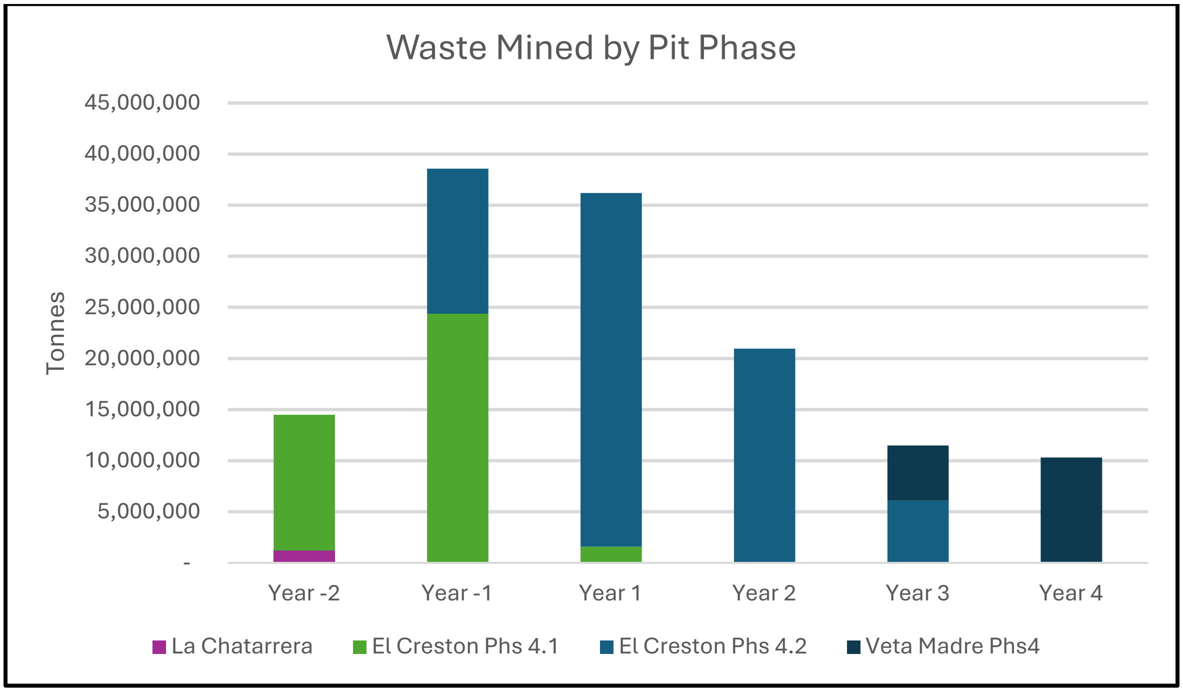


Figure prepared by Hard Rock Consulting, 2024.

The haul profiles are calculated on a monthly basis and form the basis for the truck and loader fleet requirements for the LOM plan shown in Table 16-5. The haul profiles are also used to calculate the required diesel fuel requirements which is assumed to be supplied by the Owner along with the explosives.

Table 16-5: Mine Equipment

Item	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4
Production Equipment						
97t trucks	5	19	25	21	12	12
12 m^3 loaders	2	5	5	3	2	2
DM45 size drills	1	5	6	4	2	3
Pre-shear drills	0	1	1	1	1	1
Support Equipment						
Cat D8 dozer	1	2	2	2	2	2
Cat D9 dozer	1	2	2	2	2	2
16' grader	1	1	1	1	1	1
Water truck	1	2	2	2	2	2

17.0 RECOVERY METHODS

17.1 Introduction

The process plant is conventional and uses conventional, industry-proven technology. The plant was based on the testwork summarized in Section 13. Argonaut operated the current heap leach circuit beginning in 2013.

La Colorada is an open pit mine and heap leach operation using a multiple-lift, single-use leach pad. Ore is crushed to P_{80} 3/8 in (9.5 mm) at 12,000 t/d and conveyed by overland conveyor to a mobile conveyor stacking system on the leach pad where the ore is stacked in 10 m lifts. The stacked ore is leached for 90 days with dilute sodium cyanide solution and the resulting pregnant solution is processed through a 750 m^3/hr gravity-cascade carbon adsorption circuit to extract gold and silver. The loaded carbon is acid washed and stripped in 5 t batches by pressure-Zadra stripping and electro-winning. Carbon is regenerated by rotary kiln every third pass through the circuit. Electro-winning sludge is dried and smelted onsite into doré bars for shipment.

There is also a separate desorption and electro-winning circuit for stripping carbon from Heliostar's El Castillo and San Agustin mines, and the gold from these mines is also smelted at La Colorada.

17.2 Process Design Criteria

A summary of the processing design criteria is presented in Table 17-1.

17.3 Process Flow Sheet

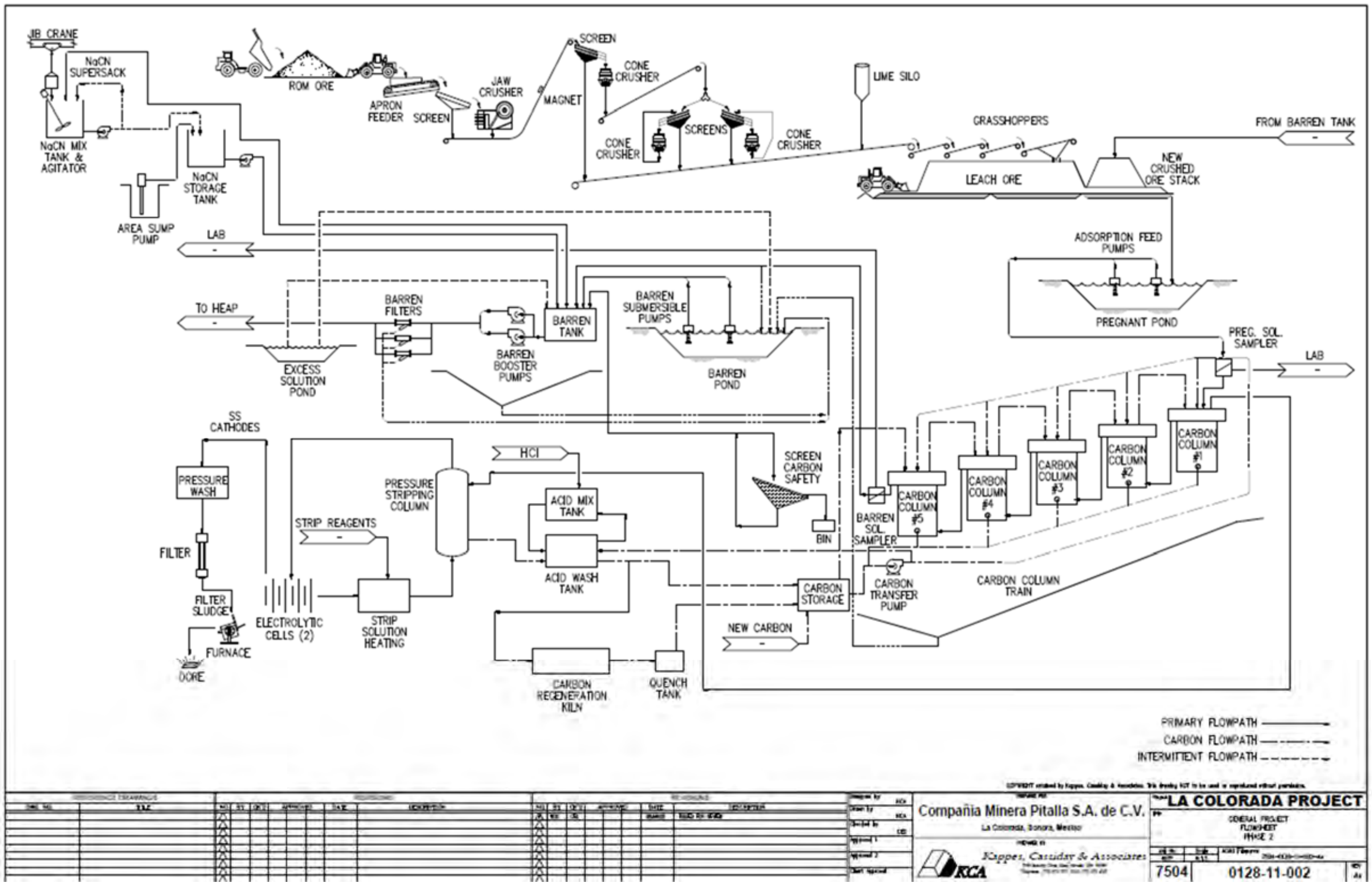
A simplified process flowsheet is included as Figure 17-1.

The crushing plant has a nominal capacity of 600 t/h (12,000 t/d) and consists of a 44 in x 50 in (1.1 m x 1.3 m) jaw crusher that crushes ROM ore to -5 in (250 mm). Primary crushed ore is then scalped on a scalping screen to remove the -9.5 mm fines as finished product.

Table 17-1: Process Design Criteria Summary

Item	Design Criteria
Annual design tonnage	4,380,000 tonnes
Crushing production rate	12,000 tonnes/day average
Crushing operation	12 hours/shift, 2 shifts/day, 7 days/week
Crusher availability	83%
Crushing product size	80% -9.5mm
Conveyor stacking system availability	80%
Leaching Cycle, days (Total)	90
Design solution application rate	10 $L/h/m^2$
Heap lift height	10 m
Recovery plant type	ADR with pressure Zadra recovery circuit

Figure 17-1: Process Flowsheet



Note: Figure prepared by KCA, 2011.

17.4 Plant Design

17.4.1 Crushing

The following major equipment are included in the crushing circuit:

- 1 each BTI hydraulic hammer, 100 HP;
- 1 each KPI-JCI apron feeder, 48" width, 40 HP;
- 1 each KPI-JCI model 5142-32 MB scalping screen, 1.56 m x 4.88 m, 50 HP;
- 1 each KPI-JCI model VXS 4450 primary jaw crusher, 250 HP;
- 2 each KPI-JCI model KPI400+ secondary standard cone crushers, 400HP;
- 4 each KPI-JCI model 8203-38LP triple deck vibrating tertiary screen, 2.44 m x 6.1 m, 60 HP;
- 4 each KPI-JCI model KPI400+ tertiary short head cone crushers, 400 HP;
- Associated transfer conveyors, chutes, instruments, and bins.

The screen oversize is advanced to the secondary crushing circuit which consists of two standard cone crushers operated in open circuit with a 1 in (25 mm) closed-side setting. The secondary crusher product is then screened at ⅜ in (9.5 mm) and the screen oversize is advanced to the tertiary crushing circuit which consists of four short head cone crushers that are operated in closed circuit to produce a final crushed product of P_{80} -⅜ in (9.5 mm).

17.4.2 Heap Leaching

The following major equipment are included in the heap leach system stacking system:

- 1 each 150 t lime silo with associated dust control and feeding equipment;
- 4 each overland conveyors, 36" belt width, varying lengths;
- 37 each grasshopper transfer conveyors, 36" belt width;
- 1 each Superior 36X136TSLP radial stacker with extendable Stinger, 36" belt width;

Available leach pad capacity at the effective date of this Report is approximately 4.5 Mt. An approximate 37 ha pad expansion is planned to give space for future stacking.

The heap leach pad is constructed on a compacted subgrade lined with 0.3 m of low permeability soil. The compacted surface is covered with a single layer of 1.5 mm linear low-density polyethylene (LLDPE) plastic liner and overlain with 0.6 m of drainage gravel embedded with perforated drainage pipes all graded to drain to the pregnant leach solution (PLS) pond.

The PLS ponds are double lined with 1.5 mm high density polyethylene (HDPE) plastic liners and incorporate a leak detection system. A contingency pond is provided for storm events and short-term upset solution storage. The contingency pond is lined with a single 1.5 mm HDPE plastic liner. Lined spillways located between the ponds allow for the capacity of adjacent ponds to be used in the event of upset conditions (e.g. large storms or extended pump shutdowns in the pregnant solution pond).

The PLS pond is designed to have sufficient capacity for a minimum operating volume for a 24-hour period, capacity for an eight-hour pump shutdown or leach pad solution drain down, capacity to contain inflows generated by average rainfall events over the leach pad footprint, and capacity to maintain the design freeboard.

Crushed ore is conveyed to the leach pad through a system of overland and grasshopper conveyors and then stacked in 33 ft (10 m) high lifts with a radial stacker that is operated in retreat mode. The stacked ore is then leached for a 90-day leach cycle with a sodium cyanide leach solution (450 ppm NaCN) at an application rate of 10 L/h/m^2 with a conventional drip irrigation system. The barren solution is pumped directly from a barren tank. Lime is added to the ore at 2-3 kg/t to provide protective alkalinity and maintain solution pH at about 10.5. Generally, 85–90% of the recoverable gold is extracted during the first 60 days of leaching. After the leach cycle is complete, the heap is allowed to drain down, and is ripped in three different directions with a Caterpillar D6 dozer prior to placing the next lift to reduce compaction and maintain permeability. The PLS drains from the heap to the PLS pond located at the adsorption–desorption–recovery (ADR) plant at an average gold concentration of 0.20 g/t Au.

17.4.3 Adsorption

Gold contained in the PLS is recovered from solution in a standard carbon-in-column (CIC) adsorption circuit that consists of a single train of five cascade-type carbon columns designed to handle a flowrate of up to 750 m^3/hr. Each carbon column has capacity for 6 t of carbon and carbon is typically loaded to about 5,000 g/t Au and Ag combined.

17.4.4 Desorption, Electro-winning, and Refining

Loaded carbon is processed through a Zadra pressure strip circuit that includes acid washing followed by gold and silver stripping at 135° C and 450 kPa at the rate of 2.5 bed volumes per hour. The strip solution is recirculated through a series of two electrolytic cells to recover the gold from solution as a cathodic precipitate, which is then filtered, dried, fluxed and refined to produce the final doré product. Stripped carbon is thermally reactivated after every third cycle in a horizontal kiln that is operated at 750° C.

There is also a separate and nearly identical carbon stripping circuit at La Colorada used to process carbon from Heliostar's El Castillo and San Agustin Mines. Due to the mercury content associated with the San Agustin ore, a mercury retort system was installed in the refinery at La Colorada.

17.5 Energy, Water, and Process Materials Requirements

17.5.1 Energy

The power requirements for the operations are discussed in Section 18.9.

17.5.2 Water

Process water is recirculated within the operations for ore leaching. Additional make-up water is obtained from a resolution from CONAGUA for as much as 159,518 m^3/year for industrial use. Additional water rights for up to 110,650 m^3/year were negotiated with local ranchers and are currently in the process for rights transferring, relocating and use changing (from agricultural to industrial use).

17.5.3 Consumables

The plant requires the following reagents and consumables:

- Cyanide is used to dissolve gold during the leaching process;
- Pebble lime is added to the heap leach to control pH.

In operations, cyanide usage was fairly constant at 0.5–0.6 kg/t, somewhat higher than the original estimates of 0.4 kg/t (un-weighted average) from testwork. Lime usage has increased as required to maintain pH since 2019 above the predicted 2 kg/t. During 2023, 4.6 kg/t lime was added after many years operating at lower lime additions. This may be the result of deeper mining and additional sulphides present in the deeper mineralization. Estimated cyanide and lime requirements were summarized in Table 13-28.

18.0 PROJECT INFRASTRUCTURE

18.1 Introduction

All infrastructure required to support the LOM plan is in place, and includes:

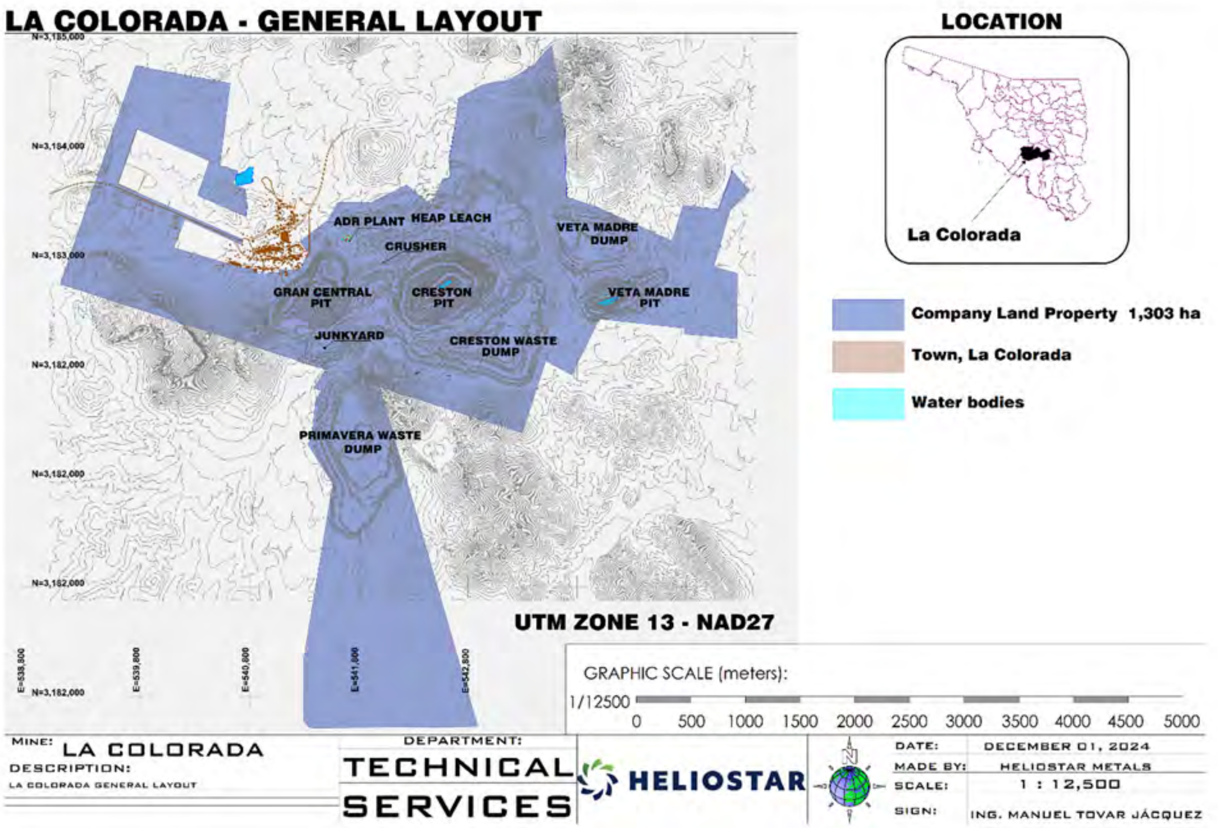
- El Crestón and Veta Madre open pits;
- Gran Central Infill and Veta Madre North waste rock storage facilities;
- Crusher stockpiles;
- Heap leach pad;
- Built infrastructure: administration building, assay and metallurgical laboratory, warehouse, crushers and conveyors, heap leach process facilities, precious metals smelter, crusher maintenance shop with field supervisor's offices, maintenance shop for auxiliary equipment, lunch room, change room, guard house;
- Fuel delivery and storage systems;
- Powerline;
- First-aid clinic;
- Raw water system;
- Sewage treatment systems.

Mining operations are conducted by a contractor. The contractor has the following facilities:

- 100 t truck shop that has overhead cranes and welding bay;
- Tire shop;
- Warehouse;
- Cafeteria;
- Offices;
- Long-term parking;
- Hazardous waste storage.

An infrastructure layout plan is included as Figure 18-1.

Figure 18-1: Infrastructure Layout Plan



Note: blue dots represent minor infrastructure locations.

18.2 Road and Logistics

The current access and transport routes to the Project are discussed in Section 5.

18.3 Stockpiles

The only planned stockpile for the LOM plan is the crusher stockpile, which will be used to balance consistent ore feed to the crusher.

18.4 Waste Rock Storage Facilities

For the LOM plan, there are two WRSFs planned.

The Gran Central Infill WRSF will receive all of the waste from La Chatarrera and the El Crestón pit. This facility has a design capacity of 145 Mt with 111 Mt scheduled to be placed in the WRSF over the LOM plan.

The Veta Madre North WRSF will receive all of the waste from Veta Madre and has a capacity of 24.5 Mt. The LOM plan includes 15.5 Mt of waste delivered to this facility.

Figure 18-2 shows the layouts of the WRSFs.

18.5 Tailings Storage Facility

No tailings storage facilities are required for the LOM plan.

18.6 Water Supply

The water used by Eldorado in the 1990s came from the dewatering of underground workings, the Wyman shaft, and open pit dewatering. Argonaut then used 1.8 Mm^3 of in-pit water until 2016 when the Willis well was developed providing an average of 15 L/sec.

Pit dewatering is still used at times offsetting the well's pumping needs; an estimated 0.5 Mm^3 of water remains available within the pit.

A backup water well was developed in 2021 to provide complementary volume of 5 L/sec to compensate for the eventual decline of the in-pit water source and to relieve stress to the Willis well drawdown. Another 5 L/sec well is being developed and intended to be commissioned in 2022 near the Veta Madre zone intended to provide for shorter water haulage distances.

Any water taken from open pit operations, either from groundwater or surface run-off, can be used without a special permit. Water from the underground workings requires a permit and is defined by CONAGUA. The Project has permits for up to 360,000 m^3 of raw water on a yearly basis which is valid through the remaining mine life.

18.7 Water Management

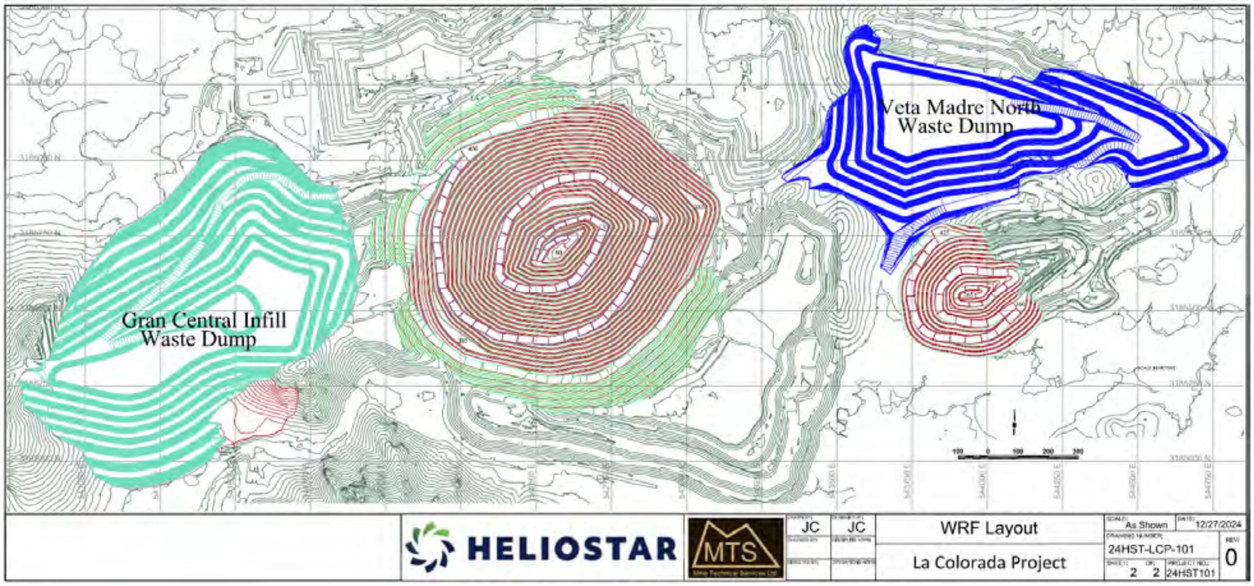
The La Colorada Mine is a zero-discharge operation, using lined process water ponds and ditches to convey cyanide solutions to and from the heap leach pads.

Stormwater is managed through facility-specific diversion ditches, as necessary.

18.8 Camps and Accommodation

There is no camp site at the La Colorada Mine; all employees and contractors live off-site in nearby towns.

Figure 18-2: Waste Rock Storage Facility Layouts



18.9 Power and Electrical

The operations have a dedicated 33 KV power line and 10 MVA substation which were built by Eldorado in 1997. The main transmission line is 23 km from the community of Estacion Torres to the mine site.

Power is supplied by the large state-owned electric company, Comisión Federal de Electricidad (CFE).

Heliostar's operations plan calls for a peak power load of 0.75 MVA for the ADR plant, 1.5 MVA for crushing, and 1.0 MVA for conveying. There are also small miscellaneous loads such as the pit watering systems, northeast pad pumping station, main offices and auxiliary facilities, and water supply well. The peak load is 4.0 MVA.

No upgrade to the power infrastructure is required and the current supply will support the proposed LOM plan.

18.10 Fuel Supply

The site has a 170,000 L diesel storage facility. Heliostar maintains an 11,000 L gasoline tank and delivery system to support the site needs. The mining contractor has an additional 5,000 L gas tank near the warehouse facility.

The site also uses propane for site boilers, the smelting furnace, dry furnace, and the kiln. The contractor has a 41,500 L propane storage tank on site.

19.0 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Gold markets are mature: global markets with reputable smelters and refiners are located throughout the world. Markets for doré are readily available.

19.2 Commodity Price Projections

Assumed metal prices for estimation of Mineral Reserves took into consideration current market, historical prices, values used in other recent projects, and forecasts in the public domain. On 30 November 2024, according to the London Bullion Market Association (LBMA), the average daily AM Fix gold price for 2024 was US$2,364/oz. The three-year and five-year rolling average prices through the end of 30 November 2024 are US$2,020/oz and US$1,920/oz, respectively. Although the metal prices can be volatile, a gold price of US$1,900/oz and a silver price of US$23/oz were used for estimation of Mineral Reserves to reflect a long-term conservative price forecast.

Figure 19-1 presents the historical gold prices. As can be seen in the graph gold prices have been on a steep upward trend during 2024 and have reached record highs. Figure 19-2 presents the historical silver prices, which have also been on a steep upward trend during 2024 but have not reached the historic highs in 2011.

Higher metal prices of US$2,150/oz Au and US$26.00/oz Ag were used for the Mineral Resource estimates to ensure the Mineral Reserves are a sub-set of, and not constrained by, the Mineral Resources, in accordance with industry-accepted practice.

19.3 Contracts

La Colorada was a contract mining operation with an Owner-operated process facility. Contracts are entered into with third parties, where required. With restart of operations the mining, explosives and blasting and leach pad construction contracts will have to be negotiated. The material contracts in place at the Report effective date included:

- Diesel and fuel: Grupo Comercial de Mexico S.A. de C.V.;
- Cyanide: Cyplus Idesa SAPI de C.V.; The Chemours Company Mexicana SA de C.V.;
- Lime: Calhidra De Sonora S.A. de C.V.;
- Core and RC drilling: Layne de México, S.A. de C.V.;
- Gas: Rivera Gas S.A. de C.V.

Contracts are negotiated and renewed as needed. The QP was advised by Heliostar that contract terms are typical of similar contracts in Mexico that Heliostar is familiar with.

Figure 19-1: Historical Gold Prices

Note: Figure prepared by Hard Rock Consulting, 2024, based on London Bullion Market Association prices.

Figure 19-2: Historical Silver Prices

Note: Figure prepared by Hard Rock Consulting, 2024, based on London Bullion Market Association prices.

19.4 QP Comments on Item 19 "Market Studies and Contracts"

The QP notes the following.

- The doré to be produced by the Project would be readily marketable;
- The QP reviewed commodity pricing assumptions, marketing assumptions and the current major contract areas, and considers the information acceptable for use in estimating Mineral Resources and Mineral Reserves and in the economic analysis that supports the mine plan and Mineral Reserves.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Introduction

The following sub-sections provide discussion of available information on environmental, permitting and social or community factors related to the La Colorada Project. The QP performed a site visit (refer to Section 2.4.5). Data relevant to this section were primarily provided by Minera Pitalla, now a wholly-owned Heliostar subsidiary, during the site visit and in follow-up correspondence.

20.2 Baseline and Supporting Studies

The La Colorada Mine is in a historic mining district that was founded by Spanish Jesuit missionaries at some point between 1740 and 1743. No pre-operations environmental studies have been carried out due to the age of the mining activities.

Environmental baseline data collection started at La Colorada to support environmental impact assessment applications that Minera Pitalla needed to permit the resumption of existing operations in 2012, and the expansion of the open pits, crusher, heap leach facilities, and waste rock disposal areas the following year.

The most recent environmental impact assessment was for the Phase 1 expansion of the Veta Madre open pit, which was authorized by the Mexican environmental authority in December 2020. The environmental baseline studies included fauna, flora, water, and air quality. The existing mining operations and proposed Veta Madre Phase 2 expansion area are not within any federal zones under environmental protection.

Minera Pitalla carries out routine monitoring twice annually and is required to prepare summary reports for the environmental authority. The following are very brief summaries of some of the findings from baseline studies and monitoring data from the monitoring events carried out in 2023–2024.

20.2.1 Fauna

Wildlife survey data were collected during both the dry seasons (about the month of April) and wet seasons (about the month of September). Forty-four species of amphibians and reptiles were identified in the Project area, and 97 species of birds and 57 species of mammals were also identified. Of these, nine species of birds, three reptiles and three species of mammals fall under some protective status according to Mexican regulations.

During the wildlife surveys conducted for the Phase 1 Veta Madre expansion, two protected species of rattlesnakes and an endemic coachwhip snake were observed.

20.2.2 Flora

Vegetation data collected during the same periods support the classification of the site into forest and subtropical scrubland and brush zones. The studies identified 49 families, 158 genus, and 210 species of vascular plants. The wildlife and vegetation surveys carried out for the Phase 1 Veta Madre expansion observed one plant species (ironwood) that is under special protection and two species (saguaro cactus and Guayacan) that are classified as threatened. Guayacan (soapbush) is a type of evergreen shrub.

20.2.3 Soils

Soils in the region have been classified based on field observations and soil science maps available from Mexico's National Institute of Statistics and Geography (INEGI) (Minera Pitalla, 2023). Soil classifications are based on soil groups under the Food and Agriculture Organization of the United Nations (FAO/UNESCO).

There are five types of soils present: regosol (weak development and minimal horizon formation), leptosol (shallow depth or high content of coarse-grained fragments), calcisol (significant calcium carbonate), cambisol (early stage of soil formation) and fluvisol (alluvial deposit). The regosol, leptosol and calcisol soils are not conducive to agricultural production, but are suitable for grazing.

20.2.4 Surface Water and Groundwater

The mining operations are located in the regional RH09 hydrological basin (South Sonora) within the Mátape and Sonora River basins. The mining operations straddle the sub-basins of River Mátape-Empalme and Arroyo La Poza (Figure 20-1).

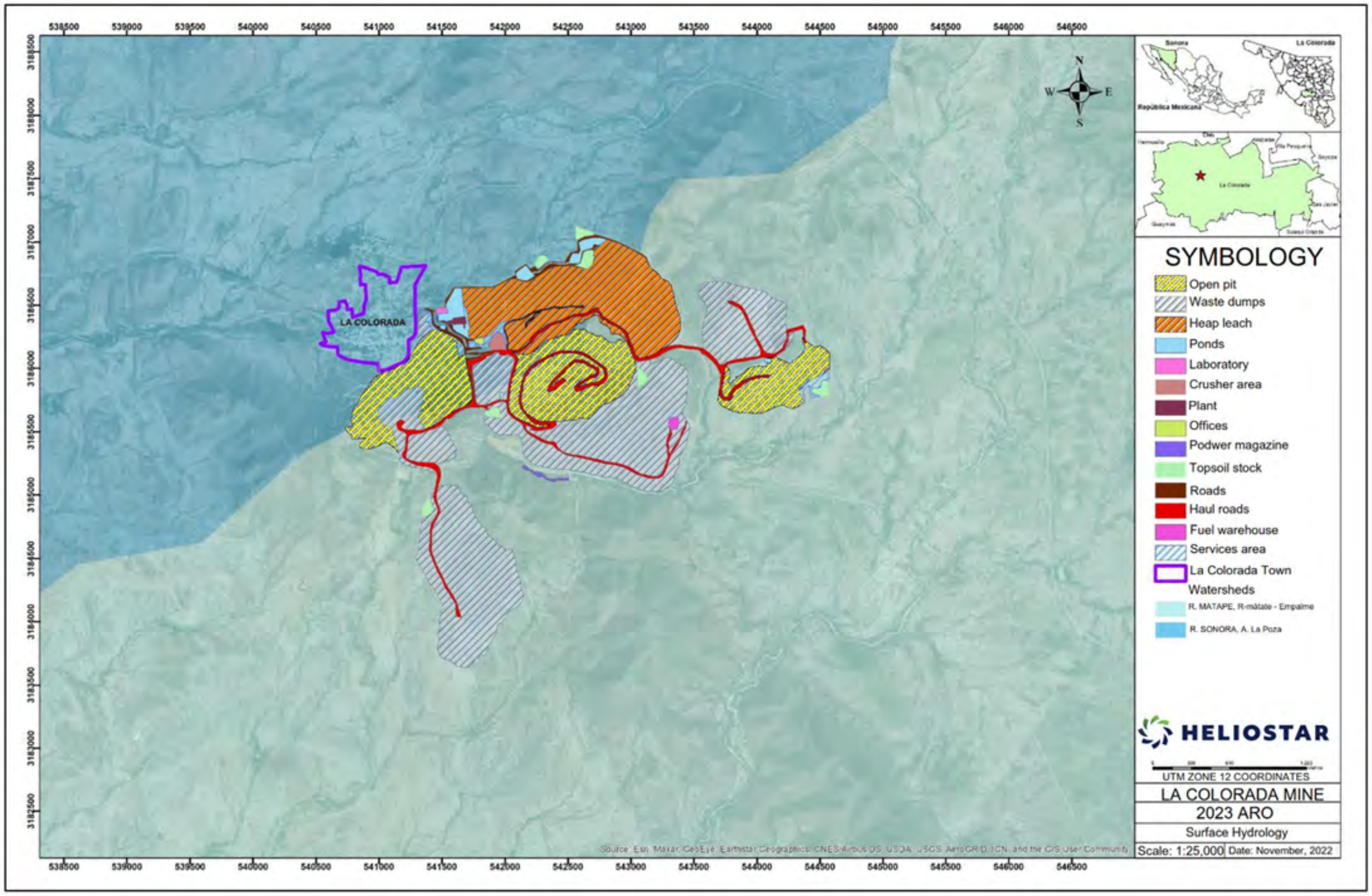
Surface water in the area is limited. There are currently small pit lakes in each of the La Colorada/Gran Central, El Crestón and Veta Madre open pits, plus there is the El Represo water reservoir, which is the town's water storage for livestock watering. Figure 20-2 shows the water bodies in the Project area and vicinity, color-coded as blue shapes on the figure.

There was no permanent stream within the environmental permitting study area noted, but the Arroyo Las Prietas has ephemeral flow.

Post-closure it is anticipated that each pit will develop a pit lake. The QP notes that water quality of each of the future pit lakes will need to be assessed and may require further analysis and possible predictive modelling prior to closure of the operations and in preparation for final permanent closure.

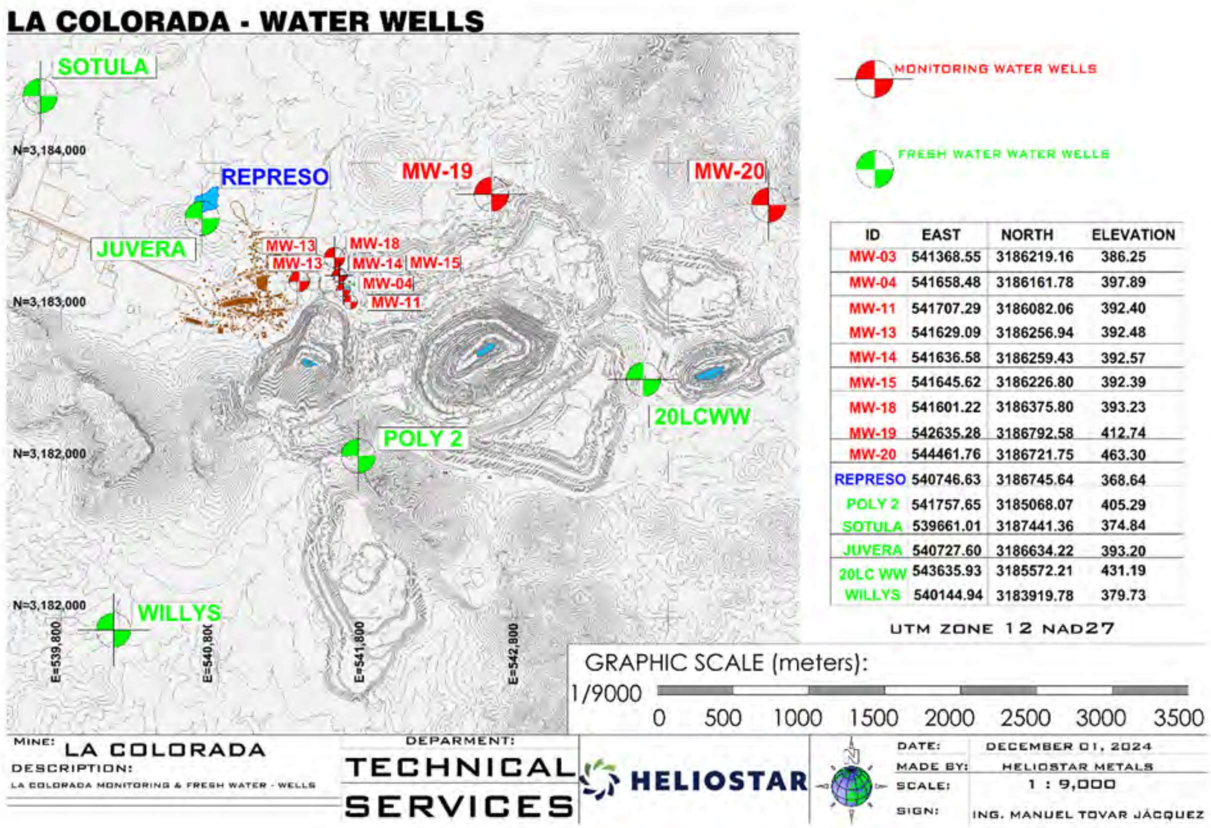
The mining operations are located on the administrative divide between the La Poza and Valle de Guaymas aquifers per Comisión Nacional del Agua (CONAGUA) reports on aquifer availability (CONAGUA, 2024a; 2024b). The aquifer areas are shown in Figure 20-3.

Figure 20-1: Regional Hydrological Setting



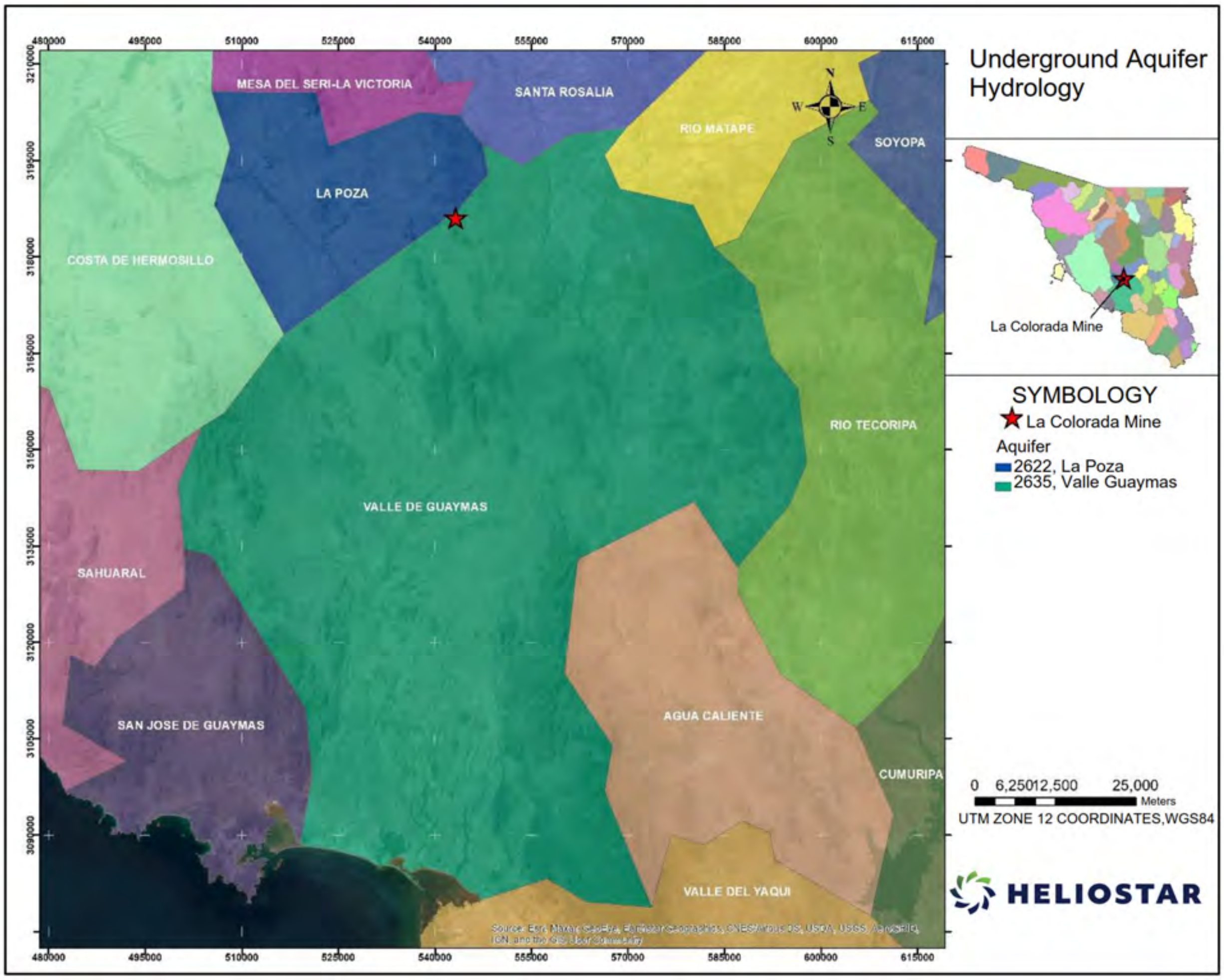
Note: Figure prepared by Heliostar, 2024.

Figure 20-2: Surface Water Bodies and Water Sampling Locations



Note: Figure prepared by Heliostar, 2024.

Figure 20-3: CONAGUA Aquifer Designations and Locations



Note: Figure prepared by Heliostar, 2024

There are two types of hydrogeological formations in each zone: an alluvial, unconfined aquifer associated with arroyos and surficial materials, and an underlying fractured rock aquifer. The La Poza aquifer was described as having a transmissivity between 4.4 x 10-5 to 13.5 x 10-3 m^2/s, based on four pumping tests (CONAGUA, 2024a). The Valle de Guaymas shallow aquifer was described as consisting of gravels and sands with fine materials, that have a high permeability, thicknesses varying between 200 and 400 m. The shallow aquifer is hydraulically connected to the deeper semi-confined aquifer. The transmissivity of the deeper aquifer was reported as 1 x 10-3 m^2/s to 71 x 10-3 m^2/s (CONAGUA, 2024b).

The CONAGUA report on the Valle de Guaymas aquifer (CONAGUA, 2024) included cross-sections that intersect close to the mining operations. Figure 20-4 shows the locations of three cross-section lines A–A', B–B', and C–C'; Figure 20-5 shows cross-section line A–A', which is the cross-section line that passes close to the mining operations. Alluvial materials are relatively shallow, thin, and discontinuous.

No site-specific information regarding aquifer hydraulic characteristics, extents or thicknesses was available for the QP's review. The QP notes that the aquifer administrative boundaries are primarily based on regional geologic maps with very little subsurface data. It cannot be assumed that the CONAGUA reports apply to site-specific conditions. A site-specific hydrogeological study should be carried out to understand the groundwater setting, especially the occurrence of groundwater, the phreatic level, and groundwater flow direction(s).

The Mexican water commission (CONAGUA, 2024) has determined that the Valle de Guaymas aquifer is overexploited and is in a water balance deficit; however, the La Poza aquifer has availability for additional water concessions.

The water monitoring program is to sample 12 locations quarterly and to prepare summary reports twice annually. The 12 locations include one surface water sample in the El Crestón open pit, and 11 monitoring wells (MW-04, MW-11, MW-12, MW-14, MW-18, Pozo Los Gatos, MW-19 [also known as Pozo Noreste], 20LCWW [also known as Pozo Los Gatos], Pozo Willis, Pozo Poli, Pozo Sotula and Pozo Rancho Juvera).

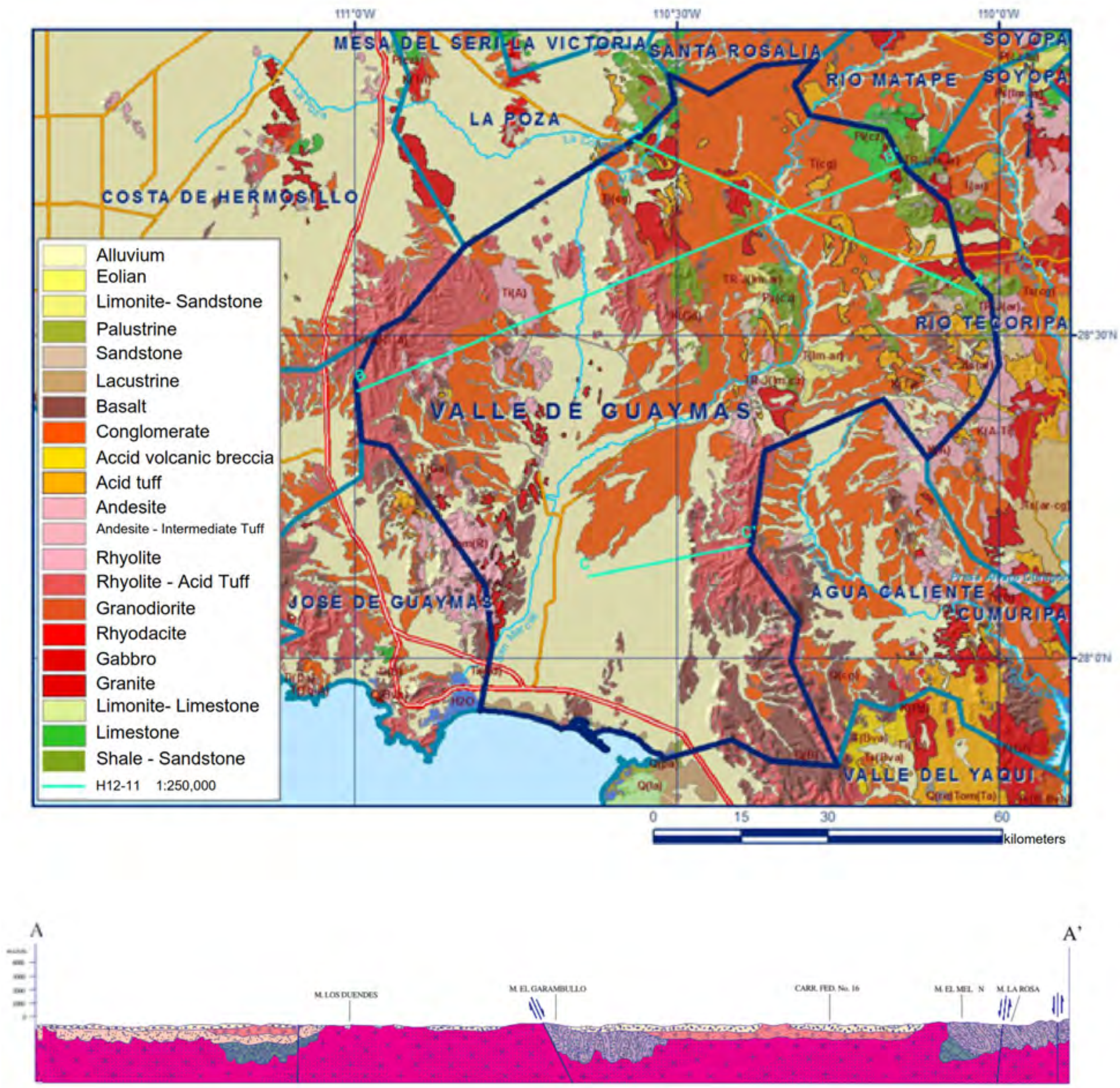
Well Poli is the domestic water well for the Town of La Colorada. The town is responsible for administration of Well Poli, including water treatment. Well Juvera is the water supply well for a private ranch.

The sampling locations were included on Figure 20-2.

Only one surface water quality sample was collected in 2023. A surface water sample was collected from the El Crestón open pit. The pit lake water, which is a combination of surface runoff and groundwater, exhibited elevated total hardness, total dissolved solids, and sulfate concentrations above surface water discharge standards established in NOM-001-SEMARNAT-2021 (see Section 20.3 for more information on the Mexican regulatory standards). SEMARNAT is the Secretariat of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales).

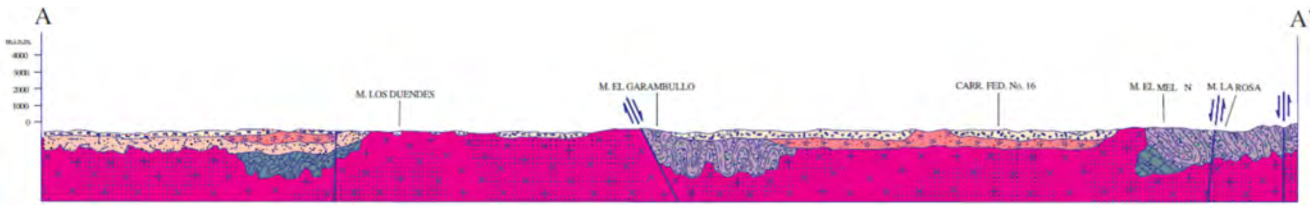
The 2023–2024 groundwater quality data show elevated levels of hardness, total dissolved solids and sulphates in multiple samples, with the highest sulfate concentrations around the PLS pond. The July 2024 data for MW-04, located adjacent to the PLS pond, also exhibited elevated biochemical oxygen demand and lead. The July 2024 samples all exhibited oil and grease, which was later determined to be an error by the analytical laboratory. New analyses for this parameter were requested in October 2024.

Figure 20-4: Regional Geological Map and Cross-Section Locations



Note: Figure from CONAGUA (2024b). Cross-section line locations shown as aqua lines.

Figure 20-5: Geologic Cross-Section A–A'



Note: Figure from CONAGUA (2024b).

Historical water quality sampling around the heap leach facility showed concentrations of cyanide, in particular in MW-04, which is adjacent to the PLS pond (see Figure 20-2). The material from the original heap leach facility was removed and re-stacked, which is believed to have mitigated the situation because no cyanide was detected in the 2023 results from any of the wells.

In general, the monitoring well waters appear similar to the domestic well water, with elevated concentrations of sulfate in the domestic well. Continued monitoring and investigation are warranted to ensure that the Town of La Colorada is not impacted by this historical release, and the continued presence of high concentrations of sulfates. The QP notes that the mine operations do not discharge water.

Some of the water quality results for freshwater wells located outside of the mine site (that is, wells Sotula and Willis) also showed elevated sulfate concentrations in 2023. The source(s) of the elevated sulfate concentrations is not clear and should be assessed.

The QP notes that Mexico has not established groundwater quality standards but applies the end-use designation for establishment of standards. Sulfate is regulated under the drinking water regulation, and it is used as an indicator constituent for unplanned discharges from mining facilities. The elevated sulfate concentrations around the pregnant leach solution ponds suggest that there may be process water seepage from the ponds or the heap leach facility. The high concentrations of total dissolved solids in the wells around the pregnant leach solution ponds are also an indication of impacted water.

The QP notes that no well construction data were provided, nor has any hydraulic testing of the wells been provided. The effectiveness of the monitoring network to detect leakage from the heap leach facility and ponds cannot be accurately assessed without better understanding of the hydrogeological setting. In addition, the procedure for groundwater sampling does not meet international industry practices, and the current procedure to use a bailer to collect a sample is unlikely to be adequate to obtain a representative sample from the aquifer(s).

20.2.5 Known Environmental Issues

There are currently no known environmental issues that could materially impact Minera Pitalla's ability to extract the Mineral Resources or Mineral Reserves. As noted in Section 20.2.4, the site water quality data suggest continued possible seepage/leakage from the processing facilities, but this in and of itself is not likely to impact Minera Pitalla's ability to extract and process ore.

20.3 Waste Management and Monitoring

The operations at La Colorada generate the following mining waste streams:

- Waste rock from the mining operations;
- Spent ore from the heap leaching operations;
- Spent activated carbon from the hydrometallurgical processing operations.

Because La Colorada is a heap leaching operation, no tailings are generated that require management and disposal.

The official Mexican Standard NOM-157-SEMARNAT-2009 establishes the requirements to prepare a Mining Waste Management Plan. The plan objective is to assure the integral management of mining waste, considering administrative, economic, technological, social and environmental aspects. The Mining Waste Management Plan establishes the baseline with the purpose of defining the objectives, actions and goals for prevention, reduction and use of mining waste. During operations, Mexican regulations require the monitoring, on an annual basis, of a composite sample based on two samples per month of mining waste (waste rock and leached ore) until the end of the Project life.

20.3.1 Initial Characterization Results of Mining Wastes

Minera Pitalla conducted an initial geochemical characterization program to evaluate the environmental stability of waste rock and leached ore. The program focused on determining the potential for generation of acid rock drainage (ARD) and metal leaching (ML).

The program for waste rock analysis was conducted following Mexican regulation NOM-157-SEMARNAT-2009 which requires analyzing each sample (dry base) for 10 elements (antimony, arsenic, barium, beryllium, cadmium, chrome, mercury, silver, lead and selenium). If the total concentration of any of these elements is above the NOM-157 permissible limits, a mobility procedure test has to be applied to the sample; in this case, the method used is the meteoric water mobility test. If the waste is produced during the mining process, such as waste rock, it must also be analyzed for acid generation potential using the acid-base accounting (ABA) test.

Leached ore was analyzed according to Official Mexican Standard NOM-155-SEMARNAT-2007. The laboratory analysis consisted of applying the meteoric water mobility test according to NOM-155.

The geochemical test program indicated that neither the mining waste nor the ore was expected to be acid generating or solubilize metals in concentrations that exceed Mexican standards. The extract concentration results for both samples are considered nontoxic because they did not exceed the permissible parameters of NOM-052-SEMARNAT-2005 applicable to the resulting extract (also listed in NOM-155) nor did the waste exhibit that it would generate acidic conditions using the ABA test under the terms of Official Mexican Standard NOM-141-SEMARNAT-2003.

20.3.2 2023 Characterization Results

Laboratory results from 2023 sampling and analysis were provided for QP review. The analytical results were as follows:

- Gran Central waste rock exceeded the total concentration permissible limit for lead but lead was non-detectable in the leaching test. The waste rock was classified as non-hazardous;
- Veta Madre waste rock results indicated that total lead exceeded the permissible limit, but no lead was detected in the leaching test. The pH analysis indicated that the material is hazardous;
- El Crestón waste rock results indicated that the total lead concentration exceeded the permissible limit but lead result did not exceed the leaching test permissible limit. The waste rock was not hazardous or acid-generating.

The QP notes that the characterization of the mining wastes for both the initial and 2023 testing programs were based on five samples that may not be representative of the entire volume or heterogeneity of wastes generated. The 2023 testing results also warrant further assessment to determine long-term water quality predictions and to support closure planning.

The QP notes that waste characterization was carried out only on existing wastes, and does not include future planned wastes.

20.3.3 Waste Water Management

Sewage water is treated using septic systems that meet the specification of the Official Mexican Standard NOM-006-CNA-1997. The effluent of the septic tanks is analyzed according to the Official Mexican Standard NOM-001-ECOL-1996, which establishes the permissible discharge parameters limits. A certified third-party contractor is responsible for evacuating the septic tanks and transporting the wastewater offsite for disposal.

A wastewater discharge permit from CONAGUA has been issued for Minera Pitalla.

20.3.4 Hazardous and Non-Hazardous Waste Management

Non-hazardous waste is managed in agreement with the municipal service. Trash containers are strategically located on the Project premises, promoting the recycling of wood, cardboard, plastic and scrap metals. Current buyers of recycled materials are contracted to recycle these wastes, as well as industrial wastes such as conveyor belts, geomembrane scraps from leach pad liner and air filters. Current buyers of these wastes are approved by the state government to recycle the different materials mentioned.

Hazardous waste management infrastructure is included for the Project, to collect, transfer and store the different types of waste generated by the Project activities. Minera Pitalla has registered with SEMARNAT as a Hazardous Waste Generator. Hazardous waste is identified using specific labels and containers must be specific for each type of waste.

A General Temporary Warehouse for hazardous waste is used for the Project. Storage of any hazardous waste must not exceed three months in this temporary storage location. An authorized company is contracted for transport and final disposal of hazardous waste. The contracted hazardous waste company is responsible for issuing a manifest document for generation, transport and final destination movements. The actions above meet the Mexican environmental requirements.

20.3.5 Air and Noise Emissions

Smoke, dust and noise emissions occur at the Project. Machinery and equipment operation during the different phases of the Project result in smoke and noise emissions. Ore and waste rock haulage (trucks and belts), road operations and vegetation clearing are the main activities that generate dust emissions. Considering the current status of operations at La Colorada, the levels of emissions are not significant, as the open pits are not operating. Water trucks are used to reduce dust from roads.

Required monitoring of total suspended particulates per Official Mexican Standard NOM-035-SEMARNAT-1993 and particulate matter <10 µm (PM_{10}) particulates per NOM-025-SSA1-2021 is carried out by a certified laboratory. Fixed sources of emissions at the mine include two dust collectors at the assay laboratory, one dust collector at the plant for foundry emissions, two boilers at the plant, two kiln generation ovens and two foundry ovens. For PM_{10} particulate monitoring, three high-volume samplers are used. Combustion gas concentrations were also measured at the fixed sources of emissions.

The 2023 testing for total suspended particulates, PM_{10} particulates and combustion gases were all within regulatory limits.

Minera Pitalla conducts voluntary PM_{10} monitoring weekly in three locations in the town to assess fugitive emissions. The town is downwind of the mining operations based on the predominant wind direction.

Noise related to machinery and equipment operation occurs in proximity to the local population of La Colorada, and monitoring is required by environmental law in accordance with health and safety standards regulated by NOM-011-STPS-2001.

20.3.6 Water Management

The La Colorada Project is a zero-discharge operation, using lined process water ponds and ditches to convey cyanide solutions to and from the heap leach pads. No process solutions are discharged outside of the mine. Stormwater is managed through facility-specific diversion ditches, as necessary.

The open pits capture local runoff. When the pits were operated, they were dewatered. Since dewatering was discontinued, lakes have formed in the bottoms of the open pits. Pit lake waters are a combination of local runoff and groundwater.

Additional make-up water is obtained from water concessions for industrial use authorized by CONAGUA for 52,960 m^3/a from water supply well Willis and 117,517.6 m^3/a from water supply well Sotula.

Management of waterfowl at the operations has been problematic. Waterfowl are attracted to the ponds, including the PLS pond, and the current system of a net cover has not deterred waterfowl from landing on the pond. Site personnel have also reported the presence of snakes, rodents, deer, javelina (a type of peccary), and desert tortoises at the site.

20.4 Project Permitting Requirements

20.4.1 Mining Law and Regulations

The Mexican Constitution contains provisions for the regulation of natural resources in Article 27, which is regulated by the Mexican Mining Law for mining activities such as exploration, mining, and processing activities. The Mexican Mining Law was updated in 2023, and interpretation of the law into a regulation is pending.

The primary environmental law is the General Law on Ecological Equilibrium and Environmental Protection (Ley General de Equilibrio Ecológico y Protección al Ambiente or LGEEPA), which provides a general legal framework for environmental legislation. Key related Federal statutes include:

- General Law on Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable);
- General Law on Wildlife (Ley General de Vida Silvestre);
- National Waters Law (Ley de Aguas Nacionales);
- General Law on Climate Change (Ley General de Cambio Climático);
- General Law on the Prevention and Comprehensive Management of Waste (Ley General para la Prevención y Gestión Integral de los Residuos);
- General Law of Environmental Responsibility (Ley General de Responsabilidad Ambiental).

20.4.2 Water Resources

Water resources are regulated under the National Water Law, December 1, 1992 and its regulation, January 12, 1994 (amended by decree, December 4, 1997). In Mexico, ecological criteria for water quality are set forth in the Regulation by which the Ecological Criteria for Water Quality are established, CE-CCA-001/89, dated December 2, 1989. These criteria are used to classify bodies of water for suitable uses including drinking water supply, recreational activities, agricultural irrigation, livestock use, aquacultural use and for the development and preservation of aquatic life. The quality standards listed in the regulation indicate the maximum acceptable concentrations of chemical parameters and are used to establish wastewater effluent limits.

Discharge limits for wastewater have been established according to the receiving waters (NOM-001-SEMARNAT-2021). No groundwater environmental criteria have been established for naturally occurring groundwater. Permissible limits for potable water parameters have been established in NOM-127-SSA1-2021.

20.4.3 Ecological Resources

In 2000, the National Commission of Natural Protected Areas (CONANP) (formerly CONABIO, the National Commission for Knowledge and Use of Biodiversity) was created as a decentralized entity of SEMARNAT. As of November 2001, 127 land and marine Natural Protected Areas had been proclaimed, including biosphere reserves, national parks, national monuments, flora and fauna reserves, and natural resource reserves.

Ecological resources are protected under the Ley General de Vida Silvestre (General Wildlife Law). (NOM)-059-ECOL-2000 specifies protection of native flora and fauna of Mexico. It also includes conservation policy, measures and actions, and a generalized methodology to determine the risk category of a species.

Other applicable laws and regulations include: the Forest Law, December 22, 1992, amended November 31, 2001, and the Forest Law Regulation, September 25, 1998.

20.4.4 Environmental Permitting

The Secretariat of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, or SEMARNAT) is the main regulatory body in charge of enacting and enforcing environmental regulations throughout Mexico, including the issuance of environmental permits. SEMARNAT comprises multiple autonomous agencies with administrative, technical, and advisory functions, which are summarized in Table 20-1.

SEMARNAT regulates permitting or licenses under the regulations and standards derived from LGEEPA, divided in the following main topics:

- Hazardous materials and wastes: registration of generators, management plans, authorization to manage hazardous waste, contaminated soil remediation, import/export permits, environmental risk assessments and approval of accident prevention plans;
- Forest management: authorizations, notices, reports, inscriptions and records regarding timber and non-timber forest exploitation, commercial forest plantations, collection of forest biological resources, phytosanitary certificates, land use change in forest land, forest product transportation, storage and transformation centres of forest products, forestry technical services and national forest register;

Table 20-1: Overview of SEMARNAT Agencies

SEMARNAT Unit	Function
National Water Commission (Comisión Nacional del Agua, or CONAGUA)	Responsible for the management of national water, including issuing water concessions, water extraction permits (both surface water and groundwater), and wastewater discharge permits.
National Forestry Commission (Comisión Nacional Forestal, or CONAFOR)	Mandate is to develop, support, and promote the conservation and restoration of Mexico's forests.
Attorney General for Environmental Protection (Procuraduría Federal de Protección al Ambiente, or PROFEPA)	Monitors compliance with environmental regulations and responsible for the enforcement of environmental law.
National Commission for Natural Protected Areas (Comisión Nacional de Areas Naturales Protegidas, or CONANP)	Oversees the management and protection of 192 protected areas throughout Mexico.
The Safety, Energy and Environment Agency (Agencia de Seguridad, Energía y Ambiental, or ASEA)	Regulates and oversees industrial safety and environmental protection, and integrated waste management specifically with respect to hydrocarbon-related activities.
Instituto Nacional de Ecologia y Cambio Climatico (National Institute of Ecology and Climate Change or INECC)	Responsible for the coordination of technological and scientific research and development with a focus on environmental protection and conservation. This institute provides technical and scientific support to SEMARNAT for the instrumentation of the national environmental policy, so to promote and diffusion of criteria, methods and technologies for environmental conservation and sustainable use of natural resources. It also evaluates compliance of the goals and actions of the Climate Change National Strategy.
General Directorate of Environmental Impact and Risk (Subsecretaría de Gestión para la Protección Ambiental con la Dirección General de Impacto y Riesgo Ambiental, or DGIRA)	Responsible for issuing environmental permits and authorizations.

- Wildlife: CITES certificates for import and export, management units for wildlife conservation, extractive and non-extractive usage, authorizations, licenses for hunting, animal specimen register, scientific collections and wildlife conservation;
- Air: authorizations and procedures for operation and environmental compliance, as well as alternative methodologies for air care and quality improvement;
- Environmental impact and risk: environmental impact evaluation is a management instrument that guarantees, when approved, the sustainable development of investment projects, establishing the measures to protect the environment and for rational use of natural resources;

- Maritime and terrestrial: permit procedures for this zone are the instruments to give the rights to use and exploit beaches, federal zones and land gained to the sea, guaranteeing the organized and sustainable protection, conservation and exploitation for integral development of this zones.

SEMARNAT oversees the Official Mexican Standards (Normas Oficiales Mexicanas, or NOMs), which are mandatory technical regulations that establish the rules, specifications, and/or requirements. Key NOMs relevant to the mining operations are listed in Table 20-2.

20.4.5 Environmental Certifications

Minera Pitalla participates in the Empresa Socialmente Responsable (ESR), which is a voluntary program that accredits and recognizes leading companies for their commitment to provide social value to its operation before its own interests, through:

- Commitment to implementation and continuous improvement of a socially responsible management, as part of their culture and business strategy;
- Policies, strategies and programs that cover all areas and levels of action of the company;
- Orientation of the company towards a model of sustainable management and social responsibility;
- Identification of opportunities for improvement in the integral management of the company, and strengthening the confidence of the groups (stakeholders) with an interest in the company, which generates value added to the image and institutional competitiveness.

Minera Pitalla has received ESR certification for seven consecutive years. The ESR certification has become a significant benchmark for businesses in Mexico to show dedication to social responsibility and sustainable development.

The Minera Pitalla environmental management system is predicated on International Standardization Organization (ISO) 14001 type systems and integrates with the ESR.

Minera Pitalla is in the process of obtaining a clean industry certification under the Mexican “Industria Limpia” program managed by PROFEPA. This is an environmental certification program that encourages industries to adopt sustainable practices and to comply with environmental regulations. Participating companies undergo audits and inspections.

The PROFEPA inspection for Industria Limpia certification has been conducted and there is a deadline of October 7, 2024, for the agency inspectors to submit a report to SEMARNAT reviewers. SEMARNAT will have 60 working days to respond regarding award of the certification.

Table 20-2: List of Key Official Mexican Standards Applicable to Minera Pitalla's Mining Operations

NOM	Description
NOM-001-SEMARNAT-2021	Wastewater discharges
NOM-003-CONAGUA-1996	Water extraction and well construction
NOM-011-CNA-2000	Water conservation and evaluation of water availability
NOM-035-SEMARNAT-1993	Methodology to measure total suspended particles in air
NOM-043-SEMARNAT-1993	Maximum permissible limits of solid particles from fixed source emissions
NOM-045- SEMARNAT-1996	Maximum permissible limits for opacity of exhaust from vehicles
NOM-052-SEMARNAT-2005	Identification, classification and lists of hazardous waste
NOM-054-SEMARNAT-1993	Procedure to determine hazardous waste segregation
NOM-059-SEMARNAT-2010	Flora and fauna protection, including at-risk species
NOM-080-SEMARNAT-1994	Maximum permissible limits for noise from vehicle emissions
NOM-081-SEMARNAT-1996	Noise emissions
NOM-083-SEMARNAT-2003	Urban solid waste management
NOM-087-SEMARNAT-1995	Medical (biological and infectious) hazardous waste management requirements
NOM-120-SEMARNAT-2011	Environmental protection specifications for mining exploration activities
NOM-138-SEMARNAT/SS-2003	Hazardous waste management requirements
NOM-147-SEMARNAT/SSA-2004	Soil metal contamination management and remediation
NOM-155-SEMARNAT-2007	Environmental protection specifications for gold and silver heap leach facilities
NOM-157-SEMARNAT-2009	Mine waste management plans
NOM-161-SEMARNAT-2011	Special handling waste and management plans

20.4.6 Expropriations and Land Negotiations

Use and exploitation of goods and land expropriation of ejido and communal properties are subject to the provisions of agrarian laws. The following government agencies coordinate surface land management:

- Secretariat for Agrarian Development; Territorial and Urban (SEDATU): is in charge of promoting land ownership legal compliance, especially in rural areas. This institution is in charge of making the public policies to access justice and agrarian development;
- National Agrarian Registry (RAN): controls land ownership of ejidos and communities (communal land owners). This agency is in charge of all the legal procedures regarding land ownership legalization, issuing of land titles and certificates, regulation of land

authorities (ejidos, communities), registration and validation of any process regarding land ownership and also ejidatarios deposit their succession lists;

- Agrarian Prosecutor Agency (PA): Social service institution that serves to protect the rights of agrarian individuals. Its services include legal counselling for possession's conciliation or legal representation.

20.4.7 Free Trade Agreement

Canada, the United States and Mexico participate in a free trade agreement. The initial agreement, the North American Free Trade Agreement or NAFTA, was replaced in 2020 by the United States-Mexico-Canada Agreement (USMCA). NAFTA addressed the issue of environmental protection, but each country was responsible for establishing its own environmental rules and regulations. The USMCA retains many of NAFTA's provisions but introduces new rules and updates in areas such as digital trade, intellectual property and labour rights.

20.4.8 Permitting Process

Environmental permitting in Mexico requires four primary documents to be reviewed and approved by SEMARNAT:

- Manifestación de Impacto Ambiental (MIA): Mexican Environmental Impact Assessment, including MIA Modifications for any changes to project planning and operations. MIAs describe potential environmental and social impacts that may occur in all stages of the operation as well as the measures to prevent, control, mitigate or compensate for these impacts;
- Estudio Técnico Justificativo (ETJ): technical justification study for the Change in Land Use (Cambio de Uso de Suelo or CUS), that allows the land use to be changed to mining;
- Estudio de Riesgo Ambiental: Environmental risk assessment;
- Programa para la Prevención de Accidentes (PPA): accident prevention plan.

Federal environmental licenses (Licencia Ambiental Unica, or LAUs) are issued, which set out the acceptable limits for air emissions, hazardous waste, and water impacts, as well as the environmental impact and risk of the proposed operation. Figure 20-6 summarizes the environmental permitting process for the authorization of mining operations in Mexico.

20.4.9 La Colorada Environmental and Permitting Status

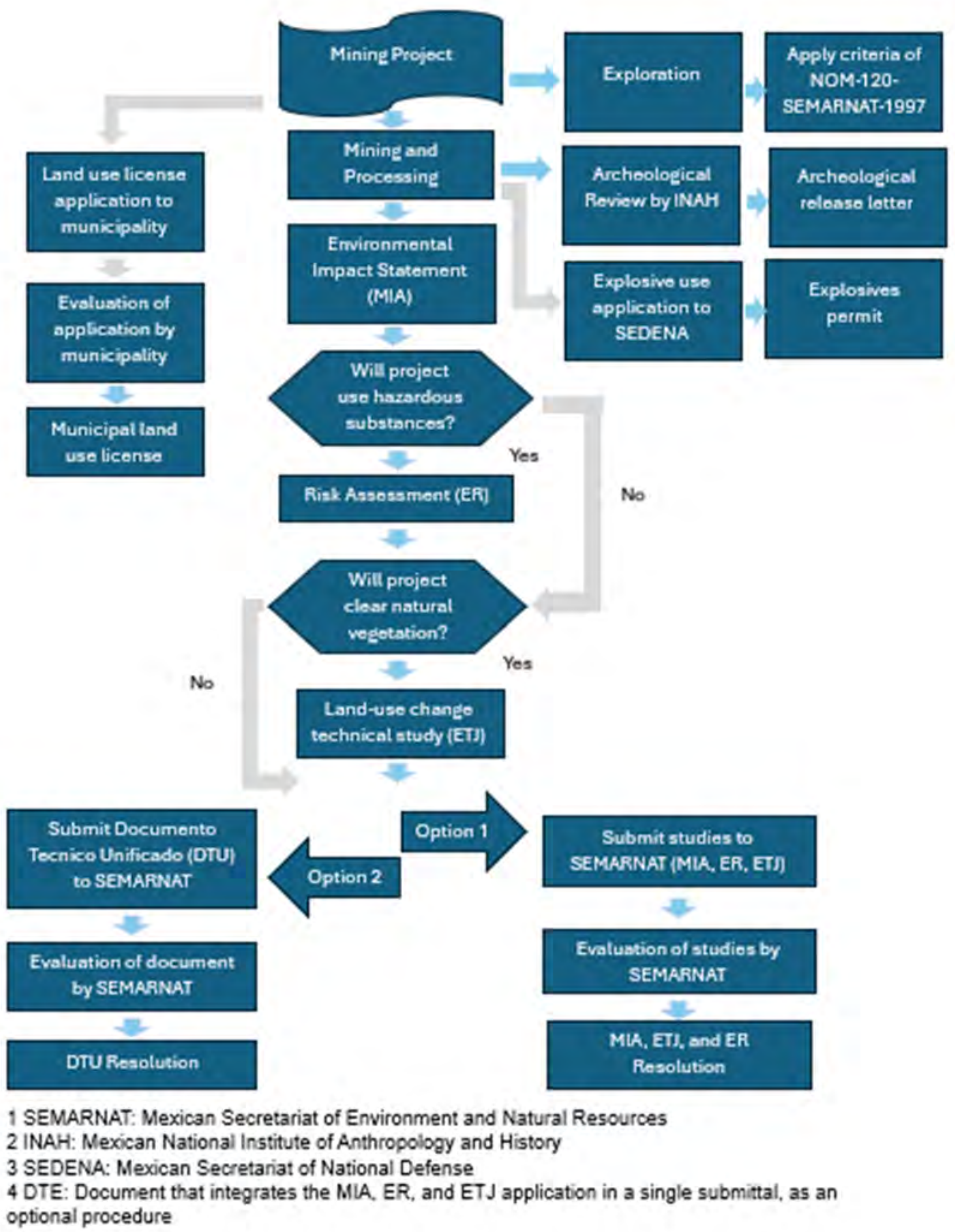
Permitting of La Colorada has essentially been divided into two phases. First, the existing facilities and operations at the time of Argonaut's acquisition were restarted through the expedited Preventative Notice (Informe Preventivo). The Preventative Notice was intended to provide a preliminary presentation of the project, its location and potential environmental impacts. The purpose of the Preventative Notice was to provide SEMARNAT with general information on the project to determine whether a MIA would be required and on what basis—regional or specific (particular). In certain instances, projects may be exempted from filing a MIA and may simply file a Preventative Notice. The exemption applies to projects for which there are official Mexican regulations, Norma Oficial Mexicana (NOMs or NORMs) in place that are implemented in the context of pre-approved development plans or within industrial parks already approved by SEMARNAT.

A Preventative Notice was submitted by Minera Pitalla to SEMARNAT in September 2011 as part of the restart of the La Colorada existing operations on previously disturbed ground. Approval was issued by SEMARNAT on October 20, 2011, to authorize the construction of new process water ponds (meeting both Mexican and international standards), a new heap leach pad onto which the previous ROM leach pad material will be relocated, and new plant site. The original ponds and pad are known to have leaked in the past, as was demonstrated through groundwater monitoring and the detection of cyanide in the downgradient wells. The expedited Preventative Notice approval process allowed Minera Pitalla to proceed with reconstruction of these facilities, including the complete refurbishment of the ADR plant site.

The second phase of the La Colorada restart involved mining of new material from the open pits (expansion), a new crushing circuit, and the construction of new heap leach facilities and waste rock disposal areas. These actions resulted in the encroachment of the mine on the town, and the relocation and resettlement of several residences and public plaza. These new facilities and activities required approval by SEMARNAT through the use of a MIA. The mine is currently re-leaching with no additional extraction of new materials from the open pits.

As with the environmental impact assessment, the land use change for the Project was also separated into two phases. Land use change authorization for the relocated ROM heap leach pad and new process ponds was originally granted by SEMARNAT on September 15, 2011.

Figure 20-6: Overview of Environmental Permitting Process for Mining Operations in Mexico



Note: Figure prepared by Stantec, 2024.

Several additional land use changes authorizations have been granted in recent years including additional El Crestón pit expansion in 2015, construction of a new community access road in 2017, authorizations for the expansion of the Veta Madre Phase 1 open pit in 2020 and 2021, and the Veta Madre Phase 2 in 2022.

The key existing permits are summarized in Table 20-3. The boundaries of the environmental permits are shown in Figure 20-7. The QP notes that the permit boundaries do not allow for a buffer zone that encompasses the entire mine disturbance footprint. A buffer zone is not required in the environmental permit for operations, but buffer zones are an industry standard for environmental protection and to allow for construction of an access road during post-closure monitoring. In addition, the QP notes that there is a small area on the north side of the heap leach facility (shown in brown on Figure 20-7) that appears to be part of the facility but is not within the permit boundary. That area is included in the proposed expansion, but is currently out of compliance.

Minera Pitalla is evaluating expansion of the mining and leaching operations. A new or modified environmental impact assessment and a land use change will be required for additional expansion. A permit for a land use change for expansion was applied for approximately three years ago but SEMARNAT has not replied to Minera Pitalla about the application. Lack of response is not uncommon, and under the current government administration environmental permitting has been severely delayed.

Minera Pitalla has been encouraging and supporting the conversion of ejido land associated with the expansion to private land parcels owned by ejido members. Individual negotiations are then completed with the landowners rather than the ejido.

20.5 Social and Community

The mining operations are located adjacent to the Town of La Colorada, which of 2024 had a population of 400 persons, almost equally divided between male and female. This is a significant reduction in population compared to the 2020 census by INEGI, which indicated 1,848 inhabitants. About 35% of the town population have completed secondary education.

The town is the municipal seat of the municipality of La Colorada. In the late 1800s, the population of the municipality was over 5,000 persons. Other small towns within the municipality are Tecorípa, Cobachi, Estación Torres and San José de Pimas. The surface area of the municipality is 4,123.05 km^2. Economic activities are livestock, agriculture, commerce and mining. About 40% of the town population is involved in livestock and agriculture, primarily cattle-raising and cultivation of beans, wheat and feed for cattle. About 33% are involved in mining. In 2023, about 100 employees working for Argonaut Gold were laid off in Hermosillo and in La Colorada due to the shutdown of the mining operations in the open pits.

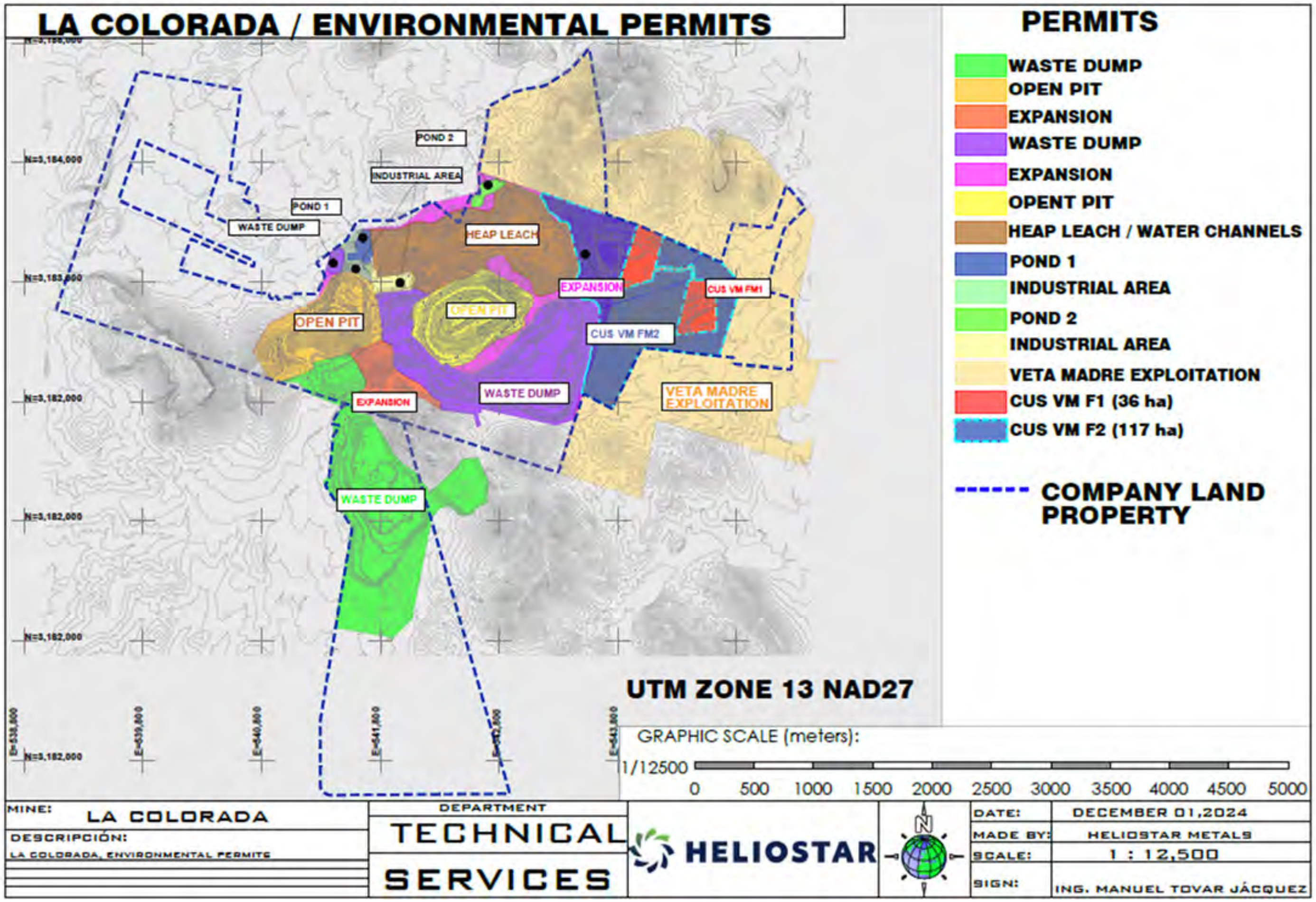
Table 20-3: Environmental Permit List and Required Reports

Permit type and identification	Activities Authorized	Dates of Authorization	Reporting Requirements	Report Due Dates
Environmental risk and impact license No. LAU-26/089-2013 Oficio No. DS-SG-UGA-IA-0322-12	Generation of emissions and hazardous waste: Crushing area with capacity of 3000 tons/day Beneficiation Plant	12-Apr-12	Submit Annual Operation Certificate Calculation report of the measurement and/or estimation of pollutant emissions to the atmosphere Monthly printed report attaching electronic backup Keep a logbook of operation and maintenance of process equipment, pollutant generators, control systems, or devices Identify hazardous waste	Certificate: from January 1 to April 30 of each year Calculation report must be safeguarded and available when required by the competent authority Logbook: Present it when requested by the Secretary
Update of environmental risk and impact license LAU No. LAU-26/089-201	Generation of emissions and hazardous waste: Crushing area with capacity of 3,000 tons/day Beneficiation Plant	28-Sep-22	Submit Annual Operation Certificate Calculation report of the measurement and/or estimation of pollutant emissions to the atmosphere Monthly printed report attaching electronic backup Keep a logbook of operation and maintenance of process equipment, pollutant generators, control systems, or devices Identify hazardous waste	Certificate: from January 1 to April 30 of each year Calculation report must be safeguarded and available when required by the competent authority Logbook: Present it when requested by the Secretary

Permit type and identification	Activities Authorized	Dates of Authorization	Reporting Requirements	Report Due Dates
Unified Procedure for Change of Forest Land Use, modality B -DTU-B Oficio No. SGPA/DGIRA/DG/09109	Change of land use	Valid for 53 years starting 23 November 2018	Closure and environmental restoration program for mining activities	Closure program: 9 months from the approval of the DTU-B and update it every 2 years
Change of land use Oficio No. DFS/SGPA/UARRN/41/2020	Open Pit Veta Madre Phase 2 Change of land use for a surface area of 114.4048 ha	Date of issue: 9 March 2022	Report flora rescue	Quarterly for 5 years
Extension of concession title and/or permit SON123285	Total volume of national groundwater concessioned/assigned: 42,000.0000 m^3	Date of issue: January 12, 2022 Validity: September 2, 2022, to September 1, 2032	Install a volume meter and extraction mechanism for national waters	Transmit readings daily to National Water Commission
Environmental impact statement Oficio No. DS-DG-UGA-IA-0220-2020	Open Pit Veta Madre Phase I Opening of the pit and auxiliary works such as waste rock (a type of construction material), workshop, power line, haul road, and local road. The project occupies an area of 96.859073 ha.	Issue date: 30 July 2020	Environmental monitoring and surveillance program	Semi-annual reports

Permit type and identification	Activities Authorized	Dates of Authorization	Reporting Requirements	Report Due Dates
Expansion for Veta Madre, Environmental impact statement Oficio No. DS-SG-UGA-IA-0380-2020	Expansion of the previously authorized pit, including all necessary supporting infrastructure, as well as the addition of new required areas (65.523 ha) for operation	Issue date: 11 February 2021	Environmental surveillance program	Maximum period of 2 months from the day after receiving the agency resolution Semi-annual reports of the monitoring results
Land use change Oficio No. DFS/SGPA/UARRN/32/2020	Open Pit Veta Madre Phase I Change of land use for surface area of 23.8986 ha	Issue date: 2 June 2020	Report flora rescue	
Modification of permit or concession SON151048	Annual extraction volume permitted: 117,517.6000 m^3	Date of issue: June 9, 2022 Validity: August 24, 2012, to August 24, 2042	Install a volume meter and extraction mechanism for national waters	Transmit readings daily to National Water Commission

Figure 20-7: Environmental Permit Boundaries



Note: Figure prepared by Heliostar, 2024.

The town has services such as mail, television signal, telephone, internet, banking and a rural medical clinic. About half of the streets are paved; the other half are unpaved.

A social baseline study was carried out in 2012 when Argonaut restarted the mining operations, and an updated social baseline study was conducted in 2023 (Universidad Tecnológica de Hermosillo, 2023). The baseline study reviewed information regarding social, economic and cultural aspects of the community, plus surveys were carried out to know the community's opinion on mining. One hundred and two homes in the municipality were given a questionnaire, and 285 persons were surveyed.

Social programs implemented by Minera Pitalla include preventative health programs, support of medical supplies, and maintenance of the ambulance that was donated by the company, as well as other health-related activities. About 86% of the population in the town has access to federal medical services provided by the Instituto Mexicano del Seguro Social (IMSS) or other medical insurance. About 68% of the population indicated that they do not have any chronic illnesses, 14% have respiratory problems and 8% have degenerative illnesses such as diabetes and hypertension. The surveys indicated that the residents are concerned about dust and the possibility of illnesses caused by dust.

There is a preschool, primary school and an online secondary school. For studies above those levels, students commute to Hermosillo, and Minera Pitalla supports the travel by donating diesel for the transportation vehicle. The company also provides financial assistance to all students in all education levels. About 96% of the community residents are literate.

About 2% of the community is identified as indigenous Pima or Seri and are three indigenous languages spoken by about 0.4% of the population (Yaqui, Seri and Mayo).

Based on 2020 INEGI data, Mexico's poverty rate was about 36%, and about 19% of La Colorada's population was moderately poor. As of 2023, only about 7% of the community members work in mining. About 85% of the population considered the town to be safe.

In-home potable water services are available for about 87% of the homes, and 60% of the homes drink bottled water. About 9% of the homes received water outside of the house and 5% received water via a water truck. Water is supplied for several hours each morning. Homes have a water supply tank or cistern to allow for water availability throughout the day. A concern of the community is water supply. Only 7% have sanitary services outside of the house. For the 93% of homes with inside sanitary facilities, 86% are connected to a sewage system. Most homes use the town garbage collection services and only about 3% burn garbage.

The survey indicated that the local government and Minera Pitalla joint social programs most recognized and of interest to community members were health programs (30%), education programs (20%) and urban development programs (17%).

Perceptions of respondents regarding the impacts of mining indicated:

- 72% considered that the impact of mining on water contamination was none to slightly serious;
- 76% considered that the impact of mining on wildlife was none to slightly serious;
- 55% considered the impact of mining to air quality to be very serious to serious;
- 73% considered the impacted of mining on degradation of the landscape to be none to slightly serious;
- 29% considered that the main source of contamination to drinking water are mines;
- 87% agreed strongly or slightly that mining supports municipal development;
- 82% agreed strongly or slightly that mining helps people;
- 70% agreed strongly or slightly that mining damages the environment;
- 84% agreed strongly or slightly that more mining projects should be opened in the municipality.

The survey reports that impacts from mining on the quality of life were noted primarily as contamination, dust and allergies.

20.6 Mine Closure and Reclamation

The Mexican mining law reforms, which were published on May 8, 2023, included specific directives regarding mine closure obligations. These are the key points:

- Mine closure plan: mining concession holders must submit a mine closure plan for approval by the Ministry of Economy. This plan outlines the procedures and actions needed for environmental repair, restoration, rehabilitation, or remediation, as well as social mitigation or compensation when mining operations cease;
- Financial guarantees: concession holders are required to provide a financial guarantee, such as an insurance policy, letter of credit, or deposit, to ensure the fulfillment of the prevention, mitigation and compensation measures specified in the mine closure plan;
- New grounds for termination: the law allows the mining concession to be terminated if a mine closure plan is not presented.

Additional implementing regulations associated with the mining law reforms were expected to be issued within 180 days (that is, early November 2023); however, none have been issued. While Mexico requires the preparation of a reclamation and closure plan, as well as a commitment on the part of the operator to implement the plan, the requirement for financial guarantees is still pending implementation. Environmental damages, if not remediated by the owner/operator, can give rise to civil, administrative and criminal liability, depending on the action or omission carried out. PROFEPA is responsible for the enforcement and recovery for those damages, or any other person or group of people with an interest in the matter. Also, recent reforms introduced class actions as a means to demand environmental responsibility from damage to natural resources.

The environmental permitting process requires that an environmental compensation cost is calculated and paid to SEMARNAT; however, that compensation cost is not held to cover final closure costs. Several of the environmental regulations include aspects of closure, but only in general terms of requirements to reclaim areas and to provide for physical stability of remaining facilities and that any post-closure discharges meet environmental permissible limits. SEMARNAT typically includes a requirement to submit a closure plan prior to closure as part of the environmental permit authorization. The authorization for the Veta Madre open pit expansion (SEMARNAT, 2020) included requirements for each stage of the mine life, including closure, with a closure plan to be submitted prior to closure. Closure methods required included disturbance areas are required to be revegetated, all buildings, machine bases and equipment will be removed to allow natural surface water flow, and the open pit will be left in stable conditions.

An Asset Retirement Obligation (ARO) was prepared by Minera Pitalla in 2023 to define the closure liabilities associated with the La Colorada Project (Minera Pitalla, 2023). The objectives of minimizing environmental degradation and preventing potential impacts to water quality and public health and safety would be achieved through long-term geotechnical and geochemical stabilization of areas disturbed by the mining activities; preventing erosion in surface areas; preventing contamination of surface water and groundwater; mitigating visual impacts to the landscape; and establishing conditions that enhance a self-sustaining ecosystem.

The ARO closure methods were presented in general terms with assumptions that more detailed closure designs will be determined later. The closure cost estimate was based on unit costs of equipment, time and materials to carry out the closure activities, with 2.5 years of post-closure monitoring. Each area was presented as a measured surface area; however, no drawing was included to show the measured areas. A summary of the closure cost estimate is presented in Table 20-4.

The current (2023) estimate by Minera Pitalla for closure of La Colorada Project is MXN$130,980,405.22 (US$6,543,158 based on the exchange rate of 20.0179 MXN:US$1, based on rates published by www.xe.com on 1 November, 2024).

The QP notes that the ARO is based on the present closure liability, but not the LOM scenario. The QP notes that the supporting studies to justify the conceptual closure assumptions have not been carried out, and that the closure planning should be advanced.

Table 20-4: Closure Cost Summary

Area	Surface Area (ha)	Cost (MXN)	Cost/Hectare (MXN)
Waste rock facilities	216.463	24,295,693.76	112,239.30
Open pits	120.387	6,719,966.44	55,819.69
Heap leach facility	90.162	60,992,878.18	676,479.16
Roads	38.119	3,869,186.01	101,501.64
Ponds	8.385	2,717,965.28	324,158.62
Processing plant	2.677	5,032,239.01	1,879,495.06
Monitoring		1,928,240.08	
Waste management		3,221,012.35	
Buildings and structures	15.591	3,171,883.16	203,438.65
Sub-total	*491.786*	*11,949,064.29*	*227,637.98*
Indirect costs		5,597,453.21	
Contingency		13,433,887.71	
Total Cost		***130,980,405.22***	

21.0 CAPITAL AND OPERATING COSTS

21.1 Capital Cost Estimates

21.1.1 Basis of Estimate

Capital cost estimates were derived from Heliostar's 2024 operating budget, mining contract quotes, Hard Rock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

21.1.2 Initial Capital Costs

The Project started operations in 2012, so all of the mining infrastructure and primary plant equipment are in place. A leach pad expansion is required for the LOM plan; costs for the expansion have been estimated by KCA based on their in-house database of leach pad construction costs in Mexico.

The initial construction on the leach pad expansion is part of the initial capital costs, as the current pad capacity will be used up by La Chatarrera material. The first eight months of stripping of the El Crestón pit prior to first ore production are also part of the initial capital along with the contractor mobilization.

A 15% contingency has been added to the infrastructure items and a 10% contingency for equipment.

The total initial capital for the Project is estimated at US$53.93 M.

21.1.3 Leach Pad Expansion Capital Costs

Capital costs for the expansion of the leach pad were estimated by KCA and were based on drawings from Heliostar for area requirements where Heliostar estimated 37 hectares would be required for the expansion. KCA then used a cost per unit area to estimate the capital requirements.

Area requirements were estimated by importing the Heliostar drawings into Civil 3D. A total of 36.9 ha of leach pad was estimated, which agrees very well with the site's estimate of an area of 37 ha.

Heliostar estimated approximately US$14/$m^2$ for the future leach pad expansion. This unit cost seemed low to KCA as the terrain under the proposed pad expansion is fairly irregular and there may be significant earthworks required. A leach pad design was not conducted and material take-offs including quantities of earthworks, liners, piping and gravel were not determined. A process water balance for the entire pad, including the expanded leach pad was not conducted. Solution storage ponds are currently not part of the expanded layout based on information from Heliostar.

However, La Colorada is very close to Hermosillo so no man-camp costs or long bus trips for workers, so overall pad cost per unit area may be lower than seen in other operations.

KCA reviewed leach pad costs in its files and has US$21/m^2 for a leach pad in Mexico located on gently sloping ground, but remote enough that most of the construction workers will be in a mancamp. KCA also has a leach pad cost of US$42/m^2 for a project in Mexico but it is at a remote location and the pad is located on fairly rugged terrain.

KCA recommended using US$30/m^2, or US$11.1 M for the 37 ha of leach pad. This should be a conservative capital cost estimate, and should have sufficient capital to add an additional storm event pond if needed.

21.1.4 Sustaining Capital Costs

Sustaining capital costs include a slope radar system for monitoring the pit slopes in the El Crestón and Veta Madre pits. The remaining costs for the leach pad expansion that are not completed during the first two years are also included in sustaining capital costs. In addition, the estimated closure costs of US$6.8 M are included as part of the sustaining capital.

21.1.5 Capital Cost Summary

The total capital cost estimate is provided in Table 21-1.

21.2 Operating Cost Estimates

21.2.1 Basis of Estimate

The operating costs include the ongoing cost of operations related to mining, processing, and general administration activities. Operating cost estimates were derived from actual historical costs, mining contract quotes, Heliostar's 2024 operating budget, and Hard Rock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

Operating cost estimates use terms that are non-International Financial Reporting Standards measures:

- All-in sustaining costs (AISC): as set out in the World Gold Council in its 2018 guidance note. AISC are the sum of operating costs (as defined and calculated above), royalty expenses, sustaining capital, corporate expenses and reclamation cost accretion related to current operations. Corporate expenses include general and administrative expenses, net of transaction related costs, severance expenses for management changes and interest income. AISC excludes growth capital expenditures, growth exploration expenditures, reclamation cost accretion not related to current operations, interest expense, debt repayment and taxes;

Table 21-1: Capital Cost Summary

Capital Costs	Initial (US$ M)	Sustaining (US$ M)	Total LOM (US$ M)
Mine pre-production development	43.40	0.00	43.40
Contractor mobilization	0.21	0.00	0.21
Slope radar system	0.00	0.50	0.50
Leach pad expansion	8.97	2.13	11.10
Total direct costs	***52.58***	***2.63***	***55.21***
Owner costs and reclamation	0.00	6.80	6.80
Indirects & contingency	1.35	0.37	1.72
Total indirect costs	***1.35***	***7.17***	***8.52***
Total	***53.93***	***9.80***	***63.73***

- Cash operating costs: include mine site operating costs such as mining, processing and administration, but exclude royalty expenses, depreciation and depletion and share based payment expenses and reclamation costs.

21.2.2 Mine Operating Costs

Mine operating costs are calculated using recent mining contracts and quotes from Heliostars operations in Mexico. Support services are estimated from historic actuals and from base principles for equipment, consumables, supplies, services and manpower requirements based on the mine schedule. Equipment fuel requirements are calculated based on required operating hours for each unit and haulage route profiles for the trucks. Diesel costs were estimated at US$1.10/L. The costs details by department over the life of the mine are shown in Table 21-2 and Figure 21-1 shows the distribution of these costs by department.

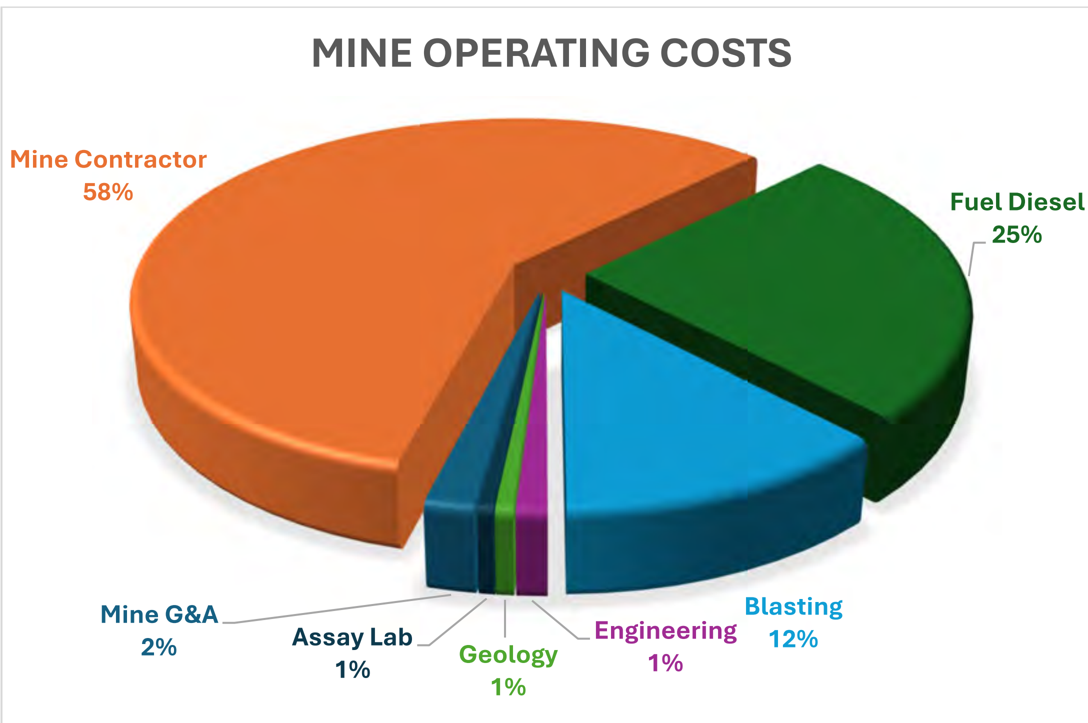
21.2.3 Process Operating Costs

Process operating costs for the La Colorada Mine have been estimated by KCA from first principles with input from Heliostar on power costs, reagent supply costs and historic mine operating costs. Labour costs were estimated using project specific staffing, salary and wage and benefit requirements. Unit consumptions of reagents, materials, supplies and power were also estimated. The first principles operating costs were then compared against the historic process operating costs and budget operating estimates for reasonableness.

Table 21-2: Mine Operating Costs

Department	Operating Cost (US$/t mined)	Operating Cost (US$/t ore)
Mine general and administrative	0.04	0.30
Mine contractor	1.20	9.95
Fuel diesel	0.52	4.33
Blasting	0.25	2.05
Engineering	0.02	0.19
Geology	0.01	0.11
Assay laboratory	0.01	0.10
Total	***2.06***	***17.02***

Figure 21-1: Mine Operating Cost Distribution



Note: Figure prepared by Hard Rock Consulting, 2024.

The operating costs estimates consider fixed costs (labor, support equipment, etc.) which are expected to be the same regardless of the material type or tonnes being processed and variable costs (reagents, power, wear, etc.) which are expected to change based on material type or total tonnes being processed and have been estimated for the Veta Madre, El Crestón and La Chatarrera dump material. Based on 2.6 Mt/a to be processed on average for El Crestón and Veta Madre and 4.2 Mt/a for the La Chatarrera WRSF, the average operating cost for Veta Madre material is estimated at US$5.56/t processed, El Crestón is estimated at US$6.68/t processed and La Chatarrera WRSF is estimated at US$4.60/t processed.

The operating costs presented are based upon the ownership of all process production equipment and site facilities. The Owner will employ and direct all operating maintenance and support personnel for all site activities.

Operating costs estimates have been based upon information obtained from the following sources:

- Project metallurgical test work and process engineering;
- Reagent and fuel costs from Heliostar based on existing contracts;
- Labour rates based on KCA experience and site data;
- Power supply costs from Heliostar and estimated power consumption by KCA;
- Recent KCA project file data; and
- Experience of KCA staff with other similar operations.

Where specific data do not exist, cost allowances have been based upon historical site operating data and benchmarking against other operations from which reliable data exists. All reagent costs are based on reagents delivered to site.

Operating costs were estimated based on 4th quarter 2024 US dollars and are presented with no added contingency. Where costs are provided in Mexican Pesos an exchange rate of 19 MXN to 1 US$ has been used. Operating costs are considered to have an accuracy of ±15%.

Average annual process operating costs for Veta Madre, El Crestón and La Chatarrera WRSF material were presented previously and are based on first principles estimates, were compared with historic operating cost data and were determined to be reasonable. These costs are summarized in Table 21-3.

Staffing requirements for process personnel have been estimated by KCA based on experience with similar sized operations with input from Heliostar based on historic labour requirements and costs. Total process personnel is estimated at 99 persons including 18 laboratory workers. Process labour costs are summarized in Table 21-4.

Table 21-3: Average Process Operating Costs

Description	Operating Cost (US$/t processed)		
	El Crestón	Veta Madre	La Chatarrera
Labor	0.863	0.863	0.533
Power	1.029	1.029	1.019
Reagents and consumables	3.596	2.481	2.029
Wear and maintenance	0.745	0.745	0.745
Support services	0.443	0.443	0.274
Total	***6.676***	***5.560***	***4.601***

Table 21-4: Process Labour Requirements

Description	Number of Workers	Cost (US$,000/yr)
Process supervision	8	661.2
Crushing and reclaim	10	158.1
Heap leach	20	285.7
Recovery plant	18	273.4
Process maintenance	25	485.3
Subtotal process	*81*	*1,864*
Laboratory	18	377
Total	***99***	***2,241***

Power usage for the process and process-facilities was derived from estimated connected loads assigned to powered equipment from the mechanical equipment list. Equipment power demands under normal operation were assigned and coupled with estimated on-stream times to determine the average energy usage and cost. The total attached power for the process and process infrastructure is estimated to be 6.3 MW, with an average draw of 3.1 MW. Line power is used to supply the Project site at rate of US$0.11/kWh (MXN 2.05/kWh) based on information provided by Heliostar.

Operating supplies have been estimated based upon unit costs and consumption rates predicted by metallurgical tests and have been broken down by area. Reagent unit costs have been supplied by Heliostar based on their current contracts. Freight costs are included in all operating supply and reagent estimates. Reagent consumptions have been derived from test work and historic usage. Other consumable items have been estimated by KCA based on KCA's experience with other similar operations. Operating costs for consumable items have been distributed based on tonnage and gold production/carbon batches, as appropriate.

Heap leach consumables include:

- Pipes, fittings and emitters: include expenses for broken pipe, fittings and valves, and abandoned tubing;
- Sodium cyanide (NaCN): primarily consumed in the heap leach and has been estimated for both remaining material types based on historic field consumptions. Average consumption of sodium cyanide is estimated at 0.4 kg/t for Veta Madre, 0.9 kg/t for El Crestón and 0.3 kg/t for the La Chatarrera WRSF material;
- Pebble lime (CaO): consumed as needed for pH control at the heap and is added at a rate of 4.6 kg/t for Veta Madre, El Crestón and La Chatarrera material based on metallurgical test data and historic field consumptions;
- Antiscale agent (scale inhibitor): added to the barren and pregnant pumping systems to prevent the buildup of scale within the process piping systems. Antiscalant is estimated to be consumed at an average rate of 0.06 kg/t.

Recovery plant consumables include:

- Carbon: used for the adsorption of gold from pregnant solution for the heap circuit. Carbon consumption is estimated at 3% per tonne of carbon processed due to attrition;
- Caustic: delivered to site in 25 kg bags and is consumed in the acid wash and strip circuits. Caustic consumption is based on a 2% caustic strip solution with approximately one third of the strip solution being discarded each strip.

Diesel fuel is consumed in the process by the carbon regeneration kiln and smelting furnace, as well as for mobile process support equipment.

Wear, overhaul and maintenance costs for equipment along with miscellaneous operating supplies for each area have been estimated as allowances based on tonnes of material processed. The allowances for each area were developed based on published data as well as KCA's experience with similar operations. Costs were also benchmarked against historic costs for these categories as well for reasonableness.

Costs for mobile and support equipment, such as fork lifts, heap dozer, trucks, etc. which are required to support processing activities have been estimated based on site data and typical equipment for other similar operations. The costs to operate and maintain each piece of equipment have been estimated primarily using published information and project specific fuel costs based on pricing from Heliostar.

21.2.4 General and Administrative Operating Costs

The general and administrative costs were developed from the QP's knowledge and experience as well as historical costs from past operations. The major general and administrative cost component is staff and labor, but general and administrative also covers such items as security, office equipment, heat and lighting, communications, overtime, property insurance, office supplies, computer system license fees, admin building maintenance, janitorial services, outside services and allowances for travel and meetings.

The costs details by department over the LOM are shown in Table 21-5. Figure 21-2 shows the distribution of these costs by department.

21.2.5 Operating Cost Summary

The LOM average cash operating cost is projected to be US$1,501/oz AuEq sold.

The LOM average base case total operating cost (including royalties and production taxes) is expected to be US$1,549/oz AuEq.

The total AISC summary per tonne of mill feed and per ounce of gold equivalent is expected to be US$28.90/t and US$1,763/oz AuEq respectively, as shown in Table 21-6.

Table 21-5: General and Administrative Operating Costs

Department	General and Administrative Operating Cost (US$/t ore)
Administration	0.47
Human relations	0.11
Security and safety	0.19
Accounting	0.08
Purchasing	0.06
Environmental	0.21
Total	***1.12***

Figure 21-2: General and Administrative Operating Cost Distribution

Note: Figure prepared by Hard Rock Consulting, 2024.

Table 21-6: Total Operating Cost Summary

Operating Costs	Operating Cost (US$/oz AuEq)	Operating Cost (US$/t ore)	Operating Cost (US$/t mined)
Total mining	1,038.63	17.02	2.06
Total processing	368.21	6.04	
Total site general and administrative	68.40	1.12	
Refinery and transport	26.37	0.43	
Cash operating costs	***1,501.61***	***24.61***	
Production taxes	27.14	0.44	
Royalties	20.00	0.33	
Total cash costs	***1,548.74***	***25.39***	
Capital costs	214.11	3.51	
Total AISC	***1,762.86***	***28.90***	

22.0 ECONOMIC ANALYSIS

The results of the economic analyses discussed in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Information that is forward-looking includes:

- Mineral Resource and Mineral Reserve estimates;
- Assumed commodity prices and exchange rates;
- Proposed mine production plan;
- Projected mining and process recovery rates;
- Assumptions as to mining dilution;
- Sustaining costs and proposed operating costs;
- Assumptions as to closure costs and closure requirements;
- Assumptions as to environmental, permitting and social risks.

Additional risks to the forward-looking information include:

- Changes to costs of production from what is assumed;
- Unrecognized environmental risks;
- Unanticipated reclamation expenses;
- Unexpected variations in quantity of mineralized material, grade or recovery rates;
- Geotechnical or hydrogeological considerations during mining being different from what was assumed;
- Failure of plant, equipment or processes to operate as anticipated;
- Changes to assumptions as to salvage values;
- Ability to maintain the social license to operate;
- Accidents, labour disputes and other risks of the mining industry;
- Changes to interest rates;
- Changes to tax rates.

22.1 Methodology Used

The Project has been evaluated using a constant US dollar, after-tax discounted cashflow methodology based on a 5% discount rate. For personnel costs and material sourced in Mexico, an exchange rate of 19 pesos per US dollar was assumed. This valuation method requires projecting material balances estimated from operations and calculating economic analysis. Cashflows are calculated from sales of metal, less cash outflows such as operating costs, capital costs, working capital changes, royalties, any applicable taxes and reclamation costs. Resulting annual cash flows are used to calculate the net present value (NPV) and internal rate of return (IRR) of the Project. Tax calculations involve complex variables that can only be accurately determined during operations, and as such, the actual post-tax results may differ from those estimated.

22.2 Financial Model Parameters

The economic analysis was performed assuming a base case gold selling price of US$2,150/oz for Year -2 (2025) and US$2,000/oz for Years -1 to Year 5 (2026–2031). Gold metal prices are elevated in the economic analysis to reflect current metal price trends and recognizes the short LOM period remaining. The base case silver selling price is assumed to be US$26/oz for Year -2 (2025) and US$29/oz for Years -1 to Year 5 (2026–2031).

No price inflation or escalation factors were taken into account. Commodity prices can be volatile, and there is the potential for deviation from the forecast.

The economic analysis also used the following assumptions:

- The production period will be two years, although La Chatarrera WRSF is planned to be processed during this time;
- The production life is 4.1 years, with residual leaching of gold and silver continuing into Year 5;
- Cost estimates are in constant Q4 2024 US dollars for capital and operating costs, with no inflation or escalation factors considered;
- Results are based on 100% ownership with a 1% government NSR on revenue from gold and silver production;
  - Capital costs are funded with 100% equity (no financing assumed);
  - All cash flows are discounted to the start of the construction period using a mid-period discounting convention;
  - All metal products will be sold in the same year they are produced;
  - Project revenue will be derived from the sale of gold and silver doré.

22.3 Taxes

22.3.1 Taxes and Duties

The Project has been evaluated on a post-tax basis to provide an approximate value of potential economics. The Project was assumed to be subject to the following tax regimes:

- The Mexican corporate income tax system (Federal Income Tax) consists of 30% income tax. Federal income tax is applied on Project income after deductions of eligible expenses including depreciation of assets, earthworks and indirect construction costs, exploration costs, special mining tax, extraordinary mining duty and any losses carried forward;
- Mining tax in Mexico (Special Mining Tax) consists of 8.5% on earnings before interest, taxes, depreciation, and amortization. The special mining duty is applied on Project income after deduction of eligible exploration, earthworks and indirect costs expenses. Income subject to the special mining tax does not allow deductions for depreciation or allow losses carried forward.

At the assumed metal prices, total payments are estimated to be US$31.6 M over the LOM.

The Mexican value-added tax (Impuesto al Valor Agregado) is outside the economic valuation of this Project. The value-added tax is a 16% value added tax applied to all goods and services and is considered to be fully refundable. For the economic model, value-added taxes are not considered in the capital or operating cost estimate as it is assumed that value-added taxes paid versus value-added tax credits will be a net zero value during the period in which they occur.

Mexican tax law allows for the carry-forward of operating losses for the development of a property. The historic loss carry-forward is almost used up and is currently estimated at US$48,000 for the Mexican subsidiary company, Minera Pitalla.

22.3.2 Royalties

Royalties payable for the La Colorada include a 1.0% royalty due to the Mexican government as an “Extraordinary Mining Duty”. The 1.0% extraordinary mining duty represents US$5.9 M over the LOM and is included in the Project economics.

22.4 Economic Analysis

The financial analysis for the Project shows an after-tax net present value at a discount rate of 5% of US$25.93 M, an after-tax internal rate of return of 11.9%, and a payback period of 2.15 years.

Table 22-1 summarizes the projected cashflow; net present value at varying rates; internal rate of return; years of positive cash flows to repay the negative cash flow (payback period); multiple of positive cash flows compared to the maximum negative cash flow (payback multiple) for the project on both an after-tax and before-tax basis.

Table 22-1: Summary Economic Results

Project Valuation Overview	Units	After Tax	Before Tax
Total cashflow	US$ M	54.92	86.51
NPV @ 5.0% (base case)	***US$ M***	***25.93***	***49.77***
NPV @ 7.5%;	US$ M	14.99	35.82
NPV @ 10.0%;	US$ M	5.90	24.14
Internal rate of return	***%***	***11.9***	***17.2***
Payback period	Years	2.15	2.04
Payback multiple		1.35	1.55
Total initial capital	US$ M	53.93	53.93

The projected total lifespan of the Project is 4.1 years with two years of pre-production. Approximately 377,000 oz of gold is projected to be mined, with 287,000 oz recovered and produced for sale. The economic analysis was completed on an annual cashflow basis. The production schedule and cashflow output is shown in Table 22-2.

22.5 Sensitivity Analysis

A sensitivity analysis was performed on the base case to determine Project sensitivity to gold and silver price and grade, operating costs and capital costs.

22.5.1 Metal Price Sensitivity Analysis

The Project, like almost all precious metals projects, is very responsive to changes in the price of its chief commodity, gold. From the base case price of US$2,000/oz (years 2026–2031), a change in the average gold price of US$200/oz Au would change the NPV at a 5% discount rate by 108%, or approximately US$28.0 M (Figure 22-1).

As shown in Figure 22-1, the NPV is not very sensitive to the silver price as it only represents approximately 4% of the gross revenue.

Table 22-3 shows the economic sensitivities, due to the change in gold price, in the net cash flow, the net present value at 5%, the internal rate of return, the payback period, and the payback multiple.

Table 22-2: Cashflow Statement on Annual Basis

	Units	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	LOM
Open Pit Mine Production									
El Crestón ore mined	kt	—	1,517	2,040	4,052	4,380	853	—	12,841
Ag grade	g/t	—	12.03	10.79	11.41	8.80	5.87	—	10.13
Au grade	g/t	—	0.61	0.54	0.72	0.82	1.39	—	0.76
Veta Madre ore mined	kt	—	—	—	—	—	1,905	—	1,905
Ag grade	g/t	—	—	—	—	—	3.1	—	3.08
Au grade	g/t	—	—	—	—	—	0.70	—	0.70
La Chatarrera ore mined	kt	3,413	—	—	—	—	—	—	3,413
Ag grade	g/t	6.41	—	—	—	—	—	—	6.41
Au grade	g/t	0.20	—	—	—	—	—	—	0.20
Fill	kt	6,788	6,336	35	159	(0)	(0)	—	13,317
Waste	kt	7,708	32,237	36,160	20,803	11,479	10,303	—	118,691
Total tonnes mined	***kt***	***17,909***	***40,090***	***38,235***	***25,014***	***15,859***	***13,060***	—	***150,167***
Strip ratio	***ratio***	***4.2***	***25.4***	***17.7***	***5.2***	***2.6***	***3.7***	—	***7.3***
Other tonnes	kt	120	120	200	120	120	90	—	770
Total tonnes moved	***kt***	***18,029***	***40,210***	***38,435***	***25,134***	***15,979***	***13,150***	—	***150,937***
Process Production									
Ore to Heap	kt	**3,413**	**1,504**	**2,052**	**4,052**	**4,380**	**2,757**	—	**18,159**
Au grade	g/t	0.20	0.61	0.54	0.72	0.82	0.91	—	0.65
Ag grade	g/t	6.41	12.01	10.82	11.41	8.80	3.94	—	8.69
Income Statement									
Revenue									
Au ozs placed on pad	koz	22.0	29.5	35.5	94.3	114.9	81.0	0.0	377.2
Au ozs recovered	koz	13.6	14.6	34.8	63.9	85.3	73.3	2.0	287.4

	Units	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	LOM
Au cumulative recovery	%	62.0	54.8	72.5	70.0	71.6	75.7	76.2	76.2
Ag ozs placed on pad	koz	703.8	581.0	713.6	1,487.1	1,238.6	349.7	0.0	5,073.8
Ag ozs recovered	koz	167.6	76.7	176.5	246.8	244.0	80.0	0.9	992.5
Ag cumulative recovery	%	23.8	19.0	21.1	19.2	19.3	19.5	19.6	19.6
Au revenue	US$ x 1,000	29,252	29,129	69,674	127,702	170,542	146,555	3,980	576,833
Ag revenue	US$ x 1,000	4,860	1,995	4,589	6,417	6,343	2,081	22	26,307
Gross revenue	US$ x 1,000	34,112	31,123	74,263	134,119	176,885	148,636	4,002	603,140
Au refining and shipping	US$ x 1,000	(254)	(255)	(610)	(1,117)	(1,492)	(1,282)	(35)	(5,046)
Ag refining and shipping		(494)	(215)	(494)	(691)	(683)	(224)	(2)	(2,804)
Net revenue	US$ x 1,000	33,363	30,654	73,159	132,311	174,710	147,130	3,965	595,290
Royalties	US$ x 1,000	(334)	(307)	(732)	(1,323)	(1,747)	(1,471)	(40)	(5,953)
Net revenue	***US$ x 1,000***	***33,029***	***30,347***	***72,427***	***130,988***	***172,963***	***145,658***	***3,925***	***589,337***
Operating Expenses									
Mining									
Mine general and administrative	US$ x 1,000	501	645	1,264	1,173	1,107	775	—	5,464
Mine contractor	US$ x 1,000	11,606	31,879	57,631	38,583	22,244	18,789	—	180,732
Fuel diesel	US$ x 1,000	4,958	12,219	22,941	18,144	11,640	8,721	—	78,623
Blasting	US$ x 1,000	1,150	5,777	11,995	8,231	5,616	4,474	—	37,245
Engineering	US$ x 1,000	227	419	846	752	686	487	—	3,416
Geology	US$ x 1,000	95	245	495	433	389	278	—	1,936
Assay laboratory	US$ x 1,000	231	270	366	727	79	54	—	1,728
Total Mining	***US$ x 1,000***	***18,767***	***51,454***	***95,538***	***68,044***	***41,762***	***33,577***	—	***309,143***
Processing									
Plant general and administrative	US$ x 1,000	661	661	661	663	661	492	89	3,889
Crushing	US$ x 1,000	4,614	2,468	3,084	5,334	5,702	3,673	—	24,874
Reclaim and stacking	US$ x 1,000	1,565	825	1,037	1,813	1,940	1,250	—	8,429

	Units	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	LOM
Heap	US$ x 1,000	948	578	684	1,073	1,136	731	—	5,150
Reagents	US$ x 1,000	6,047	4,658	6,355	12,549	13,564	6,461	—	49,634
Recovery plant	US$ x 1,000	501	573	714	1,231	1,315	791	—	5,126
Electrowinning and refinery	US$ x 1,000	201	148	169	248	260	179	26	1,231
Water supply and distribution	US$ x 1,000	34	15	21	41	44	28	—	182
Support services/plant maintenance	US$ x 1,000	844	806	817	859	863	672	195	5,056
Assay laboratory	US$ x 1,000	1,024	968	984	1,045	1,052	786	164	6,024
Total Processing	***US$ x 1,000***	***16,439***	***11,699***	***14,526***	***24,855***	***26,538***	***15,064***	***474***	***109,596***
Site General and Administrative									
Administration	US$ x 1,000	1,189	1,552	1,534	1,556	1,552	1,118	122	8,624
Human relations	US$ x 1,000	283	343	343	344	343	269	78	2,003
Security and safety	US$ x 1,000	553	592	525	593	592	440	78	3,374
Accounting	US$ x 1,000	212	243	201	244	243	201	78	1,421
Purchasing	US$ x 1,000	188	215	178	215	215	147	0	1,158
Environmental	US$ x 1,000	620	661	590	663	661	493	90	3,778
Total general and administrative	*US$ x 1,000*	***3,044***	***3,606***	***3,372***	***3,615***	***3,606***	***2,668***	***447***	***20,358***
Special mining tax	***US$ x 1,000***	—	—	—	—	***1,850***	***6,228***	—	***8,078***
Cash operating costs	***US$ x 1,000***	***38,251***	***66,759***	***113,436***	***96,514***	***73,756***	***57,538***	***921***	***447,174***
EBITDA	***US$ x 1,000***	***(5,221)***	***(36,412)***	***(41,009)***	***34,473***	***99,207***	***88,121***	***3,004***	***142,164***
Depreciation	US$ x 1,000	—	—	16,412	11,655	8,283	20,576	—	56,927
Reclamation deduction	US$ x 1,000	—	—	—	—	—	—	6,803	6,803
Income before net operating losses and percent depletion	US$ x 1,000	***(5,221)***	***(36,412)***	***(57,421)***	***22,818***	***90,924***	***67,545***	***(3,798)***	***78,434***
Net operating loss adjustment	US$ x 1,000	5,221	36,412	57,421	(22,818)	(76,283)	0	0	(48)
Corporate income tax	US$ x 1,000	—	—	—	—	(4,392)	(20,263)	1,140	(23,516)
Taxable income, less tax	***US$ x 1,000***	—	—	—	—	***10,248***	***47,281***	***(2,659)***	***54,871***

	Units	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	LOM
Cash Flow Calculation									
Adjustments for Non-Cash Items									
Depreciation/reclamation/salvage	US$ x 1,000	—	—	16,412	11,655	8,283	20,576	6,803	63,729
Net operating loss adjustment	US$ x 1,000	(5,055)	(36,258)	(57,055)	23,480	74,936	—	—	48
Total adjustments for non-cash items	***US$ x 1,000***	***(5,055)***	***(36,258)***	***(40,643)***	***35,135***	***83,219***	***20,576***	***6,803***	***63,777***
Capital									
Investment, development expenses	US$ x 1,000	11,785	31,614	—	—	—	—	—	43,400
Investment, mine	US$ x 1,000	212	—	—	—	—	—	—	212
Investment, plant	US$ x 1,000	—	8,973	—	—	—	—	—	8,973
Capital indirects and contingency	US$ x 1,000	—	1,346	—	—	—	—	—	1,346
Total Capital	***US$ x 1,000***	***11,997***	***41,933***	—	—	—	—	—	***53,930***
Sustaining capital, mine	US$ x 1,000	—	—	500	—	—	—	—	500
Sustaining capital, plant	US$ x 1,000	—	—	2,127	—	—	—	—	2,127
Sustaining capital, indirects and contingency	US$ x 1,000	—	—	369	—	—	—	—	369
Reclamation	US$ x 1,000	—	—	—	—	—	—	6,803	6,803
Total capital and sustaining	***US$ x 1,000***	***11,997***	***41,933***	***2,997***	—	—	—	***6,803***	***63,729***
Beginning cash	***US$ x 1,000***	—	***(17,219)***	***(95,563)***	***(139,568)***	***(105,095)***	***(10,280)***	***57,577***	
Period net cash flow	***US$ x 1,000***	***(17,219)***	***(78,344)***	***(44,005)***	***34,473***	***94,815***	***67,857***	***(2,659)***	***54,918***
Ending cash	***US$ x 1,000***	***(17,219)***	***(95,563)***	***(139,568)***	***(105,095)***	***(10,280)***	***57,577***	***54,918***	***54,918***

Note: EBITDA = earnings before interest, taxes, depreciation, and amortization

Table 22-3: Gold Price Sensitivity Analysis

Au Price (US$/oz Au)	Net Cash Flow (US$ M)	After-Tax NPV At A 5.0% Discount Rate (US$ M)	IRR (%)	Payback Period (years)	Payback Multiple
1,000	-235.88	-203.08	—	0.0	0.0
1,200	-167.30	-149.64	—	0.0	0.2
1,400	-99.10	-96.46	-31.1	0.0	0.5
1,600	-30.90	-43.29	-7.0	0.0	0.8
1,800	19.43	-3.17	4.2	2.7	1.1
2,000	***54.92***	***25.93***	***11.9***	***2.2***	***1.4***
2,200	89.39	53.96	19.4	1.8	1.6
2,400	123.85	82.00	27.0	1.6	1.9
2,600	158.32	110.03	34.7	1.4	2.3
2,800	192.79	137.88	42.3	1.2	2.7
3,000	227.26	165.60	49.7	1.1	3.2

Note: Base case is highlighted.

Figure 22-1: Metal Price Sensitivity Analysis

Note: Figure prepared by Hard Rock Consulting, 2024.

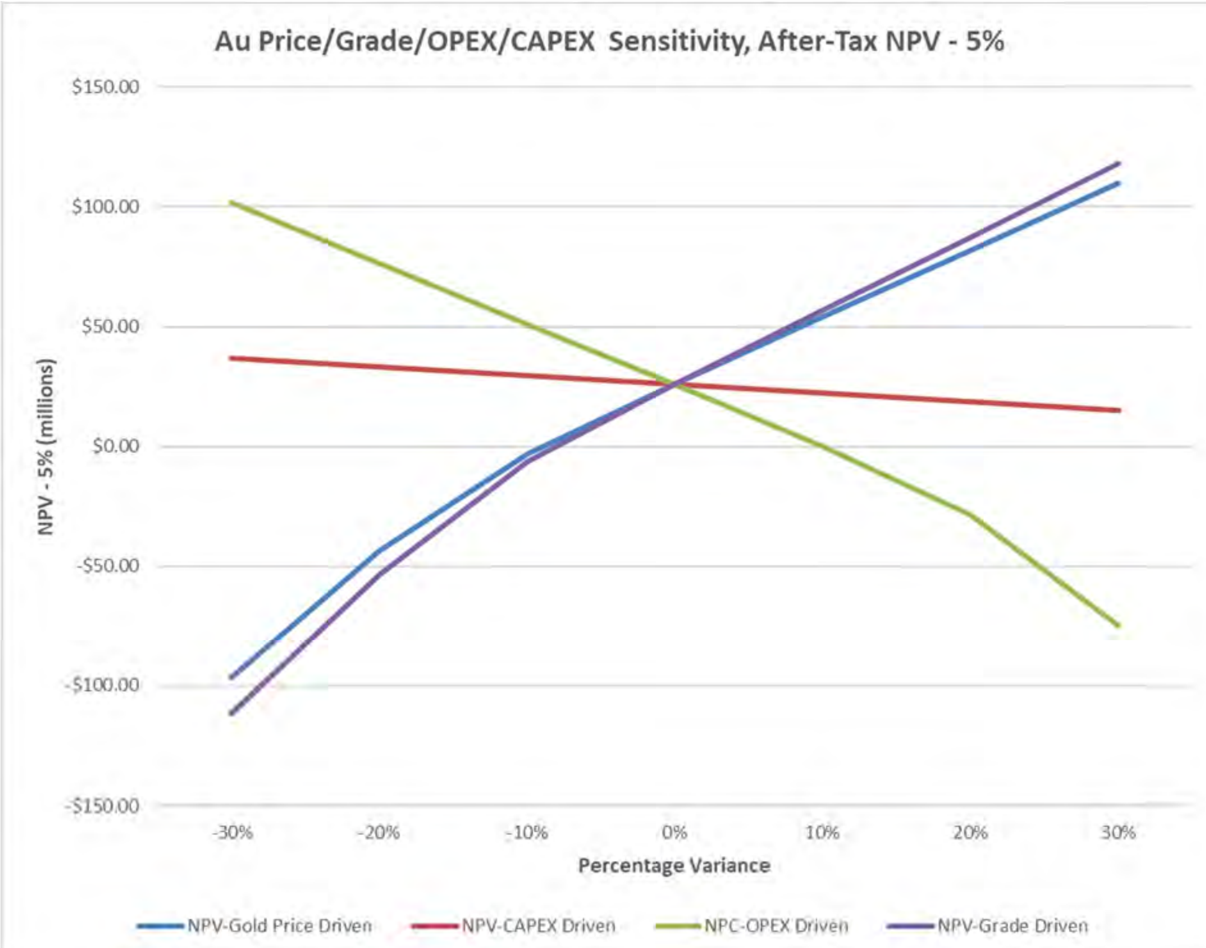
22.5.2 Grade, Operating and Capital Costs Sensitivity Analysis

The Project is most sensitive to grade experiencing an approximate 118% change in the NPV at a 5% discount rate for each 10% increase or decrease in grade.

The Project is very sensitive to the cost of operations, incurring an approximately 96% decline in the NPV at a 5% discount rate for each increase of 10% in the operating costs.

The Project is less sensitive to variances in the cost of capital, experiencing an approximate 14% decline in the NPV at a 5% discount rate for each increase of 10% in the capital costs, as shown in Figure 22-2.

Figure 22-2: Project Gold Price, Grade, Operating Cost and Capital Cost Sensitivity Analysis



Note: Figure prepared by Hard Rock Consulting, 2024. CAPEX = capital cost estimate; OPEX = operating cost estimate.

23.0 ADJACENT PROPERTIES

This section is not relevant to this Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this Report.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the reviews and interpretations of data available for this Report.

25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

The mineral tenure held is valid, and the granted mining licence is sufficient to support Mineral Resource and Mineral Reserve estimation.

Surface and water rights are granted, and sufficient to support mining operations.

There are no royalties for the La Colorada concession package. The Mexican Government imposes a mining duty of 8.5% of taxable earnings before interest and depreciation. In addition, precious metal mining companies must pay a 1.0% duty on revenues from gold, silver, and platinum.

25.3 Geology and Mineralization

The La Colorada deposit is an atypical gold–silver deposit located in the centre of Sonora. It is not similar to the typical epithermal systems of the Sierra Madre Occidental, with a marked northwest control and lesser northeast-trending structures. The deposit type is not well constrained and a number of deposit types have been suggested. The El Crestón deposit appears to be situated between possible deeper copper porphyry mineralization and a near-surface epithermal environment.

The geological understanding of the settings, lithologies, and structural and alteration controls on mineralization in the different zones is sufficient to support estimation of Mineral Resources and Mineral Reserves. The geological knowledge of the area is also considered sufficiently acceptable to reliably inform mine planning.

The mineralization style and setting are well understood and can support declaration of Mineral Resources and Mineral Reserves.

Material in the Eldorado WRSFs requires re-investigation for potential as heap leach feed material. Within the ultimate pit design at El Crestón, large areas are modeled as unmineralized material because those areas have not been drilled. Although the 2024 drill program is targeting some of this material, additional drilling is warranted. The oxide mineralized zones within the El Crestón pit remain open at depth. Mining and ore control in all three pits indicate that there are mineralized zones that remain open at depth. Argonaut internally evaluated the potential for underground mining operations below the open pits, and Heliostar plans to explore this opportunity. The mineralized zone at Veta Madre remains open to the east and west, and at depth and down plunge. Many of the main mineralized corridors exploited by the La

Colorada/Gran Central, El Crestón, and Veta Madre pits remain poorly tested along strike. Historical rock and soil sampling campaigns in the areas surrounding the La Colorada mine have defined a number of prospects and targets that remain either undrilled or minimally drill tested. The northern portion of the land package has not been systematically explored. Follow-up of all of these prospects is proposed.

25.4 Exploration, Drilling and Analytical Data Collection in Support of Mineral Resource Estimation

The exploration programs completed to date are appropriate for the deposit style.

Sampling methods are acceptable for Mineral Resource and Mineral Reserve estimation.

Sample preparation, analysis and security are generally performed in accordance with exploration best practices and industry standards.

The quantity and quality of the lithological, geotechnical, collar and down-hole survey data collected during the exploration and delineation drilling programs are sufficient to support Mineral Resource and Mineral Reserve estimation. The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the deposit style. Sampling is representative of the gold and silver grades in the deposits, reflecting areas of higher and lower grades.

The QA/QC programs adequately address issues of precision, accuracy, and contamination. Drilling programs typically included blanks, duplicates, and CRM samples. QA/QC submission rates meet industry-accepted standards.

The data verification programs concluded that the data collected adequately support the geological interpretations and constitute a database of sufficient quality to support the use of the data in Mineral Resource and Mineral Reserve estimation.

25.5 Metallurgical Testwork

Metallurgical testwork and associated analytical procedures were appropriate to the mineralization type, appropriate to establish the optimal processing routes, and were performed using samples that are typical of the mineralization style.

Estimated gold recoveries for future ore to be processed from the Veta Madre and El Crestón pits are 68% and 78%, respectively. Silver recoveries are estimated to be 5% (Veta Madre) and 19% (El Crestón).

Coarse bottle roll tests on samples from the La Chatarrera WRSF were completed at the site laboratory. Column leach tests are currently being conducted by the site laboratory on surface samples from La Chatarrera. Preliminary results indicate gold recoveries of 66% and silver recoveries of 27%.

Testwork indicates that there may be elevated copper levels in deeper parts of the El Crestón pit which led to higher cyanide consumptions in Laboratorio Technologico's testing results.

Additional work is required. The potential higher copper levels do not appear to affect gold recovery.

There are no other deleterious elements that adversely affect either mining or processing.

25.6 Mineral Resource Estimates

Mineral Resources are reported using the 2014 CIM Definition Standards, and assume open pit mining methods or stockpile rehandle.

Areas of uncertainty that may materially impact the Mineral Resource estimate include: changes to the long-term gold and silver prices and exchange rates; changes in interpretation of mineralization geometry and continuity of mineralization zones; changes to design parameter assumptions that pertain to the conceptual pit designs that constrain the Mineral Resource estimates; modifications to geotechnical parameters and mining recovery assumptions; changes to metallurgical recovery assumptions; changes to environmental, permitting, and social license assumptions; and the ability to obtain or maintain land access agreements, including specifically the for the Pima 3 concession at Veta Madre.

25.7 Mineral Reserve Estimates

Mineral Reserves are reported using the 2014 CIM Definition Standards, and assume open pit mining methods or stockpile rehandle.

The Mineral Reserves are based on layback pit designs for the El Crestón and Veta Madre pits. The fourth pit phase for El Crestón was split into two laybacks in order to spread out the stripping requirements. Similar to El Crestón a fourth phase is also planned for Veta Madre however to mine Phase 4, Heliostar must acquire access to a small parcel of private land and acquire the Pima 3 concession or a right-of-way to strip waste on the Pima 3 concession. Heliostar has a plan and timeline in place to obtain both the surface access and the legal right-of-way to the Pima 3 area and the QP considers it a reasonable expectation that both will be acquired within the required timeframe.

Mineral Reserves are also estimated for La Chatarrera.

As the economic analysis in Section 22 used higher metal prices than were used in the Mineral Reserve estimates, the QP performed a check to ensure that the Mineral Reserves returned positive economics at the Mineral Reserve commodity pricing. The results showed a positive after tax cashflow, thus verifying the Mineral Reserve estimates.

The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report. Heliostar will also need to obtain access to a small wedge of private land for surface access. The Probable Mineral Reserves potentially affected in Phase 4 are estimated at 1.9 Mt at an average grade of 0.70 g/t Au and 3.1 g/t Ag.

Other areas of uncertainty that may materially impact the Mineral Reserves include the following: variations in the forecast commodity price; variations to the assumptions used in the constraining L–G pit shells, including mining loss/dilution, metallurgical recoveries, geotechnical assumptions including pit slope angles, and operating costs; and variations in assumptions as to permitting, environmental, and social license to operate.

25.8 Mine Plan

The mine is currently on care and maintenance but mine plans have been developed for restarting the operation from three separate areas of the mine. A conventional truck and shovel operation is envisaged.

The El Crestón pit design slopes follow recommendations provided by Call & Nicholas Inc. The Veta Madre pit design slopes follow recommendations provided by A-Geommining.

The Mineral Resource estimates for El Crestón and Veta Madre are considered to be internally diluted. However, based on past reconciliation reports the QP has also applied a 10% external dilution factor and a 5% metal loss factor in the Mineral Reserve estimates.

Production of ore from La Chatarrera and the two open pits is driven by the nominal ore crusher capacity rate of 12,000 t/d, which is equivalent to 4.38 Mt/a and results in a mine life of approximately 5.5 years, with the inclusion of the two years of pre-production during which time La Chatarrera is processed.

During the mining of pit ore, the peak mineralized material and waste production is capped at 40 Mt/a with an overall average production rate of 78,000 t/d. The LOM average stripping ratio is estimated to be 7.3:1 with 132 Mt of waste and 18.1 Mt of ore.

Mining equipment is planned to be supplied by a mining contractor. All loading, hauling, drilling, basting and support services will be included within the mining contract.

25.9 Recovery Plan

La Colorada processed approximately 12,000 t/d of crushed (P80 9.5 mm) ore stacked onto a conventional single use leach pad until November 2023 when mining ceased. Leaching and gold/silver recovery has continued. Lime was added to the ore at an average rate of 4.6 kg/t the last year or so of operation for pH control. Dilute sodium cyanide leach solutions are treated with a single gravity cascade carbon column train of five columns with 6 t of carbon each. Loaded carbon is acid washed and stripped onsite with a standard pressure-Zadra desorption and electro-winning circuit. Carbon is regenerated every third pass. There is also a separate nearly identical stripping circuit used to process carbon from Heliostar's San Agustin mine, currently on care and maintenance, and the closed El Castillo mine. All metals are smelted on site and poured into doré bars for shipment.

Overall, with respect to gold recovery, reagents usage, and stated gold inventory estimates, the La Colorada heap leach has performed consistently in line with expectations based upon metallurgical testwork and is well within industry norms and benchmarks for similar types of operations.

25.10 Infrastructure

All infrastructure required to support the LOM plan is in place.

The only planned stockpile for the LOM plan is the crusher stockpile which is used to balance consistent ore feed to the crusher.

Two WRSFs will be used in the LOM plan. There is sufficient capacity within the WRSFs for LOM requirements.

Water is sourced from a combination of pit water and groundwater. Any water taken from open pit operations, either in the form of groundwater or surface run-off, can be used without a special permit. The Project also has permits for up to 360,000 m^3 of raw water on a yearly basis which is valid through the remaining mine life.

There is no camp site at the La Colorada Mine; all employees and contractors live off-site in nearby towns.

The operations have a dedicated 33 KV power line and 10 MVA substation, with power supplied by CFE. No upgrade to the power infrastructure is required and the current supply will support the proposed LOM plan.

25.11 Environmental, Permitting and Social Considerations

The site is in a historic mining district, outside of any environmentally sensitive or protected areas. Protected and endemic species are present in the region and have been observed onsite. Management of waterfowl at the operations has been problematic in the process ponds.

Certain revisions were made in 2023 to Mexican laws affecting the mining sector. The current and revised laws are subject to ongoing interpretation and in many instances the revised laws require implementing regulations. The regulations have not been promulgated and impacts are unknown.

Water quality in the El Crestón open pit exhibits concentrations of some parameters above Mexican permissible limits for surface water discharge; however, the water is not discharged from the site.

A hydrogeologic model that predicts inflow to the open pit will be required to advance to a prefeasibility level. Water quality in wells near the process ponds exhibit elevated sulfate concentrations that could be related to seepage from operations.

Post-closure a pit lake will develop in each of the open pits. Water quality of the pit lakes will need to be assessed for management during operations and in preparation for final permanent closure.

Waste rock static environmental testing has indicated that the samples tested are non-hazardous and not acid-generating. The limited number of samples may not be representative of the entire volume or heterogeneity of wastes generated, or the wastes to be generated in the future per the mine plan.

Minera Pitalla has received certification as a socially responsible company and certification for the commitment to adopt sustainable practices and to comply with environmental regulations.

The mining operations has the appropriate permits for environmental impact and land use, with exception of a small area on the north side of the heap leach facility that appears to be part of the operation disturbance but is not within the permitted area.

A new or modified environmental impact assessment and land use change permitting effort will be required for additional expansion. A permit for a land use change was applied for approximately three years ago, but no response was received from the Mexican environmental authority. Lack of response is not uncommon, and under the current government administration environmental permitting has been severely delayed.

Minera Pitalla did not report any organized opposition to the mining operations, although a survey conducted in 2023 indicated that most of the surveyed persons are concerned with environmental impacts, particularly air quality.

Minera Pitalla prepared a conceptual closure cost estimate based on conditions present in 2023. No supporting studies or detailed engineering designs have been developed. A LOM closure cost has not been prepared.

25.12 Markets and Contracts

Markets for doré are readily available.

A gold price of US$1,900/oz and a silver price of US$23/oz were used for estimation of Mineral Reserves to reflect a long-term conservative price forecast.

Higher metal prices of US$2,150/oz Au and US$26.00/oz Ag were used for the Mineral Resource estimates to ensure the Mineral Reserves are a sub-set of, and not constrained by, the Mineral Resources, in accordance with industry-accepted practice.

La Colorada was a contract mining operation with an Owner-operated process facility. With restart of operations the mining, explosives and blasting and leach pad construction contracts will have to be negotiated. Contracts are entered into with third parties, where required. At the Report effective date, there were contracts in place to cover diesel and fuel, gas, cyanide, lime, and core and RC drilling.

25.13 Capital Cost Estimates

Capital cost estimates were derived from Heliostar's 2024 operating budget, mining contract quotes, Hard Rock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

Total capital costs are estimated at US$63.73 M over the LOM, consisting of US$55.21 M in total direct costs and US$8.52 M in indirect costs.

25.14 Operating Cost Estimates

Operating costs include the ongoing cost of operations related to mining, processing, and general administration activities. Operating cost estimates were derived from actual historical costs, mining contract quotes, Heliostar's 2024 operating budget, and Hard Rock Consulting's and KCA's in-house database of projects and studies including experience from similar operations.

Total cash operating costs are estimated at US$1,502/oz AuEq, or US$24.61/t ore. Total cash costs are estimated at US$1,549/oz AuEq or US$25.39/t ore. All-in sustaining costs are estimated at US$1,763/oz Au or US$28.90/t ore.

25.15 Economic Analysis

The projected total lifespan of the Project is 4.1 years with two years of pre-production.

The financial analysis for the Project shows an after-tax net present value at a 5% discount rate of US$25.93 M. The after-tax IRR is 11.9%.

The Project is most sensitive to changes in the gold price and gold grade. It is less sensitive to operating cost changes, and least sensitive to changes in capital costs. It is not sensitive to changes in the silver price or silver grade.

25.16 Risks and Opportunities

25.16.1 Risks

25.16.1.1 Mineral Resources

The Mineral Resources at La Colorada have been classified to the Indicated and Inferred categories. The QP has used the criteria that grade, tonnage and metal estimates should have a 90% confidence interval of ± 15% on an annual basis. As such, there is a risk that over shorter time periods, the tonnage, grade and metal production may fluctuate by more than 15%.

25.16.1.2 Mineral Reserves

The Phase 4 layback at Veta Madre requires waste stripping in the Pima 3 concession area. The Pima 3 concession was granted in 2018; however, the official title has not yet been issued. Heliostar is legally entitled to right-of-way to strip this waste and was working on finalizing the agreement at the effective date of this Report. Heliostar will also need to obtain access to a small wedge of private land for surface access. The Probable Mineral Reserves potentially affected in Phase 4 are estimated at 1.9 Mt at an average grade of 0.70 g/t Au and 3.1 g/t Ag.

25.16.1.3 Process

There is a risk that the estimated recoveries for Veta Madre, El Crestón and the Chatarrera WRSF may be lower than expected. Additional testing is recommended. The testwork on samples from the La Chatarrera WRSF are still in progress and final results may be different than stated in this Report.

Sodium cyanide consumption for ore processed from El Crestón may be higher than estimated due to the potential higher cyanide soluble copper levels.

The estimated cost for the leach pad expansion is based on data in KCA files. A leach pad design was not conducted and material take-offs including quantities of earthworks, liners, piping and gravel were not determined. The estimated cost may be low.

A process water balance including the expanded leach pad was not conducted. Solution storage ponds are currently not part of the expanded layout based on information from Heliostar. If additional ponds are required, then the capital and operating costs may be low.

25.16.2 Opportunities

25.16.2.1 Mineral Resources

At El Crestón, there are a number of northwest striking mineralized structures which are not well-defined by the predominantly south-oriented drilling. This material has historically been recovered during mining.

As currently modelled, the Mineral Resources at El Crestón are limited at depth by a low-angle fault. It is possible that mineralization continues at depth below the fault.

25.16.2.2 Process

Currently, La Colorada is producing more gold than estimated by site personnel from continued leaching of the heap. This could be due to the slow leaching nature of the ore containing some coarse gold or from inadequate leaching of sections of the heap. Therefore, gold recoveries could be higher than estimated due to extended leach times.

Results from site column leach tests and from past operations indicate relatively low cyanide consumptions. It is possible that the sodium cyanide consumption estimated for El Crestón may be lower, which will lead to lower operating costs.

The preliminary column leach test results on Chatarrera composites are showing higher recoveries than the bottle roll tests. It is possible that gold recoveries could be higher than estimated.

The estimated cost for the leach pad expansion is based on data in KCA files. Leach pad design and estimates of material take-off quantities were not conducted. The estimated cost may be high.

25.17 Conclusions

An economic analysis was performed in support of estimation of the Mineral Reserves; this indicated a positive cash flow using the assumptions detailed in this Report.

26.0 RECOMMENDATIONS

26.1 Introduction

A single phase work program is proposed for all disciplines other than exploration, where a two-phase program is recommended, and provided by discipline area. The total budget required to complete the suggestions is approximately US$9–US$9.7 M, depending on whether the work is completed internally or a consultant is used. The majority of the work can be conducted concurrently. The second work phase proposed for exploration would depend on the results of the proposed regional, grassroots exploration and geophysical survey program in the first exploration work phase.

26.2 Exploration

The exploration activities are divided into two work phases.

The first work phase consists of drilling known prospects and district-scale grassroots exploration activities, and totals approximately US$7.7 M.

Key drill targets include:

- Historical stockpile drilling;
- El Crestón inpit drilling;
- El Crestón depth potential drilling;
- Grand Central underground potential drilling;
- Veta Madre depth and lateral extension drilling;
- Near mine exploration drilling.

A regional drone based magnetic geophysical survey should be conducted in support of these exploration programs. This survey would be aimed at delineating regional structures that control and cross-cut mineralization.

District exploration should also be undertaken and would involve systematic stream sediment sampling, geological mapping and rockchip/soil sampling.

The second work phase would consist of drill testing any areas of significant anomalism identified from the regional grassroots and geophysical exploration programs. The recommended budget is US$0.5 M.

A list of programs and budgets are presented in Table 26-1. An all-in cost for core drilling, including drilling, surveying, logging, and assaying, is $185/m. The district exploration mapping and sampling budget is based on two geologists mapping and sampling for six months, sample collection and assaying of approximately 3,650 rock and soil samples.

Table 26-1: Recommended Exploration Program

Program Phase	Exploration Program	Budget (US$)	Drilling (m)
Recommendations phase 1	Historical stockpile drilling	555,000	3,000
	El Crestón inpit drilling	1,480,000	8,000
	El Crestón depth potential drilling	555,000	3,000
	Grand Central underground potential drilling	1,850,000	10,000
	Veta Madre depth and lateral extension drilling	925,000	5,000
	Near mine exploration drilling	1,850,000	10,000
	District exploration programs (drone geophysical survey, geological mapping and geochemical sampling)	500,000	
	Subtotal	*7,715,000*	*39,000*
Recommendations phase 2	District exploration drilling	555,000	3,000
	Subtotal	*555,000*	*3,000*
Total		***8,270,000***	***42,000***

26.3 Process

Additional metallurgical testing is required to confirm metallurgical recoveries and reagent requirements for the Veta Madre and El Crestón material types. Drilling to obtain metallurgical samples for some of this work is currently in progress. The column leach tests on composites from the Chatarrera WRSF should be completed and reviewed in detail.

The recommended programs should include at least four column leach tests and approximately 12 coarse bottle roll tests on Veta Madre and six to eight column tests and approximately 24 coarse bottle roll tests on El Crestón. Head characterization data and small bottle roll tests for variability on mineralized intervals should also be conducted. The total cost of this work will likely be approximately US$200,000, not including any drilling costs.

A design and capital cost for the leach pad expansion are required. A process water balance needs to be conducted to determine if additional solution storage is required due to storm events. The cost for the above work is approximately US$50,000.

26.4 Environmental and Permitting

Recommendations have been divided into two sections, depending on whether they are aimed at general improvements, or require investigation and data collection.

26.4.1 Studies and Improvements

Bird deterrent methods should be studied to assess how to prevent waterfowl from entering the process ponds.

Should mine plan be advanced to execution, additional permitting will be required.

The closure plan and closure cost estimate should be updated to reflect the updated LOM plan and unit rates. The post-closure monitoring period should be extended to a minimum of 20 years to align with industry standards. The closure planning should be advanced with supporting studies and engineering designs.

The groundwater sampling program should be improved to be aligned with industry standards of sampling techniques, quality assurance/quality control, management of data, interpretation of data, and documentation of findings.

These activities are estimated to cost approximately in the range of US$350,000 to US$700,000.

26.4.2 Investigations and Data Collection

Additional field work and evaluation of the continued presence of high concentrations of sulfates are recommended to identify the source(s).

An environmental geochemistry study that includes representative samples from all areas and lithologies in the mine plan should be completed. These data would be used to assess long-term conditions and support closure planning.

The development of an in-flow model for the open pits is recommended to support water management planning.

These activities are estimated to cost approximately in the range of US$400,000 to US$700,000.

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